

TCRCD Office Conference
Room

5:30PM

20 Horseshoe Lane, Suite 2B
Weaverville, CA

Board of Directors Meeting

Agenda

May 17, 2023

IMPORTANT NOTICE REGARDING COVID-19 AND TELECONFERENCE MEETINGS:

Based on the requirements of the Trinity County Public Health Officer to conduct social distancing and the guidelines from the CDC, to minimize the spread of the coronavirus, please note the following changes to the District's ordinary meeting procedures:

- The District offices will be closed to the public at this time.
- The meetings will be conducted via teleconferencing using Zoom. (See Executive Order 29-02)
- All members of the public seeking to observe and/or to address the local legislative body may participate in the meeting telephonically or otherwise electronically in the manner described below.

HOW TO OBSERVE THE MEETING:

Telephone: Listen to the meeting live by calling Zoom at +16699009128,

Enter the **Meeting ID** 863 5024 5406 followed by the pound (#) key. More phone numbers can be found on Zoom's website at <https://zoom.us/j/abb4GNs5xM> if the line is busy.

Computer: Watch the live streaming of the meeting from a computer by navigating to <https://us02web.zoom.us/j/86350245406>

with internet access that meets Zoom's system requirements (see <https://zoom.us/hc/en-us/articles/20136023-System-Requirements-for-PC-Mac-and-Linux>)

Mobile: Log in through Zoom mobile app on a smartphone and enter **Meeting ID** 863 5024 5406

HOW TO SUBMIT PUBLIC COMMENT:

Written/Read Aloud: Please email your comments to the District's Board Clerk at rwolfinbarger@tcrd.net, and write "Public Comment" in the subject line. In the body of the email, include the agenda item number **and** title, as well as your comments. If you would like your comment to be read aloud at the meeting (not to exceed three minutes at staff's cadence), prominently write "Read Aloud at Meeting" at the top of the email. All comments received before **4:00 PM on the day of the meeting** will be included as an agenda supplement on the District's website under the relevant meeting date and provided to the Directors at the meeting. Comments received after this time will be added to the record after the meeting.

Board of Directors Meeting

Agenda

May 17, 2023

TCRCD Office Conference
Room

5:30PM

20 Horseshoe Lane, Suite 2B
Weaverville, CA

Mike Rourke 5:30 PM

- 1.0 Call to Order
- 2.0 Discuss and Approve Agenda
- 3.0 Discuss and Approve Meeting Minutes
 - 3.1 Discuss and Approve Minutes for April 19, 2023 Regular Meeting
- 4.0 Financial Report
 - 4.1 Discuss Updated March Monthly Financial Report
 - 4.2 Discuss April Monthly Financial Report
 - 4.3 Discuss/Approve List of Warrants for April, 2023
- 5.0 Projects Report
- 6.0 NRCS Report
- 7.0 Trinity Collaborative Report
- 8.0 Discuss/Take Action on the Mitigated Negative Declaration for the Trinity County Wildfire Mitigation/Hazardous Fuels Reduction Project
- 9.0 Discuss/Take Action on Resolution 23-03 Authorizing the Use of Livescan Federal Fingerprinting for Employment
- 10.0 Discuss and Take Action on Letter of Appreciation to the Fleming Family
- 11.0 Public Comment
- 12.0 Board Reports/Correspondence
- 13.0 District Manager's Report
- 14.0 Closed Session: Government Code § 54957(b): District Manager's Report
- 15.0 Adjourn



TRINITY COUNTY RESOURCE CONSERVATION DISTRICT

MINUTES

REGULAR BOARD MEETING

April 19, 2023 * 5:30 PM

Board Members Present: (In Person) Mike Rourke, Mary Ellen Grigsby, Kent Collard, Josh Brown and John Ritz

(Zoom/Call-in): None

Board Members Absent: None

Associate Board Members Present: None

District Staff: Kelly Sheen, Joan Caldwell, Bethany Llewellyn and Rebekah Wolfenbarger

Other District Staff: (Attended through Zoom) Amelia Fleitz

Other Agency Staff: (Attended through Zoom) None

Guests: None

1.0 Call to Order: Meeting called to order at 5:33 PM by Mike Rourke.

2.0 Discuss and Approve Agenda

MSC –Grigsby/Collard to approve the April 19, 2023 Agenda.

3.0 Discuss and Approve Meeting Minutes

3.1 Discuss and Approve Minutes for March 15, 2023 Regular Meeting

Director Rourke said he was not the one hosting the Trex Training. Item 12.0 will be corrected to reflect that it is Director Collard who will host it.

MSC -Grigsby/Ritz to approve Minutes from the March 15, 2023 Regular Meeting with the corrections to Item 12.0 Board Reports.

4.0 Financial Reports

4.1 Discuss Updated February Monthly Financial Report

Caldwell stated they had an increased revenue of \$43,000. They are still invoicing.

4.2 Discuss March Monthly Financial Report

Caldwell said very little invoicing has been done. There is still a lot to do. Crews are back and working on the CalFire Grant.



TRINITY COUNTY RESOURCE CONSERVATION DISTRICT

4.3 Discuss and Approve List of Warrants for March, 2023

MSC –Brown/Collard to approve the list of warrants for March in the amount of \$345,331.13.

4.4 Discuss and Approve 3rd Quarter Budget Revision

Sheen reported they are on track for the end of the fiscal year. He reported Joan has been working on the audit. There were a few projects added. The advance from Big French Creek has been paid off. They would like to set up a high-interest savings account for reserves. This would be the first time for a reserve account.

MSC -Ritz/Grigsby to approve the 2023 3rd Quarter Budget Revision in the amount of \$5,466,804.

5.0 Projects Report

Amelia reported Annyssa has done a phenomenal job on the Plant and Seed Exchange. Sheen said they had a new banner to hang over Main Street to advertise each year the Plant & Seed Exchange This Weekend. Grigsby commented it should be great weather.

6.0 NRCS Report

No Report.

7.0 Trinity Collaborative Report

Sheen reported there will be a field trip to Hyampom this month. They will also visit the North Lake, Covington Mill, and the Weaverville Community Forest. They are figuring out how to work better with agency staff and how to better assist the Forest Service. Jones has requested a public presence to show support for the Forest Service and the work they do.

8.0 Discuss and Take Action on accepting staff recommendation of the California Environmental Quality Act Exemption for the Rush Creek Hazardous Fuels Reduction project under Section 15304; Minor Alterations to Land

Sheen introduced Bethany Llewellyn the new Forest Health Program Manager. Llewellyn explained it is a routine NOE and non-ground disturbing project. Most will be NOE's which means small, projects, with minimal effects on the environment.

MSC -Collard/Brown to accept the staff's recommendation on the NOE for the Rush Creek Road Hazardous Fuel Reduction Project.



TRINITY COUNTY RESOURCE CONSERVATION DISTRICT

9.0 Discuss and Take Action on accepting staff recommendation of the California Environmental Quality Act Exemption for Travis Ranch Fire Recovery and Forest Health Improvement Project under Section 15304; Minor Alterations to Land

Amelia Fleitz explained the Travis Ranch Fire Recovery Forest Health Improvement Project will be like a fee-for-service project. It is a Cal Fire funded grant. Director Rourke asked about the cattle and grazing lands. Fleitz responded that there will be no management in the grazing lands, only in the timber.

MSC -Grigsby/Collard to accept the staff's recommendation on the NOE for the Travis Ranch Fire Recovery and Forest Health Improvement Project.

10.0 Discuss and Take Action on the 2023 Conservation Scholarship

Sheen said from the donations they received there was enough money to award three \$750 scholarships. The majority of the donations came from staff. There were three applicants. They wanted to award all three.

MSC – Brown/Collard to award a \$750 scholarship to Iris Coty, Rowan Price and Shawn Scribner.

11.0 Discuss and Take Action on the Purchase of one new Forest Health Truck

Sheen said the truck is ready. It is similar to the Watershed truck. It is a small, 2023 Ford Ranger with a crew cab and four-wheel drive. It will be for the Forestry Techs.

MSC -Brown/Ritz to approve the purchase in the amount of \$37,477.36 for a Ford Ranger truck for Forest Health.

12.0 Discuss and Take Action on Policy Revision for Policy 3490 Paid Leave

Director Grigsby asked about separate sick leave. Sheen explained there is no separate policy for sick leave as it is included in PTO. Director Grigsby said that needs to be added to the PTO policy.

MSC -Grigsby/Collard to approve the revisions to Policy 3490 Paid Leave with an amendment to include sick leave as a paid leave benefit under PTO.

13.0 Public Comment

There were no public comments.

14.0 Board Reports and Correspondence

No report.



TRINITY COUNTY RESOURCE CONSERVATION DISTRICT

15.0 District Manager's Report

Sheen reported he is working with Nick Goulett at the Watershed Center. They are drafting an MOU they would use for RCD to be CEQA lead.

He has been working on the Stewardship Agreement with Forest Service. It will not be limited by geographic location. It will be a 10-year agreement with a hard window but will only require a one-page modification to adjust the money and projects.

RCD received several donations of work stations and desks from the TCOE and SMART Center.

14.0 Closed Session: Government Code § 54957(b): District Manager Report

MSC -Brown/Collard to move into Closed Session at 8:01 PM.

Nothing to report.

MSC -Grigsby/Ritz to Move out of Closed Session at 8:17 PM.

15.0 Adjourn

Adjourned at 8:17 PM

Approved and adopted the day of May 17, 2023, I, the undersigned, hereby certify that the Minutes April 19, 2023 was duly adopted by the following vote of the Board of Directors.

(Secretary Signature)

Trinity County Resource Conservation District
Statement of Revenues and Expenditures - Income Statement - Board Meeting
From 3/1/2023 Through 3/31/2023

		Initial Report	Updated Report	Updated Year Actual
Revenues				
Grant & contract revenue	4000	37,360.39	128,453.39	3,438,197.79
Fee for service revenue	4100	0.00	0.00	3,481.06
Contributions revenue	4200	150.00	150.00	5,798.00
Dues revenue	4300	100.00	100.00	900.00
Registration revenue	4350	0.00	0.00	200.00
Rental income - facilities	4400	300.00	300.00	2,700.00
Sales revenue - taxable	4500	5,459.00	5,459.00	7,541.29
Other revenue	4800	107.41	107.41	227.75
COVID-19 Fiscal Relief	4810	0.00	0.00	200,000.00
Vehicle & equipment use fee revenue	4900	<u>3,273.85</u>	<u>3,273.85</u>	<u>73,101.41</u>
Total Revenues		<u>46,750.65</u>	<u>137,843.65</u>	<u>3,732,147.30</u>
Salaries & benefits				
Salaries				
Salaries & wages	5000	119,079.56	119,079.56	1,192,268.91
Pay in lieu of health insurance	5020	1,500.00	1,500.00	10,864.16
Wireless phone stipend	5030	<u>1,100.00</u>	<u>1,100.00</u>	<u>8,900.00</u>
Total Salaries		121,679.56	121,679.56	1,212,033.07
Benefits				
Payroll tax expense	5100	11,943.80	11,943.80	117,305.85
Paid time off expense	5200	10,388.04	10,388.04	108,082.15
Covid sick leave expense	5205	0.00	0.00	10,326.54
Deferred compensation expense	5300	1,200.00	1,200.00	12,700.00
Health insurance expense	5400	19,729.92	19,729.92	177,768.47
Air medical expense	5450	0.00	0.00	150.00
Dental insurance expense	5500	1,107.00	1,107.00	13,716.34
Vision insurance expense	5550	205.74	205.74	2,255.52
Workers' compensation expense	5600	<u>3,534.10</u>	<u>3,534.10</u>	<u>51,990.59</u>
Total Benefits		<u>48,108.60</u>	<u>48,108.60</u>	<u>494,295.46</u>
Total Salaries & benefits		<u>169,788.16</u>	<u>169,788.16</u>	<u>1,706,328.53</u>
Travel expenses				
Conferences/training/professional development	5800	1,800.00	1,800.00	8,151.28
Meals expense	5820	158.00	158.00	1,929.96
Mileage expense	5860	1,433.85	1,433.85	36,805.00
Travel expense	5880	<u>0.00</u>	<u>0.00</u>	<u>26,826.06</u>
Total Travel expenses		<u>3,391.85</u>	<u>3,391.85</u>	<u>73,712.30</u>
Contract expenses				
Contract services - field	7150	700.00	1,116.72	868,512.53
Contract services - professional	7180	<u>2,135.63</u>	<u>2,135.63</u>	<u>230,869.89</u>
Total Contract expenses		<u>2,835.63</u>	<u>3,252.35</u>	<u>1,099,382.42</u>
Operating expenses				
Accounting & auditing fees	7000	0.00	0.00	10,485.00
Advertising	7030	2,041.08	2,041.08	12,727.96
Bank fees/services charges	7060	51.25	51.25	810.56
Board expense	7090	21.96	21.96	617.21
Capital outlay	7100	0.00	0.00	80,703.62
Computer expense	7120	4,934.93	4,934.93	11,288.32
Computer software/licensing	7130	149.90	149.90	3,086.97

Trinity County Resource Conservation District
Statement of Revenues and Expenditures - Income Statement - Board Meeting
From 3/1/2023 Through 3/31/2023

Dues/subscriptions/publications	7240	1,016.38	1,081.21	10,626.21
Equipment/asset purchase via grants	7260	2,156.02	2,156.02	2,156.02
Equipment rent or usage expense	7270	100.00	100.00	110,150.27
Field equipment expense	7300	1,646.63	1,646.63	58,475.35
Field materials expense	7310	4,477.81	4,477.81	57,183.92
Field small tool expense	7320	3,437.92	3,437.92	3,655.22
Finance charges	7330	14.00	14.00	137.66
Insurance - liability, property, D&O	7390	0.00	0.00	47,427.09
Interest expense	7420	542.57	542.57	8,442.13
Internet service expense	7430	523.20	523.20	2,281.94
Janitorial expense	7450	900.00	900.00	6,539.00
Licenses/permits/taxes/fees	7510	3,152.25	3,152.25	5,679.04
Office supplies	7540	181.57	181.57	9,347.46
Other outside services	7570	255.74	255.74	4,176.34
Postage & shipping	7630	97.68	97.68	2,010.96
Printing & publishing	7660	100.00	100.00	16,805.32
Public education	7690	324.54	324.54	12,596.85
Rent expense	7720	2,900.00	2,900.00	28,950.00
Repairs & maintenance	7750	670.32	670.32	1,839.97
Telephone expense	7780	515.42	515.42	4,487.06
Utilities	7870	1,379.34	1,379.34	10,508.24
Vehicle fuel	7900	1,851.46	1,851.46	27,388.70
Vehicle maintenance & fees	7930	0.00	0.00	4,858.46
Vehicle rent or usage expense	7940	<u>1,740.00</u>	<u>1,740.00</u>	<u>16,045.00</u>
Total Operating expenses		<u>35,181.97</u>	<u>35,246.80</u>	<u>571,487.85</u>
Total direct expenditures		<u>211,197.61</u>	<u>211,679.16</u>	<u>3,450,911.10</u>
Total expenditures		<u>211,197.61</u>	<u>211,679.16</u>	<u>3,450,911.10</u>
Net income		<u>(164,446.96)</u>	<u>(73,835.51)</u>	<u>281,236.20</u>
				was 80,600.10

Trinity County Resource Conservation District
Balance Sheet - Unposted Transactions Included In Report
As of 3/31/2023

		<u>Initial Period Balance</u>	<u>Updated Period Balance</u>
Assets			
Current Assets			
Cash & Cash Equivalents			
CIB - Tri #369124284 Main acct	1010	648,438.96	648,438.96
Petty cash	1050	<u>250.00</u>	<u>250.00</u>
Total Cash & Cash Equivalents		648,688.96	648,688.96
Accounts Receivable			
Accounts Receivable	1425	<u>349,539.16</u>	<u>400,579.12</u>
Total Accounts Receivable		<u>349,539.16</u>	<u>400,579.12</u>
Total Current Assets		998,228.12	1,049,268.08
Long-term Assets			
Property & Equipment			
Furniture & equipment	1900	198,665.28	198,665.28
Vehicles	1910	415,597.57	415,597.57
Accumulated depreciation	1990	<u>(358,338.89)</u>	<u>(358,338.89)</u>
Total Property & Equipment		<u>255,923.96</u>	<u>255,923.96</u>
Total Long-term Assets		<u>255,923.96</u>	<u>255,923.96</u>
Total Assets		<u>1,254,152.08</u>	<u>1,305,192.04</u>
Liabilities			
Short-term Liabilities			
Accounts Payable			
Accounts payable	2000	102,357.51	105,244.19
Accrued allowance for audit	2100	13,300.00	9,300.00
Accrued payroll	2150	60,991.41	60,991.41
Federal W/H payable	2200	5,948.87	5,948.87
Social security payable	2210	9,805.52	9,805.52
Medicare payable	2220	2,293.20	2,293.20
State W/H payable	2230	2,110.83	2,110.83
SDI W/H payable	2240	711.67	711.67
State unemployment payable	2250	1,548.38	1,548.38
Deferred compensation deductions	2300	1,575.00	1,575.00
Health insurance premiums deductions	2310	285.77	125.93
Dental insurance premiums deductions	2320	0.10	0.10
Vision insurance premiums deductions	2325	0.15	0.15
Garnishments/levies deductions	2340	1,609.14	1,609.14
TCRCD scholarship fund P/R deduction	2350	2,332.88	2,332.88
Friends of TCRCD P/R deduction	2351	1,234.13	1,234.13
Young Family Ranch P/R deduction	2352	517.24	517.24
Accrued paid time off payable	2400	48,212.00	48,212.00
Accrued deferred compensation match	2450	600.00	600.00
Accrued health insurance payable	2460	2,944.98	790.74
Accrued dental insurance payable	2470	43.29	43.29
Accrued vision insurance payable	2475	7.62	7.62
Accrued workers' comp premiums payable	2480	<u>(7,120.16)</u>	<u>(7,120.16)</u>
Sales tax payable	2500	<u>546.74</u>	<u>546.74</u>
Total Accounts Payable		251,856.27	248,428.87

Trinity County Resource Conservation District
Balance Sheet - Unposted Transactions Included In Report
As of 3/31/2023

Deferred Revenue			
Deferred revenue - refundable advances	2700	<u>700,746.13</u>	<u>554,668.44</u>
Total Deferred Revenue		<u>700,746.13</u>	<u>554,668.44</u>
Total Short-term Liabilities		952,602.40	803,097.31
Long-term Liabilities			
Notes Payable			
Note - Ford Credit 8746	2611	40,384.19	40,384.19
Note - Ford Credit 7811	2612	28,805.20	28,805.20
Note - Ally Auto 6167	2620	6,134.23	6,134.23
Note - Ally Auto 4916	2621	13,124.39	13,124.39
Note - Ally Auto 0890	2622	<u>17,729.31</u>	<u>17,729.31</u>
Total Notes Payable		<u>106,177.32</u>	<u>106,177.32</u>
Total Long-term Liabilities		<u>106,177.32</u>	<u>106,177.32</u>
Total Liabilities		<u>1,058,779.72</u>	<u>909,274.63</u>
Net Assets			
Beginning net assets			
Net assets - temporarily restricted	3000	(461,714.83)	(461,335.61)
Net assets - unrestricted	3100	320,563.13	320,092.86
Investments in capital assets	3200	<u>255,923.96</u>	<u>255,923.96</u>
Total Beginning net assets		114,772.26	114,681.21
Current YTD net income			
		<u>80,600.10</u>	<u>281,236.20</u>
Total Current YTD net income		<u>80,600.10</u>	<u>281,236.20</u>
Total Net Assets		<u>195,372.36</u>	<u>395,917.41</u>
Total Liabilities and Net Assets		<u>1,254,152.08</u>	<u>1,305,192.04</u>

Trinity County Resource Conservation District
Statement of Revenues and Expenditures - Income Statement - Board Meeting
From 4/1/2023 Through 4/30/2023

		<u>Initial Report</u>	<u>Initial Year Actual</u>
Revenues			
Grant & contract revenue	4000	40,250.31	3,478,448.10
Fee for service revenue	4100	0.00	3,481.06
Contributions revenue	4200	1,650.00	7,448.00
Dues revenue	4300	0.00	900.00
Registration revenue	4350	0.00	200.00
Rental income - facilities	4400	350.00	3,050.00
Sales revenue - taxable	4500	0.00	7,541.29
Other revenue	4800	80.13	307.88
COVID-19 Fiscal Relief	4810	0.00	200,000.00
Vehicle & equipment use fee revenue	4900	<u>6,967.44</u>	<u>80,068.85</u>
Total Revenues		<u>49,297.88</u>	<u>3,781,445.18</u>
Salaries & benefits			
Salaries			
Salaries & wages	5000	140,381.68	1,332,650.59
Pay in lieu of health insurance	5020	1,800.00	12,664.16
Wireless phone stipend	5030	<u>1,200.00</u>	<u>10,100.00</u>
Total Salaries		143,381.68	1,355,414.75
Benefits			
Payroll tax expense	5100	15,016.01	132,321.86
Paid time off expense	5200	12,476.59	120,558.74
Covid sick leave expense	5205	0.00	10,326.54
Deferred compensation expense	5300	1,450.00	14,150.00
Health insurance expense	5400	22,703.30	200,471.77
Air medical expense	5450	0.00	150.00
Dental insurance expense	5500	1,373.50	15,089.84
Vision insurance expense	5550	255.27	2,510.79
Workers' compensation expense	5600	<u>6,042.60</u>	<u>58,033.19</u>
Total Benefits		<u>59,317.27</u>	<u>553,612.73</u>
Total Salaries & benefits		<u>202,698.95</u>	<u>1,909,027.48</u>
Travel expenses			
Conferences/training/professional development	5800	600.00	8,751.28
Meals expense	5820	63.08	1,993.04
Mileage expense	5860	2,834.23	39,639.23
Travel expense	5880	<u>0.00</u>	<u>26,826.06</u>
Total Travel expenses		<u>3,497.31</u>	<u>77,209.61</u>
Contract expenses			
Contract services - field	7150	750.00	869,262.53
Contract services - professional	7180	<u>400.00</u>	<u>231,269.89</u>
Total Contract expenses		<u>1,150.00</u>	<u>1,100,532.42</u>
Operating expenses			
Accounting & auditing fees	7000	1,250.00	11,735.00
Advertising	7030	1,035.00	13,762.96
Bank fees/services charges	7060	28.00	838.56

Trinity County Resource Conservation District
Statement of Revenues and Expenditures - Income Statement - Board Meeting
From 4/1/2023 Through 4/30/2023

Board expense	7090	35.98	653.19
Capital outlay	7100	0.00	80,703.62
Computer expense	7120	6,210.01	17,498.33
Computer software/licensing	7130	1,500.00	4,586.97
Dues/subscriptions/publications	7240	204.15	10,830.36
Equipment/asset purchase via grants	7260	37,477.36	39,633.38
Equipment rent or usage expense	7270	1,175.00	111,325.27
Field equipment expense	7300	8,519.42	66,994.77
Field materials expense	7310	3,266.01	60,449.93
Field small tool expense	7320	0.00	3,655.22
Finance charges	7330	26.17	163.83
Insurance - liability, property, D&O	7390	0.00	47,427.09
Interest expense	7420	583.73	9,025.86
Internet service expense	7430	190.95	2,472.89
Janitorial expense	7450	1,070.12	7,609.12
Licenses/permits/taxes/fees	7510	83.95	5,762.99
Office supplies	7540	931.46	10,278.92
Other outside services	7570	381.00	4,557.34
Postage & shipping	7630	258.34	2,269.30
Printing & publishing	7660	(110.00)	16,695.32
Public education	7690	100.00	12,696.85
Rent expense	7720	2,800.00	31,750.00
Repairs & maintenance	7750	90.61	1,930.58
Telephone expense	7780	493.84	4,980.90
Utilities	7870	1,222.36	11,730.60
Vehicle fuel	7900	69.52	27,458.22
Vehicle maintenance & fees	7930	2,555.33	7,413.79
Vehicle rent or usage expense	7940	<u>3,120.00</u>	<u>19,165.00</u>
Total Operating expenses		<u>74,568.31</u>	<u>646,056.16</u>
Total direct expenditures		<u>281,914.57</u>	<u>3,732,825.67</u>
Total expenditures		<u>281,914.57</u>	<u>3,732,825.67</u>
Net income		<u>(232,616.69)</u>	<u>48,619.51</u>

Trinity County Resource Conservation District
Balance Sheet - Unposted Transactions Included In Report
As of 4/30/2023

		<u>Initial Period Balance</u>
Assets		
Current Assets		
Cash & Cash Equivalents		
CIB - Tri #369124284 Main acct	1010	435,119.79
Petty cash	1050	<u>250.00</u>
Total Cash & Cash Equivalents		435,369.79
Accounts Receivable		
Accounts Receivable	1425	<u>379,585.84</u>
Total Accounts Receivable		<u>379,585.84</u>
Total Current Assets		814,955.63
Long-term Assets		
Property & Equipment		
Furniture & equipment	1900	198,665.28
Vehicles	1910	453,074.93
Accumulated depreciation	1990	(358,338.89)
Total Property & Equipment		<u>293,401.32</u>
Total Long-term Assets		<u>293,401.32</u>
Total Assets		<u>1,108,356.95</u>
Liabilities		
Short-term Liabilities		
Accounts Payable		
Accounts payable	2000	99,588.35
Accrued allowance for audit	2100	10,550.00
Accrued payroll	2150	61,261.72
Federal W/H payable	2200	5,558.19
Social security payable	2210	9,790.68
Medicare payable	2220	2,289.74
State W/H payable	2230	1,860.01
SDI W/H payable	2240	710.57
State unemployment payable	2250	1,671.81
Deferred compensation deductions	2300	1,725.00
Health insurance premiums deductions	2310	136.48
Dental insurance premiums deductions	2320	78.52
Vision insurance premiums deductions	2325	16.04
Garnishments/levies deductions	2340	3,046.09
TCRCD scholarship fund P/R deduction	2350	2,434.56
Friends of TCRCD P/R deduction	2351	1,275.81
Young Family Ranch P/R deduction	2352	533.88
Accrued paid time off payable	2400	46,213.66
Accrued deferred compensation match	2450	750.00
Accrued health insurance payable	2460	567.03
Accrued dental insurance payable	2470	310.06
Accrued vision insurance payable	2475	57.15
Accrued workers' comp premiums payable	2480	(1,077.56)
Sales tax payable	2500	<u>546.74</u>
Total Accounts Payable		249,894.53

Trinity County Resource Conservation District
Balance Sheet - Unposted Transactions Included In Report
As of 4/30/2023

Deferred Revenue		
Deferred revenue - refundable advances	2700	<u>554,668.44</u>
Total Deferred Revenue		<u>554,668.44</u>
Total Short-term Liabilities		804,562.97
Long-term Liabilities		
Notes Payable		
Note - Ford Credit 8746	2611	39,732.74
Note - Ford Credit 7811	2612	28,359.05
Note - Ally Auto 6167	2620	5,454.86
Note - Ally Auto 4916	2621	12,534.96
Note - Ally Auto 0890	2622	<u>16,934.29</u>
Total Notes Payable		<u>103,015.90</u>
Total Long-term Liabilities		<u>103,015.90</u>
Total Liabilities		<u>907,578.87</u>
Net Assets		
Beginning net assets		
Net assets - temporarily restricted	3000	(461,335.61)
Net assets - unrestricted	3100	320,092.86
Investments in capital assets	3200	<u>293,401.32</u>
Total Beginning net assets		152,158.57
Current YTD net income		
		<u>48,619.51</u>
Total Current YTD net income		<u>48,619.51</u>
Total Net Assets		<u>200,778.08</u>
Total Liabilities and Net Assets		<u>1,108,356.95</u>

Trinity County Resource Conservation District
 Check/Voucher Register - Check Register for Board of Directors
 From 4/1/2023 Through 4/30/2023

Check No.	Date	Vendor Name	Check Amount	Transaction Description
1898	4/5/2023	Ann M. Barbeau	1,937.09	Employee: 107; Pay Date: 4/5/2023
1899	4/5/2023	Jesse A. Barone	77.54	Employee: 128; Pay Date: 4/5/2023
1900	4/5/2023	Jonathan David Whitney Bostrom	568.96	Employee: 138; Pay Date: 4/5/2023
1901	4/5/2023	Joan Elizabeth Caldwell	2,834.26	Employee: 094; Pay Date: 4/5/2023
1902	4/5/2023	Garett F. Chapman	1,832.44	Employee: 078; Pay Date: 4/5/2023
1903	4/5/2023	Chris H. Cole	2,443.47	Employee: 098; Pay Date: 4/5/2023
1904	4/5/2023	Carina Louise deJong	770.93	Employee: 139; Pay Date: 4/5/2023
1905	4/5/2023	John Robert Dickerson III	807.34	Employee: 127; Pay Date: 4/5/2023
1906	4/5/2023	Michael J. Dunlap	1,321.85	Employee: 009; Pay Date: 4/5/2023
1907	4/5/2023	Jeffrey M. Eads	1,663.64	Employee: 080; Pay Date: 4/5/2023
1908	4/5/2023	Amelia M. Fleitz	2,167.22	Employee: 086; Pay Date: 4/5/2023
1909	4/5/2023	Erik M. Flickwir	2,061.92	Employee: 008; Pay Date: 4/5/2023
1910	4/5/2023	Jeffery Francis Heinig	135.50	Employee: 131; Pay Date: 4/5/2023
1911	4/5/2023	Katherine J. Howard	2,181.41	Employee: 070; Pay Date: 4/5/2023
1912	4/5/2023	Annyssa Marie Interrante	2,015.21	Employee: 133; Pay Date: 4/5/2023
1913	4/5/2023	Jacob W. Johnson	2,035.13	Employee: 137; Pay Date: 4/5/2023
1914	4/5/2023	David W. Johnson	2,071.64	Employee: 059; Pay Date: 4/5/2023
1915	4/5/2023	Joshua D. Lee	1,364.47	Employee: 136; Pay Date: 4/5/2023
1916	4/5/2023	Bethany R. Llewellyn	1,762.45	Employee: 132; Pay Date: 4/5/2023
1917	4/5/2023	John W. McGlynn	1,112.51	Employee: 004; Pay Date: 4/5/2023
1918	4/5/2023	Jeff J. McGrew	1,934.41	Employee: 024; Pay Date: 4/5/2023
1919	4/5/2023	Duncan Lloyd McIntosh	2,180.73	Employee: 134; Pay Date: 4/5/2023
1920	4/5/2023	Joseph Michael Moore	1,265.98	Employee: 121; Pay Date: 4/5/2023
1921	4/5/2023	Arvel Jett Reeves	848.39	Employee: 118; Pay Date: 4/5/2023
1922	4/5/2023	Joshua A. Scott	1,527.77	Employee: 104; Pay Date: 4/5/2023
1923	4/5/2023	Kelly D. Sheen	3,561.68	Employee: 005; Pay Date: 4/5/2023
1924	4/5/2023	Cynthia L. Tarwater	2,603.93	Employee: 002; Pay Date: 4/5/2023
1925	4/5/2023	Jessica Elizabeth Tye	1,848.36	Employee: 135; Pay Date: 4/5/2023
1926	4/5/2023	Marla D. Walters	2,459.12	Employee: 108; Pay Date: 4/5/2023
1927	4/5/2023	Jeremiah D. Weiss	883.48	Employee: 123; Pay Date: 4/5/2023
1928	4/5/2023	Daniel C. Wells	1,579.71	Employee: 081; Pay Date: 4/5/2023
1929	4/5/2023	Denise W. Wesley	2,181.92	Employee: 096; Pay Date: 4/5/2023
1930	4/5/2023	Kirk Anthony Wolfinbarger	1,723.15	Employee: 112; Pay Date: 4/5/2023
1931	4/5/2023	Rebekah R. Wolfinbarger	2,087.13	Employee: 103; Pay Date: 4/5/2023
1932	4/5/2023	Kelly D. Sheen	2,227.33	Employee: 005; Pay Date: 4/5/2023
1933	4/20/2023	Ann M. Barbeau	1,686.70	Employee: 107; Pay Date: 4/20/2023
1934	4/20/2023	Jesse A. Barone	4.57	Employee: 128; Pay Date: 4/20/2023
1935	4/20/2023	Jonathan David Whitney Bostrom	642.05	Employee: 138; Pay Date: 4/20/2023
1936	4/20/2023	Joan Elizabeth Caldwell	2,609.67	Employee: 094; Pay Date: 4/20/2023
1937	4/20/2023	Garett F. Chapman	1,801.15	Employee: 078; Pay Date: 4/20/2023
1938	4/20/2023	Chris H. Cole	2,217.25	Employee: 098; Pay Date: 4/20/2023
1939	4/20/2023	Carina Louise deJong	968.52	Employee: 139; Pay Date: 4/20/2023
1940	4/20/2023	John Robert Dickerson III	807.33	Employee: 127; Pay Date: 4/20/2023
1941	4/20/2023	Michael J. Dunlap	1,656.97	Employee: 009; Pay Date: 4/20/2023
1942	4/20/2023	Jeffrey M. Eads	1,663.65	Employee: 080; Pay Date: 4/20/2023
1943	4/20/2023	Amelia M. Fleitz	1,706.93	Employee: 086; Pay Date: 4/20/2023
1944	4/20/2023	Erik M. Flickwir	2,037.16	Employee: 008; Pay Date: 4/20/2023
1945	4/20/2023	Jeffery Francis Heinig	1,104.00	Employee: 131; Pay Date: 4/20/2023
1946	4/20/2023	Katherine J. Howard	1,910.31	Employee: 070; Pay Date: 4/20/2023
1947	4/20/2023	Annyssa Marie Interrante	1,722.35	Employee: 133; Pay Date: 4/20/2023
1948	4/20/2023	David W. Johnson	1,882.34	Employee: 059; Pay Date: 4/20/2023
1949	4/20/2023	Jacob W. Johnson	2,035.12	Employee: 137; Pay Date: 4/20/2023
1950	4/20/2023	Joshua D. Lee	1,219.06	Employee: 136; Pay Date: 4/20/2023
1951	4/20/2023	Bethany R. Llewellyn	1,558.63	Employee: 132; Pay Date: 4/20/2023
1952	4/20/2023	John W. McGlynn	1,203.35	Employee: 004; Pay Date: 4/20/2023
1953	4/20/2023	Jeff J. McGrew	1,249.79	Employee: 024; Pay Date: 4/20/2023
1954	4/20/2023	Duncan Lloyd McIntosh	1,515.17	Employee: 134; Pay Date: 4/20/2023
1955	4/20/2023	Joseph Michael Moore	1,404.42	Employee: 121; Pay Date: 4/20/2023
1956	4/20/2023	Maryann K. Perdue	1,388.45	Employee: 100; Pay Date: 4/20/2023

Trinity County Resource Conservation District
 Check/Voucher Register - Check Register for Board of Directors
 From 4/1/2023 Through 4/30/2023

1957	4/20/2023	Arvel Jett Reeves	923.54	Employee: 118; Pay Date: 4/20/2023
1958	4/20/2023	Joshua A. Scott	1,563.45	Employee: 104; Pay Date: 4/20/2023
1959	4/20/2023	Kelly D. Sheen	3,189.40	Employee: 005; Pay Date: 4/20/2023
1960	4/20/2023	Cynthia L. Tarwater	2,315.18	Employee: 002; Pay Date: 4/20/2023
1961	4/20/2023	Jessica Elizabeth Tye	1,484.95	Employee: 135; Pay Date: 4/20/2023
1962	4/20/2023	Marla D. Walters	2,104.51	Employee: 108; Pay Date: 4/20/2023
1963	4/20/2023	Jeremiah D. Weiss	1,037.37	Employee: 123; Pay Date: 4/20/2023
1964	4/20/2023	Daniel C. Wells	1,564.66	Employee: 081; Pay Date: 4/20/2023
1965	4/20/2023	Denise W. Wesley	2,008.45	Employee: 096; Pay Date: 4/20/2023
1966	4/20/2023	Kirk Anthony Wolfinbarger	1,437.65	Employee: 112; Pay Date: 4/20/2023
1967	4/20/2023	Rebekah R. Wolfinbarger	1,760.42	Employee: 103; Pay Date: 4/20/2023
1968	4/20/2023	Chris H. Cole	2,344.42	Employee: 098; Pay Date: 4/20/2023
28124 - VOID		VOID	0.00	Void check
28125	4/5/2023	James M. Marzolla	913.34	Employee: 079; Pay Date: 4/5/2023
28126	4/4/2023	Amerigas Propane LP	218.06	Propane
28127	4/4/2023	Ila F. McWilliams Trust	2,200.00	April 2023 Rent
28128	4/4/2023	Brady Meredith	600.00	March 2023 TCRCD cleaning
	4/4/2023	Brady Meredith	300.00	March 2023 YFR cleaning
28129	4/4/2023	Northwest California RC&D Council	600.00	Apr 2023 Rent
28130	4/4/2023	Trinity County Department of Transportation	1,010.66	Fuel for trucks and equipment Feb 2023
28131	4/4/2023	Trinity Journal, The	1,569.00	Free community chipping ad
	4/4/2023	Trinity Journal, The	120.41	Notice of Mitigated Neg Decision
28132	4/4/2023	Trinity PUD	772.31	02-10-23 to 03-11-23
	4/4/2023	Trinity PUD	163.31	02-10-23 to 03-11-23 YFR
28133	4/4/2023	Weaverville Fire Protection District	100.00	Rental 04-01-23 VCCE Stewardship Workshop
28134	4/13/2023	Court-Ordered Debt Collections	279.65	Daniel Wells #JK-328-5398 CD-9212-59726
28135	4/20/2023	James M. Marzolla	1,445.26	Employee: 079; Pay Date: 4/20/2023
28136-28164 - VOID		VOID - printer error	0.00	Void checks
28165	4/19/2023	Bigfoot Hauling	1,000.00	Motor home disposal
28166	4/19/2023	Chevron	70.24	Truck fuel #7811
28167	4/19/2023	Dave's Small Engine Repair	14.91	(2) Sheer pins
	4/19/2023	Dave's Small Engine Repair	74.87	3 Pocket wedges, 2 small wedges, 2 medium
28168	4/19/2023	John Dickerson	200.00	Boot stipend
28169	4/19/2023	Empower Retirement	300.00	Deferred compensation plan expenses
28170	4/19/2023	Amelia Fleitz	57.87	Michaels - art supplies
28171	4/19/2023	Frontier Communications	493.84	Telephone 04-01-23 to 04-30-23
28172	4/19/2023	Garmin	39.45	Subscription
28173	4/19/2023	Annyssa Interrante	70.74	Mileage 4/17/23 BDA building workshop
28174 - VOID		Joey Moore	0.00	Void check
28175	4/19/2023	NORCAL Presort & Printing	100.00	Workbook printing
28176	4/19/2023	Platinum Home & Glass	314.88	Windshield
28177	4/19/2023	Plotzke Ace Hardware	7.50	(2) Silver Sharpies
	4/19/2023	Plotzke Ace Hardware	119.03	2 cycle fuel and starter fluid
	4/19/2023	Plotzke Ace Hardware	230.80	Locks for donated house
	4/19/2023	Plotzke Ace Hardware	6.00	Plug for new printer
28178	4/19/2023	Trinity County Department of Transportation	1,504.73	Fuel for trucks and equipment for March 2023
28179	4/19/2023	Trinity County Solid Waste Division	153.38	April 2023
	4/19/2023	Trinity County Solid Waste Division	55.28	Dump Fee
	4/19/2023	Trinity County Solid Waste Division	31.20	Trash dump fees
28180	4/19/2023	Trinity Journal, The	15.00	2023 Spring yard sale ad
	4/19/2023	Trinity Journal, The	55.40	Forest Health program manager ad
28181	4/19/2023	Trinity Lumber	439.52	Step supplies
28182	4/19/2023	Two Rivers Tribune	155.00	Browns Mtn Fuels RFP ad
28183	4/19/2023	UC Regents	20,000.00	Grizzlycorps project partner cost-share match
28184	4/19/2023	US Bank	2,358.43	Ebay- Front office copier
28185	4/19/2023	Velocity Communications, Inc.	114.99	Internet 04-01-23 to 05-01-23
28186	4/19/2023	Weaverville CSD	28.00	YFR water 03-01-23 to 04-03-23
28187 - VOID		VOID	0.00	Void check
28188	4/20/2023	Weaverville Sanitary District	28.00	YFR sewer 03-01-23 to 03-31-23
28189	4/20/2023	Corning Ford	37,477.36	Purchase 2023 Ford Ranger

Trinity County Resource Conservation District
 Check/Voucher Register - Check Register for Board of Directors
 From 4/1/2023 Through 4/30/2023

28190	4/18/2023	Rebekah Wolfinbarger-Cash	12.98	Holiday Market-Ice cream
	4/20/2023	Rebekah Wolfinbarger-Cash	4.50	Truck wash #8746
	4/24/2023	Rebekah Wolfinbarger-Cash	2.20	USPS-Chg of address Farmers Market
	4/25/2023	Rebekah Wolfinbarger-Cash	10.75	Truck wash #6167
	4/25/2023	Rebekah Wolfinbarger-Cash	14.48	Dollar General-Bleach
28191	4/30/2023	Court-Ordered Debt Collections	101.87	James Marzolla #JK-337-3101 CD-9220-47610
28192	4/30/2023	Court-Ordered Debt Collections	61.02	Joseph Moore #JK-286-8449 CD-9208-06191
28193	4/30/2023	Court-Ordered Debt Collections	221.27	Daniel Wells #JK-328-5398 CD-9212-59726
111470	4/5/2023	California Special Districts Association	200.00	CEQA Workshop - Watershed Program
111471	4/5/2023	California Special Districts Association	200.00	CEQA Workshop - Watershed Project
111473	4/5/2023	California Special Districts Association	200.00	CEQA workshop - Forest Health Manager
154139384	4/5/2023	Empower Retirement	2,175.00	Deferred Comp 03-31-23 PR
43596896	4/7/2023	Expert Pay	77.54	Garnishment for Barone 03-31-23 PR
43596899	4/7/2023	Expert Pay	505.00	Garnishment for Dickerson 03-31-23 PR
43596901	4/7/2023	Expert Pay	178.00	Garnishment for Marzolla 03-31-23 PR
306516462	4/8/2023	Office Depot	35.92	Printer ink
04-09-23 Ally	4/9/2023	Ally	589.43	April 2023 Prin Pmt #4916
	4/9/2023	Ally	65.77	Interest
ACH-00828422	4/11/2023	Joey Moore	200.00	Boot Stipend
44869556	4/12/2023	EFTPS	18,047.59	Federal Tax Deposit
04-12-23 Ally	4/12/2023	Ally	795.02	April 2023 Prin Pmt #0890
	4/12/2023	Ally	90.20	Interest
1-663-357-408	4/12/2023	Employment Development Department	4,370.88	State tax deposit
1023519952	4/12/2023	Costco Wholesale	45.03	P-Touch label tape
	4/12/2023	Costco Wholesale	50.38	Post-its, stapler, folders
04-13-23	4/13/2023	Tri Counties Bank	28.00	Direct Deposit Fee - TCB
188	4/14/2023	United States Postal Service	4.14	Postage
04-16-23 Ally	4/16/2023	Ally	679.37	April 2023 Prin Pmt #6167
	4/16/2023	Ally	31.21	Interest
510364196	4/17/2023	IPower, Inc.	29.99	Mailbox storage - Watershed department
7773834	4/17/2023	Amazon	26.09	2023 Planner - Watershed department
4330413	4/18/2023	Washington DSHS	568.95	Garnishment - Jonathan Bostrom 3-31-23 PR
510872781	4/19/2023	IPower, Inc.	25.98	Domain - Weaverville Farmers Market
52810353	4/19/2023	Trinity County	21.95	Farmers Market certificate
679001	4/19/2023	Holiday Market	35.98	Food for board meeting
233	4/20/2023	United States Postal Service	252.00	Postage
5862659	4/21/2023	Amazon	345.75	Printer ink
6061018	4/21/2023	Ebay	384.24	Toner - Sharp printer
6301063	4/21/2023	Amazon	364.63	(2) Laptop - GIS Program Manager
	4/21/2023	Amazon	128.68	(2) USB hub - GIS Program Manager
	4/21/2023	Amazon	20.00	Amazon fee for computer supplies
	4/21/2023	Amazon	3,035.13	Laptop - GIS Program Manager
	4/21/2023	Amazon	182.31	Laptop - Roads Program Manager
	4/21/2023	Amazon	26.23	Laptop case - FH Program Manager
	4/21/2023	Amazon	26.23	Laptop case - GIS Program Manager
	4/21/2023	Amazon	26.23	Laptop case - Roads Program Manager
	4/21/2023	Amazon	64.34	USB hub - NRCS
	4/21/2023	Amazon	64.34	USB hub - Roads Program Manager
9582662	4/21/2023	Amazon	56.38	USB Adapter - Roads program manager
	4/21/2023	Amazon	112.76	USB Adapters - GIS program manager
274137	4/21/2023	Dell Marketing LP	2,033.67	Laptop - GIS Manager
511629346	4/23/2023	IPower, Inc.	19.99	TCRCD domain renewal
310849444-001	4/24/2023	Office Depot	20.11	Paper towels & toilet paper
ACH-00840655	4/24/2023	Special District Risk Management Authority (SDRM)	1,751.18	Pay SDRMA Dental/Vision May 2023
231140042622	4/24/2023	Blue Shield of California	18,909.10	Pay Blue Shield April 2023
04-25-23 Ford Credit	4/25/2023	Ford Credit	651.45	April 2023 Prin Pmt #8746
	4/25/2023	Ford Credit	232.89	Interest
28950101	4/26/2023	Garmin	164.70	Activation fees - professional flex plan
348673	4/26/2023	EFTPS	17,330.66	Federal Tax Deposit
2-135-456-224	4/26/2023	Employment Development Department	3,988.87	State Tax Deposit

Trinity County Resource Conservation District
Check/Voucher Register - Check Register for Board of Directors
From 4/1/2023 Through 4/30/2023

309296473-001	4/27/2023 Office Depot	4.29	Paper
ACH-00843783	4/27/2023 Kirk Wolfinbarger	200.00	Pay K Wolfinbarger Boot Stipend
04-27-23 Ford Credit	4/27/2023 Ford Credit	446.15	April 2023 Prin Pmt #7811
	4/27/2023 Ford Credit	163.66	Interest
162867632	4/27/2023 Empower Retirement	2,425.00	Deferred comp 04-15-23 PR
Report Total		<u>276,752.89</u>	



TRINITY COUNTY RESOURCE CONSERVATION DISTRICT

Agenda Item 5.0

PROJECTS REPORT

May 17, 2023

5.1 Grass Valley Creek

No updates at this time.

5.2 Weaverville Community Forest – Amelia Fleitz/Bethany Llewellyn

- The Wildflower Scavenger Hunt will begin April 15th and end May 15th. We added the tribal names of native plants to the scavenger hunt informational section this year.
- The Wildflower Hike is being coordinated by Charlie Curtin and will take place on April 29th at 9 am at the McKenzie Gulch Trailhead.
- The BLM Environmental Assessment for the Oregon Mountain Forest Health Thinning and Fuel Reduction Project is now out for scoping. Comments are accepted through April 27, 2023.
- A WCF Steering Committee meeting was held on March 1. The Oregon Mountain field trip and environmental document were discussed.

5.3 Watershed Coordination – Amelia Fleitz

- General Update/Future Planning: Amelia and Annyssa met with the Watershed Research and Training Center to discuss priorities moving forward with the Upper Trinity Headwaters Assessment. Annyssa and Amelia attended a California Environmental Quality Act workshop to further understand permitting requirements, and a Conservation Technician position will be flown for summer fieldwork, starting at the end of May. Annyssa is attending the 3rd Annual College and Career Expo on May 12th to advertise for the position.
- NACD Technical Assistance Funding (474-6300200 and 499-6300300): Annyssa is currently attending the UCANR Forest Stewardship Class to learn how to write forest management plans.
- Travis Ranch Riparian Element (486-3300400) – We are currently waiting on road updates after the recent rain to reassess the need for re-surveying.
- Trinity River Cleanup (492-1702400): is tentatively scheduled for September 23rd for National Public Lands Day. Annyssa will be taking on the lead organizer position for this year.
- Trinity River Watershed Council (Annyssa Interrante): The Trinity River Watershed Council meeting will be held on June 13th. We are currently working with members to determine the best use of time during the meetings.

5.4 Weaver Basin Wetlands

- No updates at this.

5.5 Project Coordinator's Report –Cynthia Tarwater

- ROADS – Shasta-Trinity and Six Rivers National Forest (USFS) / BLM / Private

- ◇ Shasta-Trinity N.F. and Six Rivers N.F. – Things are starting to move on the financial front, we finally got some STNF funds for road work in the fire areas. We started laying out work in the Soldier Creek and the Conner Creek watershed, work will start in early May. We are about to get really busy!
- ◇ We expect to hear soon whether our Pre-proposal for the NFWF America the Beautiful Challenge 2023 grant program is accepted, this funding is offered from federal agencies thru NFWF. The pre-proposal submitted was in the amount of approximately \$415k in late March, we will hear if we are invited back for a full proposal in May/June, the Final Proposal would be due to NFWF in July, and possible funding by November of 2023, if successful.
- ◇ Reports and Invoicing as needed.

5.6 Grants Report – Marla Walters

New Grants:

- Weaverville Farmer’s Market
Amount: N/A (Manager: A. Fleitz)
- Weaverville Farmer’s Market TA
Amount: \$1,000.00 (Manager: A. Fleitz)

5.7 Revegetation Projects – Kaety Howard & Annie Barbeau

- RAC Native Plant Nursery: This month a huge effort was made to clean up all the damages last winter brought upon us. Tasks at the nursery included culling an unfortunate amount of dryland species that did not survive this wet winter, as well as repair to nursery tables that were rotted out. Time was spent by technicians organizing the nursery pots in storage. The shade cloth was reinstalled on the shade structures and upgrades to the irrigation system were planned and materials purchased and installed by Program Coordinator Kaety Howard.
- Caltrans Collins Bar: One trip was made out to monitor for potential winter/storm damage and assess the dormancy of the plants in the downriver climate. The site is not damaged and is looking better than ever in the spring of this project’s final year.
- Caltrans Hayfork Grade Culverts: Time was spent maintaining nursery plants for upcoming plantings. Activities included weeding, watering, snow removal, and greenhouse temperature monitoring.
- Caltrans Swift Creek Bridge Replacement: Time was spent maintaining nursery plants for upcoming plantings.
- Weaver Basin Trail System Maintenance & Mapping (USFS): No update this period.
- Program Development:
 - ◇ Trinity County RCD’s native plant nursery has been asked to provide several species for an upcoming project by the Trinity County Department of Transportation. Plant prescriptions were discussed with their Environmental Compliance Specialist and an order/purchase is in progress. Our native plant nursery is now a registered propagation nursery with a California State-issued permit.
 - ◇ Trinity County Weeds Management Working Group (TWWG) met on April 27th again to discuss priorities and current projects as well as potential collaborations. Topics discussed included the USFS’s preference for woodstraw as mulching material as opposed to the so-called “certified weed-free straw” which only excludes USDA “A” rated weed species and not all species of concern by far, as well as purchasing information. Some time was spent discussing the pros and cons, and whether there was sufficient group member interest in the pursuit of WMA funding through the California Department of Food and Agriculture (CDFA) to form an official Weeds Management Area group that could potentially be hosted and/or chaired by TCRCD Reveg/Botany Program vs the

current volunteer working group. It is unclear at this time whether a WMA chair position will be accessible by anyone other than a county Agriculture commissioner (not in attendance). Also discussed was the hosting of an ArcGIS Invasive Plant Partner map layer by TCRCD Botany, which may be able to be funded directly through existing Trinity County/TCRCD agreements according to members present from Trinity County. Upcoming quarterly meeting scheduled for July of 2023.

- ◇ Crew: Conservation technician Maryann Purdue returned in the beginning of April for her 4th season with the Reveg/Botany Program. Conservation Technician Tyler McKinley started working on April 17th and has proven to be an immediate asset to our program. Orientation and training occurred during the week of April 17-20.
- ◇ A site tour of Hellgate Campground and Scott's Flat was made on April 27th with several Caltrans Environmental Specialists. Access and feasible planting areas were explored and discussed within the areas the USFS has indicated for restoration. Project materials and details specific to the site will determine the budget and the project agreement should be executed by this fall, or sooner. Our Program's strong relationship with USFS Botany as well as Caltrans has made this off-site mitigation project for Caltrans a perfect fit for our District.
- ◇ A noxious weed management grant proposal through the Bureau of Land Management was submitted. This project will focus on the treatment and monitoring of previously managed populations in the Carr Fire footprint as well as Scotch broom within BLM land in Junction City.
- ◇ In discussion with District Manager Kelly Sheen, a decision has been made to rename the Revegetation Program to the Botany Program. This title is more encompassing of all botanical-related work we conduct. Going forward, we will refer to our program as the Botany Program in these reports.

5.8 Fuels Projects – Bethany Llewellyn & Dave Johnson

- **Forest Health (FH) Staff News:** Bethany Llewellyn started as Program Manager on 4/17. She was promoted from a coordinator position in the department. Her coordinator position was flown and will close on 5/15. The final fuels crew members returned from winter layoff. One fuel crew member quit for another opportunity, bringing the total to 15. Interviews for a new tech will be held in early May. Two forestry techs will begin work in May.
- Management: 2 Crew: 15
- **Bureau of Land Management Lewiston Agreement:** Communications occurred between FH staff and grantor. No implementation occurred during this period. Minimal funding is left under this agreement and will likely be spent on maintenance treatments.
- **Cal Fire Trinity County Hazardous Fuels Reduction Phase II Grant:** The contract for the Browns Mountain fuelbreak project was awarded to Gonzalez Forestry. Work began on this project.
- **Browns Phase III:** We have not received word on whether our extension will be accepted or if no further reports for this project will occur unless our extension goes through.
- **Training and continuing education:** Fuels crew members and management staff attended the lecture day of the S-212 Wildland Fire Chainsaws course. This was a good opportunity to discuss our safety response plans, assess the quality of our first aid kits, and share knowledge about different aspects of saw use and maintenance. Bethany Llewellyn attended a virtual 2-day CEQA training put on by the California Special Districts Association.
- **Cal Fire Forest Health:** Crews continued work on Glennison Gap road near Oregon Mountain and a unit in the Reading-Indian Creek area. Forest Health staff are working on a modification of this grant to expand work in the Reading-Indian Creek area. Two sections of the Lake Forest Plantations are also under contract for this grant, one with the California Conservation Corps

and one with a private fuel contractor. Implementation for these areas will take place beginning in mid-May and continuing through summer.

- Westside Timber Sale Prep: Two technicians will be onboarded in May to begin work on this project. Work will begin with the layout in the Pettijohn area around Lewiston and then move into either a roadside hazard tree or site prep/planning unit layout within the monument fire footprint.
- RAC and Title III Community Chipping: Planning and advertising was completed for community chipping month in May. Over 50 community members have signed up for free chipping. Chipping begins 5/1 and will continue through the month, with different communities each week. Between the District and the Watershed Center, chipping will be available in every community in the county.
- Fee for Service: Forest Health staff have executed an agreement with the Integral Ecology and Research Center for Cannabis Restoration assistance, which will include a training opportunity and three days of work for a crew. Work is expected under this agreement in June.
- The McConnell Foundation (TMF): Invoicing and reporting occurred. The Initial Study - Mitigated Negative Declaration (IS-MND) completed scoping. Two comments were received, one from Caltrans clarifying restrictions on right-of-way work and one from the North Coast Regional Water Quality Control Board clarifying what stormwater permit applies to this project. The IS-MND will return to the Board in May along with comments and responses for a final determination. Archaeological surveys for this project are scheduled to begin in May.

5.9 Trinity County Fire Safe Council – Amelia Fleitz & Skylar Fisher

- Spring 2023 Community Chipping: The TCFSC has been working with TCRCF Forest Health and the Watershed Training and Research Center to implement a month and a half of free community chipping. Residents who participate in the community chipping program can pile brush, limbs, and other vegetative material at the edge of their property, and TCRCF will then chip and dispose of the material for free. The community chipping program is a great way to reduce fuel and create defensible space on private property across Trinity County.
- Evacuation Routes and Signage Program: There have been two meetings to discuss the development of evacuation routes and signage. The first meeting was with representatives from TC OES. The second meeting was with representatives from TC OES, DOT, the Sheriff's Office, and Caltrans. These meetings have been very productive in deciding criteria for developing primary, secondary, and tertiary evacuation routes and determining what the appropriate signage would be to inform the public where their evacuation zone's routes are. The development of evacuation routes would not be possible without the GIS support of Denise Wesley.
- Trinity County Multi-Jurisdiction Plan Update: The TCFSC is working with TC OES to update the Trinity County Multi-Jurisdiction Hazard Mitigation Plan. The most recent plan draft and stakeholder comments have been reviewed. The plan update is now in the revision stage. This process includes updating the existing plan to have more recent hazard data and to be consistent to federal and state hazard mitigation plan requirements.
- New Website: The TCFSC has a new website with a fun, modern look. Firesafetrinity.org includes the TCFSC newsletter, the 2020 CWPP, information about the various TCFSC programs, landowner resources, fire and weather information, information about TCFSC partners, and information about the community VFDs.
- Grizzly Fellows: Charlie Curtin and Miles Raymond continue to be a great help to outreach and program implementation for the TCFSC. Charlie assists in developing social media posts and the bimonthly newsletter. Miles coordinates with the public to implement the Neighborhood Ambassador Program and helps with implementing the Wildfire Assessment Program.

5.10 Young Family Ranch – Amelia Fleitz, Kaety Howard, and Annysa Interrante

- Stewardship and maintenance: During April the following tasks were completed:
- Broken fruit tree branches trimmed with a pole saw, and suckers pruned with a pole pruner. A bear damaged the trees last fall. All branches that were infected were burned.
- Leaf removal on the lawn, twice. Leaf blown and raked, removed from lawn areas.
- String trimmer work completed on the entire lawn, around tables, fences, steep areas, around all sheds and houses, as well as the back lane and driveway, all done twice this month.
- Mowed entire lawn, twice.
- Blackberry removal by old outhouse building. Cut with a bladed trimmer, burned.
- Old fencepost relocation from the lower lawn to the inside old outhouse.
- Shade cloth reinstalled on the house patio.
- Front sidewalk gardens by the house entrance were weeded and planted with flower seeds. An old project by UCCE that was many years neglected (potted herbs) was pulled out, and surviving plants were trimmed and/or planted.
- Play area leaf blown, leaves removed. The turf was picked up to inspect for snakes, rocks raked back towards the sandbox. All playground equipment was turned upside down, sprayed with vinegar on all sides to kill spiders, and left upside down for several days before the Plant and Seed exchange to deter black widow nests. The shed adjacent was also sprayed and the shop vacuumed to deter spiders.
- Peeling paint on picnic tables was scraped and sanded off. The water seal for the benches is recommended for approval by YFR Board.
- Burn piles were lit and burned down to ashes on one day. YFR burn permit was utilized including calling to verify the appropriate burn day.
- Metal trash filling an entire dump trailer of trash from the back behind the farthest barn was disposed of in a bin provided by USFS for metal collection. An old fridge that has been there for 10+ years was disposed of.
- Plant and Seed Exchange: Children’s activity was making milkweed seed balls. A presentation for native plant propagation was delivered by Kaety Howard, Native Plant Nursery Project Coordinator. The TCRCD information table was hosted by Program Manager Annie Barbeau and Conservation Technicians Arvel Reeves and Maryann Perdue.
- Young Food Garden:
 - ◇ A large load of USFS pack mule manure was delivered to the lane outside the garden area. It needs to compost.
 - ◇ A decent quantity of rabbit manure was donated and applied to the red raspberry patch. The dead canes were removed. Recommend installing bird netting. Materials for this project already located at the ranch include fence posts, PVC, and netting.
 - ◇ Garden interior was string stimed twice.
 - ◇ Straw mulch was applied in-between garden beds.
 - ◇ Fence surrounding the garden space was repaired with materials donated by TCRCD. A roll of baling wire was purchased to complete the job.
 - ◇ Glass door above the “worm tub” (shattered by falling apples from above) was removed and hauled to the dump; as much glass as could be removed was removed.
 - ◇ Broken/ damaged lattice removed from hexagon structure. (burned)
 - ◇ Old pots and plastic debris left by garden volunteers were disposed of.

- **Plant and Seed Exchange** – The 14th Annual Trinity County Plant & Seed Exchange was held on April 22, 2023, in Weaverville, CA. It was the biggest event yet with over 110 recorded attendees and over 50 staff members from partners and nonprofits to assist in its success. Visitors traveled from 18 different communities including; Weaverville, Lewiston, Hayfork, Junction City, Douglas City, Hyampom, Burnt Ranch, Del Loma, Trinity Center, Big Bar, Arcata, Eureka, San Juan Bautista, Carlotta, Bella Vista, Morgan Hill, Shingletown, and Redding. The event included; the annual plant and seed swap, gardening talks from the University of California Cooperative Extension Master Gardeners program and



additional volunteers, music by Stormy Weather Rhythm Band, Earth Day crafts with Trinity Arts & Crafts Supply, food by the Mountain Marketplace, drinks from the North Fork Grange and The Water Bar, and over 20 informational booths from agencies, non-profits, and local businesses. Partners that

dedicated their time to the event included; the UCCE Master Gardener’s Program, the North Coast Chapter of the California Native Plant Society, Trinity Nursery, One Thing Ranch, the Human Resources Network, the Trinity River Restoration Program, the Hoopa Valley Tribe, the Trinity County Agricultural Alliance, Trinity County Public Health, Nom Sus Wintu, the Young Family Ranch, Trinity County Arts & Craft Supply, the Watershed Research and Training Center, the Trinity County Resource Conservation District, UCCE CalFresh Healthy Living, Wintu Education & Cultural Council, the United States Forest Service, The Natural Resources Conservation Service, and the Riverview Orchard with Hayfork Transition. Donors for the raffle prizes included; Aamigo’s Supply, Bayley’s Lumber, Bayside Garden Supply, the Earthworm Soil Factory, Ernie’s True Value, Evergreen Farm Feed & Garden, the Home Depot, Mad River Gardens, Nom Sus Wintu Products, One Thing Ranch, Plotzke Ace, Samara Restoration, Soilscape Solutions, Turtle Bay Exploration Park, Willow Creek Ace, Wyntour Gardens, Karen Compton, Rod Plew, and Susan Cousins. Donated items were valued at over \$4,500 and were donated back to the community.

5.11 Geographic Information Systems (GIS) Manager’s Report- Denise Wesley

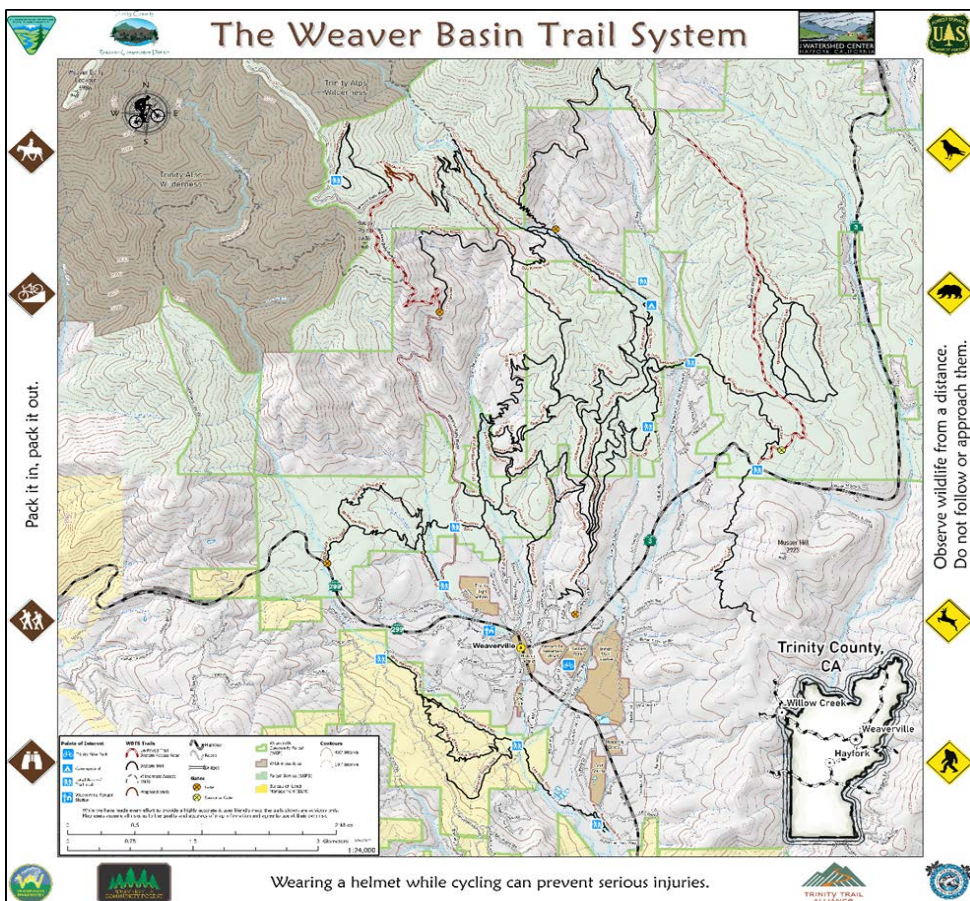
- **90- Fee for Service:** Cartographic layout & analysis services were provided to county partners in support of the Natural Resources Conservation Service (NRCS) & forestry planning projects.
- **435- Trinity County Planning, Cannabis, Building, Department of Transportation (DOT) & Environmental Health (EH) GIS Services:**
 - ◇ **Data Exports & Updates:**
 - Data was provided to the EH Department by request.
 - The address points layer was also updated to match the newest Supervisorial District configuration.
 - I began reviewing ownership information for select Assessor maintained Right of Way (ROW) parcels for inclusion in the land records dataset (in progress.)
 - Use Codes were updated in the Parcel Fabric.

- Data exports were provided to (2) county partners.
- Two restaurant points were added to the public infrastructure layer.
- ◇ Map Layouts: Supervisorial District Maps; and Precinct map layouts were provided to the Assessor's office. (Individual precinct mapping is in progress)
- ◇ Parcel Viewer:
 - The Parcel Viewer was updated with the newest zoning, flood, and supervisorial district address points layers.
 - Since my last report, this popular service has received **237, 492** views, with an average of **3,966** views per day.
 - The Parcel Viewer was updated to remove the older Assessor's Parcel Number (APN) format.
 - An updated Cannabis Opt-Out layer is being prepped for the Parcel Viewer (In progress).
- ◇ Software Support & GIS Updates:
 - All departments received their scheduled GIS data updates.
 - County-wide talks about ArcGIS Pro coordination have begun, and I am preparing a plan for both short & long-term county migration to ArcGIS Pro.
 - I provided GIS licensing coordination & software installation for the Planning Department.
- ◇ Parcel Lot Line Adjustments & Modifications:
 - Micro adjustments were performed for 67 parcels around the Travis Ranch Subdivision, and the ownership configuration was updated for one of these parcels.
 - Lot Line adjustments were completed for (4) parcels
- ◇ Addressing:
 - (14) Retired/parcel mismatched address points were updated. The addressing data layer was also prepped for the U.S. Postal Service (USPS) annual update.
 - Addressing spreadsheets were provided to the Planning Department, EH & Assessor's office.
 - (1) address point was moved from a shop to the residential structure per request by the Planning Department.
- ◇ Rezoning: (1) rezoning request, and (1) zoning verification/ update were completed, per request of the Planning Department & Assessor's office.
- ◇ Land Records: All departments are up to date. I developed and shared a calendar with county staff to assist in organizing essential & routine GIS data updates with their input.
- 480 Fire Safe Council (FSC) GIS & Community Wildfire Protection Plan (CWPP) support:
 - ◇ Data Exports: Structure count data was provided to a VFD
 - ◇ CWPP Viewer: The CWPP Viewer was updated by removing & replacing a deprecated county partner layer, updating partner project symbology, and including newly ranked proposed 2022 CWPP Projects. All 2022 CWPP ranking is completed.
 - ◇ Cartographic Layout: An updated Fire History Map was created, and an evacuation map was sent to the Trinity Journal for inclusion in their newspaper.
- Grant Proposal Preparation:
 - ◇ Fire Prevention Proposal: Analysis and data layers were provided to Bethany.
 - ◇ National Fish & Wildlife (NFWF) America the Beautiful Grant Proposal: I provided maps and written assistance to Cynthia in support of this proposal.
- 501- Evacuation Route & Zones Planning: Evacuation route analysis has begun. The county transportation layer was divided in the GIS into four different types of routes based on road classification and proximity to structures. I also provided evacuation zone maps to a member of the Fire Safe Council, and to a local senior citizen's home. Additionally, the Know Your Zone application search function was updated to make it easier to use by our senior users.

- 505- The McConnell Foundation (TMF) Federal Emergency Management Agency (FEMA) Trinity Hazard Mitigation: Map layout, and GIS analytical services were provided to Bethany in support of this program.
- Outreach & Education- Denise Wesley:
 - ◇ Cal Poly Humboldt State University Student Field Trip: Cal Poly Humboldt Students from Yvonne Everett's Natural Resource Planning class joined us in the conference room for a GIS discussion before heading out on a field tour. I had the opportunity to speak with students about how GIS is used with various partners throughout Trinity County.
 - ◇ Cal Poly Humboldt State University Internship: Cal Poly Humboldt Student, Chris Tuck reached out to me about an internship after attending the Career Fair, and has been meeting with me weekly to work on a linear referencing project for our transportation dataset.
 - ◇ The International Association of Fire Chiefs (IAFC) Wildland Fire Programs Division Training: I met with the IAFC to beta test and provide feedback on the next phase of the Wildfire Evacuation Planning Toolkit.
 - ◇ California Geographic Information Association (CGIA): I was contacted by CGIA to provide a GIS contact for Trinity County, and after receiving permission from the Planning Department, I am now listed as the GIS contact for Trinity County here: [CA GIS Contacts Map](#).
 - ◇ TCRCD Staff Support: Staff GIS support was provided to repair broken map links, assist with projections, locate data, and obtain new 2020 National Agriculture Imagery Program (NAIP) aerial imagery. Annual ESRI renewal invoices for the two TCRCD ArcGIS Online (AGOL) accounts were provided to Kelly. All Basemap Geodatabase layers were also backed up on the server last month. Ownership information was provided in support of the Adopt-A-Plot program.
 - ◇ Training: I attended two trainings held by the Natural Areas Association (NAA) on The

Geographic Approach to Invasive Species Management: Maximizing Volunteer Impact with ArcGIS HUB and a Field Maps webinar on the Geographic Approach to Invasive Species Management.

- Weaver Basin Trail System (WBTS):
 - ◇ Kiosk Update: The layout for 8 kiosks has been completely updated and awaiting installation.
 - ◇ Bandana Update: The bandana layout has been completed, and quotes from (4) different manufacturers have been provided to Kelly.
 - ◇ GIS: Maps & GIS data were provided to the Watershed Center & Trinity Trail Alliance in support of their programs and grant applications.



- ◇ Trinity Trail Alliance (TTA) Coordination: I attended a TTA meeting to request input from TTA folks about priority areas for trail improvement efforts.

5.12 Education and Outreach – Amelia Fleitz

- 477 - Bureau of Reclamation TRRP Outreach & Education:

- Science on Tap: In April, we organized a Science on Tap presentation titled "Historic Mining Adventures and Archaeology in Central Trinity County" by Eric Ritter, Sara Balmuth, and Alden Neal. The event was attended by up to 76 individuals.

This month, we have another exciting presentation lined up. Dr. Greta Wengert, the Executive Director of the Integral Ecology Research Center, and Dr. Mourad W. Gabriel, the Trespass Cultivation Ecology, Safety & Reclamation Program Manager & Regional Wildlife Ecologist in

the United States Forest Service Pacific Southwest Region Law Enforcement and Investigations Division, will be presenting "The Growing Web of Environmental Impacts from Illegal Cannabis Cultivation. "

- Educational Materials: The sign at Sven has been vandalized, and we will evaluate replacing it with the same or updating and replacing the signage.

- Trinity River Cleanup: is tentatively scheduled for September 23 for National Public Lands Day.

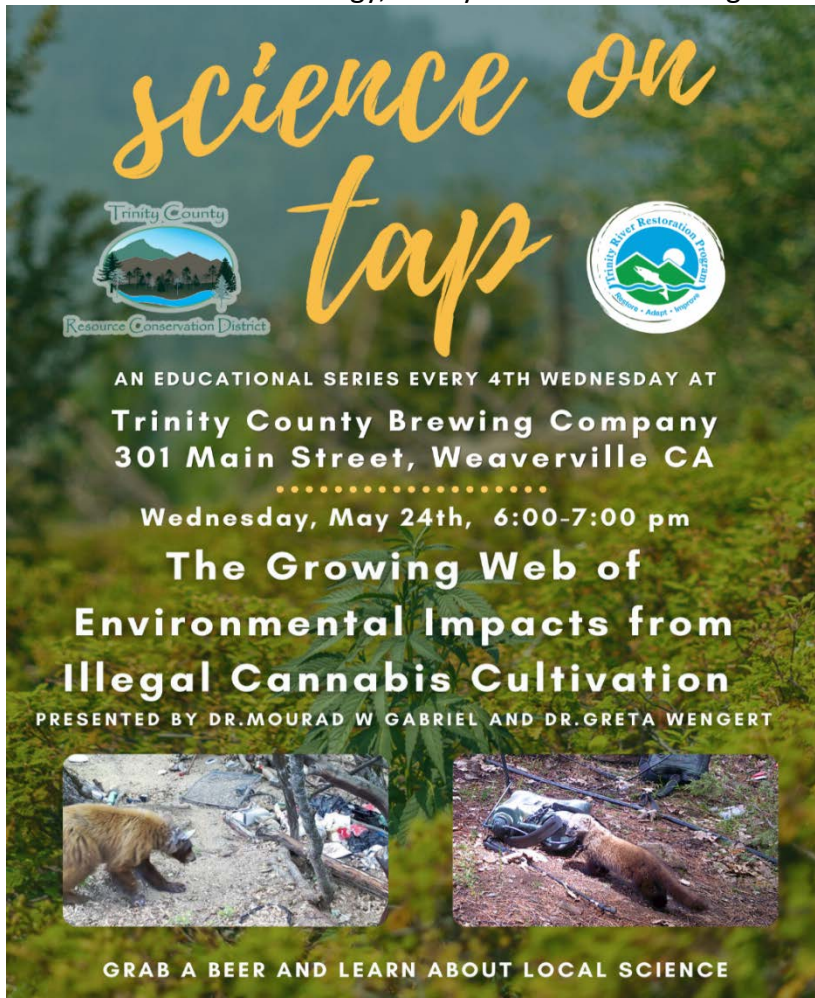
- The Trinity River Survey: Amelia is currently finalizing the results of the Trinity River Survey Analysis

- Wildflower Walk: Was held April 29th at the McKenzie Gulch Trailhead on Weaver Bally Rd – led by Lusetta Sims (USFS), Aaron Sims (California Native Plant Society), and Veronica Yates (Hoopa Tribal Fisheries – Riparian Ecologist). Over 30 members of the community participated in this successful event.

- Salmon Festival: is being planned

in collaboration with the North Fork Grange with their Harvest Festival to maximize reach, improvement, and engagement on October 7th, 2023, at the Highland Arts Center.

- Noxious Weed Pull: Adopt a plot: On May 13th, 2023, we will organize a noxious weed pull for star-thistle at the Bucktail River Access in collaboration with BLM and TRRP. As part of our strategy, we aim to encourage the public to adopt a plot, take responsibility for its stewardship, remove invasive plants, and ultimately replant with native species. To mark the boundaries of each plot, we have planned three Rock Painting activities. During the first event on April 1st, artists of all ages, including children and adults, gathered at the Up-North Confectionary as part of the Trinity County Arts Council's First Saturday event. A total of sixty rocks were beautifully painted, and the event was enjoyed by the public. At the 14th Annual Trinity County Seed and Plant Exchange, we painted an additional 23 rocks and distributed marketing materials to promote the Adopt-a-Plot initiative. The next Rock Painting Activity is scheduled for May 6th at Up North Confectionary.



- Day at the Wetlands: On May 23rd, we will be hosting an event at the Bucktail River Access in Lewiston, which will involve the participation of approximately 30 fourth-grade students from Weaverville and Lewiston elementary schools.

- Youth in Sustainable Forestry: The first three lessons took place at McKenzie Gulch, where 26 Trinity High School students participated. The theme of these lessons was "Fire and Fuels in the Environment." Moving forward, the upcoming lesson will be held at East Weaver, focusing on the theme of "Stewardship." These three lessons will be conducted at various locations within the Weaverville Community Forest, enabling the Trinity High School Forestry class to gain insights into forestry practices from diverse perspectives and explore career



opportunities in forest management. Key partners for these lessons include Sierra Pacific Company, the United States Forest Service, and the Nor Rel Muk band of the Wintu nation.

- Weaverville Summer Day Camp (482-23-7800323 & 493-1702500): We are currently in the process of planning for our upcoming summer day camp. We are excited to announce that we are accepting applications for two additional counselors to join our team. For those interested in enrolling their children in the camp, camper applications are now available. We are also offering an Early Bird registration discount throughout the month of May, which will run until May 31st. The camp will be held from July 3rd to July 2nd, encompassing three one-week sessions. Each session will have a unique theme to provide diverse and engaging experiences for the campers. The themes for the sessions are as follows:

Session 1: Farming for Conservation

Session 2: Friends of the Forest

Session 3: Go with the Flow

We look forward to welcoming campers and providing them with a fun and educational summer camp experience.

- District Outreach: The Spring Conservation Almanac is currently under development.
- Social Media Outreach: Staff has continued regular posting on the Trinity River and TCRCD social media accounts, including educational and event postings.
- Follow Us: The District is active on multiple online platforms for different groups.
 1. Trinity County RCD: Facebook (@TrinityCountyRCD), Instagram (@trinityRCD), Twitter (@TrinityRCD), Website: www.tcrd.net, YouTube (tired)
 2. Trinity River, CA: Facebook (@TrinityRiverCA), Instagram (@trinityriverca), Website: www.trinityriver.org, YouTube (Trinity River, CA)
 3. Young Family Ranch: Facebook (@YoungFamilyRanch), Website: www.tcrd.net/yfr
 4. Trinity County Fire Safe Council: Facebook (@TrinityFSC), Website: www.firesafetrinity.org
 5. Weaverville Community Forest: www.weavervillecommunityforest.org

**Initial Study-Mitigated Negative Declaration
for the proposed
Trinity County Wildfire Mitigation/Hazardous Fuels Reduction Project
Trinity County, California**



prepared by:

VESTRA Resources
5300 Aviation Drive
Redding, CA 96002
for The McConnell Foundation

May 3, 2023

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- 3 North Lake PAA
- 4 Covington Mill PAA
- 5 Land Use Designations
- 6 Zoning
- 7 USGS Topographic Map
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- 9 FEMA Flood Zones
- 10 USFWS Wetlands
- 11 Vegetation Types
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ATTACHMENTS

- A Figures
- B NRCS Soils Report
- C Tribal Consultation and Cultural Records Search Documentation
- D Comments Received and Responses

MITIGATED NEGATIVE DECLARATION

Introduction and Regulatory Context

STAGE OF CEQA DOCUMENT DEVELOPMENT

- Administrative Draft.** This California Environmental Quality Act (CEQA) document is in preparation by Trinity County Resource Conservation District staff.
- Public Document.** This completed CEQA document has been filed by Trinity County Resource Conservation District at the State Clearinghouse on March 20, 2023, and is being circulated for a 30-day state agency and public review period. The review period ends on April 19, 2023 at 17:00.
- Final CEQA Document.** This final CEQA document contains the changes made by the Department following consideration of comments received during the public and agency review period. The CEQA administrative record supporting this document is on file, and available for review, at the Trinity County Resource Conservation District office.

INTRODUCTION

This initial study-mitigated negative declaration (IS-MND) describes the environmental impact analysis conducted for the proposed project. This document was prepared for Trinity County Resource Conservation District (TCRCD) staff utilizing information gathered from a number of sources including research, field review of the proposed project area, and consultation with environmental planners and other experts on staff at other public agencies. Pursuant to § 21082.1 of CEQA, the lead agency, TCRCD, has prepared, reviewed, and analyzed the IS-MND and declares that the statements made in this document reflect TCRCD's independent judgment as lead agency pursuant to CEQA. TCRCD further finds that the proposed project, which includes revised activities and mitigation measures designed to minimize environmental impacts, will not result in a significant effect on the environment.

REGULATORY GUIDANCE

This IS-MND has been prepared for TCRCD to evaluate potential environmental effects that could result following approval and implementation of the proposed project. This document has been prepared in accordance with current CEQA Statutes (Public Resources Code §21000 *et seq.*) and current CEQA Guidelines (California Code of Regulations [CCR] §15000 *et seq.*)

An initial study is prepared by a lead agency to determine if a project may have a significant effect on the environment (14 CCR § 15063(a), and thus, to determine the appropriate environmental document. In accordance with CEQA Guidelines §15070, a “public agency shall prepare...a proposed negative declaration or mitigated negative declaration...when: (a) The initial study shows that there is no substantial evidence...that the project may have a significant impact upon the environment, or (b) The initial study identifies potentially significant effects but revisions to the project plans or proposal are agreed to by the applicant and such revisions will reduce potentially significant effects to a less-than-significant level.” In this circumstance, the lead agency prepares a written statement describing

its reasons for concluding that the proposed project will not have a significant effect on the environment and, therefore, does not require the preparation of an environmental impact report. This IS-MND conforms to these requirements and to the content requirements of CEQA Guidelines § 15071.

PURPOSE OF THE INITIAL STUDY

Trinity County Resource Conservation District has primary authority for oversight of the proposed project and is the lead agency under CEQA. The purpose of this IS-MND is to present to the public and reviewing agencies the environmental consequences of implementing the proposed project and to describe the adjustments made to the project to avoid significant effects or reduce them to a less-than-significant level. This disclosure document was made available to the public and reviewing agencies for review and comment. The IS-MND was circulated for public and state agency review and comment for a review period of 30 days as indicated on the **Notice of Intent to Adopt a Mitigated Negative Declaration** (NOI). The 30-day public review period for this project began on March 20, 2023, and ended on April 19, 2023.

The requirements for providing an NOI are found in CEQA Guidelines §15072. These guidelines require TCRCDD to notify the general public by providing the NOI to the State Clearing House for posting, sending the NOI to those who have requested it, and utilizing at least one of the following three procedures:

- Publication in a newspaper of general circulation in the area affected by the proposed project,
- Posting the NOI on- and off-site in the area where the project is to be located, or
- Direct mailing to the owners and occupants of property contiguous to the project.

Trinity County Resource Conservation District posted the NOI on- and off-site at:

- Weaverville Post Office, 50 South Miner St., Weaverville, CA 96093
- Trinity Center Post Office, 271 Mary Ave., Trinity Center, CA 96091
- The NOI was also published in the Trinity Journal, a newspaper in general circulation in the area affected by the proposed project, on March 29, 2023.

Two comments were received regarding the proposed project. The first was received by email from Caltrans on 4/19/2023, and the second was received by email from the North Coast Regional Water Quality Control Board on 4/18/2023. These emails brought forth helpful permitting clarifications, but it was determined that neither of them introduced new information that could alter the significance of project impacts or necessitate significant changes to project design. The comments in their entirety, as well as responses as determined necessary, have been incorporated into this document at Attachment D.

Project Description and Environmental Setting

PROJECT LOCATION

The project includes hazardous fuel reduction on private property within Wildland Urban Interface (WUI) areas in Trinity County. The project site includes 3 Project Activity Areas (PAAs) in northern Trinity County. The general location of each PAA within Trinity County is included on Figure 1 in Attachment A. Individual PAAs are shown on Figures 2 through 4. Maximum potential acreage, number of parcels, and landowners for each PAA are included in Table 1. The final acreage and number of parcels included in the project will be determined based on landowner participation and the environmental, operational, or physical constraints of each parcel. The maximum potential acreage to be treated would be 7,232 acres. The number of acres that will receive treatment and number of participating landowners will be less than the maximum extent of the PAAs.

Project Activity Area	Maximum Potential Acres	Maximum Number of Parcels	Maximum Number of Landowners
Covington Mill	2,703	307	122
North Lake	2,384	137	90
Weaverville	2,145	99	79

The project will not include work in areas with slopes over 65 percent or in areas with highly erosive soils on slopes greater than 50 percent. In addition, the project will include a 75-foot setback from perennial streams and wetlands and a 50-foot setback from intermittent and ephemeral streams. Prior to project implementation, special treatment zones (STZ) will be identified for known cultural resources within the project area. Dredge tailings, and areas treated previously by another party will not be included in the project. These constraint areas will be identified and treatment prescription (TP) for each individual parcel within the PAAs modified prior to project implementation.

BACKGROUND AND NEED FOR THE PROJECT

The McConnell Foundation (TMF) is currently applying for a Fire Prevention Grant funded with Cap-and-Trade auction proceeds appropriated by the California Department of Forestry and Fire Protection (CAL FIRE) and a wildfire mitigation grant by the California Governor’s Office of Emergency Services (Cal OES) to manage hazardous vegetation under the Hazard Mitigation Grant Program (HMGP). The grants will be used to perform hazardous fuel treatments in three Project Activity Areas (PAAs) of widths varying between 400 and 1,200 feet. The PAAs include private property within high-priority Wildland Urban Interface (WUI) areas in Trinity County.

The geographic scope of the project was determined by prioritizing the areas where fire prevention activities would have the greatest impact on community safety. Work elements included in the project either are contained in *Trinity County’s Community Wildfire Protection Plan* or have been identified by the TCRC as projects that would protect rural communities or that are essential to evacuation routes for a large number of people. Project selection criteria were based on operational need, communities at risk, ingress and egress routes, fire history, and risk of ignition.

PROJECT OBJECTIVES

The objective of the project is to reduce hazardous fuel within high-priority Wildland Urban Interface (WUI) areas in Trinity County. Through hazardous fuel reduction and roadside fuel treatment, the project will lessen the probability of moderate-to-high-severity wildfires spreading into and through WUI areas. Reducing the probability of WUI wildfires will reduce loss of life and personal injury, increase effective ingress and egress, and protect critical facilities, essential services, infrastructure, continuity of government operations, and public and private property.

The goals identified for the project include:

- Reduce the number and intensity of wildfires and suppression costs
- Increase public safety
- Increase safe ingress and egress for public and firefighters
- Increase water quantity and maintain water quality from managed watersheds
- Decrease the potential for damage from flooding, siltation, and landslides
- Protect and improve soil productivity and decrease erosion over the long term
- Improve wildlife and fisheries habitat
- Improve woodlands through fire management and regeneration
- Establish and maintain desired plant communities
- Improve air quality over the long-term
- Decrease the risk to firefighters and other responders during wildland fires

Other benefits include the following:

- Protection of cultural resources
- Protection of ecosystem services such as water quality, flood control, green infrastructure, wildlife habitat, soil structure, and carbon sequestration
- Provision of a safer working environment for firefighters by reducing fire severity, intensity, and rate of spread, allowing them to more effectively combat catastrophic wildfires

PROJECT START DATE

Spring 2024

PROJECT DESCRIPTION

The proposed action consists of removing ground and ladder fuels along specified corridors, thinning trees to reduce crown closure, and removing dead and dying trees. Work will focus on improving forest health, including vegetation management, forest undergrowth reduction and biomass utilization. Treatment will focus on reducing vertical and horizontal continuity of fuels; removing competition from small, closely spaced, fire-vulnerable species; and promoting a smaller number of resilient larger trees. Generally, living trees will be spaced to a distance of greater than 30 feet. These fuel reduction treatments will allow roadways to serve as areas where fire intensity decreases which act as strategic locations to deploy firefighting resources, thus hampering fire's ability to jump roadways. Both mechanized and manual techniques will be deployed for the removal of fuels. Areas that would be

heavily disturbed by equipment or stacked logs would be reseeded with sterile cover crops or mulched with certified weed-free rice straw or wheat straw. Fuel reduction, biomass disposal, and site restoration activities are described in greater detail below.

The treatment contractor will conduct the hazardous fuel reduction techniques appropriate for each individual parcel. A Preliminary Site Assessment (PSA) will be conducted on each eligible parcel to identify watercourses, special-status species and habitat, cultural resources, or any other obstacles to be avoided. An individual Treatment Prescription (TP) will be developed for each parcel based on the Preliminary Site Assessment.

Hazard Fuel Reduction

Fuel reduction will use mechanized or manual techniques. The mechanized technique will involve the use of heavy machinery and equipment such as track hoes, track chippers, track equipment with masticator heads, and logging equipment. The manual technique will involve the use of hand crews equipped with chainsaws and other field-deployable equipment. The mechanized technique may cover more acreage per day, but its use is limited by slope, access, seasonal consideration, and similar limitations that do not apply to the manual technique. The general contractor(s) or subcontractors will determine which technique or combination of techniques will be appropriate for each PAA following the Preliminary Site Assessment.

Mechanical Treatment

Mechanical treatment is effective for removing dense stands of vegetation and is typically used in shrub and tree fuel-removal operations. Mechanical treatments are generally the most cost effective and are the preferred treatments under the project. Mechanical treatments that may be used during the project include:

- Mastication (track, rubber tire or skid steer mounted)
- Logging and skidding (Non-commercial)
- Bucket and boom
- Chipping and grinding

Manual Treatment

Manual treatment would involve the use of hand tools and hand-operated power tools to cut, clear, or prune herbaceous and woody species. Activities could include the following:

- Removing trees and undesirable species with chainsaws, lopper, or pruners
- Pulling, grubbing, or digging out root systems of undesired plants to prevent sprouting and regrowth
- Placing mulch around desired vegetation to limit competitive growth
- Hand piling for burning

Ground disturbance from manual treatments is typically less than that of mechanical treatment within an equivalent area. Manual treatments will be used in sensitive habitats such as riparian areas, on steeper slopes, within constrained areas (biological or archeological), and in areas that are inaccessible to vehicles and around structures.

Biomass Disposal

Biomass waste generated is anticipated to include:

- Removal of woody debris up to 6 inches in diameter, or vegetation present at an undesired density as determined by a qualified individual.
- Green plant material from thinning and brush residuals.
- Cut shrubs, branches, and saplings.
- Branches and logs from dead or mortally diseased trees.
- Felled trees.

Onsite Disposal

Some residual biomass from treatment activities may be left in place for habitat, erosion control, pile burning, or other purposes. Biomass that is of a size and constitution suitable for chipping will be disposed of onsite to the extent feasible without compromising the objective of reducing fire risk and fuel load. Biomass will be handled in the following manner:

- Green waste will be cut or chipped
- Logs and large branches, free of smaller branches and leaves, will be cut into pieces (no longer than six feet) and used to create small, unobtrusive stacks no larger than 3 feet high, 5 feet long, and 4 feet wide. Leaves, branches, bark, and duff will be collected, chipped or shredded, and compressed into flat piles no more than 2 feet high, 5 feet long, and 5 feet wide. Piles of green waste will be separated by different distances, depending on slope. The piles will be created in such a manner as to break down quickly while also preserving habitat for wildlife.
- Chipped waste will be disposed of where appropriate in a manner that suppresses invasive plant and weed growth and helps stabilize soil in steep terrain. Chipped material will not be spread greater than 2 inches in depth.
- Green waste piles will not be placed in Defensible Space Zones (they will be moved to other areas within open lands).
- Green waste from branches and logs from dead or mortally diseased trees (particularly those that might be infected with sudden oak death) will not be chipped, but will be left to decompose in place to help prevent the spread of disease.
- Waste may be piled by hand into 12-foot by 12-foot piles and burned during wet periods of the year. A Non-Standard Burn Permit or other required permits will be acquired from North Coast Air Quality Management District (NCAQMD) prior to pile burning activities.
- Waste may be lopped to a length of less than 2 feet and a depth of less than 9 inches with ground contact for rapid decay and scattered within treatment area. Lop and scatter will be utilized only in locations where other material disposal methods are not feasible.

Key points for the above parameters include spreading to a depth of 2 inches and avoiding piling around remaining trees.

Offsite Disposal

Strategic use of biomass that is removed from the site can divert material from decay and open-pile burning; this will produce greenhouse gas reduction benefits outside of the forest. Use of this material can provide renewable electricity and potentially biofuels, offsetting consumption of fossil fuels. The project will use biomass facilities as a first option for the disposal of woody biomass generated by project activities. No biomass facilities are located in Trinity County. Biomass will be delivered to the nearest facility where economically and contractually feasible to reduce

transportation-related emissions; therefore, biomass will be transported to facilities in Anderson. Delivery of biomass material (chips and or/logs) is estimated at a rate of 0.5 loads per acre on 40 percent of the acreage.

Site Restoration

Some degree of ground disturbance will be caused by the machinery and equipment that will be used with any mechanized techniques. Disturbance will be addressed to ensure that additional risks (erosion and slope destabilization) do not occur. Grass seeding, slash packing, or other appropriate erosion control or slope stabilization techniques will be deployed on any site where site inspection determines that disturbance would likely lead to an increased risk of erosion or slope stabilization. The technique to be used will be site-specific and will be implemented by hand crews in areas that are sensitive to soil stabilization issues. The determination of risk will be based on:

- Exposure of the disturbance
- Soil type disturbed
- The capability of the soil to support germination of grass seeding
- Time frame (proximity to the rainy season)
- Proximity of the disturbance to a watercourse

Site Maintenance

Ongoing maintenance of the treated sites may be required in the future. Maintenance of these areas will be conducted by broadcast and pile burning of previously treated areas. Pile burning will be conducted as specified in the onsite disposal section. Prescription broadcast burning will be handled in the following manner:

- A burn plan will be prepared which includes a fire behavior model output that predicts fire behavior, emissions of particulate matter and greenhouse gasses, and soil heating. During this process, particulate and greenhouse gas emissions and soil heating will be reduced to the greatest extent practicable.
- A smoke management plan (SMP) will also be prepared and submitted to the North Coast Air Quality Management District (NCAQMD) at least 30 days prior to the burn. The SMP will be designed to minimize public exposure to air pollutants as much as practicable.
- A Non-Standard Burn Permit will be acquired from North Coast Air Quality Management District (NCAQMD) prior to broadcast or pile burning activities.
- Burns will not take place if weather, fuel, or site conditions are not within prescription.
- Fire suppression resources will be present during broadcast burns and will vary based on the and size and complexity of the treatment area.
- Trained wildland firefighters manage the burn while monitoring the weather, smoke dispersal, fire behavior, and designated fire control lines.
- If fire behavior or smoke dispersal is no longer acceptable at any point, the burn will be terminated.

Following completion of the burn, the area will be patrolled for as long as necessary to ensure that reignition would not occur.

Project Schedule

Project activities will be limited to the hours of 7:00 a.m. to 7:00 p.m. during weekdays and 8:00 a.m.

to 5:00 p.m. on Saturday and Sunday.

Best Management Practices

Best Management Practices (BMPs) included in the FEMA *Programmatic Environmental Assessment, Recurring Actions in Arizona, California, and Nevada* (December 2014) applicable to the project are listed in the Checklist and Discussion section of this document. The treatment contractor will be required to adhere to these BMPs during project implementation.

ENVIRONMENTAL SETTING OF THE PROJECT REGION

The project site includes areas adjacent to critical transportation routes for rural communities located throughout Trinity County in the wildland urban interface (WUI).

DESCRIPTION OF THE LOCAL ENVIRONMENT

The project includes three Project Activity Areas (PAAs) located in northern Trinity County. The location of each PAA within the county is shown on Figure 1. A description of the Local Environment within each PAA is described in this section. Individual PAAs are shown on Figures 2 through 4. PAAs included in this grant project are Weaverville, Covington Mill, and North Lake. A custom soil report for the project area is included in Attachment B.

WEAVERVILLE

The Weaverville PAA is located to the south, east, and north of the town of Weaverville in Trinity County. The PAA includes landscape areas directly adjacent to developed areas of Weaverville and surrounding communities. Treatment areas in the Weaverville PAA are located along State Route 299/3 and extend west to include areas along Democrat Gulch and north along Browns Mountain and Little Browns Creek to Musser Hill (Figure 2).

Trinity County General Plan land use designations within the PPA include Resource (RE), and Rural Residential (RR). Zoning designations for parcels within the PAA include: Agricultural Forest 20 Acre Minimum (AF20), Rural Residential 2.5 Acre min (RR2.5), Rural Residential 5 Acre min (RR5), Rural Residential 10 Acre min (RR10), Specific Unit Development (SUD), Timber Production Zone (TPZ), and Unclassified (UNC). General Plan designations and Zoning designations for each PAA are shown on Figure 5A and Figure 6A, respectively.

The PAA is located in: Township 33N Range 10W section 13, Mount Diablo Meridian. Township 33N Range 9W Sections: 4, 5, 8, 9, 16, 17, 19, Mount Diablo Meridian, USGS Weaverville and Rush Creek 7.5-Minute Quadrangle maps. The PAA is not within a groundwater basin. Topography is varied throughout the different sections of the Weaverville PAA, around Musser Hill the northern section elevations range between 3100 feet above mean sea level (AMSL) and 2300 feet AMSL. The eastern treatment area runs along the ridge top of Browns Mountain and the valley along Little Browns Creek, with elevations ranging from 2740 feet AMSL to 2000 feet AMSL. The southern treatment area consists of the hillsides on either side of State Route 3/299 and discontinuous landscape areas along Democrat Gulch with elevations ranging from 3020 feet AMSL to 1900 feet AMSL. Slopes within the PAA are generally between 15 percent to 45 percent with limited areas exceeding 65 percent. Topography is shown on Figure 7A.

The PAA is located within the Trinity Watershed (HUC8 18010211). Water in the southern-most

treatment area of the PAA primarily flows into Weaver Creek, a perennial stream and tributary to the Trinity River. Eight intermittent tributaries to Weaver Creek exist within the PAA. Areas in Democrat Gulch all flow into an unnamed perennial tributary to Weaver Creek or twelve of its intermittent tributaries. The southern and eastern treatment areas include sections of Little Browns Creeks, a perennial stream which joins Weaver Creek just south of the PAA. The treatment area includes nine intermittent tributaries and a perennial tributary. The northern treatment area drains east to Little Browns Creek and north and west to East Weaver Creek, a perennial tributary to Weaver Creek. This treatment area includes four intermittent tributaries which flow together to form an unnamed perennial stream which flows to Little Browns Creek, four intermittent tributaries to East Weaver Creek, and one perennial tributary. Hydrology of the PAA is shown on Figure 8A.

According to the USFWS Wetlands Mapper, Freshwater Forested/Shrub Wetlands exist along streams within the PAA or directly adjacent to it (Figure 10A). No additional water bodies have been identified within the PAA. Some areas along Weaver Creek are mapped Zone A (1 percent Annual Chance Flood Hazard), the rest is mapped as Zone X: (Area of Minimal Flood Hazard), with limited Zone D (Area of Undetermined Flood Hazard) by FEMA's National Flood Hazard Layer Viewer (Figure 9A).

Weaverville PAA is dominated by Sierran Mixed Conifer and Montane Hardwood-conifer; much of the PAA is mapped as ponderosa pine or Douglas fir habitats and these species likely co-dominate the project area. A large portion of the center of this PAA is mapped as Montane Hardwood. Other habitats that occur within the PAA include Annual Grassland, Montane Chaparral, and a small area mapped as wet meadow. Vegetation types are shown on Figure 11A.

Soils in the Weaverville PAA are primarily well drained and have not been evaluated for runoff class. Soils within the PAA often have significant levels of gravel and cobble. Typical soil profiles from the soil groups found within the PAA include gravelly loam, very gravelly clay loam, and extremely cobbly clay loam. Soils within the PAA are often derived from residuum weathered from conglomerate, other parent materials include colluvium derived from metasedimentary rock, metavolcanics mica schist, residuum derived from mica schist, alluvium derived from metasedimentary rock, metavolcanics, or outwash from hydraulic mining.

COVINGTON MILL

The Covington Mill PAA is located along State Route 3 northwest of Trinity Lake. The treatment area includes the roadside along State Route 3 and several landscape areas around Covington Mill, Stuart Fork, Billys Gulch, and Strong Creek. The PAA location is shown on Figure 4.

Trinity County General Plan land use designations within the PAA include: Resource (RE), Rural Residential (RR), and Village (V). Zoning designations for parcels within the PAA include: Rural Residential 10 Acre min (RR10), Residential 20 Acre min (RR20), Single Family Res. - High Density (R1), Single Family Res. - Low Density (R1A), Timber Production Zone (TPZ), and Unclassified (UNC). General Plan designations and Zoning designations for each PAA are shown on Figure 5C and Figure 6C, respectively.

The project is located in: Township 36N Range 8W Sections 23, 25, 26, 34, 35, Township 35N Range 8W Sections 3, 4, 5, 9, Mount Diablo Meridian, USGS Covington Mill and Trinity Center 7.5-Minute Quadrangle maps. The PAA is not within a groundwater basin. The topography ranges from gentle slopes ranging between 0 percent to 10 percent in the valley along Hobel Creek to steeper 25 percent to 50 percent slopes in the surrounding mountains with limited areas exceeding 65 percent. Elevations within the PAA range from approximately 2400 feet along Hobel Creek in Covington Mill to 3800 along Bowerman Ridge. Topography is depicted on Figure 7C.

The PAA is located within the Trinity Watershed (HUC8 18010211). Water within the PAA primarily drains to south through Hobble Creek or its tributaries into the Trinity River. The PAA includes: Davis Creek and one of its intermittent tributaries and one perennial tributary, East Fork Stewart Creek, and six of its intermittent tributaries and three perennial tributaries. Hobel Creek runs north to south for the length of the PAA which includes eleven intermittent tributaries and two unnamed perennial tributaries. Hydrology is shown on Figure 8C. According to the USFWS Wetlands Mapper, no wetlands exist within the PAA (Figure 10C). These areas are mapped as Zone D (Area of Undetermined Flood Hazard) by FEMA's National Flood Hazard Layer Viewer (Figure 9C).

Two freshwater ponds exist within the project area. The northern-most pond occurs near State Route 3 along a perennial tributary to Davis Creek. The other is located near the intersection of Guy Covington Drive and Millview Drive along Hobel Creek, south of its confluence with East Fork Stuart Creek within the Covington Mill community.

Covington Mill PAA is dominated by Sierran Mixed Conifer. Forests dominated by ponderosa pine (*Pinus ponderosa*) are spread across the area. Other habitat types that occur within the PAA include Annual Grassland, Mixed Chaparral, Montane Chaparral, Montane Hardwood-Conifer, Montane Hardwood, Perennial Grassland, and wet meadow. Several clear-cuts exist within the mixed conifer forest. Vegetation types within the PAA are shown on Figure 11C.

Soils in the Covington Mill area of the PAA range from poorly drained to somewhat excessively drained, with the majority of soils being well drained. These soils range in runoff class from poor to very high, with most soils being high or very high. Typical soils within the PAA are often gravelly and sandy. Typical soil profiles for the soil groups within the PAA include gravelly loam, gravelly coarse sandy loam, and gravelly sandy clay loam. The most common parent material for the soils within the PAA is residuum weathered from serpentine, but also includes, non-marine alluvium, alluvium, residuum weathered from granite, metavolcanics, sedimentary rock, metamorphic rock, igneous rock, or ultramafic rock.

NORTH LAKE

The North Lake PAA is located west of Trinity Lake and borders the community of Trinity Center. Treatment areas are located along State Route 3, south, west, and north of the community of Trinity Center. The location of the PAA is shown on Figure 3.

Trinity County General Plan land use designations within the PAA include: Agriculture (A), Community Expansion (CE), Community Residential (CR), and Resource (RE), Rural Residential (RR). Zoning designations for parcels within the PAA include: Agricultural Forest 20 Acre Minimum (AF20), Timber Production Zone (TPZ), Duplex Residential District (R2), Highway Commercial (HC), Retail Commercial (C1), Rural Residential 1 Acre min (RR1), Rural Residential 10 Acre min (RR10), Single Family Res. - High Density (R1), Unclassified (UNC). General Plan designations and zoning designations for each PAA are shown on Figure 5B and Figure 6B, respectively.

The PAA is within the Trinity Watershed (HUC8 18010211), in: Township 36N Range 8W Sections 13, 14, 23, 24, Township 36N Range 7W Sections 5, 7, 8, 15, 17, 19, 20, USGS Trinity Center and Carrville 7.5-Minute Quadrangle maps. The PAA is not within a groundwater basin. The topography of the PAA varies from fairly flat 0 percent to 10 percent slopes along valley bottoms surrounding sections of State Route 3, to steeper 25 percent to 50 percent slopes in the surrounding mountains. Elevations range from 3600 above mean sea level (AMSL) to 2400 AMSL. Topography of the PAA is depicted on Figure 7B.

Water within the PAA drains primarily to Swift Creek or its tributaries which flow into Trinity Lake

just north of Trinity Center. North of this outflow, or in other limited areas, water may flow directly into Trinity Lake. The treatment area includes Flume Creek (a perennial stream), Brush Creek (a perennial stream), Rancheria Creek (a perennial tributary to Swift Creek and two of its intermittent tributaries), Swift Creek (an intermittent stream and wetland area which drains to Trinity Lake), Foster Creek (a perennial spring-fed tributary to Swift Creek and seven of its intermittent tributaries), Grattan Creek, and five of its intermittent tributaries. Additionally, the PAA contains nine unnamed intermittent streams which flow directly to Trinity Lake. Hydrology within the PAA is depicted on Figure 8B.

According to the USFWS Wetlands Mapper, Freshwater Forested/Shrub Wetlands and Fresh Water Emergent Wetlands exist along Swift Creek, and Foster Creek within the PAA (Figure 10B). One freshwater pond exists along Grattan Creek within the PAA. These areas are mapped as Zone D (Area of Undetermined Flood Hazard) by FEMA's National Flood Hazard Layer Viewer (Figure 9B).

North Lake is dominated by Sierran Mixed Conifer. Areas dominated by Douglas fir (*Pseudotsuga menziesii*) occur at the northern-most end of the Trinity Center area. Other habitat types that occur within the PAA include Annual Grassland, Mixed Chaparral, Montane Chaparral, Montane Hardwood-Conifer, Montane Hardwood, Perennial Grassland, and wet meadow. Several clear-cuts exist within the mixed conifer forest. Vegetation types are depicted on Figure 11B.

Soils within the North Lake PAA are primarily well drained with high to very high runoff classifications. There are limited exceptions with one poorly drained soil group and one soil group with a low runoff classification. Soils profiles within the PAA tend to be gravelly with common soil profiles including gravelly loam and gravelly clay loam. Parent materials for the soils are commonly alluvium and residuum weathered from metamorphic and sedimentary rock, but also include residuum weathered from granite, metavolcanics, ultramafic rock, or igneous rock.

SPECIAL-STATUS WILDLIFE SPECIES

Special-status animal species include species that are (1) listed as threatened or endangered under the CESA or the ESA; (2) proposed for federal listing as threatened or endangered; (3) identified as state or federal candidates for listing as threatened or endangered; and/or (4) identified by the CDFW as Species of Special Concern or California Fully Protected Species.

A list of regionally occurring special-status wildlife species in the project site was compiled based on a review of pertinent literature and consultations with the USFWS Information for Planning and Consultation (IPaC) database, CNDDDB database records, California Wildlife Habitats Relationship (CWHR) and Vegetation Classification and Mapping Program (VegCAMP) maps.

For each special-status wildlife species, habitat and other ecological requirements were evaluated and compared to the habitats in the study area and immediate vicinity to assess the presence of potential habitat in the project area. The habitat assessments for special-status species wildlife species are provided in Table 2.

Of the 42 special-status wildlife species evaluated, 37 were determined to have a potential to occur within the project area. The remainder were determined to have no potential to occur or are unlikely to occur in the project area. Potential project impacts to special-status wildlife species with potential to occur within the project area are discussed in the Biological Resources section of the Environmental Checklist and Discussion.

SPECIAL-STATUS PLANT SPECIES

Special-status plant species include plants that are (1) designated as rare by CDFW or USFWS or are listed as threatened or endangered under the California Endangered Species Act (CESA) or ESA; (2) proposed for designation as rare or listing as threatened or endangered; (3) designated as state or federal candidate species for listing as threatened or endangered; and/or (4) ranked as California Rare Plant Rank (RPR) 1A, 1B, 2A, or 2B. A list of regionally occurring special-status plant species was compiled based on a review of pertinent literature, a review of the USFWS species list, CNDDDB database records, and a quad search for each PAA of CNPS database records. The California Rare Plant Ranking (CRPR) results are included in Table 3.

For each special-status plant species, habitat and other ecological requirements were evaluated and compared to the habitats in the project and immediate vicinity to assess the presence of potential habitat. The habitat assessments for special-status species are provided in Table 3. Project impacts to special-status plant species with potential to occur within the project area are discussed in the Biological Resources section of the Environmental Checklist and Discussion.

ARCHEOLOGY

Records searches have been conducted for the project site by ALTA Archaeological Consulting (ALTA). Records search results have been prepared and submitted to Trinity County Resource Conservation District. In addition, pedestrian archaeological surveys will be completed during spring and summer 2023, prior to project implementation in areas with potential to contain cultural resources as part of the preliminary site assessment of each eligible parcel. A final report including recommended avoidance measures for identified cultural resources within the project area will be provided to Trinity County Resource Conservation District in summer 2023. Special treatment zones (STZ) will be identified for known cultural resources within the project area and will be included in the individual treatment prescription (TP) for the parcel and identified sites will be avoided.

CURRENT LAND USE AND PREVIOUS IMPACTS

The PAAs are located in high-priority WUI areas in Trinity County. Land use and zoning designations vary throughout the project site. Land use designations within each PAA are included on Figure 5A through 5C of Attachment A. Zoning districts are included on Figures 6A to 6C. Due to the geographic extent of the project, existing conditions vary throughout the project area and within each individual PAA. In general, the PAAs include areas of dense vegetation critical corridors within high-priority WUI areas. There are currently ongoing fuel treatment activities by private landowners and other entities within the project area. The project will involve coordination of activities between entities to ensure effective project implementation and avoid duplication of effort.

**Table 2
POTENTIALLY OCCURRING SPECIAL-STATUS WILDLIFE SPECIES**

Common Name	Scientific Name	Conservation Status (CDFW/State/Fed)	Habitat Description	Potential to Occur in Project Area
American peregrine falcon	<i>Falco peregrinus anatum</i>	FP/SD/FD	Frequents bodies of water in open areas with cliffs and canyons nearby for cover and nesting.	There are many records of American peregrine falcon in Trinity County; especially near the Trinity River and its tributaries (eBird 2019). This species could occur within suitable habitat throughout Trinity County.
Bald eagle	<i>Haliaeetus leucocephalus</i>	FP/SE/FD	Near open water, nesting habitat consists of large trees usually within riparian forest	Bald eagles are known to nest in Trinity County with occurrences concentrated around Trinity Lake (CNDDDB 2018). This species has otherwise been observed throughout the county, especially along the Trinity River (eBird 2019). This species could occur within suitable habitat throughout Trinity County
Black swift	<i>Cypseloides niger</i>	SSC/--/--	Nests in moist crevice or cave on sea cliffs on cliffs behind, or adjacent to, waterfalls in deep canyons. Forages widely over many habitats.	There is one historic (1985) nesting occurrence of black swift in Trinity County. Trinity County is outside of the established breeding range of this species; however, there have been several recent observations of the species (eBird 2019), and the species could be a rare nester within suitable habitat in Trinity County
Golden eagle	<i>Aquila chrysaetos</i>	FP/--/--	Broadleaved upland forest, cismontane woodland, coastal prairie, Great Basin grassland, Great Basin scrub, lower montane coniferous forest, pinyon and juniper woodlands, upper montane coniferous forest, and valley and foothill grassland. Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	Golden eagles have been known to nest in Trinity County (CNDDDB 2018) and have been otherwise observed throughout the county (eBird 2019). This species could occur within suitable habitat throughout Trinity County.
Little willow flycatcher	<i>Empidonax traillii</i>	--/SE/--	Meadow and seep, riparian woodland. Mountain meadows and riparian habitats in the Sierra Nevada and Cascades. Nests near the edges of vegetation clumps and near streams.	There are many records of little willow flycatcher in Trinity County; especially near the Trinity River and its tributaries in Six Rivers and Shasta-Trinity National Forests (eBird 2019). This species could occur within suitable habitat throughout Trinity County

**Table 2
POTENTIALLY OCCURRING SPECIAL-STATUS WILDLIFE SPECIES**

Common Name	Scientific Name	Conservation Status (CDFW/State/Fed)	Habitat Description	Potential to Occur in Project Area
California spotted owl	<i>Strix occidentalis</i>	SSC/--/--	Breeds and roosts in old growth forests and woodlands, high basal areas of trees and snags, dense canopies (≥ 70 percent canopy closure), multiple canopy layers, and downed woody debris.	No potential to occur. Species is found along western slope of the Sierra Nevada, the southern Coast Ranges from Monterey County to Santa Barbara County, and the Traverse and Peninsular Ranges from southern California to Baja California.
Northern goshawk	<i>Accipiter gentilis</i>	SSC/--/--	Dense, mature conifer and deciduous forest, interspersed with meadows, other openings, and riparian areas required. Nesting habitat includes north-facing slopes near water.	Northern goshawk is known to occur in Trinity County within areas of Six Rivers and Shasta-Trinity National Forests (CNDDDB 2018). This species could occur within suitable habitat throughout Trinity County
Northern spotted owl	<i>Strix occidentalis caurina</i>	SSC/ST/FT	North coast coniferous forest, old growth, redwood. High, multistory canopy dominated by big trees.	Spotted owls have been observed nesting throughout Trinity County, including within Six Rivers and Shasta-Trinity National Forests (CNDDDB 2018). Critical habitat for this species is present within the county
Osprey	<i>Pandion haliaetus</i>	WL/--/--	Fish-bearing water bodies; flat or broken tops of native conifer trees, snags, or power poles.	Osprey are known to nest in Trinity County with occurrences concentrated around Trinity Lake (CNDDDB 2018).
Olive-sided flycatcher	<i>Contopus cooperi</i>	SSC/--/--	Open woodlands for foraging; nesting in trees and tall shrubs	There are many records of olive-sided flycatcher in Trinity County; especially near the Trinity River and its tributaries in Six Rivers and Shasta-Trinity National Forests (eBird 2019). This species could occur within suitable habitat throughout Trinity County
Western yellow-billed cuckoo	<i>Coccyzus americanus</i>	--/SE/FT	Riparian forest nester, along broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willows, often mixed with cottonwood, blackberry, nettle or wild grape.	Trinity County is within historical range of the Western Yellow-billed Cuckoo. <u>CDFW does not consider Trinity County within the current range of this species.</u> There are no known nesting occurrences in Trinity County (CNDDDB 2022)

**Table 2
POTENTIALLY OCCURRING SPECIAL-STATUS WILDLIFE SPECIES**

Common Name	Scientific Name	Conservation Status (CDFW/State/Fed)	Habitat Description	Potential to Occur in Project Area
White-tailed kite	<i>Elanus leucurus</i>	--/--/FP	Cismontane woodland, marsh and swamp, riparian woodland, valley and foothill grassland and wetlands. Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open meadows and grasslands for foraging, with dense-topped trees nearby for nesting.	White-tailed kite has been observed in some areas of Trinity County including near the Trinity River and the town of Hayfork. This species has the potential to occur in suitable habitat throughout Trinity County.
Yellow warbler	<i>Setophaga petechia</i>	SSC/--/--	Riparian forest, riparian scrub, riparian woodland. Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in the Cascades and Sierra Nevada. Frequently found nesting and foraging in willows thickets, and other riparian plants such as cottonwoods, sycamore and ash.	There are many records of Yellow Warblers in Trinity County; especially near the Trinity River and its tributaries (eBird 2019). This species could occur within suitable habitat in Trinity County.
Yellow-breasted Chat	<i>Icteria virens</i>	SSC/--/--	Riparian forest, riparian scrub, riparian woodland. Summer resident;	There are many records of yellow breasted chat in Trinity County; especially near the Trinity River and its tributaries (eBird 2019). This species could occur within suitable habitat throughout Trinity County
American badger	<i>Taxidea taxus</i>	SSC/--/--	Dry, open stages of shrub and forest with friable soils	There are two known occurrences of American badger within Shasta-Trinity National Forest (CNDDDB 2018). This species could occur within suitable habitat throughout Trinity County.
Fisher-West Coast DPS	<i>Pekania pennanti</i>	SSC/--/--	North Coast coniferous forest, old growth, Riparian forest	Fisher is known to occur throughout Trinity and Six Rivers National Forests. This species could occur within suitable habitat throughout Trinity County.

**Table 2
POTENTIALLY OCCURRING SPECIAL-STATUS WILDLIFE SPECIES**

Common Name	Scientific Name	Conservation Status (CDFW/State/Fed)	Habitat Description	Potential to Occur in Project Area
Roosevelt elk	<i>Cervus canadensis roosevelti</i>	--/--/--	Breed in open, brushy stands of many deciduous and conifer habitats with abundant water. Feed in riparian areas, meadows, and herbaceous and brush stages of forest habitats. Require mature stands of deciduous and conifer forest habitats. Dense brush understory is used for escape and cover. Herds are sedentary within an annual home range or migrate altitudinally. During the rut (August-November), bulls defend movable breeding territories consisting of cow harems.	Trinity County is within the historic range of Roosevelt elk. The Marble Mountains Elk Management Unit (EMU) was identified by CDFW as part of a statewide elk management and conservation plan, and this EMU is located partially in the northern portion of Trinity County. While elk are not common in Trinity County, conservation and translocation efforts have bolstered the population in the county. Roosevelt elk likely occur primarily within the northern portion of the county on land managed by the U.S. Forest Service.
Oregon snowshoe hare	<i>Lepus americanus klamathensis</i>	SSC/--/--	Dense understory, particularly in riparian habitats, or areas with young firs with branches drooping to ground, and in patches of ceanothus and manzanita within, or bordering, fir or pine forests.	There are two historical (1911 and 1922) records of Oregon snowshoe hare in Trinity County (CNDDDB 2018), and this species is known to occur in the Trinity Mountains
Pallid bat	<i>Antrozous pallidus</i>	SSC/--/--	Prefers rocky outcrops, cliffs, and crevices with access to open habitats for foraging	There is one known occurrence of pallid bat within Trinity County, along Deadwood Creek SW of Lewiston Lake (CNDDDB 2018). However, this species could occur within suitable habitat throughout Trinity County.
Sierra Nevada red fox-southern Cascades DPS	<i>Vulpes necator</i>	--/ST/--	Open areas are used for hunting, forested habitats for cover and reproduction. Edges are utilized extensively. In lowlands, uses fence lines, hedgerows, woodlots, and other brushy, wooded areas for cover and reproduction, and hunts in cropland, wetland, urban habitats and other open areas	There have been several historical (1920's) observations of this species in Shasta National Forest near the Trinity County – Siskiyou County border (CNDDDB 2018). While Trinity County may be within the historic range of this species, only two small populations of Sierra Nevada red fox are currently known: one near Lassen Peak and one near Sonora Pass. This species is currently unlikely to occur in Trinity County.
Sonoma tree vole	<i>Arborimus pomo</i>	SSC/--/--	North coast coniferous forest, old growth, redwood. North coast fog belt from Oregon border to Sonoma County. In Douglas fir, redwood and montane hardwood-conifer forests. Feeds almost exclusively on Douglas fir needles. Will occasionally take needles of grand fir, hemlock or spruce	Sonoma tree voles have been observed in several areas of southwest Trinity County (CNDDDB 2018). This species could occur within suitable habitat throughout Trinity County

**Table 2
POTENTIALLY OCCURRING SPECIAL-STATUS WILDLIFE SPECIES**

Common Name	Scientific Name	Conservation Status (CDFW/State/Fed)	Habitat Description	Potential to Occur in Project Area
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>	SSC/--/--	Broadleaved upland forest, chaparral, chenopod scrub, Great Basin grassland, Great Basin scrub, Joshua tree woodland, lower montane coniferous forest, meadow and seep, Mojave desert scrub, riparian forest, riparian woodland, Sonoran Desert scrub. Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	Townsend's big-eared bat is known to occur in several areas of Shasta-Trinity National Forest (CNDDDB 2018). This species could occur within suitable habitat throughout Trinity County.
Gray wolf	<i>Canis lupus</i>	--/SE/FE	Habitat generalists, historically occupying diverse habitats including tundra, forests, grasslands, and deserts. Primary habitat requirements are the presence of adequate ungulate prey, water, and low human contact.	Contemporary sightings of gray wolves in California have included a pack within nearby Siskiyou County; however, there have been no gray wolf sightings within Trinity County
Humboldt marten	<i>Martes caurina humboldtensis</i>	SSC/SE/PT	North coast coniferous forest, old growth, redwood. Occurs only in the coastal redwood zone from the Oregon border south to Sonoma County. Associated with late-successional coniferous forests, prefer forests with low, overhead cover	Humboldt marten is known to occur in several areas of Shasta-Trinity National Forest (CNDDDB 2018). This species could occur within suitable habitat throughout Trinity County
Ringtail	<i>Bassariscus astutus</i>	--/--/FP	Riparian, forest, and shrub habitats in lower to middle elevations. Usually found within 0.6 mile of a permanent water source.	Ringtail is not tracked via CNDDDB. However, the species' range includes Trinity County, which contains suitable forest, riparian, and shrub habitat.
Wolverine	<i>Gulo</i>	FP/ST/PT	Alpine, Moist forested areas, North coast conifer forests	While the project site is located within the historic range of this species, the only known wolverine in California occurs in Tahoe National Forest. The location of this known wolverine is a considerable distance from Trinity County, and this species is therefore unlikely to occur in the county
Reptiles & Amphibians				
Cascades Frog	<i>Rana Cascadae</i>	SSC/CE/--	Inhabits wet mountain areas in open coniferous forests near timberline. Small streams, pools, meadows, bogs, ponds, and marshes lacking predatory fishes.	Known to occur in North Lakes project area

**Table 2
POTENTIALLY OCCURRING SPECIAL-STATUS WILDLIFE SPECIES**

Common Name	Scientific Name	Conservation Status (CDFW/State/Fed)	Habitat Description	Potential to Occur in Project Area
Pacific tailed frog	<i>Ascaphus truei</i>	SSC/--/--	Aquatic, Klamath/north coast flowing waters, lower montane coniferous forest, north coast coniferous forest, redwood, and riparian forest. Occurs in montane hardwood-conifer, redwood, Douglas fir and ponderosa pine habitats. Restricted to perennial montane streams. Tadpoles require water below 15°C.	Known to occur in all project areas
Foothill yellow-legged frog	<i>Rana boylei pop. 1</i>	SSC/--/--	Perennial, fast-flowing streams; deposit eggs on underside of rocks; may migrate in winter	Known to occur in all project areas
Southern long-toed salamander	<i>Ambystoma macrodactylum sigillatum</i>	SSC	Found primarily in yellow pine, mixed conifer, and red fir forests associated with mountain meadows.	Known to occur in North Lakes project area
Western pond turtle	<i>Emys marmorata</i>	SSC/--/--	Aquatic, marsh, swamp, ponds and wetland habitat, nest in adjacent uplands under loose dirt or leaf litter.	Known to occur in Weaverville project area
Fish and Aquatic Vertebrates				
Chinook Salmon – Upper Klamath and Trinity River ESU	<i>Oncorhynchus tshawytscha pop.30</i>	--/ST/FT	Aquatic; rivers and perennial/intermittent tributaries. Spring-run chinook in the Trinity and Klamath River upstream of the mouth of the Trinity River. Major limiting factor for juvenile chinook salmon is temperature, which strongly effects growth and survival.	The chinook salmon upper Klamath and Trinity Rivers ESU is known to occur in Trinity County within the Trinity River and its tributaries (CNDDDB 2018). Critical habitat for this species is present within the county.
Coho salmon	<i>Oncorhynchus kisutch</i>	--/ST/FT	Aquatic. Klamath/North coast flowing waters. Sacramento/San Joaquin flowing waters. Federal listing refers to populations between Cape Blanco, Oregon and Punta Gorda, Humboldt County, California. State listing refers to populations between the Oregon border and Punta Gorda, California.	Coho salmon is known to occur within Trinity County in the Trinity River (CNDDDB 2018). This species is also raised at the Trinity River fish hatchery.
Pacific lamprey	<i>Entosphenus tridentatus</i>	SSC/--/--	Requires cold, clear, water for spawning and incubation. Ammocoetes need soft sediments in which to burrow during rearing.	Pacific lamprey is known to occur within the Trinity River (CDFW 2019b).
Klamath River lamprey	<i>Entosphenus similis</i>	SSC/--/--	Requires cold, clear, water for spawning and incubation. Ammocoetes need soft sediments and loose gravel floors in which to burrow during rearing.	CNDDDB does not include any occurrences of Klamath River lamprey in Trinity County (CNDDDB 2019). However, Trinity County is within the range of this species.

**Table 2
POTENTIALLY OCCURRING SPECIAL-STATUS WILDLIFE SPECIES**

Common Name	Scientific Name	Conservation Status (CDFW/State/Fed)	Habitat Description	Potential to Occur in Project Area
Steelhead – Klamath Mountains DPS	<i>Oncorhynchus mykiss irideus pop. 1</i>	SSC/--/--	Aquatic; Rivers and perennial and intermittent tributaries. Aquatic. Klamath/North coast flowing waters. Streams between Elk River, Oregon, and the Klamath and Trinity Rivers in California, inclusive.	CNDDDB does not include any occurrences of the steelhead Klamath Mountains Province DPS in Trinity County (CNDDDB 2019). However, Trinity County is within the range of this species.
Steelhead- Summer Run DPS pop. 36	<i>Oncorhynchus mykiss irideus pop. 36</i>	SSC/--/--	Aquatic. Klamath/North coast flowing waters. Sacramento/San Joaquin flowing waters. Northern California coastal streams south to Middle Fork Eel River. Within range of Klamath Mtns province DPS and Northern California DPS. Cool, swift, shallow water and clean loose gravel for spawning, and suitably large pools in which to spend the summer.	Summer-run steelhead trout is known to occur within Trinity County in the Eel, Mad, Trinity, and New Rivers and their tributaries (CNDDDB 2018). This species could occur within suitable aquatic habitat throughout these watersheds. Critical habitat for this species is present within the county
Trinity bristle snail	<i>Monadenia infumata setosa</i>	--/ST/--	Riparian forest. Known only from along a few streams in the Trinity River drainage. Juveniles are found under bark of standing dead broadleaf trees, and the species may require this habitat.	There are several known occurrences of Trinity bristle snail within Shasta-Trinity National Forest associated with various tributaries to the Trinity River (CNDDDB 2018). This species could occur elsewhere in Trinity County within suitable habitat in the Trinity River watershed, including both aquatic and terrestrial habitat.
Suckley’s cuckoo bumble bee	<i>Bombus suckleyi</i>	--/SC/--	Pacific coast from Alaska to far northern California, east to Nebraska. An inquiline in the colonies of other bumblebees. Adult food plant genera include Aster, Centaurea, Cirsium, Trifolium, Chrysothamnus, Helichrysum.	In California, Suckley’s cuckoo bumble bee has a very limited distribution, occurring only in the Klamath Mountain region in the northern part of the state. While the population of this species has declined dramatically, and individuals of the species have not been found recently in Trinity County, it is possible that the species may persist within suitable habitat in the county.

**Table 2
POTENTIALLY OCCURRING SPECIAL-STATUS WILDLIFE SPECIES**

Common Name	Scientific Name	Conservation Status (CDFW/State/Fed)	Habitat Description	Potential to Occur in Project Area
Franklin’s bumble bee	<i>Bombus franklini</i>	--/SC/--	This species has precipitously declined since 1998 and is now found only in southern Oregon and northern California between the Coast and Sierra-Cascade Ranges.	There is one known historic (1969) occurrence of Franklin’s bumble bee in Trinity County, within the Trinity Alps Wilderness (CNDDDB 2019). The historic range of this species in California included only Siskiyou and Trinity Counties (The Xerces Society 2018). While the population of this species has declined dramatically, and individuals of the species have not been found recently in Trinity County, it is possible that the species may persist within suitable habitat in the county.
Crotch bumble bee	<i>Bombus crotchii</i>	--/SC/--	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum.	There are no known occurrences of crotch bumble bee within Trinity County (CNDDDB 2019). This species was once common throughout the southern two-thirds of California but is now largely absent from most of it (The Xerces Society 2018). While the population of this species has declined dramatically, and individuals of the species have not been found recently in Trinity County, it is possible that the species may persist within suitable habitat in the county.
Western bumble bee	<i>Bombus occidentalis</i>	--/SC/--	Found in mixed woodlands, farmlands, urban areas, montane meadows and prairie grasslands often utilizing rodent burrows for nesting habitat	Potential to occur in suitable habitat throughout Trinity County. Mixed woodlands, Rodent burrows

FT: federally listed as threatened; **FE:** federally listed as endangered; **FC:** Candidate for listing; **FD:** Federally delisted **ST:** state listed as threatened **SE:** state listed as endangered **CDFW SSC:** Species of Special Concern; **CDFW FP:** CDFW fully protected; **CDFW WL:** CDFW watch list **CV:** Central Valley **SCE** State Candidate Endangered

Table 3 POTENTIALLY OCCURRING SPECIAL-STATUS PLANT SPECIES				
Common Name	Scientific Name	Conservation Status CA Rare Plant Rank	Habitat Description	Potential to Occur in Project Area
Blushing wild buckwheat	<i>Eriogonum ursinum</i> var. <i>erubescens</i>	1B.3	Perennial herb occurring in chaparral (montane), lower montane coniferous forest, rocky, scree, and talus habitats. Present at elevations between 1600-1900 meters and blooms June-September.	Known to occur: North Lake area No potential to occur as project area is below known elevation range.
Canyon Creek stonecrop	<i>Sedum paradisum</i> ssp. <i>paradisum</i>	1B.3	Perennial herb occurring in broad-leaved upland forest, chaparral, lower montane coniferous forest, subalpine coniferous forest, granitic, and rocky habitats. Present at elevations between 200-2100 meters and blooms between June-July.	Known to occur: Weaverville area Potential to occur: all project areas where the following exist: Broad-leaved Forest, Chaparral, Lower montane coniferous forest, Granitic and Rocky habitats
Engelmann's lomatium	<i>Lomatium engelmannii</i>	4.3	Perennial herb occurring in chaparral, lower and upper montane coniferous forest, serpentinite habitats. Present at elevations between 1150-2300 meters and blooms June-August.	Potential to occur: North Lake project areas where the following exist: Serpentinite microhabitats above 1150 meters within chaparral, lower montane coniferous forest
Howell's lewisia	<i>Lewisia cotyledon</i> var. <i>howellii</i>	3.2	Perennial herb occurring in broad-leaved upland forest, chaparral, cismontane woodland, lower montane coniferous forest, and rocky habitats. Present at elevations between 100-400 meters; blooms April-June.	No potential to occur as project area is above known elevation range.
Indian Valley brodiaea	<i>Brodiaea rosea</i>	3.1	Perennial herb occurring in chaparral, cismontane woodland, closed-cone coniferous forest, valley and foothill grassland, and serpentinite habitats. Present between 335-1450 meters and blooms May-June.	Known to occur in North Lake area. Potential to occur in all project areas where the following exist: Serpentinite microhabitats within chaparral, cismontane woodland, closed-cone coniferous forest, valley and foothill grassland
Northern clarkia	<i>Clarkia borealis</i> ssp. <i>borealis</i>	4.3	Annual herb occurring in chaparral, cismontane woodland, lower montane coniferous forest, and roadsides (often). Present at elevations between 400-800 meters and blooms June-July.	Known to occur: North Lake area Potential to occur: all project areas where the following exist: below 800 meters in chaparral, cismontane woodland, lower montane coniferous forest, and roadsides

Table 3 POTENTIALLY OCCURRING SPECIAL-STATUS PLANT SPECIES				
Common Name	Scientific Name	Conservation Status CA Rare Plant Rank	Habitat Description	Potential to Occur in Project Area
Purdy's fritillary	<i>Fritillaria purdyi</i>	4.3	Perennial herb occurring in chaparral, cismontane woodland, lower montane coniferous forest, and serpentinite habitats. Present at elevations between 400-2100 meters and blooms March-June.	Potential to occur: North Lake project areas where the following exist: Serpentinite microhabitats within chaparral, cismontane woodland, lower montane coniferous forest
Purple-flowered Washington lily	<i>Lilium washingtonianum</i> ssp. <i>purpurascens</i>	4.3	Perennial herb occurring in chaparral, lower montane coniferous forest, upper montane coniferous forest, and serpentinite habitats. Present at elevations between 300-2000 meters and blooms June-August.	Potential to occur: North Lake project areas where the following exist: Serpentinite microhabitats within chaparral, lower montane coniferous forest
Redwood lily	<i>Lilium rubescens</i>	4.2	Perennial herb occurring in broad-leaved upland forest, chaparral, upper and lower montane coniferous forest, North Coast coniferous forest, Roadsides, and Serpentinite habitats. Present at elevations between 30-1800 meters and blooms May-August.	Potential to occur: all project areas where the following exist: Serpentinite and roadside microhabitats within broad-leaved upland forest, chaparral, lower montane coniferous forest
Siskiyou false-hellebore	<i>Veratrum insolitum</i>	4.3	Perennial herb occurring in chaparral, lower montane coniferous forest, and clay habitats. Present at elevations below 900 meters.	Potential to occur: North Lake project areas where the following exist: Clay microhabitats within chaparral, lower montane coniferous forest
Brownish beaked-rush	<i>Rhynchospora capitellata</i>	2B.2	Perennial grass-like herb occurring in lower and upper montane coniferous forest, marshes, swamps, meadows, seeps, and mesic habitats. Present at elevations below 2000 meters and blooms July-August.	Known to occur: North Lake Area Potential to occur: all project areas where the following exist: lower montane coniferous forest, marshes, swamps, meadows, seeps, and mesic habitats
California lady's-slipper	<i>Cypripedium californicum</i>	4.2	Perennial herb occurring in bogs, fens, lower montane coniferous forest, seeps, serpentinite (usually), and Streambank habitats. Present at elevations between 50-2200 meters and blooms April-July.	Potential to occur: all project areas where the following exist: bogs, fens, lower montane coniferous forest, seeps, serpentinite, and Streambank habitats
Clustered lady's-slipper	<i>Cypripedium fasciculatum</i>	4.2	Perennial herb occurring in lower montane coniferous forest, North Coast coniferous forest, seeps (usually), serpentinite (usually), and Streambanks. Present at elevations 100-2000 meters and blooms March-July.	Potential to occur: all project areas where the following exist: seeps (usually), serpentinite (usually), and Streambanks within lower montane coniferous forest

**Table 3
POTENTIALLY OCCURRING SPECIAL-STATUS PLANT SPECIES**

Common Name	Scientific Name	Conservation Status CA Rare Plant Rank	Habitat Description	Potential to Occur in Project Area
Dudley's rush	<i>Juncus dudleyi</i>	2B.3	Perennial grass-like herb occurring in lower montane coniferous forest (mesic). Present at elevations below 2000 meters and blooms July-August.	Known to occur: Weaverville and North Lake areas Potential to occur: all project areas where the following exist: lower montane coniferous forest (mesic)
English Peak greenbrier	<i>Smilax jamesii</i>	4.2	Perennial herb occurring in broad-leaved upland forest, upper and lower montane coniferous forest, marshes and swamps, North Coast coniferous forest, lake margins, mesic (sometimes), and streambank habitats. Present at elevations between 1500-2500 meters and blooms May-July.	Known to occur: all project areas Potential to occur: all project areas where the following exist: broad-leaved forest, lower montane coniferous forest, marshes, swamps, lake margins, mesic (sometimes), and streambank habitats
Geyer's sedge	<i>Carex geyeri</i>	4.2	Perennial grass-like herb occurring in Great Basin scrub, and lower montane coniferous forest. Present at elevations between 900-2100 meters and blooms May-August.	Potential to occur: North Lake project areas where the following exist: lower montane coniferous forest above 900 meters
Glaucous tauschia	<i>Tauschia glauca</i>	4.3	Perennial herb occurring in lower montane coniferous forest (gravelly, serpentinite). Present at elevations between 80-1700 meters and blooms April-June.	Potential to occur: North Lake project areas where the following exist: Gravelly or serpentinite microhabitats within lower montane coniferous forest
Heckner's lewisia	<i>Lewisia cotyledon</i> var. <i>beckneri</i>	1B.2	Perennial herb. Occurs in rocky lower montane coniferous forest. Elevations of 740-6890 feet. Blooms May-July.	Known to occur: All project areas Potential to occur: all project areas where the following exist: rocky lower montane coniferous forest
Kern ceanothus	<i>Ceanothus pinetorum</i>	4.3	Shrub occurring in lower montane coniferous forest, subalpine coniferous forest, upper montane coniferous forest, with Granitic or Rocky microhabitats. Present at elevations between 1050-2750 meters and blooms May-June.	Potential to occur: North Lake project areas where the following exist: Granitic or Rocky microhabitats within lower montane coniferous forest above 1050 meters
Klamath Mountain catchfly	<i>Silene salmonacea</i>	1B.2	Perennial herb occurring in lower montane coniferous forest, and serpentinite (usually) habitats. Present at elevations between 760-1050 meters and blooms in June.	Known to occur: All project areas Potential to occur: all project areas where the following exist: lower montane coniferous forest, and serpentinite habitats

Table 3 POTENTIALLY OCCURRING SPECIAL-STATUS PLANT SPECIES				
Common Name	Scientific Name	Conservation Status CA Rare Plant Rank	Habitat Description	Potential to Occur in Project Area
Mountain lady's-slipper	<i>Cypripedium montanum</i>	4.2	Perennial herb occurring in broad-leaved upland forest, cismontane woodland, lower montane coniferous forest, and North Coast coniferous forest. Present at elevations 200-2200 meters and blooms March-June.	Potential to occur: all project areas where the following exist: broad-leaved upland forest, cismontane woodland, lower montane coniferous forest
Nelson's stringflower	<i>Silene nelsonii</i>	4.3	Perennial herb occurring in cismontane woodland, lower montane coniferous forest, roadsides, and rocky habitats. Present at elevations between 290-1430 meters and blooms April-June.	Potential to occur: Weaverville project area where the following exist: openings, roadsides and rocky microhabitats within cismontane woodland, lower montane coniferous forest
Oregon fireweed	<i>Epilobium oregonum</i>	1B.2	Perennial herb occurring in bogs, fens, upper and lower montane coniferous forest, meadows, seeps, and mesic habitats. Present at elevations between 550-1800 meters and blooms July-August.	Known to occur: North Lake area Potential to occur: all project areas where the following exist: bogs, fens, lower montane coniferous forest, meadows, seeps, and mesic habitats
Pickering's ivesia	<i>Ivesia pickeringii</i>	1B.2	Perennial herb occurring in lower montane coniferous forest, meadows, seeps, clay, mesic, and serpentinite habitats. Present at elevations between 800-1500 meters and blooms July-August.	Known to occur: North Lake Area Potential to occur: all project areas where the following exist: lower montane coniferous forest, meadows, seeps, clay, mesic, and serpentinite habitats
Rattlesnake fern	<i>Botrypus virginianus</i>	2B.2	Perennial herb found in bogs and fens, lower montane coniferous forest, meadows and seeps, and riparian forest. Occurs at elevations of 2345 to 4445 feet. Blooming period June through September.	Known to occur: Weaverville Potential to occur: all project areas where the following exist: bogs, fens, lower montane coniferous forest, meadows, seeps, and riparian forest
Salmon Mountains wakerobin	<i>Trillium ovatum</i> ssp. <i>oettingeri</i>	4.2	Perennial herb occurring in lower and upper montane coniferous forest, and riparian scrub. Present at elevations between 1200-2000 meters and blooms February-April.	Potential to occur: North Lake project areas where the following exist: above 1200 meters in mesic microhabitats within lower montane coniferous forest, and riparian scrub
Scott Mountain bedstraw	<i>Galium serpenticum</i> ssp. <i>scotticum</i>	1B.2	Perennial herb occurring in lower montane coniferous forest (serpentinite). Present at elevations between 1000-2000 meters and blooms June-July.	Potential to occur: North Lake project areas where the following exist: above 1000 meters in serpentinite microhabitats within lower montane coniferous forest

Table 3 POTENTIALLY OCCURRING SPECIAL-STATUS PLANT SPECIES				
Common Name	Scientific Name	Conservation Status CA Rare Plant Rank	Habitat Description	Potential to Occur in Project Area
Scott Mountain howellanthus	<i>Howellanthus dalesianus</i>	4.3	Perennial herb occurring in upper and lower montane coniferous forest, meadows, seeps, subalpine coniferous forest, and serpentinite habitats. Present at elevations between 1500-2000 meters and blooms May-August.	Known to occur: North Lake area No potential to occur as project area is below known elevation range.
Scott Mountains fawn lily	<i>Erythronium citrinum</i> var. <i>roderickii</i>	4.3	Perennial herb occurring in lower montane coniferous forest, rocky (often), and serpentinite habitats. Present at elevations between 850-1300 meters and blooms March-June.	Known to occur: North Lake Area Potential to occur: all project areas where the following exist: lower montane coniferous forest, rocky, and serpentinite habitats
Shasta chaenactis	<i>Chaenactis suffrutescens</i>	1B.3	Perennial herb occurring in upper and lower montane coniferous forest, sandy, and serpentinite habitats. Present at elevations between 700-2300 meters and blooms May-August.	Known to occur: North Lake Area Potential to occur: all project areas where the following exist: lower montane coniferous forest, sandy, and serpentinite habitats
Shasta County arnica	<i>Arnica venosa</i>	4.2	Perennial herb occurring in cismontane woodland, lower montane coniferous forest, disturbed areas (often), and roadsides (often). Present at elevations between 400-1400 meters and blooms May-June.	Potential to occur: North Lake project areas where the following exist: roadsides and disturbed areas within cismontane woodland, lower montane coniferous forest
Silky balsamroot	<i>Balsamorhiza sericea</i>	1B.3	Perennial herb occurring in lower montane coniferous forest (serpentinite). Present at elevations between 400-1800 meters and blooms May-June.	Potential to occur: North Lake project areas where the following exist: serpentinite microhabitats within lower montane coniferous forest
Silverskin lichen	<i>Dermatocarpon meitophyllizum</i>	2B.3	A lichen occurring on submerged rocks or, more commonly, on rocks in the splash zone of stream channels within coastal prairie, upper and lower montane coniferous forest, North Coast coniferous forest, and subalpine coniferous forest habitats. Present at elevations between 61-2300 meters.	Known to occur: North Lake Area Potential to occur: all project areas where the following exist: rocky streams, lower montane coniferous forest
Siskiyou onion	<i>Allium siskiyouense</i>	4.3	Perennial herb occurring in upper and lower montane coniferous forest, Rocky, and Serpentinite habitats. Present at elevations between 900-2500 meters and blooms April-June.	Potential to occur: North Lake project areas where the following exist: above 900 meters in rocky or serpentinite microhabitats within lower montane coniferous forest

Table 3 POTENTIALLY OCCURRING SPECIAL-STATUS PLANT SPECIES				
Common Name	Scientific Name	Conservation Status CA Rare Plant Rank	Habitat Description	Potential to Occur in Project Area
Siskiyou sedge	<i>Carex scabriuscula</i>	4.3	Perennial grass-like herb occurring in upper and lower montane coniferous forest, meadows, seeps, and Mesic habitats. Present at elevations between 850-2300 meters and blooms June-July.	Potential to occur: North Lake project areas where the following exist: above 850 meters in mesic microhabitats within lower montane coniferous forest, meadows, seeps
Thread-leaved beardtongue	<i>Penstemon filiformis</i>	4.2	Perennial herb occurring in cismontane woodland, lower montane coniferous forest, rocky, and serpentinite habitats. Present at elevations between 400-1700 meters and blooms May-July.	Known to occur: All project areas Potential to occur: all project areas where the following exist: cismontane woodland, lower montane coniferous forest, rocky, and serpentinite habitats
Tracy's collomia	<i>Collomia tracyi</i>	4.3	Annual herb occurring in broad-leaved upland forest, lower montane coniferous forest, rocky, and serpentinite (sometimes) habitats. Present at elevations between 30-2100 meters and blooms June-September.	Potential to occur: Weaverville project areas where the following exist: rocky or serpentinite microhabitats within broad-leaved upland forest, lower montane coniferous forest
Tracy's lomatium	<i>Lomatium tracyi</i>	4.3	Perennial herb occurring in upper and lower montane coniferous forest, serpentinite. Present at elevations between 500-1500 meters and blooms May-June.	Potential to occur: North Lake project areas where the following exist: serpentinite microhabitats within lower montane coniferous forest
Wolf's evening-primrose	<i>Oenothera wolfii</i>	1B.1	Perennial herb occurring in coastal bluff scrub, coastal dunes, coastal prairie, lower montane coniferous forest, mesic, and sandy habitats. Present at elevations less than 100 meters or around 800 meters in Trinity County. Blooms in May-October.	Known to occur: North Lake Area Potential to occur: all project areas where the following exist: lower montane coniferous forest, mesic, and sandy habitats
Sawyer's pussy toes	<i>Antennaria sanyeri</i>	1B.2	Perennial herb occurring in north-facing, serpentinite microhabitats within subalpine coniferous forests. Present at elevations between 2075-2430 meters and blooms June-August.	Known to occur: North Lake Area No potential to occur as project area is below known elevation range.
Wilkin's harebell	<i>Campanula wilkinsiana</i>	1B.2	Perennial rhizomatous herb occurring in meadows, seeps, subalpine coniferous forest, and upper montane coniferous forest. Present at elevations between 1270-2600 meters and blooms July-September.	Known to occur: North Lake Area No potential to occur as project area is below known elevation range.

Table 3 POTENTIALLY OCCURRING SPECIAL-STATUS PLANT SPECIES				
Common Name	Scientific Name	Conservation Status CA Rare Plant Rank	Habitat Description	Potential to Occur in Project Area
Scalloped moonwort	<i>Botrychium crenulatum</i>	2B.2	Perennial rhizomatous herb occurring in meadows, seeps, bogs, fens, upper and lower montane coniferous forest, marshes and swamps. Present at elevations between 1268-3280 meters and blooms June-September.	Known to occur: North Lake Area No potential to occur as project area is below known elevation range.
Showy raillardella	<i>Raillardella pringlei</i>	1B.2	Perennial rhizomatous herb occurring in mesic and serpentinite microhabitats within meadows, seeps, bogs, fens, and upper montane coniferous forest. Present at elevations between 1200-2290 meters and blooms July-September.	Known to occur: North Lake Area No potential to occur as project area is below known elevation range.
Bristle-stalked sedge	<i>Carex leptalea</i>	2B.2	Perennial grass-like herb occurring in bogs, fens, marshes, swamps, meadows and seeps. Present at elevations less than 700 meters and blooms June-August.	Known to occur: North Lake Area Potential to occur: all project areas where the following exist: in bogs, fens, marshes, swamps, meadows and seeps
California pitcherplant	<i>Darlingtonia californica</i>	4.2	Perennial carnivorous herb occurring in bogs, fens, meadows, seeps, Mesic, and Serpentine habitats. Present at elevations between 60-2200 meters and blooms April-June.	Potential to occur: North Lake project areas where the following exist: mesic and serpentinite microhabitats within bogs, fens, meadows, seeps
Cascade grass-of-Parnassus	<i>Parnassia cirrata</i> var. <i>intermedia</i>	2B.2	Perennial herb occurring in bogs, fens, meadows, seeps, rocky, and serpentinite habitats. Present at elevations between 700-2900 meters and blooms August-September.	Known to occur: North Lake Area Potential to occur: all project areas where the following exist: bogs, fens, meadows, seeps, rocky, and serpentinite habitats
Water bulrush	<i>Schoenoplectus subterminalis</i>	2B.2	Perennial grass-like herb occurring in bogs, fens, marshes, swamps, meadows and seeps. Present at elevations less than 2300 meters and blooms in summer.	Known to occur: North Lake Area Potential to occur: all project areas where the following exist: bogs, fens, marshes, swamps, meadows and seeps
Regel's rush	<i>Juncus regelii</i>	2B.3	Perennial grass-like rhizomatous herb occurring in meadows, seeps, upper montane coniferous forest, and mesic habitats. Present at elevations between 800-1900 meters and blooms August-September.	Potential to occur: Weaverville project areas where the following exist: above 800 meters in mesic microhabitats within meadows and seeps

Table 3
POTENTIALLY OCCURRING SPECIAL-STATUS PLANT SPECIES

Common Name	Scientific Name	Conservation Status CA Rare Plant Rank	Habitat Description	Potential to Occur in Project Area
Porcupine sedge	<i>Carex hystericina</i>	2B.1	Perennial grass-like herb occurring in marshes and swamps (streambanks). Present at elevations less than 500 meters and blooms May-June.	Known to occur: Weaverville Area Potential to occur: all project areas where the following exist: marshes, swamps, streambanks
White beaked-rush	<i>Rhynchospora alba</i>	2B.2	Perennial grass-like herb occurring in boggy open sites at elevations less than 5250 feet. Blooms in July-August.	Known to occur: North Lake Area Potential to occur: all project areas where the following exist: boggy open sites
Tracy's lupine	<i>Lupinus tracyi</i>	4.3	Perennial herb occurring in upper montane coniferous forest. Present at elevations between 800-2080 meters and blooms May-July.	Potential to occur: North Lake project areas where the following exist: above 800 meters in montane coniferous forest
Engelmann spruce	<i>Picea engelmannii</i>	2B.2	Tree occurring in upper montane coniferous forest between 1200-2100 meters.	Known to occur: North Lake Area No potential to occur as project area is below known elevation range.
Klamath manzanita	<i>Arctostaphylos klamathensis</i>	1B.2	Shrub occurring in rocky outcrops, slopes, and subalpine forest. Present at elevations between 5250-6600 feet and blooms May-July	Known to occur: North Lake Area No potential to occur as project area is below known elevation range.
Jepson's dodder	<i>Cuscuta jepsonii</i>	1B.2	Annual parasitic vine occurring along streambanks in North Coast coniferous forest. Present at elevations between 1200-2300 meters and blooms July-September.	Known to occur: North Lake Area No potential to occur as project area is outside known range and below known elevation range.
California pitcherplant	<i>Darlingtonia californica</i>	4.2	Carnivorous perennial rhizomatous herb occurring in bogs and fens, meadows and seeps, mesic areas, and Serpentinite habitats. Present at elevations of 0-8480 feet and blooms April to August.	Known to occur: North Lake Area

Conclusion of the Mitigated Negative Declaration

ENVIRONMENTAL PERMITS

- Order R5-2017-0061 Waste Discharge Requirements General Order for Discharges Related to Timberland Management Activities for Non-Federal and Federal Lands.
- Timber Harvest Plan (THP) Exemption (Section 1038)
- North Coast Air Quality Management District Non-Standard Burn Permit

MITIGATION MEASURES

In addition to the Best Management Practices (BMPs) implemented during the project, the mitigation measures contained in the Checklist section of this document will be implemented by Trinity County Resource Conservation District to avoid or minimize environmental impacts. Implementation of these mitigation measures will reduce the environmental impacts of the proposed project to a less than significant level.

SUMMARY OF FINDINGS

This IS-MND has been prepared to assess the project's potential effects on the environment and as an appraisal of the significance of those effects. Based on this IS-MND, it has been determined that the proposed project will not have any significant effects on the environment after implementation of mitigation measures. This conclusion is supported by the following findings:

1. The proposed project will have no effect related to agriculture and forest resources, energy, land use and planning, mineral resources, population and housing, public services, recreation, utility and service systems, and wildfire.
2. The proposed project will have a less-than-significant impact on aesthetics, air quality, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise, transportation, and utilities and service systems.
3. Mitigation is required to reduce potentially significant impacts related to biological resources, cultural resources, tribal cultural resources, and mandatory findings of significance.

The Initial Study-Environmental Checklist included in this document discusses the results of resource-specific environmental impact analyses that were conducted by the Department. This initial study revealed that less-than-significant environmental effects could result from the proposed project. TCRCDC has found, in consideration of the entire record, that there is no substantial evidence the proposed project as currently mitigated would result in a significant effect upon the environment. The IS-MND is therefore the appropriate document for CEQA compliance.

INITIAL STUDY-ENVIRONMENTAL CHECKLIST

The environmental factors checked below would be potentially affected by this project involving at least one impact that is a potentially significant impact as indicated by the checklist on the following pages.

Project Title: Trinity County Wildfire Mitigation/Hazardous Fuels Reduction Project

Lead Agency Name and Address: Trinity County Resource Conservation District (TCRCD), P.O. Box 1450, Weaverville, CA 96093

Contact Person & Phone Number:

CAL FIRE Project Manager: Ben Rowe Forester III (530) 225-2432
 Lead Agency: TCRCD, Forest Health Program Coordinator Bethany Llewellyn (530) 623-6004
 Grantee: The McConnell Foundation, Director of Land Management Alex Carter (530) 226-6249
 Document Preparer: VESTRA Resources, Inc., Wendy Johnston, Kristine Cloward, Nicolaas VanOoyen, Anna Prang (530) 223-2585

Project Location: Wildland Urban Interface (WUI) throughout Trinity County (See Figure 1).

Project Sponsor’s Name and Address: The McConnell Foundation, 800 Shasta View Drive, Redding, CA 96003

General Plan Designation: Agricultural (A), Community Expansion (CE), Community Residential (CR), Resource (RE), Rural Residential (RR), and Village (V). See Figures 5A to 5C.

Zoning: Agricultural (A), Agricultural Forest (AF), Duplex Residential District (R2), Highway Commercial (HC), Retail Commercial (C1), Rural Residential 1 Acre min (RR1), Rural Residential 10 Acre min (RR10), Rural Residential 2.5 Acre min (RR2.5), Single Family Res. - High Density (R1), Single Family Res. - Low Density (R1A), Specific Unit Development (SUD), Timber Production Zone (TPZ), and Unclassified (UNC). See Figures 6A to 6C.

Description of Project: Hazardous Fuels Reduction

Surrounding Land Uses and Setting: Multiple land uses adjacent PAAs.

Other public agencies whose approval may be required: NA

Environmental Factors Potentially Affected

<input type="checkbox"/> Aesthetics	<input type="checkbox"/> Greenhouse Gas Emissions	<input type="checkbox"/> Public Services
<input type="checkbox"/> Agriculture Resources	<input type="checkbox"/> Hazards & Hazardous Materials	<input type="checkbox"/> Recreation
<input type="checkbox"/> Air Quality	<input type="checkbox"/> Hydrology and Water Quality	<input type="checkbox"/> Transportation
<input checked="" type="checkbox"/> Biological Resources	<input type="checkbox"/> Land Use and Planning	<input type="checkbox"/> Utilities and Service Systems
<input checked="" type="checkbox"/> Cultural Resources	<input type="checkbox"/> Mineral Resources	<input type="checkbox"/> Wildfire
<input type="checkbox"/> Energy	<input type="checkbox"/> Noise	<input checked="" type="checkbox"/> Mandatory Findings of Significance
<input type="checkbox"/> Geology and Soils	<input type="checkbox"/> Population and Housing	

Determination

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION would be prepared.
- I find that although the proposed project COULD have a significant effect on the environment, there WOULD NOT be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION would be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project COULD have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Name:

Title:

Trinity County Resource Conservation District

Date

Environmental Checklist and Discussion

AESTHETICS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
a) Except as provided in Public Resources Code § 21099, would the project have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) The Trinity County General Plan-Open Space Element identifies the use of “Scenic Conservation Overlay Zone (SC)” so that the “beauty and rural character will not be permanently destroyed and so that the many areas of unusual scenic beauty which are unique in Trinity County and in the United States will be preserved in order to retain its spectacular beauty to the greatest extent possible.” Trinity County Ordinance 315 Section 25 states the following areas are potentially subject to the Scenic Conservation Overlay Zone:

- The areas lying within the 100-year flood plain of the streams and reservoirs designated as public waterways in the County Subdivision Ordinance (Trinity River below Lewiston Dam, North Fork of the Trinity, New River, South Fork of the Trinity, main trunk of the Eel River, North Fork of the Eel River up to Shannon Butte, Middle Fork of the Eel River, Mad River up to Ruth Reservoir, Trinity Lake, Lewiston Lake, Ruth Reservoir, Ewing Reservoir).
- The areas lying adjacent to and within 50 feet of public roads and highways, designated as Scenic Highways by the Board of Supervisors (Trinity Dam Blvd (Rd 105), Rush Creek Road (Rd 204), Canyon Creek Road (Rd 401), and Sky Ranch Road (Rd 412)).
- Other such streams designated in the General Plan as scenic waterways.

These areas which are subject to the overlay are denoted with “SC” appearing after a zone abbreviation of the Sectional District Maps. No parcel included in the project area contains areas meeting the criteria above nor has any parcel been zoned with the SC overlay. The change in vegetation will not be noticeable when viewed from a distance since large healthy trees will be retained with a spacing of 30 feet. Impacts to scenic vistas will not be substantially adverse. **Less-than-significant impact.**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
b) Except as provided in Public Resources Code § 21099, would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

b) The project area does not include officially designated State Scenic Highways. **No impact.**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
c) Except as provided in Public Resources Code § 21099, <u>in non-urbanized areas</u> , would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

c) The project is located in non-urbanized areas. The PAAs are adjacent to public roadways and will be visible to the public. The existing visual character varies for each PAA, but generally consists of rural areas with dense vegetation adjacent to public roadways. The project includes removal of vegetation, small-diameter trees, closely spaced trees, and dead and dying trees. Within the treatment area, trees spaced 30 feet apart will remain and grasses will be retained as feasible for erosion control. The removal of vegetation will result in a change to the existing character of the site which could be noticeable from public areas in close distance to the treatment areas; however, the change will not be substantially different from existing conditions since large-diameter trees will be retained at a spacing of 30 feet. The project will not substantially degrade the existing visual character or quality of public views of the site and the surroundings area, nor would it conflict with zoning or any other regulations governing scenic quality. **Less-than-significant impact.**

d) Except as provided in Public Resources Code § 21099, would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

d) The project does not include the installation or use of any new lighting sources or structures that would be a new source of glare. The project will not create substantial light or glare that would affect day or nighttime views in the area. **No impact.**

AGRICULTURAL RESOURCES

a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) The project area does not contain California Important Farmland as mapped by the California Department of Conservation. Hazardous fuel reduction activities within the project area will not result in the conversion of Farmland to a non-agricultural uses. **No impact.**

b) Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

b) The project does not include land enrolled in a Williamson Act Contract as mapped by the California Department of Conservation California Williamson Act Enrollment Finder. Trinity County is listed as a “non-reporting participant,” as such recent information was not available for Williamson Act enrollments. Public information from 2016 was used to identify parcels with enrollments within the project area. The project will not result in a development or change in use of these lands to non-agricultural uses. **No impact.**

c) Would the project conflict with existing zoning for, or cause rezoning of forest land (as defined in Public Resources Code §12220(g)), timberland (as defined by Public Resources Code §4526), or timberland zoned Timberland Production (as defined by Government Code §51104(g))?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

c) Portions of the project are Zoned Timber Production Zone (TPZ) or Timberland (TZ). None of the landholding within the treatment areas will be rezoned and will remain TPZ or TZ. The project would not result in rezoning of forest land (as defined in Public Resources Code §12220(g)), timberland (as defined by Public Resources Code §4526), or timberland zoned Timberland Production (as defined by Government Code §51104(g)). **No impact.**

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

d) Forested lands are present within the project areas. Approximately 78 percent of the area to be treated includes a forested landscape. The type of forested land included in descending number of acres is Ponderosa Pine, Montane Hardwood, Montane Hardwood-Conifer, and Sierra Mixed Conifer. The project will result in fuel reduction and thinning within the Wildland-Urban Interface (WUI) and will aid in protecting forested lands from wildfire. Forest lands within the project site are included in Figures 12A to 12C of Attachment A. The project will not result in the loss of forest land or conversion of forest land to non-forest uses. **No impact.**

e) Would the project involve other changes in the existing environment, which, due to their location or nature, could result in conversion of farmland to non-agricultural use?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

e) The project does not involve changes in the existing environment which could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use. **No impact.**

AIR QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
a) Would the project conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) The North Coast Air Quality Management District (AQMD) which includes Trinity County is listed as “attainment” or “unclassified” for all the federal and state ambient air quality standards. There is no air quality plan applicable to the project area. The project does not include a permanent source of emissions.

Trinity County Resource Conservation District will have an approved Smoke Management Plan and Non-Standard Burn Permit from the North Coast Air Quality Management District (NCAQMD) for all burning operations which will ensure compliance with all applicable air quality standards.

The project will result in short-term emissions of PM10 and ozone precursors (reactive organic gases (ROG) and nitrogen oxides (NOx)) through mobile sources including equipment, contractor worker trips, and offsite disposal of biomass as feedstock for biomass facilities. Emissions generated from using biomass from the project as fuel for biomass facilities will not exceed the permitted capacity or volume allowed by the applicable permits for each biomass facility. All emissions will be short term in nature. BMPs will be implemented during the project as described under b) below that will minimize ozone emissions generated by vehicles and equipment used during project implementation. **Less-than-significant impact.**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

b) Trinity County is designated as attainment for all federal and state ambient air quality standards. The project will result in minor, short-term emissions of PM10 and ozone precursors (ROG and NOx). The following BMPs which include applicable BMPs contained in the FEMA *Programmatic Environmental Assessment, Recurring Actions in Arizona, California, and Nevada*, will be implemented by the treatment contractor during project activities:

- All exposed unpaved surfaces shall be watered two times per day to limit dust generation.
- All haul trucks transporting soil, chips, or other loose material offsite shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- Monitor dust-generating activities and implement appropriate measures for maximum dust control.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing

the maximum idling time to five minutes.

- Clear signage shall be provided for project workers at all access points.
- All equipment shall be maintained and properly tuned in accordance with manufacturer specifications. All equipment shall be checked by a certified visible emissions evaluator.
- Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District’s phone number shall also be visible to ensure compliance with applicable regulations.
- All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
- Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.
- The idling time of diesel-powered equipment will be minimized to two minutes.
- All equipment, diesel trucks, and generators are required to be equipped with Best Available Control Technology for emission reductions of NOx and PM.
- Monitor dust-generating activities and implement appropriate measures for maximum dust control.
- All equipment used onsite will be California Air Resources Board (CARB) compliant.

The BMPs listed above will minimize emissions of PM10 and ozone precursors generated by the project. Project emissions will be temporary and will cease upon completion of the project. The project will not result in a cumulatively considerable net increase of PM10 or ozone precursors. **Less-than-significant impact.**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
c) Would the project expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

c) BMPs listed in b) above will be implemented for the project to control emissions generated by vehicles and mechanical equipment used for the project. Emissions will also be generated through use of biomass from the project as fuel at biomass facilities. The project will not result in an increase in the permitted capacities or emissions of these facilities. Equipment and vehicles will not generate substantial pollutants and will not be operated in any one location for an extended period of time.

Prior to prescribed burn operations Trinity County Resource Conservation District must submit a Smoke Management Plan to NCAQMD for review and approval. The plan is developed to minimize air quality impacts of the project. Burning is done on approved burn days as determined by NCAQMD. This process ensures that there are not any significant smoke impacts to public health from the project. The project will not expose sensitive receptors to substantial pollutant concentrations. **Less-than-significant impact.**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

d) The project will require equipment that could result in diesel exhaust odors and burning operations which will result in smoke odors. Odor emissions are highly dispersive, and equipment will not be operated in any one location for an extended period of time. In addition, the PAAs are located in rural areas with low population density. BMPs listed in b) above will be implemented by the treatment contractor for the project including limits on equipment idling times that will minimize equipment diesel exhaust emissions. Burning operations will follow burn prescriptions and the smoke management plan which is developed to minimize air quality impacts including odors. The project will not result in odors or other emissions that would adversely affect a substantial number of people. **Less-than-significant-impact.**

BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a) Special-status plant and wildlife species with potential to occur within each PAA are included in Tables 2 and 3. Special-status species with potential to occur within the project area include:

Wildlife Species

- American peregrine falcon (*Falco peregrinus anatum*)
- Bald eagle (*Haliaeetus leucocephalus*)
- Golden eagle (*Aquila chrysaetos*)
- Black swift (*Cypseloides niger*)
- Little willow flycatcher (*Empidonax traillii*)
- Northern goshawk (*Accipiter gentilis*)
- Northern spotted owl (*Strix occidentalis caurina*)
- Osprey (*Pandion haliaetus*)
- Olive-sided flycatcher (*Contopus cooperi*)
- White-tailed kite (*Elanus leucurus*)
- Yellow warbler (*Setophaga petechia*)
- Yellow-breasted chat (*Icteria virens*)
- American badger (*Taxidea taxus*)
- Fisher (*Pekania pennanti*)
- Gray wolf (*Canis lupus*)

- Humboldt marten (*Martes caurina humboldtensis*)
- Roosevelt elk (*Cervus canadensis roosevelti*)
- Oregon snowshoe hare (*Lepus americanus klamathensis*)
- Pallid bat (*Antrozous pallidus*)
- Sierra Nevada red fox-southern Cascades DPS (*Vulpes necator*)
- Sonoma tree vole (*Arborimus pomo*)
- Townsend's big-eared bat (*Corynorhinus townsendii*)
- Wolverine (*Gulo gulo*)
- Cascades frog (*Rana cascadae*)
- Foothill yellow-legged frog (*Rana boylei*)
- Oregon spotted frog (*Rana pretiosa*)
- Pacific tailed frog (*Ascaphus truei*)
- Western pond turtle (*Emys marmorata*)
- Chinook Salmon Upper Klamath and Trinity River ESU (*Oncorhynchus tshawytscha* pop.30)
- Coho salmon (*Oncorhynchus kisutch*)
- Pacific lamprey (*Entosphenus tridentatus*)
- Klamath River lamprey (*Entosphenus similis*)
- Steelhead Klamath Mountains DPS (*Oncorhynchus mykiss irideus* pop. 1)
- Steelhead Summer Run DPS (*Oncorhynchus mykiss irideus* pop. 36)
- Monarch butterfly (*Danaus plexippus*)
- Western bumble bee (*Bombus occidentalis*)
- Suckley's cuckoo bumble bee (*Bombus suckleyi*)
- Franklin's bumble bee (*Bombus franklini*)
- Crotch bumble bee (*Bombus crotchii*)
- Southern long-toed salamander (*Ambystoma macrodactylum sigillatum*)
- Western pond turtle (*Emys marmorata*)

Plant Species

- Blushing wild buckwheat (*Eriogonum ursinum* var. *erubescens*)
- Canyon Creek stonecrop (*Sedum paradisum* ssp. *paradisum*)
- Engelmann's lomatium (*Lomatium engelmannii*)
- Indian Valley brodiaea (*Brodiaea rosea*)
- Northern clarkia (*borealis* ssp. *borealis*)
- Purdy's fritillary (*Fritillaria purdyi*)
- Purple-flowered Washington lily (*Lilium washingtonianum* ssp. *purpurascens*)
- Redwood lily (*Lilium rubescens*)
- Siskiyou false-hellebore (*Veratrum insolitum*)
- Brownish beaked-rush (*Rhynchospora capitellata*)
- California lady's-slipper (*Cypripedium californicum*)
- Clustered lady's-slipper (*Cypripedium fasciculatum*)
- Dudley's rush (*Juncus dudleyi*)
- English Peak greenbrier (*Smilax jamesii*)
- Geyer's sedge (*Carex geyeri*)
- Glaucous tauschia (*Tauschia glauca*)

- Heckner's lewisia (*Lewisia cotyledon* var. *heckneri*)
- Kern ceanothus (*Ceanothus pinetorum*)
- Klamath Mountain catchfly (*Silene salmonacea*)
- Mountain lady's-slipper (*Cypripedium montanum*)
- Nelson's stringflower (*Silene nelsonii*)
- Oregon fireweed (*Epilobium oreganum*)
- Pickering's ivesia (*Ivesia pickeringii*)
- Rattlesnake fern (*Botrypus virginianus*)
- Salmon Mountains wakerobin (*Trillium ovatum* ssp. *oettingeri*)
- Scott Mountain bedstraw (*Galium serpenticum* ssp. *scotticum*)
- Scott Mountain phacelia (*Howellanthus dalesianus*)
- Scott Mountains fawn lily (*Erythronium citrinum* var. *roderickii*)
- Shasta chaenactis (*Chaenactis suffrutescens*)
- Shasta County arnica (*Arnica venosa*)
- Silky balsamroot (*Balsamorhiza sericea*)
- Silverskin lichen (*Dermatocarpon meiohyllizum*)
- Siskiyou onion (*Allium siskiyouense*)
- Siskiyou sedge (*Carex scabriuscula*)
- Thread-leaved beardtongue (*Penstemon filiformis*)
- Tracy's collomia (*Collomia tracyi*)
- Tracy's lomatium (*Lomatium tracyi*)
- Wolf's evening-primrose (*Oenothera wolffii*)
- Sawyer's pussy toes (*Antennaria sawyeri*)
- Wilkin's harebell (*Campanula wilkinsiana*)
- Scalloped moonwort (*Botrychium crenulatum*)
- Showy raillardella (*Raillardella pringlei*)
- Bristle-stalked sedge (*Carex leptalea*)
- California pitcherplant (*Darlingtonia californica*)
- Cascade grass-of-Parnassus (*Parnassia cirrata* var. *intermedia*)
- Water bulrush (*Schoenoplectus subterminalis*)
- Regel's rush (*Juncus regelii*)
- Porcupine sedge (*Carex hystericina*)
- White beaked-rush (*Rhynchospora alba*)
- Tracy's lupine (*Lupinus tracyi*)
- Engelmann spruce (*Picea engelmannii*)
- Klamath manzanita (*Arctostaphylos klamathensis*)
- Jepson's dodder (*Cuscuta jepsonii*)
- California pitcher plant (*Darlingtonia californica*)

The following BMPs, including applicable BMPs contained within the *Final Programmatic EIR for Recurring Actions in Arizona, California, and Nevada*, will be implemented prior to and during project implementation by the qualified biologist and treatment contractor to minimize impacts to special-status species, raptors, and migratory birds during implementation of the project:

Special-Status Species

- Operations will generally occur during the dry season (April 15 to October 15).
- No more than two days prior to the start of ground-disturbing activities, focused pretreatment surveys for special-status species will be completed by a USFWS/CDFW-approved biologist in all suitable upland dispersal habitat areas if special-status species have been previously identified in the area.
- If special-status species are found during focused pretreatment surveys, the USFWS/CDFW will be contacted within one working day, and a suitable protocol shall be approved by USFWS/CDFW for relocation before treatment activities may begin.
- Exclusion fencing such as Ertec E-fence™ or an equivalent will be installed around special-status species habitat prior to any operations during the dry season (April 1 through October 15), when special-status species are not actively dispersing or foraging. The fencing will remain in place until all project activities in the vicinity of suitable upland dispersal habitat are completed.
- To prevent special-status species from becoming entangled or trapped in erosion control materials, plastic monofilament netting (erosion control matting) or similar material will not be used for erosion control. Acceptable substitutes include coconut coir matting or tackified hydroseeding compounds.
- Prior to any treatment where special-status species have been detected, a USFWS/CDFW-qualified biologist will conduct an education program for project personnel. At a minimum, the training will include a description of special-status species and their habitats; the potential occurrence of these species in the project area; the measures to be implemented to conserve listed species and their habitats as they relate to the work site; and boundaries in which treatment may occur. A fact sheet conveying this information will be prepared and distributed to all treatment crews and project personnel entering the project area. Upon completion of the program, personnel will sign a form stating that they attended the program and understand all of the avoidance and minimization measures for the special-status species.
- Measures to minimize the spread of disease and non-native species based on current Wildlife Agency protocols and other best available science will be implemented.

Raptors

Pretreatment surveys for raptors, other special-status birds, and appropriate nesting habitat will be conducted within 50 feet of the treatment area no more than three days prior to ground-disturbing activities. If an active nest is found, CDFW will be consulted to determine the appropriate buffer area to be established around the nesting site and the type of buffer to be used, which typically is ESA fencing. If establishment of a buffer is not feasible, the appropriate agency will be contacted for further avoidance and minimization guidelines.

- A qualified biologist will conduct weekly monitoring during operations, to evaluate the identified nest for potential disturbances associated with project activities. treatment within the buffer is prohibited until the qualified biologist determines the nest is no longer active.
- If an active nest is found after operations begins, project activities in the vicinity of the nest will stop until a qualified biologist has evaluated the nest and established the appropriate buffer around the nest. If establishment of the buffer is not feasible, the appropriate agency will be contacted for further avoidance and minimization guidelines.

Migratory Birds

The measures below will be implemented for project activities during the nesting season (February 15

through August 31).

- A qualified biologist will conduct pretreatment surveys for nesting migratory birds in the project area no more than three days prior to the start of ground disturbing activities. If pretreatment surveys indicate the presence of any migratory bird nests where activities would directly result in bird injury or death, a buffer zone of 50 feet will be placed around the nest.
- Buffers will be established around active migratory bird nests where project activities would directly result in bird injury or death. The size of the buffer may vary for different species and will be determined in coordination with the responsible agency. A qualified biologist will delineate the buffer using ESA fencing, pin flags, and/or yellow caution tape.
- Buffer zones will be maintained around all active nest sites until the young have fledged and are foraging independently. In the event that an active nest is found after the completion of pretreatment surveys and after treatment begins, all project activities within a 50-foot radius will be stopped until a qualified biologist has evaluated the nest and erected the appropriate buffer around it.
- If an active nest is found in an area after treatment begins, project activities in the vicinity of the nest will stop until a qualified biologist has evaluated the nest and established the appropriate buffer around the nest. If establishment of the buffer is not feasible, the responsible agency will be contacted for further avoidance and minimization guidelines.

Water Resources

- No work will occur within 50 feet of a wetland or waterbody.
- Never wash down pavement or surfaces where materials have spilled. Use dry cleanup methods whenever possible.
- Keep materials out of the rain — prevent runoff pollution at the source. Schedule clearing or heavy earth-moving activities for periods of dry weather. Cover exposed piles of soil, project materials, and wastes with plastic sheeting or temporary roofs. Before it rains, sweep and remove materials from surfaces that drain to storm drains, creeks, or channels.
- Prior to treatment, wetlands located in the project area will be fenced off using flagging or excluded on a geofenced map. Appropriate erosion control measures will be used to reduce siltation and runoff of contaminants into wetlands and adjacent, ponds, streams, or riparian woodland/scrub. The contractor will not stockpile brush, loose soils, or other debris material on stream banks.
- Native plant species should be used in erosion control or revegetation seed mix. Any hydroseed mulch used for revegetation must also be certified weed-free. Dry-farmed straw will not be used, and certified weed-free straw will be required where erosion control straw is to be used. Filter fences and mesh will be of material that will not entrap reptiles and amphibians. Erosion-control measures will be placed between water or wetland and the outer edge of the project site.
- All off-road equipment will be cleaned of potential noxious weed sources (mud, vegetation) before entry into the project area. Equipment will be considered free of soil, seeds, and other such debris when a visual inspection does not disclose such material. Disassembly of equipment components or specialized inspection tools is not required.
- Equipment storage, fueling, and staging areas will be pre-sited to minimize risk to sensitive areas.
- All temporarily disturbed areas, such as staging areas, will be returned to pre-project or

ecologically improved conditions as required by responsible agencies.

Direct impacts of habitat modification could include disturbance to individual animals from heavy equipment use and tree removal. Implementation of the FEMA BMPs and mitigation measures for special-status species and migratory birds will ensure project direct impacts to special-status and migratory birds are **less than significant**.

The project will result in habitat modification to special-status species through the removal of shrubs, branches, small trees and dead or dying trees within 100 to 400 feet of the roadways. Vegetation removal treatments will create bands of reduced canopy cover and biodiversity of shrubs and ground cover, except for avoidance areas for special-status plants and sensitive vegetation communities. While the project will result in removal of vegetation within the project area, the surrounding land outside of the project treatment areas will remain undisturbed. This land can provide shelter and food for wildlife species dependent on snags, shrubs, and smaller trees for foraging, roosting, and dispersal. The project area does not cover a significant portion of any one species' range; therefore, the habitat modification within the project area does not significantly reduce habitat for a species.

Interruptions in the continuous forest canopy can create barriers to migration corridors for wildlife. The project area is concentrated around highways and developed areas due to the nature of the project. The reduced forest canopy within the project areas is **less than significant** due to the existing presence of roads and structures that already present barriers on a landscape level.

The habitat modifications would have beneficial impacts for certain species. Wildlife has been shown to select areas where forest thinning has occurred, including (*Odocoileus* spp.), elk (*Cervus canadensis*), and small mammals that provide foraging opportunities for raptors and carnivorous mammals (USDA 2006). With implementation of FEMA BMPs and **Mitigation Measures 4, 6, 7, and 8**, habitat modification impacts to special-status wildlife will be **less than significant**.

Project activities will not occur within 75 feet of perennial streams or within 50 feet of a wetland or other waterbody per FEMA BMPs and **Mitigation Measure 2**, therefore project activities will not result in habitat impacts to streams or riparian corridors. Additional BMPs to protect water quality are included in the project design (see FEMA BMPs). With incorporation of water quality BMPs and stream buffers, and implementation of **Mitigation Measure 13** in the Hydrology and Water Quality Section of this document, project impacts to special-status fish species will be **less than significant**.

Spotted owls typically inhabit mature forests with a mixed canopy comprised of conifer and oak species. Older forest stands with vertical canopy layering provides shelter from weather events, higher prey density, and aids in predator avoidance (Sovern et al., 2019). The oak canopy layer provides roost and perch structures that aid foraging activities while conifers are utilized for nesting. NSO utilize trees with specific physical characteristics that make them higher quality nest sites (i.e., broken tops and large cavities).

Habitat removal poses a two-fold threat to spotted owl populations. High quality habitat sites are limited, and the degradation of existing sites can limit successful foraging and reproduction. Further, barred owls have similar habitat requirements and compete for preferential sites. Barred owls are larger and more aggressive than spotted owls, and if habitat reduction forces them together, spotted owls may be driven to low quality sites, injured, or killed. To limit these threats to NSO populations, **Mitigation Measure 8** will be implemented. Spotted owls show high fidelity to historical activity

centers, so protocol-level surveys where NSO have been previously observed will determine stand occupancy and allow the establishment of buffers against habitat removal such that the impact to northern spotted owls be **less than significant**.

Large terrestrial mammals such as the American badger, wolverine, and fisher utilize large tracts of land for dispersal and foraging. The removal of small pockets of vegetation relative to their typical range is unlikely to cause adverse impact unless a den occurs in the project area. Den structures vary widely by species. For example, American badgers utilize a network of tunnels, fishers den within tree cavities and in rock crevices in the winter, and wolverines den in complex snow tunnels or trees and boulders with at least 1 meter of snow (Magoun & Copeland 1998). Typically, denning occurs in the winter and early spring until young can disperse. A qualified biologist will survey the project site during preliminary site assessments and, if any potential den structures are identified, Mitigation Measure 8 will be implemented. With the implementation of **Mitigation Measure 7**, there will be a **less-than-significant impact** to sensitive species of terrestrial mammals.

Bats use a variety of different roosts throughout the year according to their life cycle. The roost structure utilized depends on the type of roost. Typically, hibernation and maternity roosts are found within permanent structures such as caves, bridges, mines, and buildings. Feeding perches and day/night roosts are more temporary and trees are utilized. While the project activities are unlikely to directly disturb permanent structures, tree removal around maternity and hibernation roosts may impact temperature conditions and the noise may cause a disturbance. Individual bats roosting in trees could be harmed if the tree is removed, or the vegetation around it is treated. Additionally, nocturnal foraging may be disrupted by bright artificial lighting. In order to ensure that sensitive bat species will not be impacted as a result of project activities, additional Mitigation Measures will be included in the project plan. With the implementation of **Mitigation Measures 4 through 6**, the impact to bat species will be **less than significant**.

Due to the BMPs and mitigation measures in place concerning watercourses and wetlands, special-status amphibians and reptiles would not be impacted while they inhabit the aquatic environment. Foothill yellow-legged frogs have the potential to disperse in streams up to 7 kilometers from their breeding grounds but remain in the lotic aquatic environment (Hayes et al. 2016). Western pond turtles have the potential to be impacted through habitat modification of their nest sites. Pond turtles often nest along sandy banks of rivers, but they have also been known to move a considerable distance (over 250 feet) away from streams to find a suitable nest site (CDFW 2000). The nest sites that may occur outside of buffers are at the greatest risk of being impacted by project activities. To preserve pond turtle nest sites, **Mitigation Measure 3** will be included in the project plan. With the implementation of mitigation measures, there will be **no impact** to special-status reptiles or amphibians.

Monarch butterfly larvae are dependent on native milkweeds to complete the early development portion their life cycles. Monarch caterpillars can only feed on milkweed, so they are essential for reproduction. Given that the young of monarchs reside on milkweed, removal of these plants may result in direct harm or mortality of these species. Even if no occupation is observed, removal of these plant species reduces habitat that is essential to the monarch life cycle. With the implementation of **Mitigation Measures 1 and 9**, the impact to the monarch butterfly will be **less than significant**.

In summary, project impacts to special-status plant species and migratory birds will be less than significant because the project BMPs include measures to identify and avoid these resources. Impacts to mammal, amphibian and reptile species present within the treatment areas during project

implementation are **less than significant with the implementation of Mitigation Measures 1 through 9** in addition to the BMPs included in the project design.

The purpose of the project is to prevent catastrophic wildfire, which could prevent direct and indirect negative impacts to wildlife and aquatic resources. Indirect impacts from severe wildfires to biological resources are far-reaching and can include significant habitat loss, reduced forage/prey availability, poor water quality, and more. Wildfires in proximity to residential areas have added risk due to the potential contaminants to soil and aquatic resources that can result from burned structures and vehicles. The project would minimize the risk of severe wildfire impacts to wildlife and biological resources.

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

b) Sensitive natural communities would be avoided through implementation of Mitigation Measures 1 and 3. The project does not include biomass removal or other treatment activities within 75 feet of perennial streams and wetlands or within 50 feet of ephemeral and intermittent streams per **Mitigation Measure 3**. In addition, hydrology and water quality BMPs (listed in the Hydrology and Water Quality section of this document) will be implemented for the project. Due to the floristic nature of botanical surveys, comprehensive plant lists will be generated; these will be compared to CDFW’s list of Sensitive Natural Communities. Impacts to sensitive natural communities will be **less than significant** with implementation of **Mitigation Measure 1**.

c) Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

c) **With implementation of project BMPs listed above**, the project will not affect any federally protected wetlands. See b). **No impact.**

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

d) Project activities will occur in areas with existing human presence and disturbance (adjacent to roadways and residential land uses). Project activities could temporarily deter wildlife movement through the project area. Activities will not occur in any single location for an extended period and opportunities will be available for wildlife to move through adjacent undeveloped areas outside of the active treatment area while treatment activities occur.

The project will include removal of shrubs, small trees, densely spaced trees, and dead and dying trees within the treatment areas, but abundant habitat is available in areas adjacent to the project site. As discussed under a) above, BMPs will be implemented to avoid impacts to nesting birds in the project vicinity. In addition, the project will not include activities within 75 feet of perennial streams or wetlands or 50 feet of ephemeral and intermittent streams. Any nursery sites, such as mammal dens, milkweed (host to Monarch butterfly larvae), bird nests, bat roosts would be minimized through implementation of the mitigation measures listed under a).

The project would not substantially interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. **Less-than-significant impact.**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

e) Trinity County does not have a tree preservation policy or ordinance. The project does not conflict with any local policies or ordinances protecting biological resources or tree preservation policy/ordinance. **No impact.**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

f) The Marble Mountains Elk Management Unit (Unit) includes parts of Humboldt, Siskiyou, Trinity, Shasta and Tehama counties and spans approximately 4.5 million acres. The project areas are included in this Unit. The Unit is within the North Coast and Klamath, Cascades, and Modoc Plateau Provinces CDFW Elk Conservation and Management Plan (CDFW 2018). CDFW began reintroductions in 1985 (Galea 1987) and has since released over 250 Roosevelt elk at multiple sites within the Unit. Elk now reoccupy portions of the Unit and the population is estimated at approximately 3,000 individuals.

No Roosevelt Elk have been documented within the project area. The tendency for elk to disperse, individually or in small groups, beyond core distribution areas in northern California has been documented. Harn (1958) and Harper et al. (1967) reported elk observations in portions of Del Norte and Humboldt counties as well as in Siskiyou and Trinity counties. The ability of elk to travel significant distances was demonstrated when, over a two-week period in 2001, elk monitored by

CDFW traveled approximately 120 miles (point-to-point distance) from Montague (Siskiyou County) to Madeline (Modoc County).

Enhancing early seral vegetation is critical to increasing elk populations. Disturbances such as fire or habitat improvement projects within forested communities promotes a mix of habitat types and successional stages, including forest openings and meadows that benefit elk (CDFW 2018). Deer and elk have been shown to select areas where forest thinning has occurred when adjacent areas remain with a variety of dense vegetation (USDA 2006). Thinning would occur within the project areas, and adjacent forested areas outside of the project areas would remain with dense vegetation. Therefore, project treatments would not conflict with goals of the Elk Conservation and Management Plan as treatments align with the Plan's goals for Roosevelt Elk management and would provide benefits to elk habitat suitability within the project areas. **Less than significant.**

Mitigation Measures

Mitigation Measure 1: Pre-Treatment Botanical Surveys

As part of the preliminary site assessment conducted on each eligible parcel, potential habitat for special-status plants with potential occur within the treatment area will be identified along with species included in any sensitive natural communities. If potential habitat for special-status plants or sensitive natural communities are identified, protocol-level surveys of the eligible parcels shall be conducted by a qualified biologist during the flowering window for special-status plant species with potential to occur within the treatment area. Surveys shall comply with survey protocols for plants species listed under the CDFW *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (2018). If no special-status plants or communities are found, no further measures pertaining to special-status plants are necessary. If special-status plant species or communities are identified during the botanical surveys, disturbance will be avoided. The treatment prescription (TP) for the parcel will be modified to exclude activities within 25 feet of the individual and exclusionary fencing will be placed around the plants prior to operations on the parcel to establish the avoidance area during project implementation.

Mitigation Measure 2: Riparian and Wetland Identification and Exclusion

During the preliminary site assessment of each parcel, eligible parcels will be surveyed for aquatic resources. The treatment prescription for the parcel will exclude activities within 75 feet of perennial streams and wetlands and within 50 feet of ephemeral and intermittent streams. The exclusion area will be marked with flagging or excluded on a geofenced map. Biomass removal, equipment staging, operation of mechanical equipment, and on-site disposal of removed biomass shall not occur within the marked buffers.

Mitigation Measure 3: Surveys for Special-Status Amphibians and Reptiles

During the preliminary site assessment of each eligible parcel, work areas within 150 feet of flowing watercourses will be evaluated to determine if suitable upland dispersal habitat for special-status amphibians or reptiles is present. If no potential suitable upland dispersal habitat is identified, no further action is required. If suitable upland habitat is identified, no more than two days prior to the start of ground-disturbing activities, focused pretreatment surveys for special-status amphibians and reptiles will be completed by a qualified biologist in all suitable upland dispersal habitat areas within 150 feet of flowing watercourses. If a special-status species is found, USFWS/CDFW will be contacted within one working day, and a suitable protocol shall be approved by USFWS/CDFW for

relocation before treatment activities may begin.. If a western pond turtle nest is found, CDFW shall be notified, and an appropriate avoidance buffer shall be implemented. Flagging shall be installed to demarcate the nest only if it can be performed without disturbing the nest.

Mitigation Measure 4: Bat Roost Humane Exclusion

During the preliminary site assessment of eligible parcels, trees with maternity roost structures (i.e. cavities in the trunk or branches, woodpecker holes, loose bark, cracks) will be identified. If no trees with maternity roost structures are identified, no further measures are necessary. If removal of trees identified to have bat roost structure occurs from September 1 to October 30, no measures for special-status bats are required.

If removal of trees identified to have bat roost structure potential will occur during the bat maternity season, when young are non-volant (March 1- August 31), or during the bat hibernacula (November 1-March 1) when bats have limited ability to safely relocate roosts, humane exclusions should be implemented. Humane exclusions consist of a two-day removal process by which the surrounding non-habitat trees and brush are removed along with smaller tree limbs on the first day. The remainder of the tree limbs and the tree trunks are removed on the second day.

Mitigation Measure 5: Artificial Lighting Standards

To minimize impacts of lighting to birds and other nocturnal species, any artificial lighting associated with short-term and long-term project activities should be downward facing, fully shielded, and designed and installed to minimize photo-pollution of adjacent wildlife habitat.

Mitigation Measure 6: Bat Roost Habitat Avoidance

During the preliminary site assessment of each eligible parcel, the presence of caves or bridges within the treatment area will be noted. If no caves or bridges are located within the project area, no further measures are necessary. If present within 50 feet of project activities, caves and bridges in the project area will be assessed for potential bat roost structures (crevice roosts tend to measure approximately 3/4 to 1-1/2 inches across and at least 18 inches deep; in most cases, they run from one side of the bridge to the other, and between three and several hundred meters above ground). If found, a qualified biologist will assess the structure for signs of bat presence (e.g. guano, insect pieces, etc.). If no roost is present, then no buffer is needed. If a roost is present, then a 50-foot non-disturbance buffer around the structure shall be implemented to prevent changes to the thermal stability and protective cover surrounding the site that could result from tree removal.

Mitigation Measure 7: Mammal Den Surveys

During the preliminary site assessment of each eligible parcel, the project area will be evaluated for suitable mammal den habitat. If potential den habitat is identified, pretreatment surveys shall be completed within three days prior to ground-disturbing activities to determine if any terrestrial mammal den structures are present within the work area. If potential dens are located within the work area and cannot be avoided during project activities, a qualified biologist will determine if the dens are occupied. If occupied dens are present within the work area, their disturbance and destruction will be avoided by stopping operations until an appropriate buffer is approved by CDFW or USFWS.

Mitigation Measure 8: NSO Surveys

Surveys will be completed in areas where NSO have been previously identified. Where the project area falls within any 1.3-mile activity center buffer, operations will take place outside of nesting season (March – August) or after surveys confirm no presence. The treatment prescription will also be

modified to leave all trees >20 inches DBH or larger un-cut trees within a half-mile of the confirmed activity center. To promote a diverse canopy that supports NSO roosting and foraging, some mature oaks will also be retained at the discretion of the landowner.

Mitigation Measure 9: Native Milkweed Buffer

Surveys will be completed concurrently with the botanical survey period to determine if native milkweed (*Asclepias* sp.) are present within work areas. If milkweed is identified onsite, disturbance to the plant would be avoided by implementing a 25-foot buffer around identified individuals.

CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a) The following best management practice included in the FEMA Final Programmatic EIR for Recurring Actions in Arizona, California, and Nevada will be implemented for the project.

- In the event that any prehistoric or historic subsurface cultural resources, as defined by the responsible agency, are discovered during ground disturbing activities all work within 50 feet of the resources shall be halted and the project applicant should consult with a qualified archaeologist or paleontologist to assess the significance of the find. If any find is determined to be significant, representatives of the proponent and qualified archaeologist would meet to determine the appropriate course of action. All significant cultural materials recovered shall be subjected to scientific analysis, professional museum curation, and a report prepared by the qualified archaeologist according to current professional standards

Project activities could result in a substantial adverse change in the significance of a cultural resources. In addition to the BMP included above, **Mitigation Measure 10** will be implemented to ensure the project does not result in substantial adverse effects to cultural resources within the project area. Impacts to cultural resources will be **less than significant with mitigation implementation**.

Mitigation Measures

Mitigation Measure 10: Archaeological Review

During the Preliminary Site Assessment (PSA) for each eligible parcel, record searches and literature review will be conducted as well as pedestrian surveys in areas with potential to contain cultural resources by a qualified archaeologist. The results and management recommendations for the project will be presented in a report and submitted to Trinity County Resource Conservation District and FEMA recommendations could include avoidance of sites eligible for listing on the California Register of Historic Resources (CRHR) through implementation of a 50-foot buffer around the site boundary or modification of treatment (use of hand tools and exclusion of equipment) for areas where vegetation removal may be beneficial to site preservation. The recommended buffers or modified treatment (Special Treatment Zone (STZ)) will be included in the treatment prescription (TP) for the parcel and buffers around known cultural resources will be marked with exclusionary flagging or excluded on a geofenced map prior to project implementation. In addition, recommendations for

unanticipated discovery of cultural resources and human remains included in the report will be implemented for the project.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

b) See discussion to a) above. Best management practices during project implementation and implementation of **Mitigation Measure 10** will ensure the project will not cause a substantial adverse change to the significance of an archaeological resource. **Less-than-significant impact with mitigation.**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
c) Would the project disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

c) The project does not include excavation activities and is not anticipated to disturb human remains. In the unlikely event of discovery of human remains, the following BMP contained in the FEMA Final Programmatic EIR for Recurring Actions in Arizona, California, and Nevada will be implemented for the project follows:

- There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:
 - The Coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required, and
 - If the coroner determines the remains to be Native American:
 - The coroner shall contact the responsible agency within 24 hours.
 - The responsible agency shall identify the person or persons it believes to be the most likely descended from the deceased Native American.
- The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods.

In addition to the BMP listed above, measures included in the report prepared by the qualified archeologist for unanticipated discovery of human remains will be implemented. Impacts related to disturbance of human remains will be less than significant with implementation of the BMP above as well as **Mitigation Measure 10. Less than significant with mitigation incorporation.**

ENERGY

a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) The project will not result in wasteful or inefficient consumption of energy. The project will require temporary consumption of energy resources (diesel fuel and gasoline) for equipment used for biomass removal and off-site disposal of biomass. Compliance with state, federal, and local regulations (limiting engine idling times, etc.) will reduce and/or minimize short-term energy demand during the project to the extent feasible and would not result in wasteful or inefficient use of energy. **No impact.**

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

b) Trinity County does not currently have a renewable energy or energy efficiency plan. The majority of biomass removed and disposed off-site will be used as fuel for biomass plants. The project will provide a source of renewable energy (biomass) which is consistent with the Safety Element of the Trinity County General Plan See a) above. **No impact.**

GEOLOGY AND SOILS

a) Would the project directly or indirectly cause potential substantial adverse effects, including risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) Alquist-Priolo earthquake fault zones are not mapped near the project area (DOC 2022). The project does not include permanent development or additional permanent occupancy within the project area. The project will not increase the risk of loss, injury or death involving rupture of a known earthquake fault. **No impact.**

b) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

b) According to the Trinity County General Plan Safety Element, Trinity County is not listed as being affected by potentially active faults, therefore does not have a relatively high potential for ground rupture (Trinity County, 2014). The project does not include construction of structures or permanent occupancy within the project site. The project will not result in the risk of loss, injury or death involving seismic ground shaking. **No impact.**

c) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

c) The project site is not within a mapped Liquefaction Zone where liquefaction may occur during a strong earthquake (California State Geoportal 2022). The Trinity County General Plan or other local plans do not address liquefaction risk within the county. The project does not include activities in areas where liquefaction is likely to occur and does not include permanent occupancy or construction of structures within the project area, therefore it will not result in the risk of loss, injury or death from seismic-related ground failure. **No impact.**

d) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

d) According to the Trinity County General Plan Safety Element, landslides are likely to occur in areas with: a slope greater than 15 percent, where landslide activity has occurred during the last 10,000 years, where stream or wave activity has caused erosion, undercut a bank or cut into a bank to cause the surrounding land to be unstable, where there is presence or potential for snow avalanches, the presence of an alluvial fan, which indicates vulnerability to the flow of debris or sediments, or the presence of impermeable soils, such as silt or clay, which are mixed with granular soils such as sand and gravel. Areas of potential landslides are located throughout the County (Trinity County 2014). The project does include activities in areas where landslides may occur. The project does not include work in areas with slopes greater than 65 percent or on slopes greater than 50 percent with high or extreme erosion hazard rating, therefore the project is not anticipated to increase the risk of landslides or expose the treatment contractor to landslide risks. **Less-than-significant impact.**

e) Would the project result in substantial soil erosion or the loss of topsoil?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

e) The project could result in erosion within the treatment areas resulting from disturbance from mechanical equipment and removal of vegetation. As discussed in the project description, no work

will be conducted in areas on slopes greater than 65 percent or on slopes greater than 50 percent with high or extreme erosion hazard rating. BMPs including applicable measures contained in the FEMA Programmatic Environmental Assessment, *Recurring Actions in Arizona, California, and Nevada* (December 2014), will be implemented for the project by the treatment contractor to reduce the potential for erosion impacts. BMPs include:

- Highly erosive soils will be identified in the field by the contractor and applicable controls applied per RWQCB guidance (Order R5-2017-0061).
- Delineate clearing limits, easements, setbacks, sensitive or critical areas, trees, and buffer zones to prevent excessive or unnecessary disturbances and exposure.
- Avoid excavation and soil disturbance during wet weather. It is unlikely that operations will be limited during the winter season. This will be determined on a case-by-case basis by the contractor and Trinity County Resource Conservation District project manager.
- Use standard erosion control features such as hydro-seeding, wood chips, jute or straw matting; fiber rolls other mulch material to stabilize disturbed soils.
- Cover stockpiled soil and landscaping materials with secured plastic sheeting and divert runoff around them, if used.
- Protect drainage courses, creeks, or catch basins with fiber rolls, silt fences, sand/gravel bags, and/or temporary drainage swales.
- Conduct routine inspections of erosion control measures especially before and immediately after rainstorms, and repair if necessary.

As part of site restoration, grass seeding, slash packing, or other appropriate erosion control or slope stabilization techniques will be deployed on any site where site inspection determines that disturbance would likely lead to an increased risk of erosion or slope stabilization. Site restoration and implementation of the BMPs listed above will result in a **less-than-significant impact** related to soil erosion or loss of topsoil from project activities.

f) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

f) As discussed in the project description, no work will be conducted in areas on slopes greater than 65 percent or on slopes greater than 50 percent with high or extreme erosion hazard rating. In addition, BMPs listed in e) above will be implemented for the project. The project is not anticipated to result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. **No impact.**

g) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

g) The project does not include construction of buildings or structures. The project will not create a substantial direct or indirect risks to life or property from expansive soils. **No impact.**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
h) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

h) The project will not require installation of a septic tank or alternative wastewater disposal system. **No impact.**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
i) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

i) There are no known paleontological resources or unique geologic features within the project area. The following BMP contained in FEMA *Programmatic Environmental Assessment, Recurring Actions in Arizona, California, and Nevada* (December 2014) will be implemented in the event that unanticipated paleontological resources are uncovered during the course of the project.

- The project proponent shall notify a qualified paleontologist of unanticipated discoveries, made by either the cultural resources monitor or project personnel and subsequently document the discovery as needed. In the event of an unanticipated discovery of a breas, true, and/or trace fossil during project, excavations within 50 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before activities are allowed to resume at the location of the find.

Project impacts to unique geologic features and paleontological resources will be **less than significant.**

GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) The project will result in greenhouse gas emissions from operation of mechanical equipment and vehicle trips to transport workers, equipment, offsite biomass disposal, and pile or prescription burning. Best Management Practices (BMPs) described in the Air Quality section of this document will be implemented during the project, which will minimize emissions of greenhouses gases generated by operation of vehicles and equipment used for the project. Offsite biomass disposal will include

transport of removed biomass to biomass facilities for use as fuel. The project will not result in an increase in permitted production or capacity of these facilities. Due to the temporary nature of the project, the project is not likely to produce significant greenhouse gas emissions. An estimate of greenhouse gas emissions generated by vehicle operation, equipment operation, and smoke is included in Table 4.

Generally, a standard of 10,000 metric tons of CO2 has been used to identify significant impacts. Based on the analysis in Table 4, the project generation of CO2 falls below this threshold. All equipment used onsite will meet the CARB requirements for emissions. Idling times will be minimized. All burning operations will comply with all relevant North Coast Air Quality Management District (NCAQMD) requirements and standards.

Maintenance of the treatment area with prescribed burns is a carbon neutral component of the project. Through burning, nutrients are recycled back into the soil from existing vegetation, thereby fertilizing the remaining vegetation and increasing the capacity to sequester carbon (Mader 2007). The carbon released by the prescribed fire will be resequenced by the remaining vegetation and new vegetation following the burn. This offsets any initial releases of greenhouse gases during burning and also reduces the likelihood of a massive release during an uncontrolled wildfire.

Due to the small scope of the project, treatments are not likely to produce significant GHG emissions from operations which could result in adverse impacts on the environment. Project activities will be limited to a short timeframe and will not result in a long-term increase in GHG emissions. The improved growing conditions will improve residual stands photosynthetic capacity, increase vigor in residual trees and result in an overall increase in carbon sequestration rates. No significant impacts from GHGs are expected as a result of the proposed project. Calculation sheet and assumptions for GHGs is included in Table 4. **Less-than-significant impact.**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

b) Onsite equipment, vehicles and pile burning would generate greenhouse gas emissions. Emissions would be short-term and cease upon completion of the project. The project would not result in substantial greenhouse gas emissions or conflict with any adopted plans, policies, or regulations adopted for the purpose of reducing greenhouse gas emissions. **Less-than-significant impact.**

**Table 4
GHG EMISSIONS**

General Information			
Project Name	Trinity 4382		Blue = Variable Inputs
Project Acres	7264		Black = Equation Produced Data
Total Project Days	180		Red = Constants
Exhaust CO2 Emissions			
Total Round Trip Miles	60		
# of Chainsaws	4		
# of Chippers	2		
# Masticators	2		
Diesel Kilograms/Gal	10.15		
Gas Kilograms/Gal	8.91		
Pounds of CO2/Kilogram	2.20462		
One Chipper Gas Gal/day	10		
Masticator Diesel gal/day	50		
Crew Bus MPG	8		
Chainsaw Gas Gal/Day/Saw	1.5		
Conversion Factor Pounds to Tons	2000		
Conversion Factor Tons of Biomass to Tons CO2	1.65		
Crew Bus Total Miles	86,400	Chainsaws Total Gal Gas Needed	1080
Total Gal of Diesel Needed	10,800	Chipper Total Gal Gas Needed	3600
Total Kilograms of Diesel Produced	109,620	Total Kilograms of Gas Produced	13,223
Diesel Total Pounds of CO2 Produced	241,670	Gas Total Pounds of CO2 Produced	29,151
Diesel Total Tons CO2	121	Gas Total Tons of CO2 Produced	15
Smoke or Decay CO2 Emissions			
Est. Biomass Tons Per Acre Removed (Fuel Model)	0.5	Assumes 0.5 ton biomass residual following ma	
Biomass Total Tons Removed	3812		
Total Tons of CO2	6290		
Final Outputs			
Total Tons of CO2 for Project	6425		
Sequestration Rate 2 - 6 Tons/Ac/Yr (stocked Sierra mixed conifer)	0		
Total Sequestration Rate/Yr	0		
Years Required for Complete Sequestration	#DIV/0!		

HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) The project will require the use of hazardous materials including gasoline, diesel, oil, and lubricants required for vehicle and equipment operation. The following BMPs contained in the FEMA *Programmatic Environmental Assessment, Recurring Actions in Arizona, California, and Nevada* (December 2014) will be implemented by the treatment contractor for the handling and use of hazardous materials for the project:

- Vehicles and equipment will be inspected and approved before use to ensure that they will not leak hazardous materials such as oil, hydraulic fluid, or fuel. All equipment will be equipped with spark arrestors and fire extinguishers.
- Fueling will take place in designated staging areas, outside native vegetation or wetlands.
- The contractor will prepare a Spill Prevention and Response Plan and have emergency cleanup gear for spills (spill containment and absorption materials) and fire-suppression equipment available onsite at all times.
- Leaks, drips, and other spills will be cleaned up immediately to avoid soil or groundwater contamination. Cleanup of a spill on soil will include removing the contaminated soil using the emergency spill cleanup gear. Contaminated soil and disposable gear used to clean a hazardous materials spill will be properly disposed of following State and Federal hazardous material disposal regulations.
- Major vehicle maintenance and washing will be done offsite.
- Spent fluids including motor oil, radiator coolant, and used vehicle batteries will be collected, stored, and recycled as hazardous waste offsite.
- Spilled dry materials will be swept up immediately.
- No smoking will be allowed in work areas.

The implementation of these practices will result in **less-than-significant impact**.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

b) The project will require the use of hazardous materials (fuel and oil) in equipment and vehicles during biomass removal. Significant quantities of these materials will not be stored within the project area. The following BMPs contained in the FEMA *Programmatic Environmental Assessment, Recurring Actions in Arizona, California, and Nevada* (December 2014) will be implemented during project activities:

- If hazardous materials are encountered or accidentally released as a result of the project, the following procedures will be implemented:

- Work shall stop in the vicinity of any discovered contamination or release.
- The scope and immediacy of the problem shall be identified.
- Coordination with the responsible agencies shall take place.
- The necessary investigation and remediation activities shall be conducted to resolve the situation before continuing project work.

The project will not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials with implementation of the BMPs listed above as well as those listed under a) above. **Less-than-significant impact.**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

c) The project area is within one-quarter mile of Trinity Center Elementary School. Project operations will not emit hazardous emissions or require handling of acutely hazardous materials, substances, or waste. **Less-than-significant impact.**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

d) A Search of the EnviroStor database cleanup sites including Federal Superfund, State Response, Voluntary Cleanup, School Cleanup, Evaluation, School Investigation, Military Evaluation, Tiered Permit and Corrective Action sites was conducted for the project site. None of these cleanup sites were present in the project area. In addition, a query of the Geotracker database was also conducted to determine if LUST cleanup sites, cleanup program sites, military cleanup sites, military privatized sites, and military UST sites were present within the project area. No LUST sites have been identified within the proposed treatment areas; however, such sites do exist adjacent to the treatment areas of North Lake PAA. The project does not include excavation activities that could expose the public, environment, or contractors to hazards from LUST sites. **No impact.**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

e) The North Lake PAA is within two miles of the Trinity Center Airport (O86), and the Weaverville PAA is within two miles of Weaverville Airport (Lonnie Pool Field-O54). The project does not include construction of housing or an increase in the number of people residing within the vicinity of an airport. The project does not include increased airport operations that would expose existing residents to excessive noise levels from an airport. The project will not expose the treatment contractors temporarily working within the PAA to safety hazards or excessive noise from the airport. **No impact.**

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

f) The project will not interfere with any emergency response plan or evacuation plan. The project will provide for safe ingress and egress of evacuating residents and responding emergency personnel in the event of a fire. **No impact.**

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

g) Equipment and vehicle operation as well as increased human presence in the project area could result in a temporary increased risk of fire during biomass removal activities. As described in a) above, BMPs will be implemented during project implementation which include the storage of fire suppression equipment onsite at all times by contractors. Project activities will not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Upon completion, the project will provide for safe ingress and egress of evacuated residents and emergency personnel during wildland fires, increase defensible space to effectively fight fires from the roads and reduce roadside fuels to slow the spread of a fire started in or adjacent to the roadway. **Less-than-significant impact.**

HYDROLOGY AND WATER QUALITY

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) Perennial, intermittent, and ephemeral streams as well as ponds are located within the project area. Hydrology within the project area is shown in Figures 8A-8C. In addition, the project site includes wetlands mapped by the U.S. Fish & Wildlife Service National Wetland Inventory as shown on Figures 10A to 10C.

The project does not include activities within 75 feet of perennial streams or wetlands or within 50 feet of ephemeral or intermittent streams. The following applicable BMP included in the FEMA

Programmatic Environmental Assessment, Recurring Actions in Arizona, California, and Nevada (December 2014) will be implemented for the project by the treatment contractor when working near waters of the U.S. or wetlands to protect surface water quality during project implementation and minimize potential water quality impacts from ground disturbance, spills or leaks:

- Keep materials out of the rain — prevent runoff pollution at the source. Schedule clearing for periods of dry weather. Before it rains, sweep and remove materials from surfaces that drain to storm drains, creeks, or channels.
- Prior to treatment, wetlands located in the project area will be flagged for exclusion.
- Appropriate erosion control measures will be used to reduce siltation and runoff of contaminants into wetlands and adjacent, ponds, streams, or riparian woodland/scrub. The contractor will not be allowed to stockpile brush, loose soils, or other debris material on stream banks.
- Native plant species should be used in erosion control or revegetation seed mix. Any hydroseed mulch used for revegetation must also be certified weed-free. Dry farmed straw will not be used, and certified weed-free straw will be required where erosion control straw is to be used. Filter fences and mesh will be of material that will not entrap reptiles and amphibians. Erosion-control measures will be placed between water or wetland and the outer edge of the project site.
- All off-road equipment will be cleaned of potential noxious weed sources (mud, vegetation) before entry into the project area. Equipment will be considered free of soil, seeds, and other such debris when a visual inspection does not disclose such material. Disassembly of equipment compartments or specialized inspection tools is not required.
- Vehicles and equipment will be parked on pavement, existing road, or specified staging areas.
- Equipment storage, fueling, and staging areas will be sited on disturbed areas or on non-sensitive nonnative grassland land cover types, when these sites are available, to minimize risk of direct discharge into riparian area or other sensitive land cover types.
- All temporarily disturbed areas, such as staging areas, will be returned to pre-project or ecologically improved conditions as required by responsible agencies.
- Dispose of all wastes properly. Materials that cannot be reused or recycled must be taken to an appropriate landfill or may require disposal as hazardous waste. Never throw debris into channels, creeks, or into wetland areas. Never store or leave debris in the street or near a creek where it may contact runoff.

Best Management Practices included above as well as soil erosion BMPs described in the Geology and Soils section of this document will minimize project impacts to surface water quality. In addition, the project is required to comply with Order R5-2017-0061 (*Waste Discharge Requirements General Order for Discharges Related to Timberland Management Activities for Non-Federal and Federal Lands*) and will be required to comply with the terms and conditions of the Order including implementation of best management practices and/or water quality protection measures and monitoring and reporting. The project does not include activities that could result in impacts to groundwater quality. The project will not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. **Less-than-significant impact.**

b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

b) The project will require minimal use of water for dust suppression during biomass removal activities. The source of water will depend on the location of the treatment area as well as the treatment contractor. Water use will be short-term and cease upon completion of biomass removal activities. The project will not substantially decrease groundwater supplies or interfere with groundwater recharge. **No impact.**

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial on- or off-site erosion or siltation?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

c) The project will not alter the course of any streams or rivers. The project will include a 75-foot buffer from perennial streams and wetlands and a 50-foot buffer from ephemeral and intermittent streams. The project does not include changes to project site topography or addition of impervious surfaces. The project includes site restoration for areas where ground disturbance will be caused by machinery and equipment in areas sensitive to soil stabilization issues. **Less-than-significant impact.**

d) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, or substantially increase the rate or amount of surface runoff in a manner which would result in on- or off-site flooding?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

d) The project does not include substantial alteration of the existing drainage pattern of the project area or increase in impervious surfaces. See a) and c) above. The project will not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite. **No impact.**

e) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, or substantially increase	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

the rate or amount of surface runoff in a manner which would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

e) The project will not result in a substantial increase in the rate or amount of surface runoff from the project site. As discussed under a), BMPs for erosion control and water quality will be implemented for the project that will minimize pollutants in runoff from the project site. **Less-than-significant impact.**

f) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, or substantially increase the rate or amount of surface runoff in a manner which would impede or redirect flows?

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

f) As discussed in a) through e) above, the project will not substantially alter the existing drainage pattern of the site or substantially increase the rate or amount of surface runoff. The project will not impede or redirect flows. **No impact.**

g) In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

g) Flood Hazard Zones within the project area as mapped by FEMA National Flood Hazard Layer are shown on Figures 9A to 9C. Several portions of the project are located within Flood Hazard Zone A: Area Subject to Inundation. The project includes site restoration to stabilize treatment areas where needed following biomass removal. Grass seeding, slash packing, or other appropriate erosion control or slope stabilization techniques will be deployed in areas disturbed by mechanical equipment operation following biomass removal. Site restoration will minimize the risk of release of sediment if the project were to become inundated. In addition, the project does not include work within 75 feet of perennial streams or wetlands or within 50 feet of ephemeral and intermittent streams. **Less-than-significant impact.**

h) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

h) The BMPS listed under a) above will be implemented by the treatment contractor to minimize impacts to surface water quality. As discussed under b) above, the project will not use significant volumes of groundwater or result in impacts to groundwater quality. The project will not conflict with or obstruct any water quality control plan or sustainable groundwater management plan. **No impact.**

LAND USE AND PLANNING

a) Would the project physically divide an established community?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) The project will not divide an established community. **No impact.**

b) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

b) Best management practices and mitigation measures included this document will be implemented to avoid and reduce environmental effects of the project. The project will not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. **No impact.**

MINERAL RESOURCES

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) The project does not include development activities, change in land use, or mineral extraction activities. The project will not result in the loss of availability of a mineral resource. **No impact.**

b) Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

b) Project activities will not result in the loss of availability of a locally important mineral resource recovery site. **No impact.**

NOISE

a) Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) The project will not result in any permanent sources of noise. The project will generate short-term increases in ambient noise levels in the project vicinity from the operation of mechanical equipment (masticators, chippers, and chainsaws) and minor increased vehicle traffic. The project impacts on individual sites will be short as hazard vegetation is removed from the parcel and the operations moved onto the next parcel. Short-term noise generated by the project will be transitory.

The following BMPs contained in the FEMA *Programmatic Environmental Assessment, Recurring Actions in Arizona, California, and Nevada* (December 2014) will be implemented for the project:

- Provide advance notification to surrounding land uses disclosing the treatment schedule, including the various types of activities that would be occurring throughout the duration of the treatment period.
- Noise-generating treatment activities, including truck traffic coming to and from the site for any purpose, shall be limited to the hours of 7:00 a.m. to 7:00 p.m. during weekdays and 8:00 a.m. to 5:00 p.m. on Saturday and Sunday.
- All noise-producing project equipment and vehicles using internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specification. Mobile or fixed “package” equipment shall be equipped with shrouds and noise control features that are readily available for that type of equipment.
- Contractor shall be responsible for maintaining equipment in best possible working condition.
- Mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive receivers.
- Locate equipment as far as possible from nearby noise-sensitive receptors.
- The use of noise-producing signals, including horns, whistles, alarms, and bells shall be for safety warning purposes only. No project-related public address or music system shall be audible at any adjacent noise-sensitive receptor.
- The contractor shall notify adjacent property owners, property managers, and business owners of adjacent parcels of the schedule in writing and in advance of the work. The notification shall include the name and phone number of a project representative or site supervisor.
- The onsite supervisor shall have the responsibility and authority to receive and resolve noise complaints. A clear appeals process to the Owner shall be established prior to commencement of treatment that shall allow for resolution of noise problems that cannot be immediately solved by the site supervisor.

The project is not anticipated to result in generation of a substantial temporary or permanent increase

in ambient noise levels in the vicinity of the project in excess of standards established in the Trinity County General Plan Noise Element or applicable standards of other agencies. **Less-than-significant impact.**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

b) The project does not include equipment or processes that would result in significant levels of vibration or groundborne noise, such as pile driving or blasting. Mechanical equipment such as grinders and masticators will result in low levels of ground vibration perceptible in the immediate vicinity of the equipment. Equipment will not operate in a single location for an extended period of time. The project will not generate excessive levels of vibration that could result in structural damage or annoyance levels. **Less-than-significant impact.**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

c) The North Lake PAA is within two miles of the Trinity Center Airport (O86), and the Weaverville PAA is within two miles of Weaverville Airport (Lonnie Pool Field-O54). The project does not include construction of housing or an increase in the number of people residing within the vicinity of an airport. The project does not include increased airport operations that would expose existing residents to excessive noise levels from an airport. The project would not expose project contractors temporarily working the area to excessive noise levels from aircraft. **Less-than-significant impact.**

POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
a) Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) The project will not induce substantial population growth. The project does not include expansion of any roads or infrastructure. The project does not include construction of new homes or businesses that would result in unplanned population growth. **No impact.**

b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

b) The project would not displace people or housing requiring the construction of replacement housing elsewhere. **No impact.**

PUBLIC SERVICES

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) The project does not include construction of new structures or involve activities that would adversely affect fire protection service ratios, response times, or other objectives. The project will not include or require new or physically altered governmental facilities for fire protection. **No impact.**

b) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

b) The project will not require the construction of new or altered facilities to maintain acceptable police service ratios, response times, or other performance objectives for police response. **No impact.**

c) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools?

c) The project will not result in the need for new or physically altered schools. **No impact.**

d) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for parks?

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

d) The project will not increase the use of local parks or require construction of new or altered parks to maintain acceptable service ratios or other performance objectives. **No impact.**

e) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for other public facilities?

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

e) The project will not result in the need for new or physically altered other public facilities. **No impact.**

RECREATION

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) The project will have no impact on recreation. No new demand will be generated for the use of existing area parks or recreational facilities. **No impact.**

b) Would the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

b) The project does not include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. **No impact.**

TRANSPORTATION

a) Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) The project will not conflict with any program, plan, ordinance or policy addressing the circulation system including transit, roadway, bicycle and pedestrian facilities. The project may result in a minor temporary increase in traffic in the specific location of project activities, however project activities will be transitory and will not occur in a single area for an extended time period. The following BMPs including applicable BMPs contained in the FEMA *Programmatic Environmental Assessment, Recurring Actions in Arizona, California, and Nevada* (December 2014) will be implemented for the project:

- When possible, crews will travel outside of peak hour traffic times, thereby minimizing peak traffic time impacts.
- All vehicles related to project, including contractor vehicles and trucks, will use designated Truck Routes where those are available.
- Detour signs shall be used when necessary for vehicles, bicycle and pedestrian ways.
- All detour signs during the project would be designed to meet the responsible agency standards.
- A Traffic Control Plan will be developed and submitted to Trinity County Department of Transportation (County road) or Caltrans (State Highway) if the project is expected to require road closures.

With these practices in place, a **less-than-significant impact** is anticipated.

b) Would the project conflict or be inconsistent with CEQA Guidelines § 15064.3(b)?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

b) Trinity County has not adopted VMT-based transportation significance thresholds. The project will result in a short-term increase in vehicle miles traveled that will cease upon project completion. The

project will not result in a long-term increase in VMT and will not conflict or be inconsistent with CEQA guidelines 15064.3(b). **Less-than-significant impact.**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

c) There will be no change in road design or construction. As discussed in a) above, a Traffic Control Plan will be developed for the project if a road closure is required. **No impact.**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
d) Would the project result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

d) Emergency access will not be impaired by the project. The project is proposed to improve ingress and egress in the event of a wildfire. **No impact.**

TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code § 5020.1(k)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a) AB 52 was enacted on July 1, 2015, and establishes that “a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment” (Public Resources Code Section 21084.2). It further states that the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a tribal cultural resource when feasible (PRC Section 21084.3).

Public Resources Code Section 21074 (a)(1)(A) and (B) defines tribal cultural resources as “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe” and meets either of the following criteria:

- Listed or eligible for listing in the California Register of Historical Resources, or in a local

register of historical resources as defined in Public Resources Code section 5020.1(k), or

- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying these criteria, the lead agency shall consider the significance of the resource to a California Native American tribe.

AB 52 also establishes a formal consultation process for California cities, counties, and tribes regarding tribal cultural resources. Under AB 52, lead agencies are required to “begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project.” Native American tribes to be included in the process are those that have requested notice of projects proposed within the jurisdiction of the lead agency.

Tribal notification letters for the project were sent on February 7, 2023. The Sacred Lands File search was submitted February 7, 2023, and has not yet responded with identified positive result within the project area. Records search area Figures and Tribal consultation documents are included in Attachment C. The search of the information center has not yet returned identified resources and studies within the search area.

Mitigation Measure 10 included in the Cultural Resources section of this document will be implemented to avoid impacts to all known cultural resources within the project area, including those eligible for listing in the CRHR. In addition, BMPs will be implemented during the project for unanticipated discovery of cultural resources and human remains. Impacts to tribal cultural resources will be **less than significant with mitigation incorporation**.

b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

b) All prehistoric resources will be avoided during project implementation. Resources will be flagged by a Certified Archeologist prior to ground disturbing activities. Historical resources will be evaluated for significance by a Certified Archeologist and flagged for avoidance prior to ground disturbing activities. See **Mitigation Measure 10** included in the Cultural Resources Section of this document.

Less than significant with mitigation incorporated.

UTILITIES AND SERVICE SYSTEMS

<p>a) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?</p>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>a) The project will not result in the construction of new or relocated water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities. No impact.</p>				
<p>b) Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?</p>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>b) The project is a short-duration project. The project will require water for dust suppression during biomass removal activities. The source of water for the project will depend on the location within the project area and the treatment contractor. The project is not anticipated to require significant quantities of water for dust suppression, and the need for water will cease upon completion of biomass removal activities. Less-than-significant impact.</p>				
<p>c) Would the project result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?</p>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>c) The project will not require wastewater treatment. No impact.</p>				
<p>d) Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?</p>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>d) Small quantities of solid waste generated by the project will be bagged, removed from the site, and transported to the city/county transfer site for disposal. No impact.</p>				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

e) The project will comply with all federal state and local statues and regulations relating to solid waste and disposal. **No impact.**

WILDFIRE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
a) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) The project site is within state responsibility areas classified as very high fire hazard severity zones (FRAP 2007). The project will reduce fire behavior and intensity and provide safer emergency ingress and egress. The project will not impair an adopted emergency response plan or emergency evacuation plan. **No impact.**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
b) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

b) The project could temporarily increase wildfire risk due to operation of vehicles and mechanized equipment and increased human presence in the project area during project activities. BMPs listed in the Hazards and Hazardous Materials section of this document include the following that will also reduce the risk of wildfire caused by project activities:

- Vehicles and equipment will be inspected and approved before use to ensure that they will not leak hazardous materials such as oil, hydraulic fluid, or fuel. All equipment will be equipped with spark arrestors and fire extinguishers.
- The contractor will prepare a Spill Prevention and Response Plan and have emergency cleanup gear for spills (spill containment and absorption materials) and fire-suppression equipment available onsite at all times.
- No smoking will be allowed in work areas.

Upon completion, reduction of fuel loads and interruption of fuel continuity will decrease the likelihood of ignition, increase the probability of success of fire suppression activities, reduce severity of a fire and provide safer ingress and egress for evacuation and fire response. **No impact.**

c) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

c) The project will not require installation or maintenance of associated infrastructure or fire breaks not described in this document that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. **No impact.**

d) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

d) The project will not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. **No impact.**

MANDATORY FINDINGS OF SIGNIFICANCE

a) Would the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-than-significant impact	No Impact
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a) All impacts associated with the project have been identified in this document. Potential project impacts to biological resources, cultural resources, and tribal cultural resources are discussed in the

Biological Resources, Cultural Resources, and Tribal Cultural Resources sections of this document. The project will not substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory with implementation of **Mitigation Measures and BMPs included in the Cultural Resources, Tribal Cultural Resources and Biological Resources** sections of this document. **Less-than-significant with mitigation incorporation.**

<p>b) Would the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)</p>	<p>Potentially Significant Impact</p> <p style="text-align: center;"><input type="checkbox"/></p>	<p>Less Than Significant with Mitigation Incorporated</p> <p style="text-align: center;"><input type="checkbox"/></p>	<p>Less-than-significant impact</p> <p style="text-align: center;"><input checked="" type="checkbox"/></p>	<p>No Impact</p> <p style="text-align: center;"><input type="checkbox"/></p>
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b) Potential impacts of the project including air quality, greenhouse gas, traffic, noise, hazardous materials, geology and soils, and hydrology are short-term and will cease upon completion of project activities. Since these impacts will cease upon completion of the project and project-level impacts are less than significant, they will not be cumulatively considerable with past, current, or future projects.

Project impacts to cultural resources, tribal cultural resources, biological resources, timberland, and aesthetics are cumulatively considerable with other projects including multiple planned fuel reduction projects within Shasta County. Aesthetic and habitat impacts of the project will be limited and will not combine with other projects to result in a significant cumulative impact. There will be no negative impacts to forest resource areas or timberland resources. The project is designed to improve fire resiliency within these resources. Project impacts to cultural resources, tribal cultural resources and direct biological resource impacts of the project will be avoided through implementation of BMPs and mitigation measures and will not result in a cumulatively significant impact. **Less-than-significant impact.**

<p>c) Would the project have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?</p>	<p>Potentially Significant Impact</p> <p style="text-align: center;"><input type="checkbox"/></p>	<p>Less Than Significant with Mitigation Incorporated</p> <p style="text-align: center;"><input type="checkbox"/></p>	<p>Less-than-significant impact</p> <p style="text-align: center;"><input type="checkbox"/></p>	<p>No Impact</p> <p style="text-align: center;"><input checked="" type="checkbox"/></p>
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c) The project will not have any adverse environmental effects on human beings either directly or indirectly. **No impact.**

PREPARERS OF THIS DOCUMENT

This document was prepared by VESTRA Resources, Inc., for the Trinity County Resource Conservation District.

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Mitigation Monitoring and Reporting Plan

In accordance with CEQA Guidelines § 15074(d), when adopting a mitigated negative declaration, the lead agency will adopt a mitigation monitoring and reporting plan (MMRP) that ensures compliance with mitigation measures required for project approval. TCRCD is the lead agency for the above-listed project and has developed this MMRP as a part of the final IS-MND supporting the project. This MMRP lists the mitigation measures developed in the IS-MND that were designed to reduce environmental impacts to a less-than-significant level. This MMRP also identifies the party responsible for implementing the measure, defines when the mitigation measure must be implemented, and which party or public agency is responsible for ensuring compliance with the measure.

POTENTIALLY SIGNIFICANT EFFECTS AND MITIGATION MEASURES

The following is a list of the resources that will be potentially affected by the project and the mitigation measures made part of the Initial Study-Mitigated Negative Declaration.

Mitigation Measure 1: Pre-Treatment Botanical Surveys (All PAAs)

As part of the preliminary site assessment conducted on each eligible parcel, potential habitat for special-status plants with potential occur within the treatment area will be identified along with species included in any sensitive natural communities. If potential habitat for special-status plants or sensitive natural communities are identified, protocol-level surveys of the eligible parcels shall be conducted by a qualified biologist during the flowering window for special-status plant species with potential to occur within the treatment area. Surveys shall comply with survey protocols for plants species listed under the CDFW *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (2018). If no special-status plants or communities are found, no further measures pertaining to special-status plants are necessary. If special-status plant species or communities are identified during the botanical surveys, disturbance will be avoided. The treatment prescription (TP) for the parcel will be modified to exclude activities within 25 feet of the individual and exclusionary fencing will be placed around the plants prior to operations on the parcel to establish the avoidance area during project implementation.

Schedule: 2023-2024

Responsible Party: VESTRA

Mitigation Measure 2: Riparian and Wetland Identification and Exclusion (All PAAs)

During the preliminary site assessment of each parcel, eligible parcels will be surveyed for aquatic resources. The treatment prescription for the parcel will exclude activities within 75 feet of perennial streams and wetlands and within 50 feet of ephemeral and intermittent streams. The exclusion area will be marked with flagging or excluded on a geofenced map. Biomass removal, equipment staging, operation of mechanical equipment, and on-site disposal of removed biomass shall not occur within the marked buffers.

Schedule: 2023-2024

Responsible Party: TCRCD

Mitigation Measure 3: Surveys for Special-Status Amphibians and Reptiles (All PAAs)

During the preliminary site assessment of each eligible parcel, work areas within 150 feet of flowing watercourses will be evaluated to determine if suitable upland dispersal habitat for special-status amphibians or reptiles is present. If no potential suitable upland dispersal habitat is identified, no further action is required. If suitable upland habitat is identified, no more than two days prior to the start of ground-disturbing activities, focused pretreatment surveys for special-status amphibians and reptiles will be completed by a qualified biologist in all suitable upland dispersal habitat areas within 150 feet of flowing watercourses. If a special-status species is found, USFWS/CDFW will be contacted within one working day, and a suitable protocol shall be approved by USFWS/CDFW for relocation before treatment activities may begin. If a western pond turtle nest is found, CDFW shall be notified, and an appropriate avoidance buffer shall be implemented. Flagging shall be installed to demarcate the nest only if it can be performed without disturbing the nest.

Schedule: 2023-2024

Responsible Party: VESTRA/TCRCD

Mitigation Measure 4: Bat Roost Humane Exclusion (All PAAs)

During the preliminary site assessment of eligible parcels, trees with maternity roost structures (i.e. cavities in the trunk or branches, woodpecker holes, loose bark, cracks) will be identified. If no trees with maternity roost structures are identified, no further measures are necessary. If removal of trees identified to have bat roost structure occurs from September 1 to October 30, no measures for special-status bats are required.

If removal of trees identified to have bat roost structure potential will occur during the bat maternity season, when young are non-volant (March 1- August 31), or during the bat hibernacula (November 1-March 1) when bats have limited ability to safely relocate roosts, humane exclusions should be implemented. Humane exclusions consist of a two-day removal process by which the surrounding non-habitat trees and brush are removed along with smaller tree limbs on the first day. The remainder of the tree limbs and the tree trunks are removed on the second day.

Schedule: 2023-2024

Responsible Party: VESTRA

Mitigation Measure 5: Artificial Lighting Standards (All PAAs)

To minimize impacts of lighting to birds and other nocturnal species, any artificial lighting associated with short-term and long-term project activities should be downward facing, fully shielded, and designed and installed to minimize photo-pollution of adjacent wildlife habitat.

Schedule: 2024

Responsible Party: TCRCD

Mitigation Measure 6: Bat Roost Habitat Avoidance (All PAAs)

During the preliminary site assessment of each eligible parcel, the presence of caves or bridges within the treatment area will be noted. If no caves or bridges are located within the project area, no further measures are necessary. If present within 50 feet of project activities, caves and bridges in the project area will be assessed for potential bat roost structures (crevice roosts tend to measure

approximately 3/4 to 1-1/2 inches across and at least 18 inches deep; in most cases, they run from one side of the bridge to the other, and between three and several hundred meters above ground). If found, a qualified biologist will assess the structure for signs of bat presence (e.g. guano, insect pieces, etc.). If no roost is present, then no buffer is needed. If a roost is present, then a 50-foot non-disturbance buffer around the structure shall be implemented to prevent changes to the thermal stability and protective cover surrounding the site that could result from tree removal.

Schedule: 2023/2024

Responsible Party: VESTRA

Mitigation Measure 7: Mammal Den Surveys (All PAAs)

During the preliminary site assessment of each eligible parcel, the project area will be evaluated for suitable mammal den habitat. If potential den habitat is identified, pretreatment surveys shall be completed within three days prior to ground-disturbing activities to determine if any terrestrial mammal den structures are present within the work area. If potential dens are located within the work area and cannot be avoided during project activities, a qualified biologist will determine if the dens are occupied. If occupied dens are present within the work area, their disturbance and destruction will be avoided by stopping operations until an appropriate buffer is approved by CDFW or USFWS.

Schedule: 2023/2024

Responsible Party: VESTRA

Mitigation Measure 8: NSO Surveys (All PAAs)

Surveys will be completed in areas where NSO have been previously identified. Where the project area falls within any 1.3-mile activity center buffer, operations will take place outside of nesting season (March – August) or after surveys confirm no presence. The treatment prescription will also be modified to leave all trees >20 inches DBH or larger un-cut trees within a half-mile of the confirmed activity center. To promote a diverse canopy that supports NSO roosting and foraging, some mature oaks will also be retained at the discretion of the landowner.

Schedule: 2024

Responsible Party: VESTRA

Mitigation Measure 9: Native Milkweed Buffer (All PAAs)

Surveys will be completed concurrently with the botanical survey period to determine if native milkweed (*Asclepias* sp.) are present within work areas. If milkweed is identified onsite, disturbance to the plant would be avoided by implementing a 25-foot buffer around identified individuals.

Schedule: 2024

Responsible Party: VESTRA

Mitigation Measure 10: Archaeological Review(All PAAs)

During the preliminary site assessment for each eligible parcel, record searches and literature review will be conducted as well as pedestrian surveys in areas with potential to contain cultural resources by a qualified archaeologist. The results and management recommendations for the project will be

presented in a report and submitted to Trinity County Resource Conservation District and FEMA recommendations could include avoidance of sites eligible for listing on the California Register of Historic Resources (CRHR) through implementation of a 50-foot buffer around the site boundary or modification of treatment (use of hand tools and exclusion of equipment) for areas where vegetation removal may be beneficial to site preservation. The recommended buffers or modified treatment (Special Treatment Zone (STZ)) will be included in the treatment prescription (TP) for the parcel and buffers around known cultural resources will be marked with exclusionary flagging or excluded on a geofenced map prior to project implementation. In addition, recommendations for unanticipated discovery of cultural resources and human remains included in the report will be implemented for the project.

Schedule: 2023

Responsible Party: ALTA

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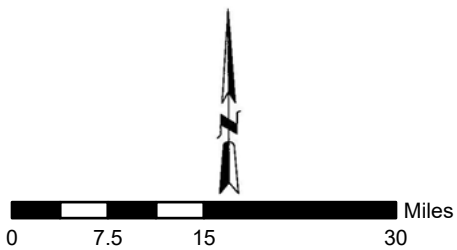
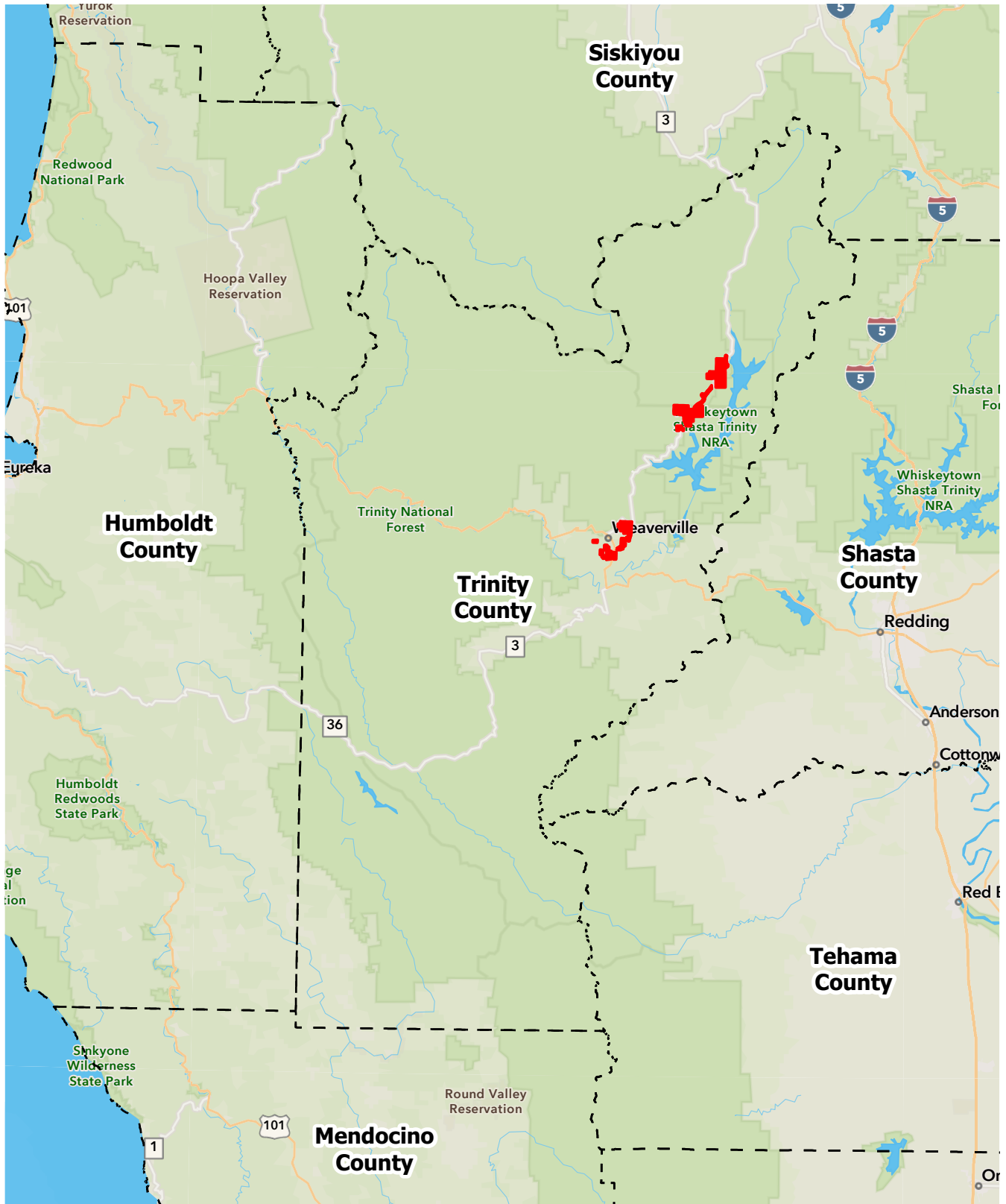
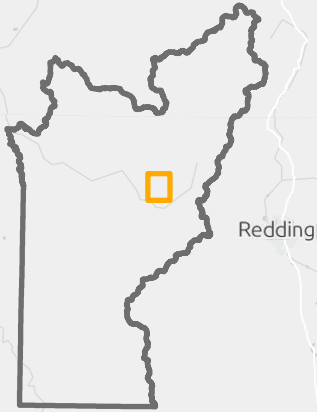
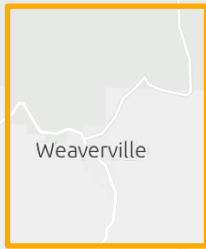







FIGURE 1
PROJECT LOCATION
TRINITY COUNTY WILDFIRE
MITIGATION/HAZARDOUS
FUELS REDUCTION PROJECT
GRANT #4382
TRINITY COUNTY, CALIFORNIA

Trinity County Location Map



Project Location Map



-  Stream
-  Parcel Boundary
-  Structure Footprints (2018)
-  Project Activity Area - 2,177 Acres
-  Parcels Partially or Fully Included in Project Activity Area - 107 Parcels

Number of unique landowners in Project Activity Area - 86

All figures are approximate

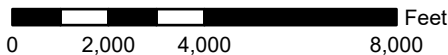
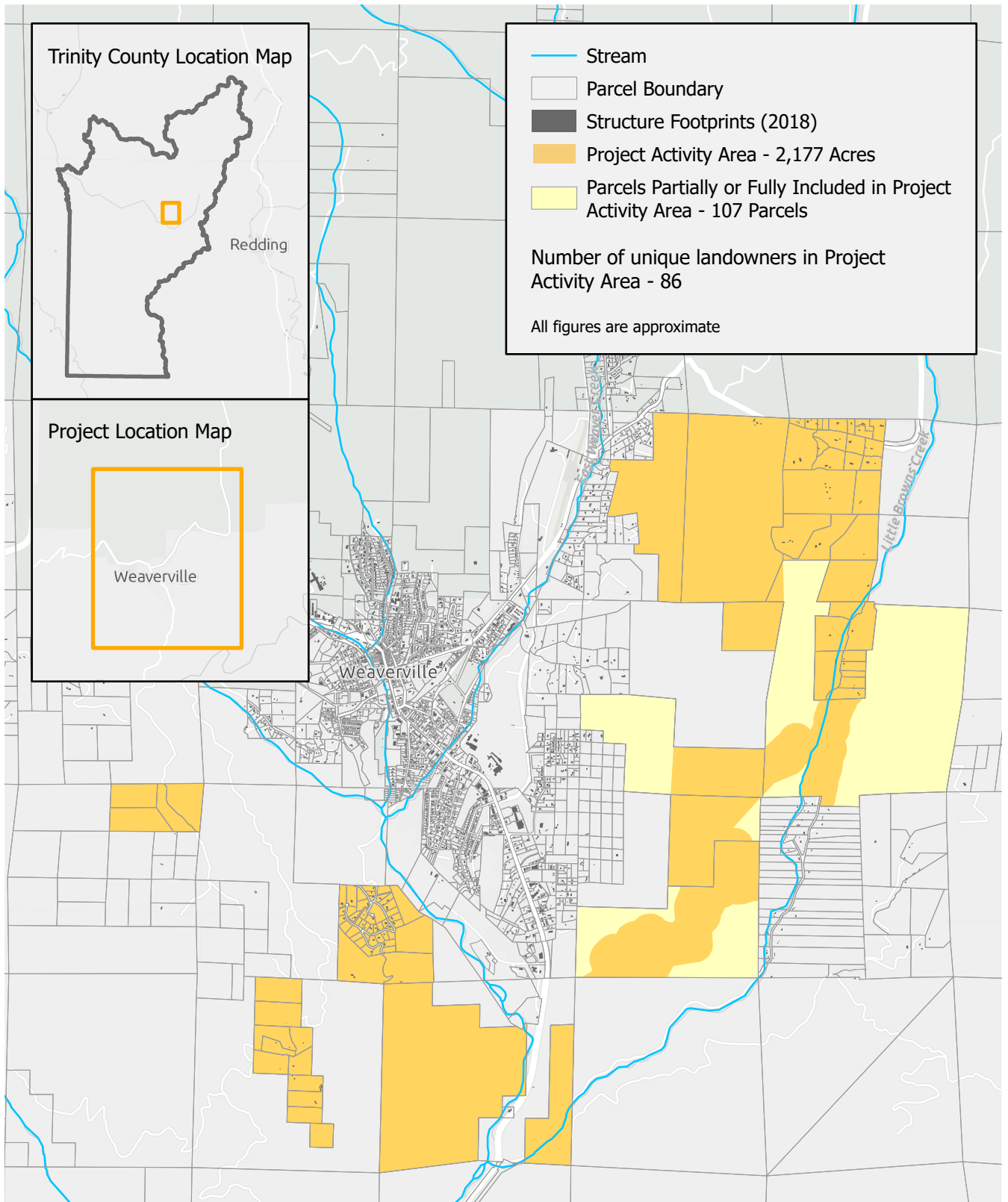
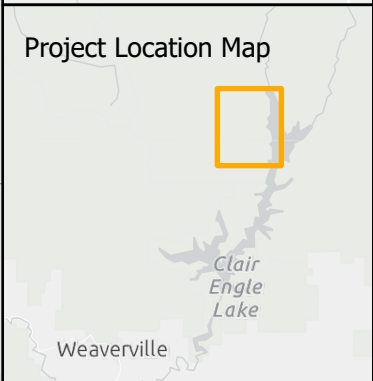
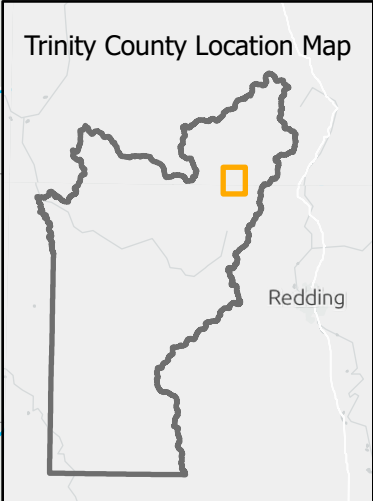


FIGURE 2
WEAVERVILLE PAA
 TRINITY COUNTY WILDFIRE
 MITIGATION/HAZARDOUS
 FUELS REDUCTION PROJECT
 GRANT #4382
 TRINITY COUNTY, CALIFORNIA



- Stream
- Parcel Boundary
- Structure Footprints (2018)
- Parcels Partially or Fully Included in Project Activity Area - 137 Parcels
- Project Activity Area - 2,384 Acres

Number of unique landowners in Project Activity Area - 90

All figures are approximate

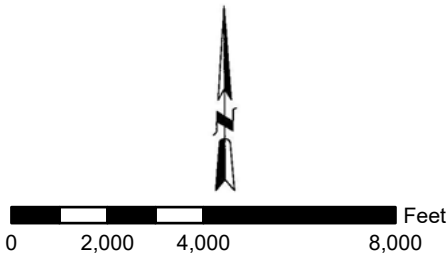
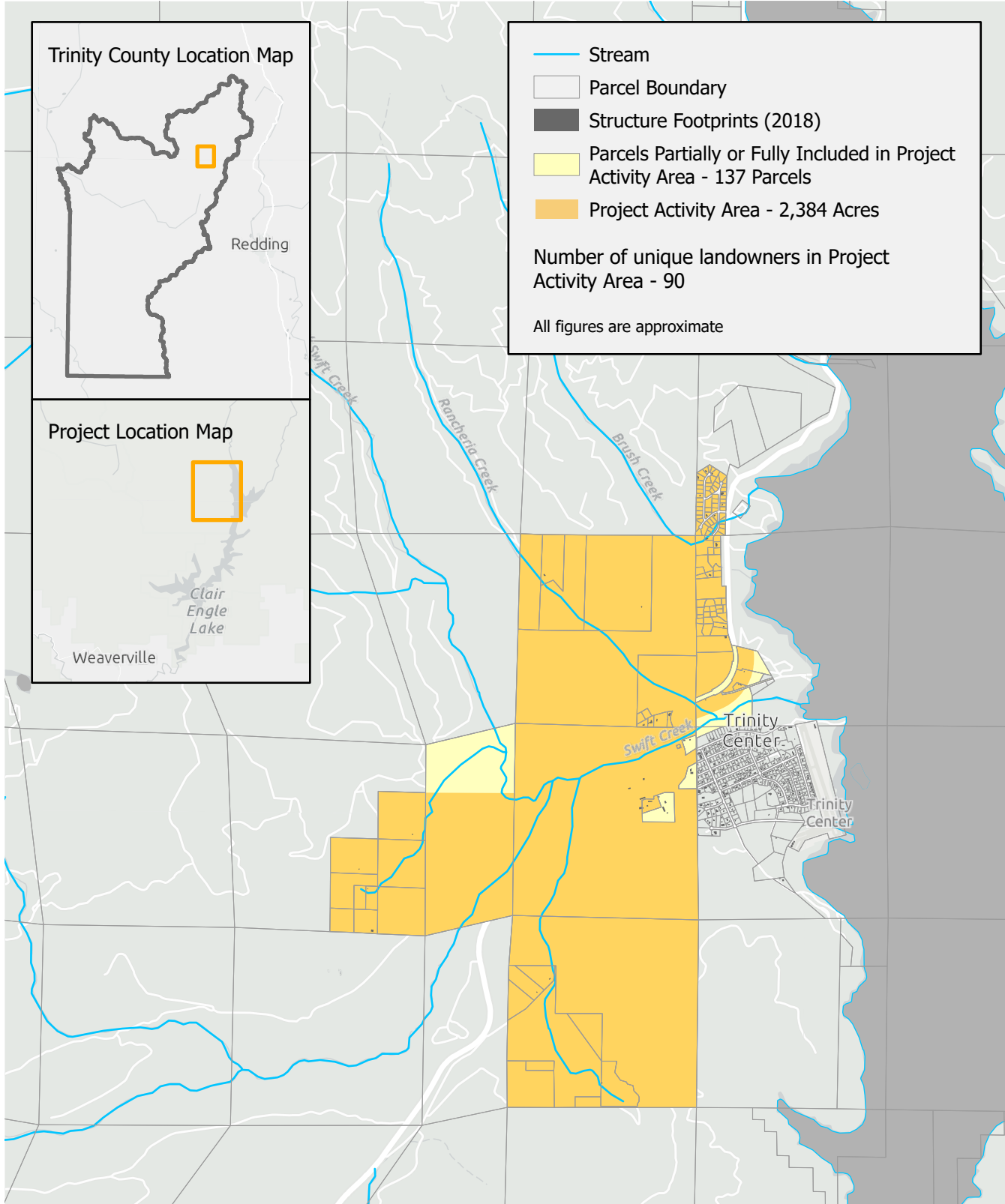


FIGURE 3
NORTH LAKE PAA
TRINITY COUNTY WILDFIRE
MITIGATION/HAZARDOUS
FUELS REDUCTION PROJECT
GRANT #4382
TRINITY COUNTY, CALIFORNIA

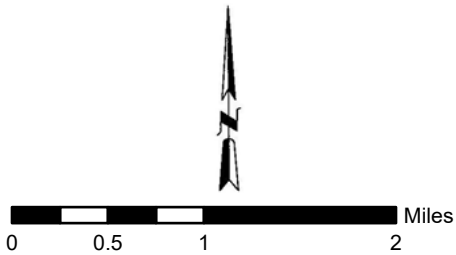
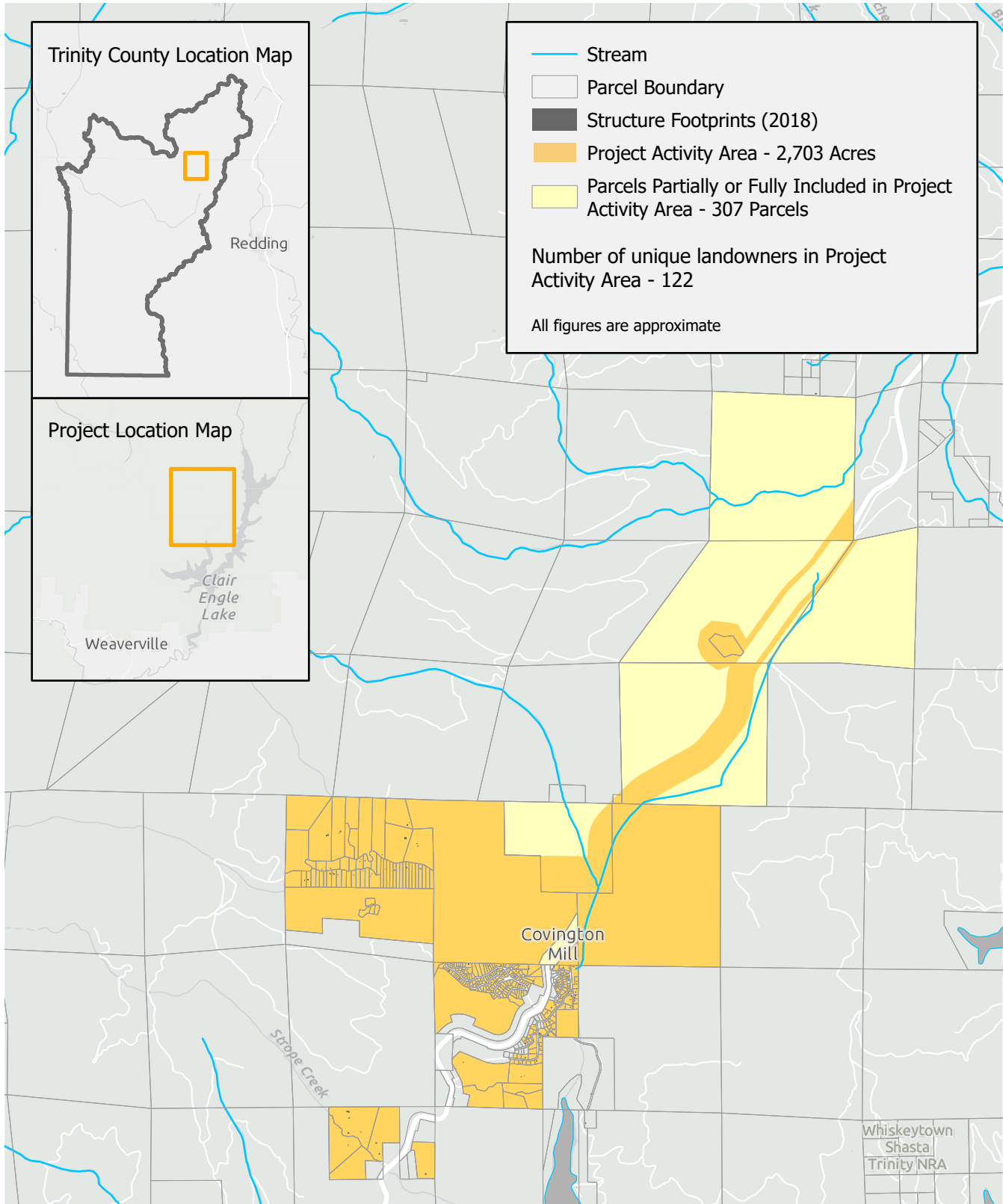
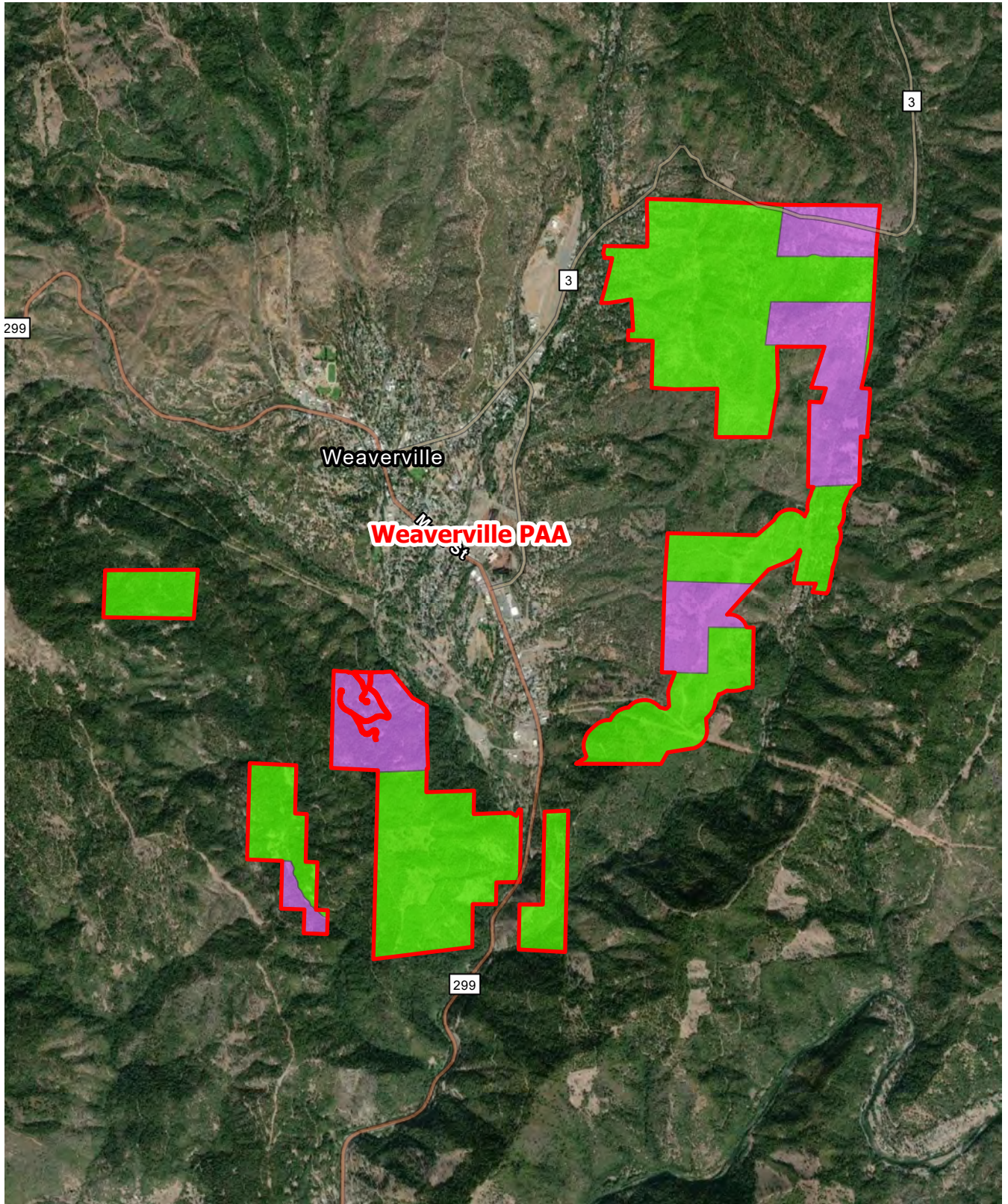




FIGURE 4
COVINGTON MILL PAA
TRINITY COUNTY WILDFIRE
MITIGATION/HAZARDOUS
FUELS REDUCTION PROJECT
GRANT #4382
TRINITY COUNTY, CALIFORNIA





 Project Boundary


 A: Agricultural

 CE: Community Expansion

 CR: Community Residential

 RE: Resource

 RR: Rural Residential

 V: Village



SOURCE: TRINITY COUNTY 2017

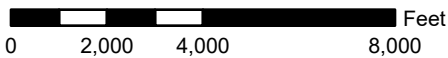
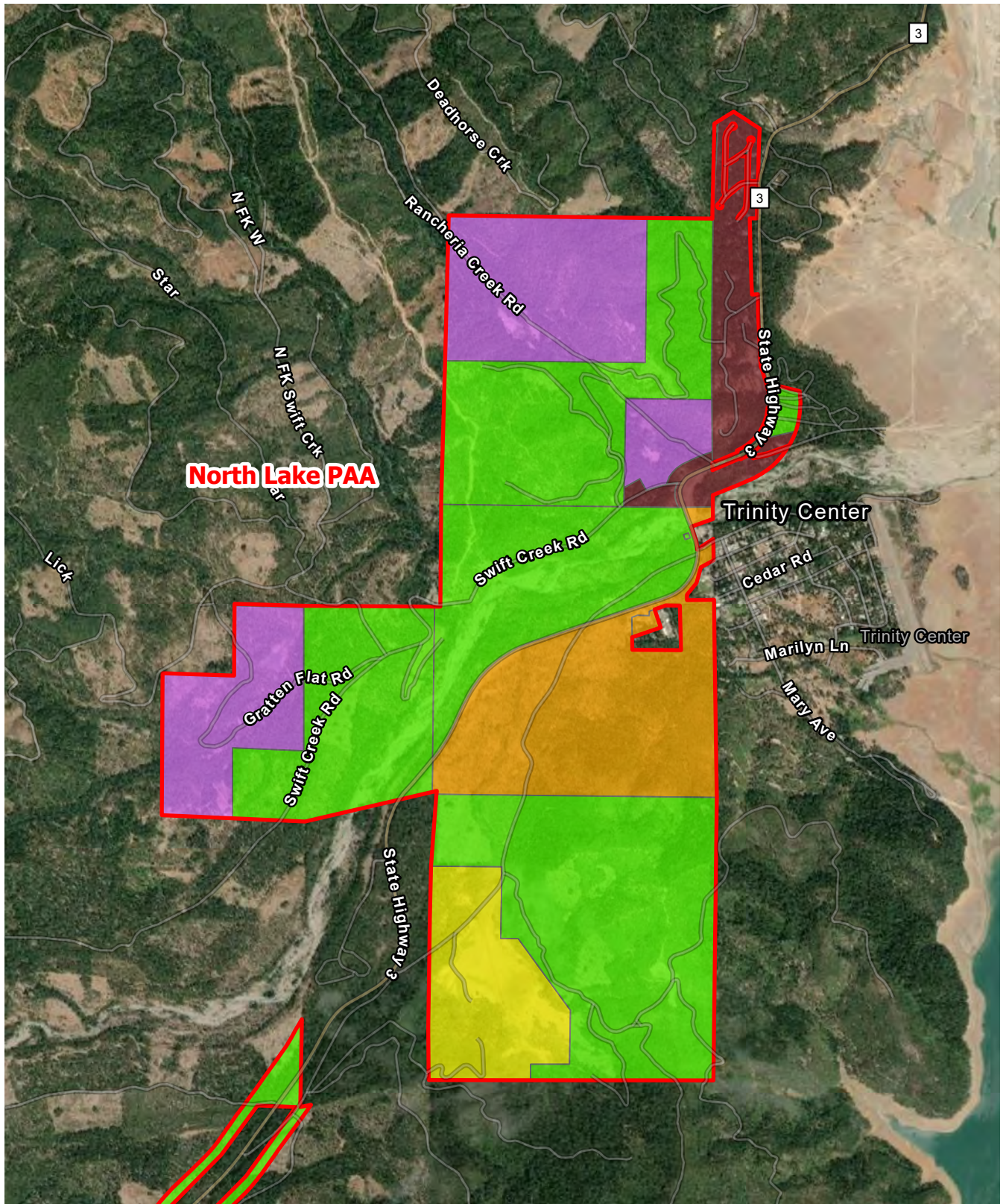


FIGURE 5A
LAND USE DESIGNATIONS
 TRINITY COUNTY WILDFIRE
 MITIGATION/HAZARDOUS
 FUELS REDUCTION PROJECT
 GRANT #4382
 TRINITY COUNTY, CALIFORNIA



- Project Boundary
- A: Agricultural
- CE: Community Expansion
- CR: Community Residential
- RE: Resource
- RR: Rural Residential
- V: Village



SOURCE: TRINITY COUNTY 2017

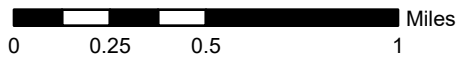
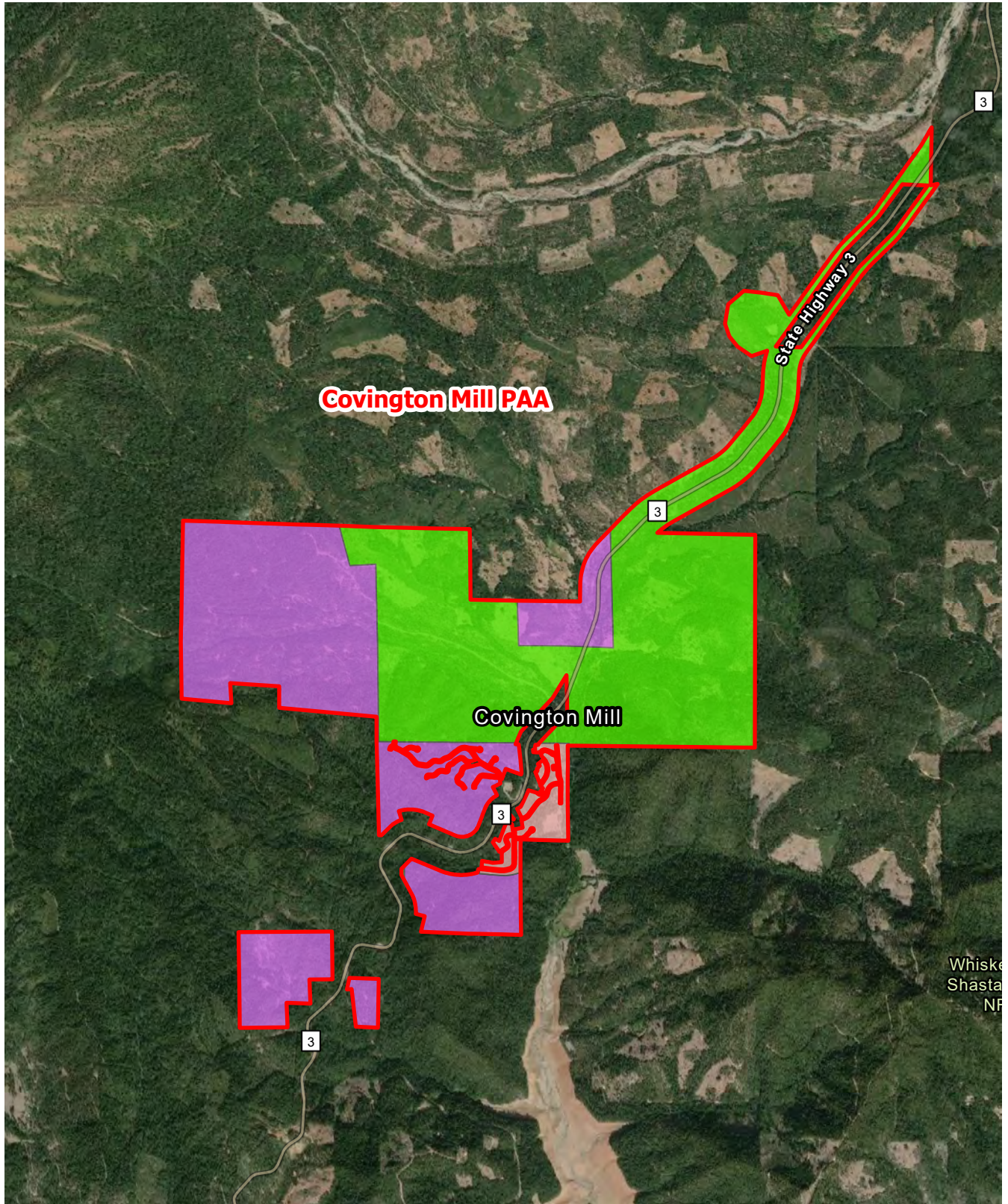


FIGURE 5B
LAND USE DESIGNATIONS
 TRINITY COUNTY WILDFIRE
 MITIGATION/HAZARDOUS
 FUELS REDUCTION PROJECT
 GRANT #4382
 TRINITY COUNTY, CALIFORNIA



- Project Boundary
- A: Agricultural
- CE: Community Expansion
- CR: Community Residential
- RE: Resource
- RR: Rural Residential
- V: Village

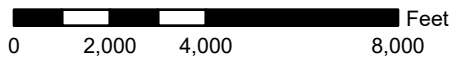
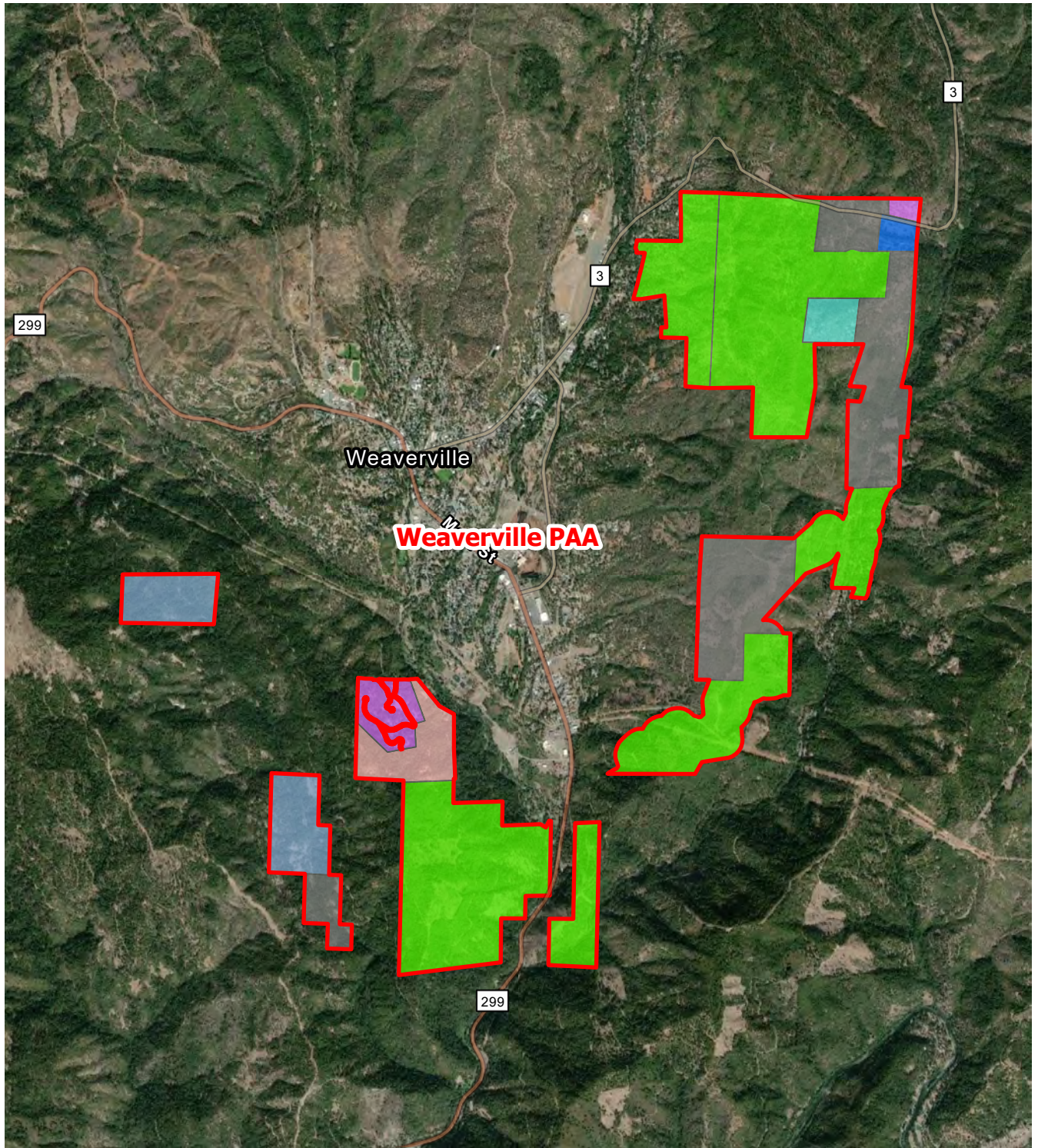


FIGURE 5C
LAND USE DESIGNATIONS
TRINITY COUNTY WILDFIRE
MITIGATION/HAZARDOUS
FUELS REDUCTION PROJECT
GRANT #4382
TRINITY COUNTY, CALIFORNIA



SOURCE: TRINITY COUNTY 2017



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|---------------------------------------|--------------------------------------|---------------------------------------|-----------------------------|
| AF20: Agricultural Forest 20 Acre Min | R1A: Single Family Res - Low Density | RR2.5: Rural Residential 2.5 Acre Min | TPZ: Timber Production Zone |
| C1:: Retail Commercial | R2: Duplex Residential District | RR20: Rural Residential 20 Acre Min | UNC: Unclassified |
| HC: Highway Commercial | RR1: Rural Residential 1 Acre Min | RR5: Rural Residential 5 Acre Min | Project Boundary |
| R1: Single Family Res - High Density | RR10: Rural Residential 10 Acre Min | SUD: Specific Unit Development | |



SOURCE: TRINITY COUNTY 2017

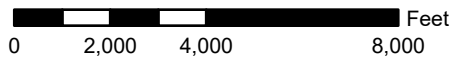
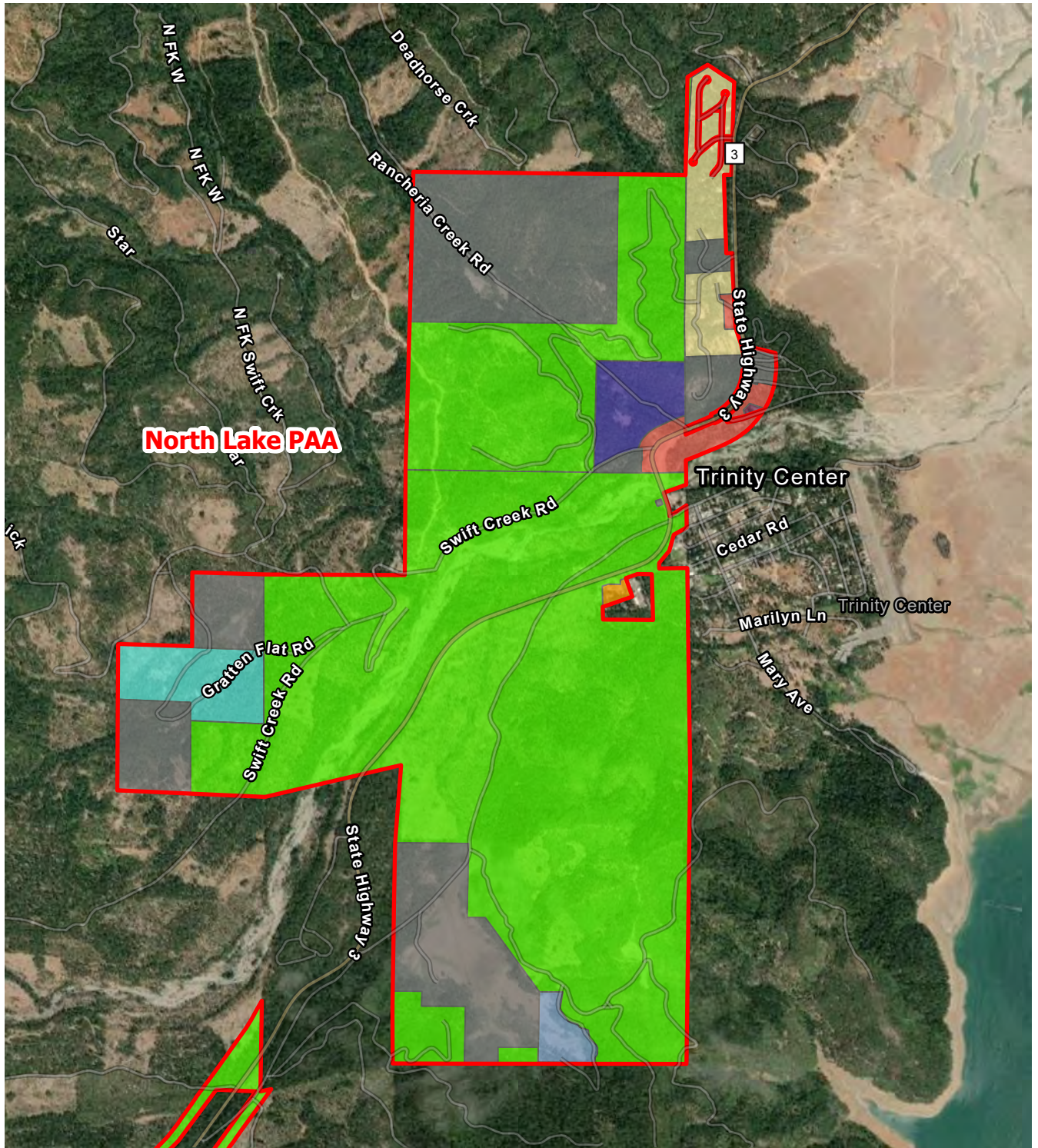


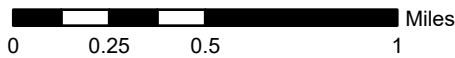
FIGURE 6A
ZONING
 TRINITY COUNTY WILDFIRE
 MITIGATION/HAZARDOUS
 FUELS REDUCTION PROJECT
 GRANT #4382
 TRINITY COUNTY, CALIFORNIA



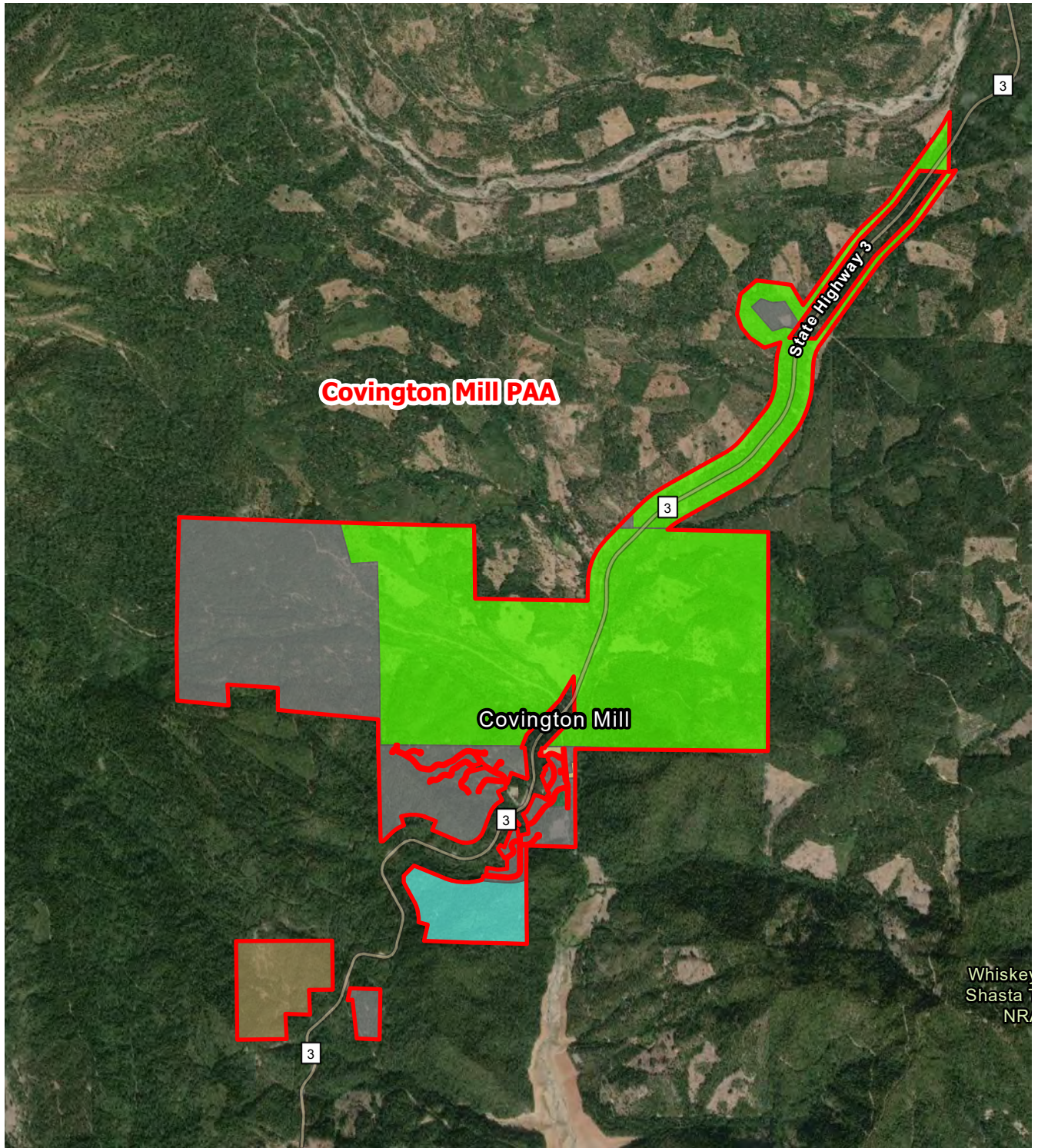
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| AF20: Agricultural Forest 20 Acre Min | R1A: Single Family Res - Low Density | RR2.5: Rural Residential 2.5 Acre Min | TPZ: Timber Production Zone |
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| R1: Single Family Res - High Density | RR10: Rural Residential 10 Acre Min | SUD: Specific Unit Development | |



SOURCE: TRINITY COUNTY 2017



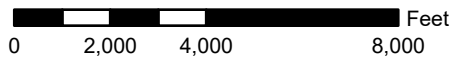
**FIGURE 6B
ZONING**
TRINITY COUNTY WILDFIRE
MITIGATION/HAZARDOUS
FUELS REDUCTION PROJECT
GRANT #4382
TRINITY COUNTY, CALIFORNIA



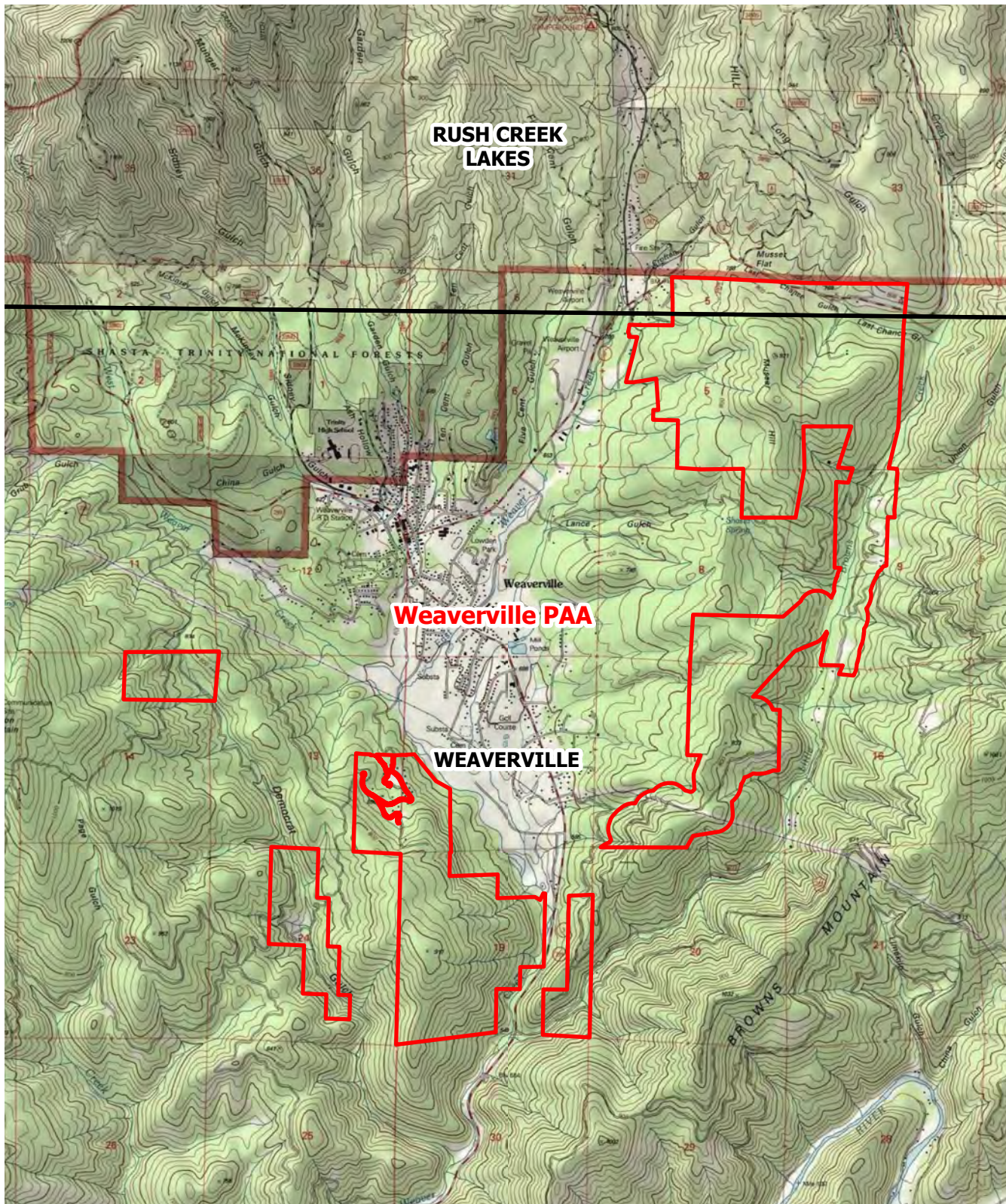
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| AF20: Agricultural Forest 20 Acre Min | R1A: Single Family Res - Low Density | RR2.5: Rural Residential 2.5 Acre Min | TPZ: Timber Production Zone |
| C1:: Retail Commercial | R2: Duplex Residential District | RR20: Rural Residential 20 Acre Min | UNC: Unclassified |
| HC: Highway Commercial | RR1: Rural Residential 1 Acre Min | RR5: Rural Residential 5 Acre Min | Project Boundary |
| R1: Single Family Res - High Density | RR10: Rural Residential 10 Acre Min | SUD: Specific Unit Development | |





SOURCE: TRINITY COUNTY 2017



**FIGURE 6C
ZONING**
TRINITY COUNTY WILDFIRE
MITIGATION/HAZARDOUS
FUELS REDUCTION PROJECT
GRANT #4382
TRINITY COUNTY, CALIFORNIA



-  USGS 7.5' Quadrangle Boundary
-  Project Boundary

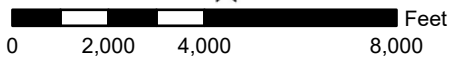
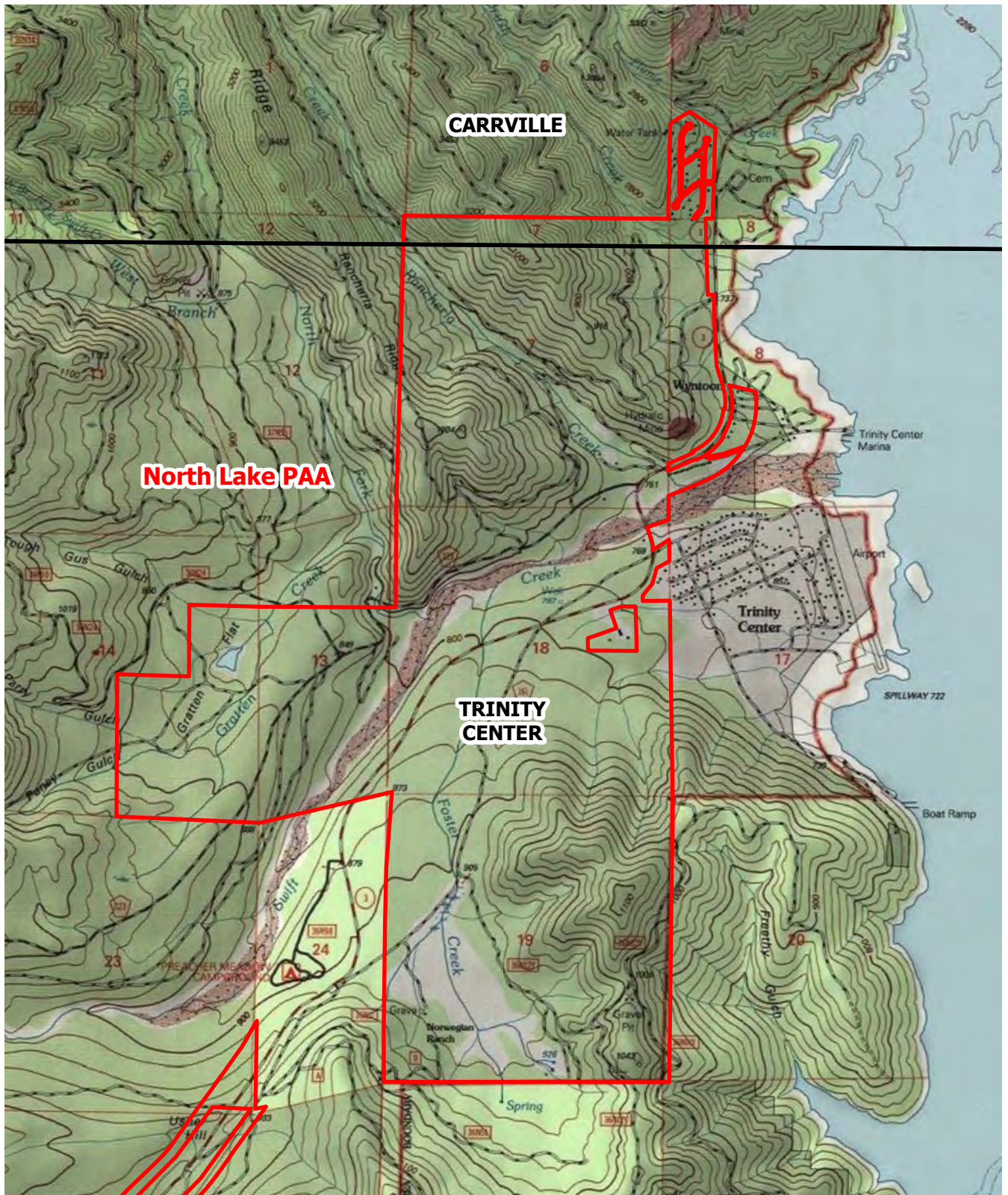


FIGURE 7A
USGS TOPOGRAPHIC MAP
TRINITY COUNTY WILDFIRE
MITIGATION/HAZARDOUS
FUELS REDUCTION PROJECT
GRANT #4382
TRINITY COUNTY, CALIFORNIA





- USGS 7.5' Quadrangle Boundary
- Project Boundary

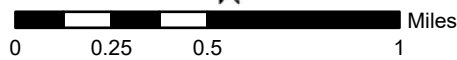
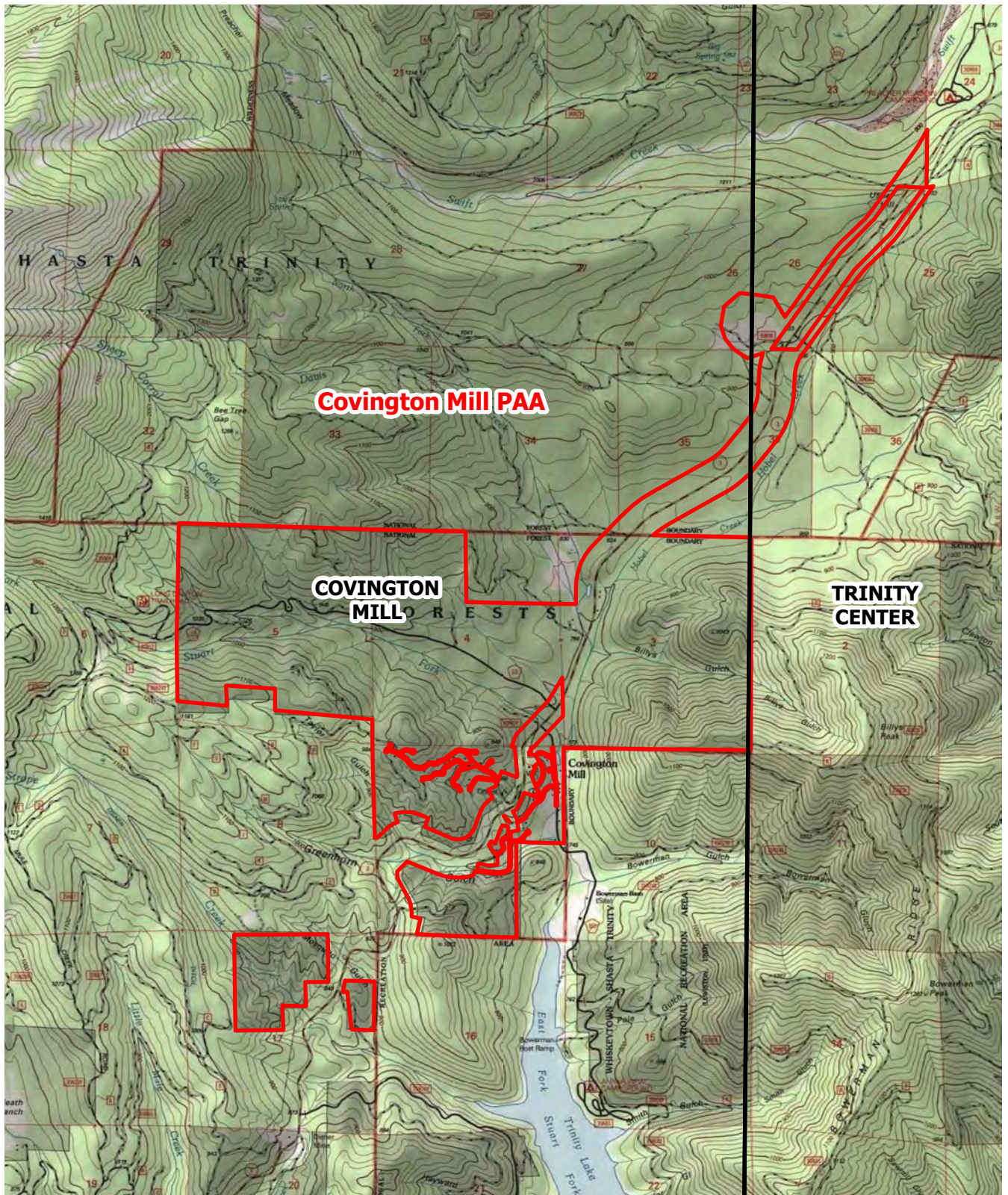




FIGURE 7B
 USGS TOPOGRAPHIC MAP
 TRINITY COUNTY WILDFIRE
 MITIGATION/HAZARDOUS
 FUELS REDUCTION PROJECT
 GRANT #4382
 TRINITY COUNTY, CALIFORNIA



-  USGS 7.5' Quadrangle Boundary
-  Project Boundary

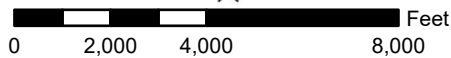
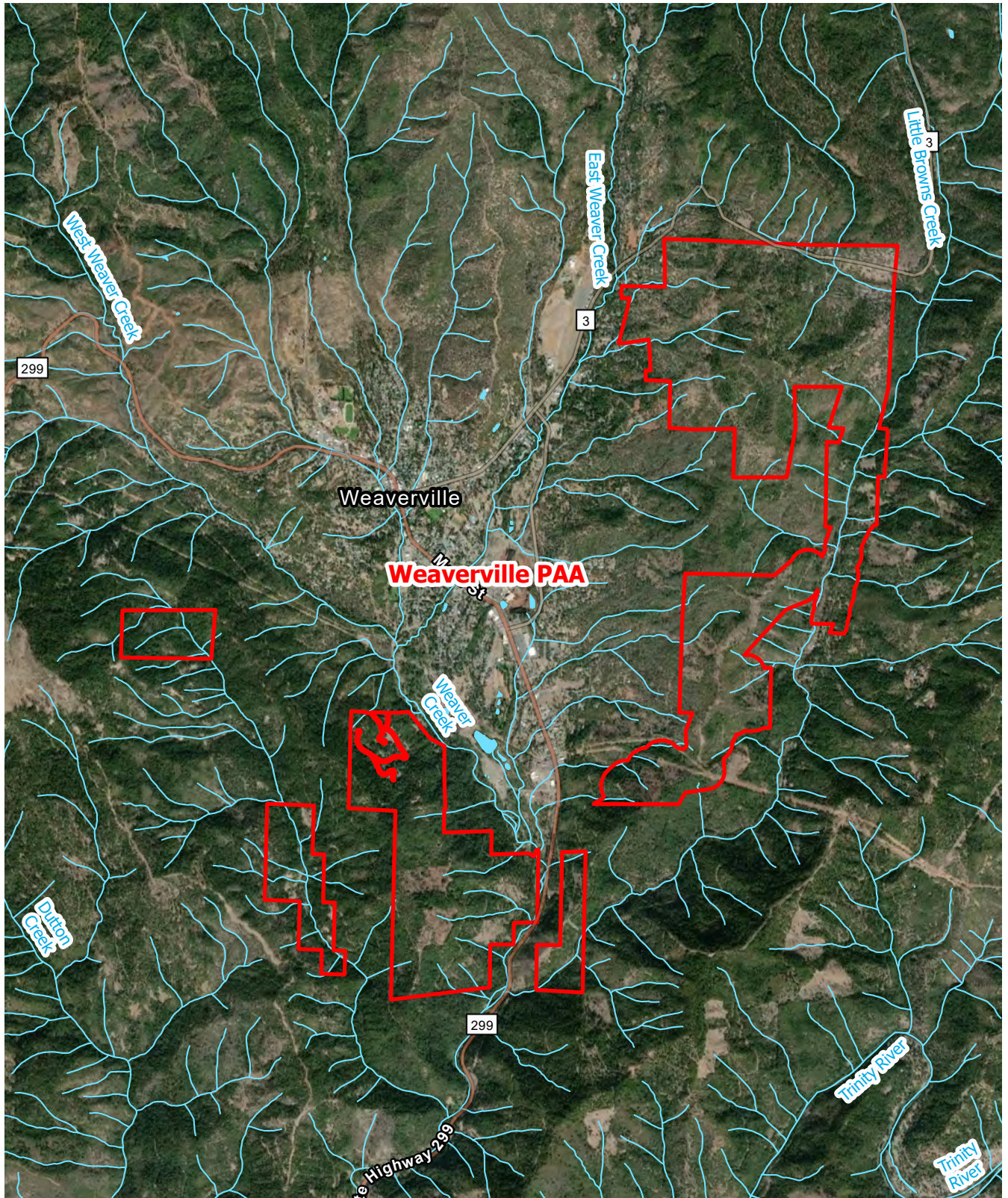





FIGURE 7C
USGS TOPOGRAPHIC MAP
TRINITY COUNTY WILDFIRE
MITIGATION/HAZARDOUS
FUELS REDUCTION PROJECT
GRANT #4382
TRINITY COUNTY, CALIFORNIA

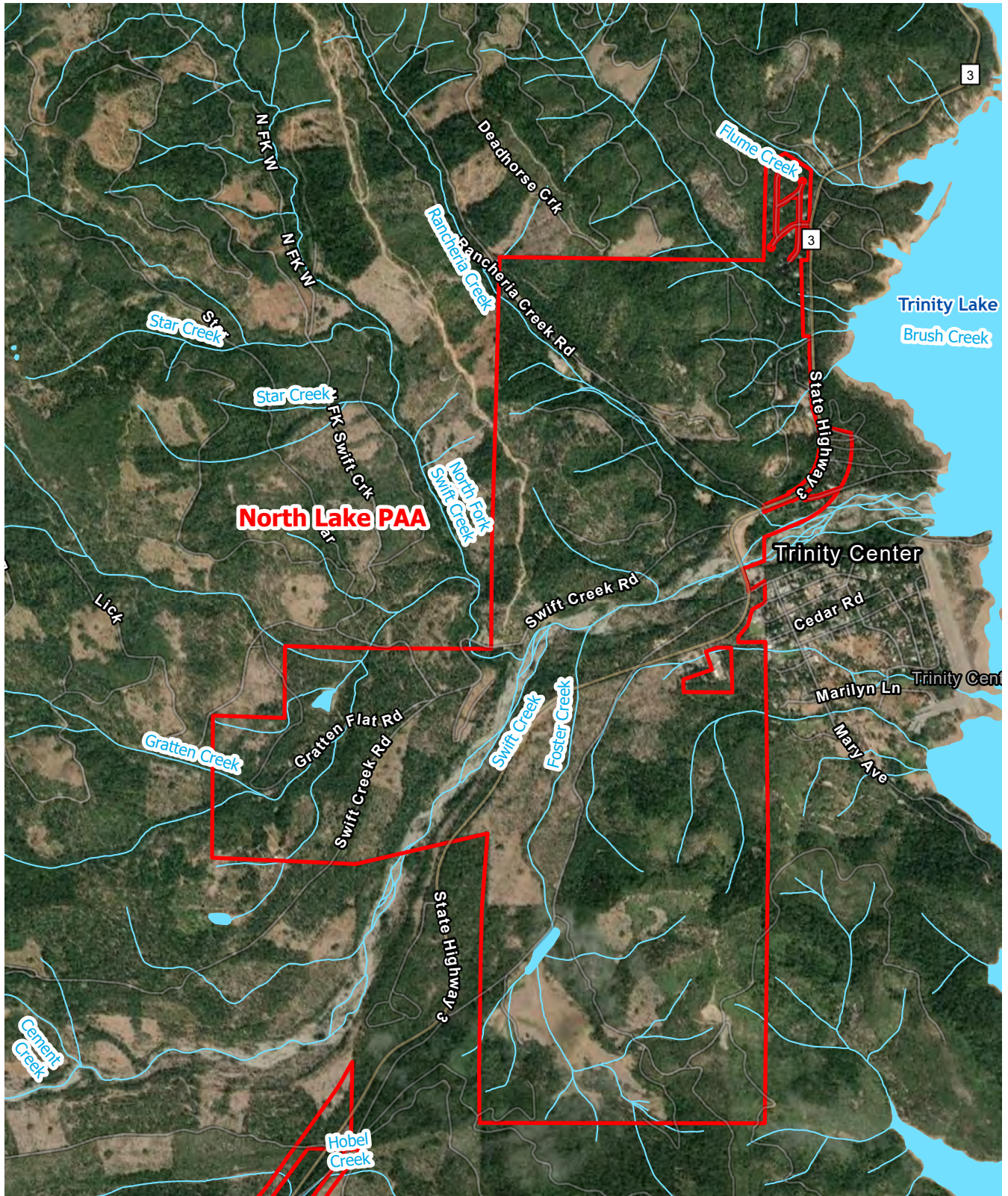


-  Watercourse
-  Waterbody
-  Project Boundary

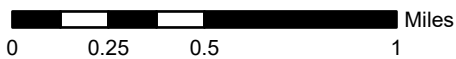
VESTRA
 SOURCE: USGS NHD 2020

0 2,000 4,000 8,000 Feet

**FIGURE 8A
 HYDROLOGY**
 TRINITY COUNTY WILDFIRE
 MITIGATION/HAZARDOUS
 FUELS REDUCTION PROJECT
 GRANT #4382
 TRINITY COUNTY, CALIFORNIA



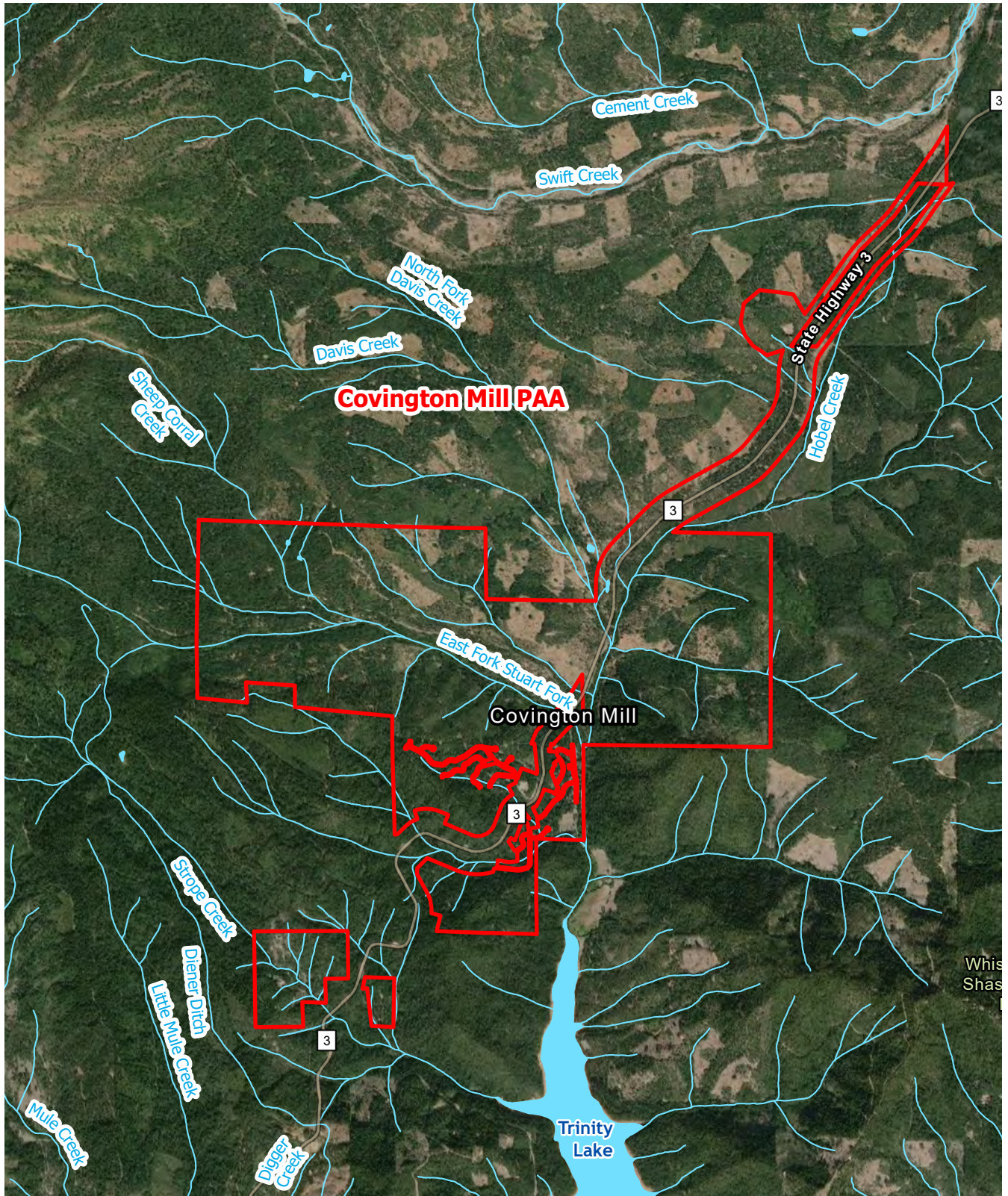
- Watercourse
- Waterbody
- Project Boundary






**FIGURE 8B
HYDROLOGY**
TRINITY COUNTY WILDFIRE
MITIGATION/HAZARDOUS
FUELS REDUCTION PROJECT
GRANT #4382
TRINITY COUNTY, CALIFORNIA



SOURCE: USGS NHD 2020



-  Watercourse
-  Waterbody
-  Project Boundary

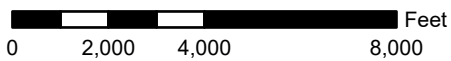
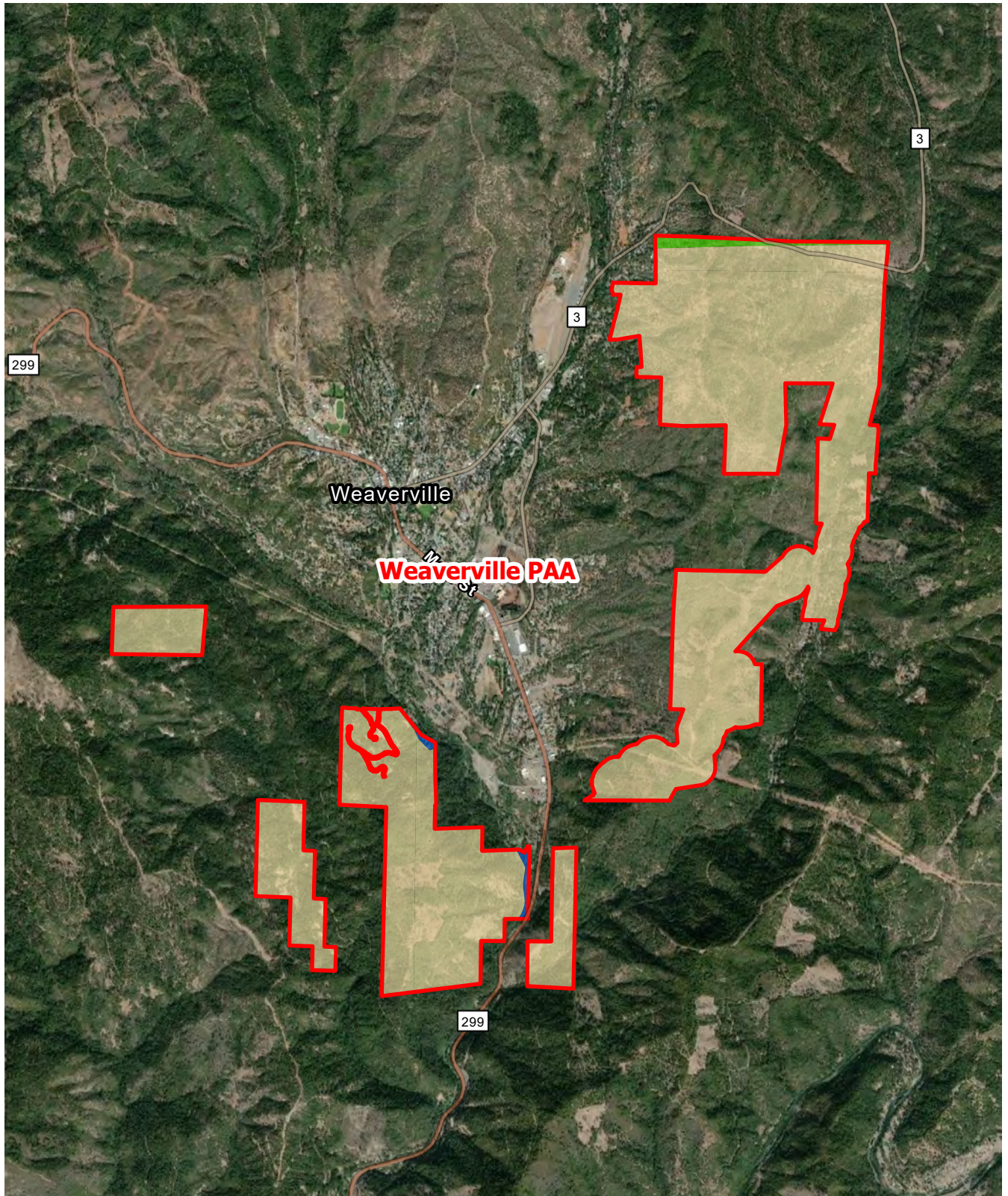


FIGURE 8C
HYDROLOGY
 TRINITY COUNTY WILDFIRE
 MITIGATION/HAZARDOUS
 FUELS REDUCTION PROJECT
 GRANT #4382
 TRINITY COUNTY, CALIFORNIA



SOURCE: USGS NHD 2020



- Project Boundary
- Zone A: Special Flood Hazard
- Area without Base Flood Elevaton

- Zone D: Area with Possible by Undetermined Flood Hazards
- Zone X: Area of Minimal Flood Hazard

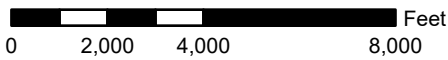
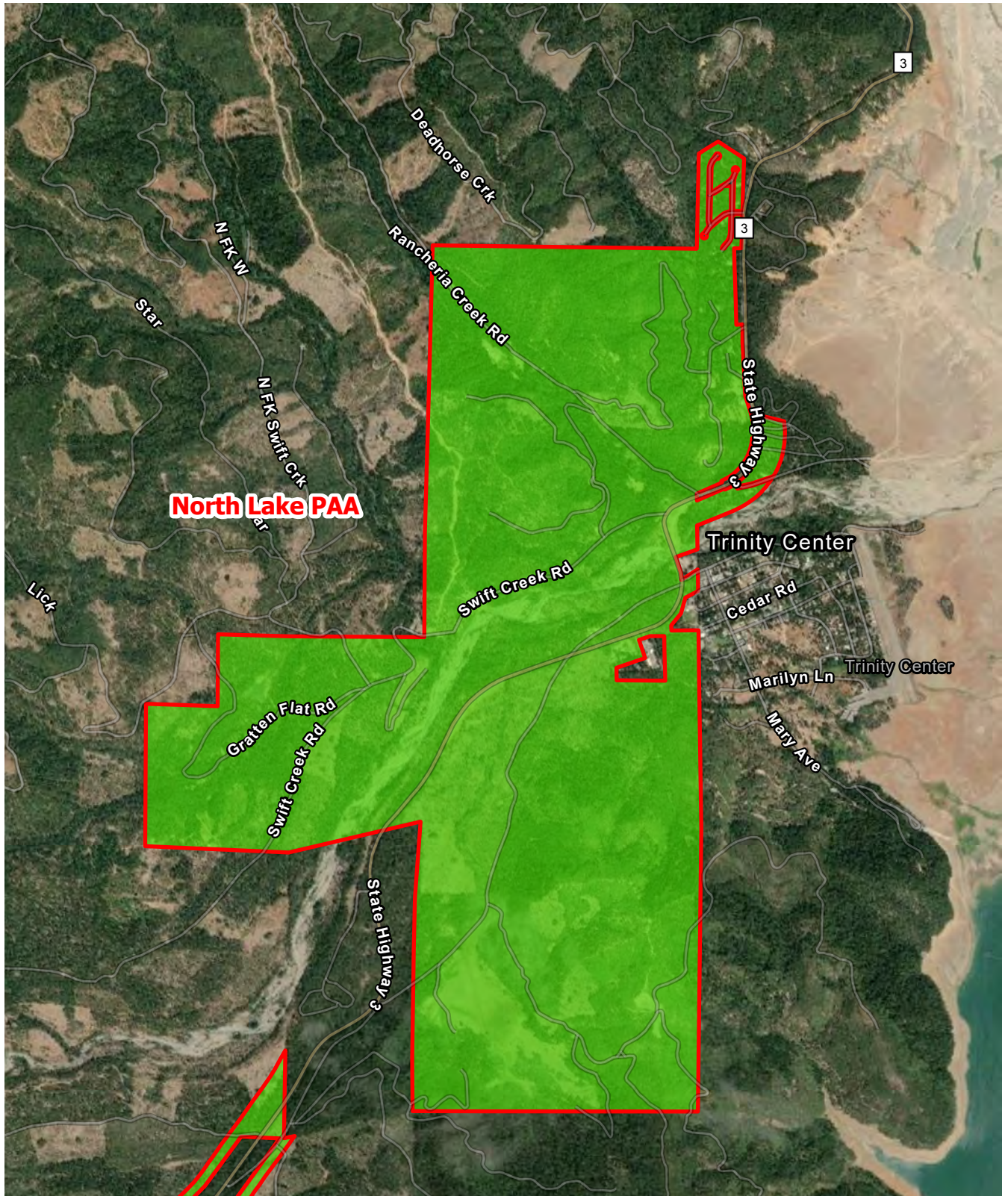


FIGURE 9A
FEMA FLOOD ZONES
 TRINITY COUNTY WILDFIRE
 MITIGATION/HAZARDOUS
 FUELS REDUCTION PROJECT
 GRANT #4382
 TRINITY COUNTY, CALIFORNIA

SOURCE: FEMA 2020



- Project Boundary
- Zone A: Special Flood Hazard Area without Base Flood Elevation

- Zone D: Area with Possible by Undetermined Flood Hazards
- Zone X: Area of Minimal Flood Hazard

VESTRA
SOURCE: FEMA 2020

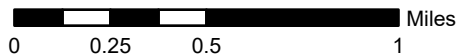
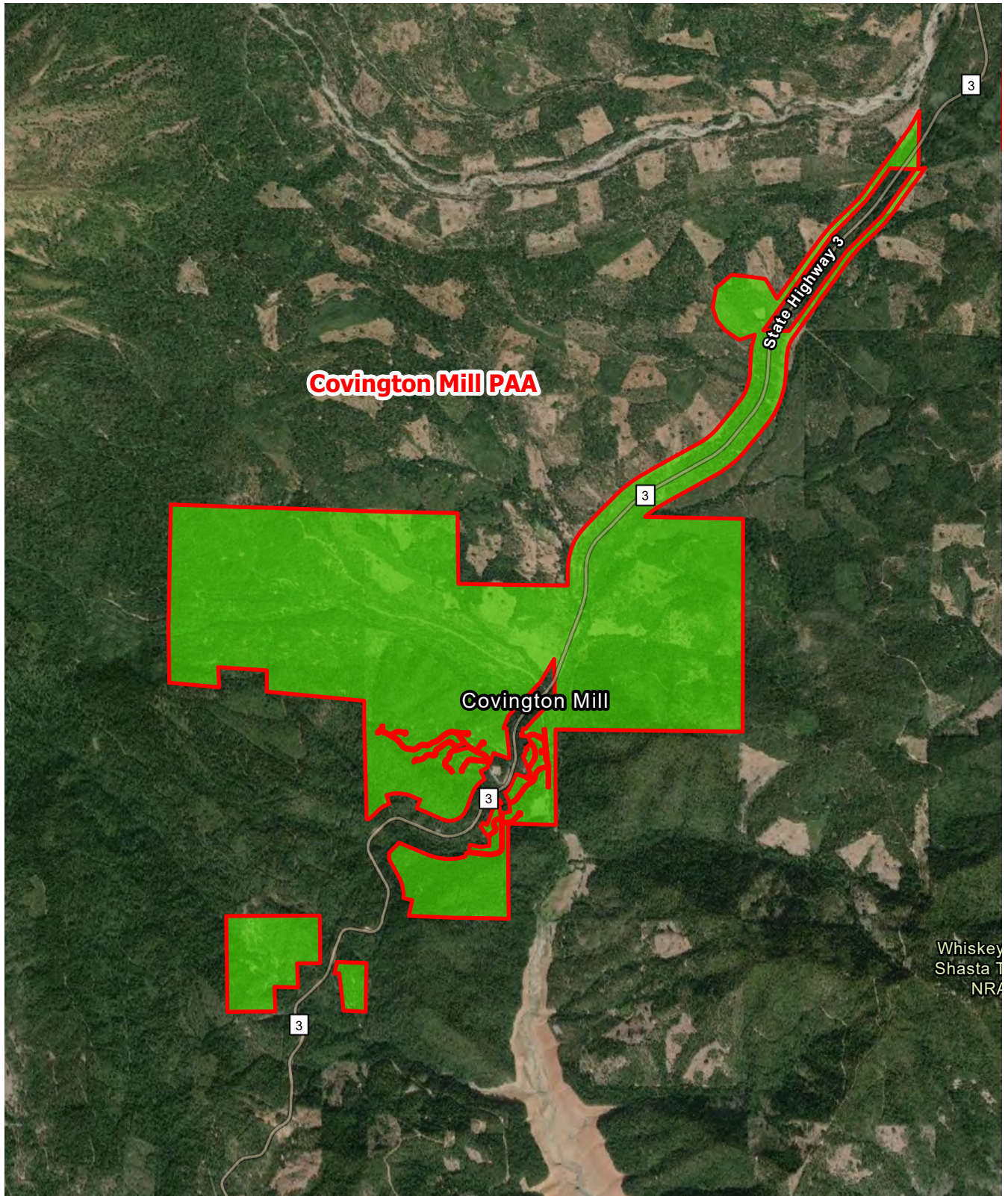


FIGURE 9B
FEMA FLOOD ZONES
TRINITY COUNTY WILDFIRE
MITIGATION/HAZARDOUS
FUELS REDUCTION PROJECT
GRANT #4382
TRINITY COUNTY, CALIFORNIA



- Project Boundary
- Zone A: Special Flood Hazard Area without Base Flood Elevaton
- Zone D: Area with Possible by Undetermined Flood Hazards
- Zone X: Area of Minimal Flood Hazard

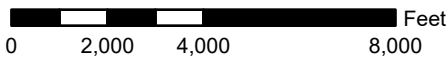
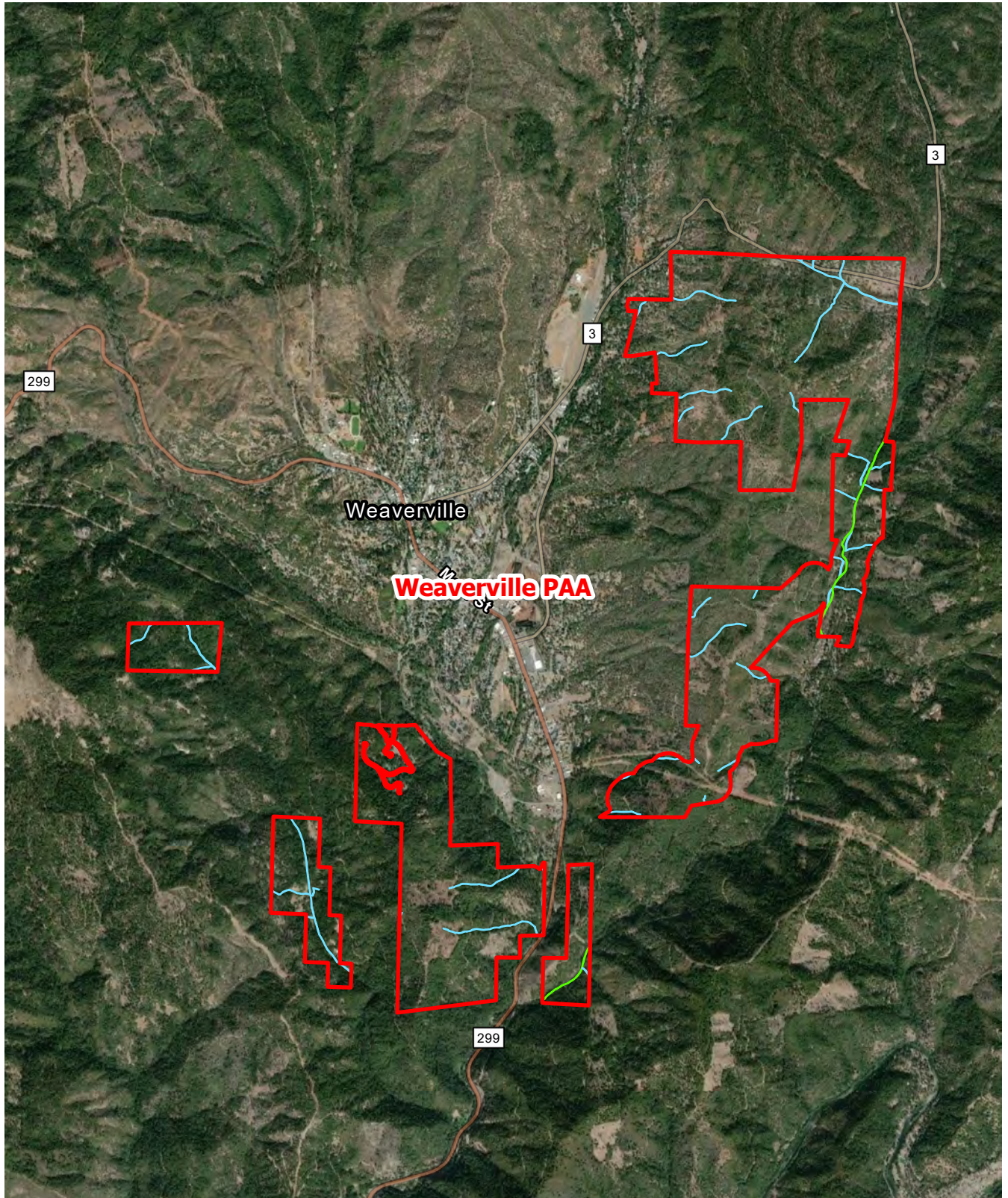


FIGURE 9C
FEMA FLOOD ZONES
 TRINITY COUNTY WILDFIRE
 MITIGATION/HAZARDOUS
 FUELS REDUCTION PROJECT
 GRANT #4382
 TRINITY COUNTY, CALIFORNIA

SOURCE: FEMA 2020








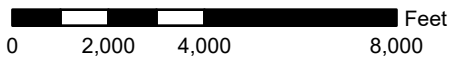
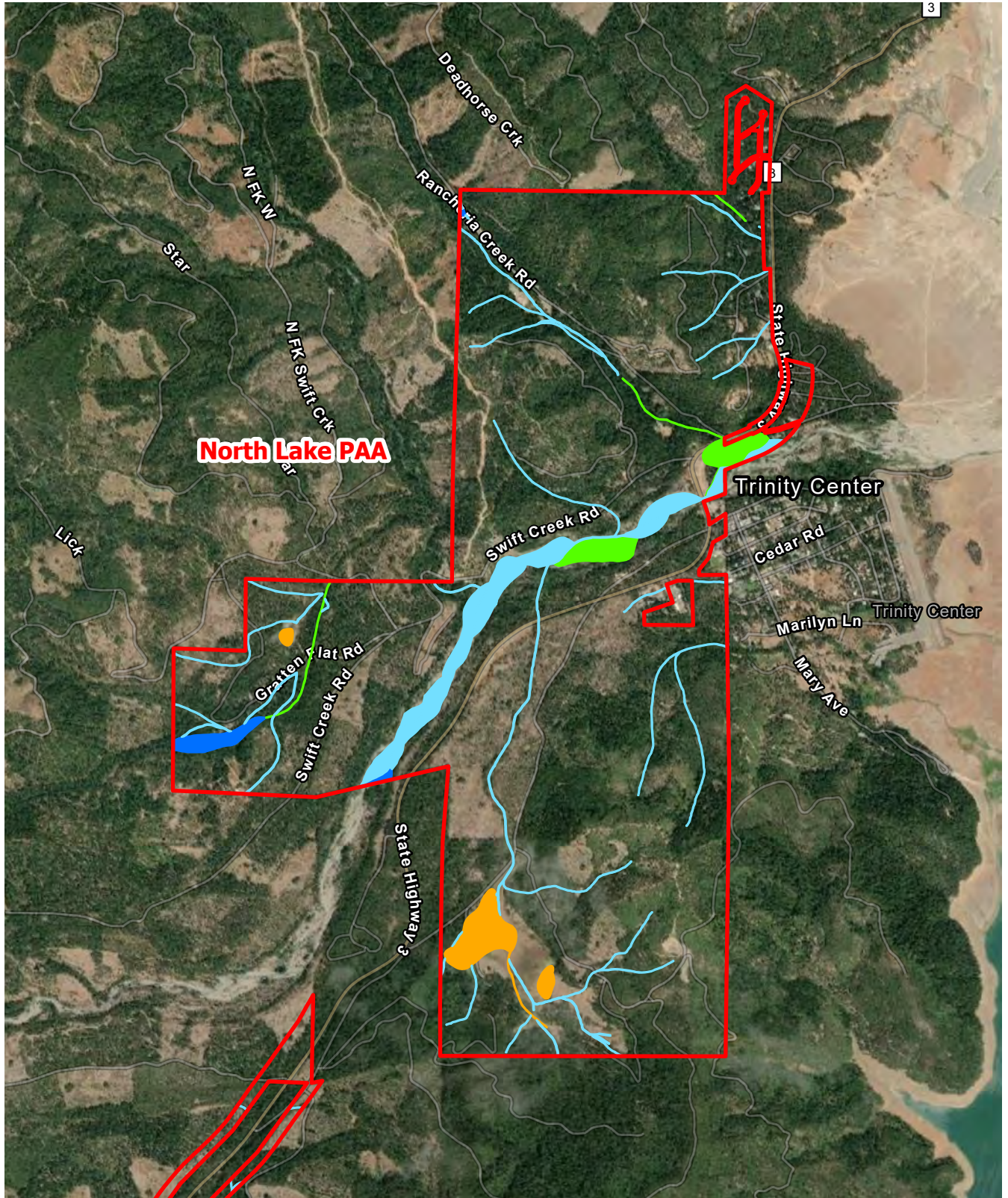
- | | |
|---|--|
|  Freshwater Emergent Wetland |  Riverine |
|  Freshwater Forested/Shrub Wetland |  Project Boundary |
|  Freshwater Pond | |



FIGURE 10A
USFWS WETLANDS
TRINITY COUNTY WILDFIRE
MITIGATION/HAZARDOUS
FUELS REDUCTION PROJECT
GRANT #4382
TRINITY COUNTY, CALIFORNIA



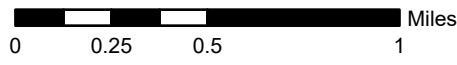
SOURCE: USFWS NATIONAL WETLAND INVENTORY 2022



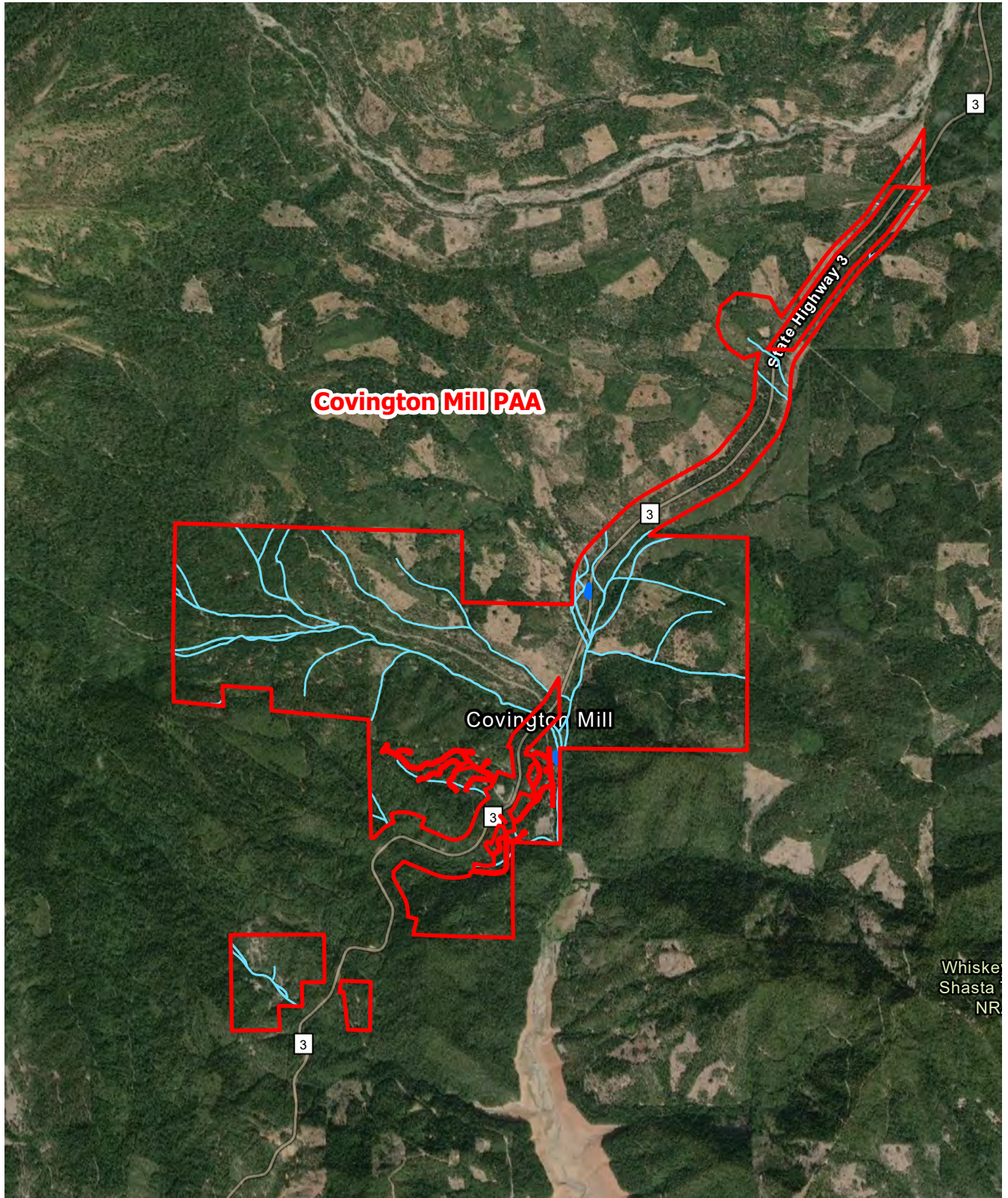
- Freshwater Emergent Wetland
- Riverine
- Freshwater Forested/Shrub Wetland
- Project Boundary
- Freshwater Pond



FIGURE 10B
USFWS WETLANDS
TRINITY COUNTY WILDFIRE
MITIGATION/HAZARDOUS
FUELS REDUCTION PROJECT
GRANT #4382
TRINITY COUNTY, CALIFORNIA



SOURCE: USFWS NATIONAL WETLAND INVENTORY 2022








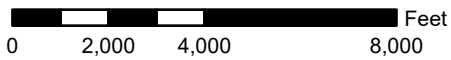
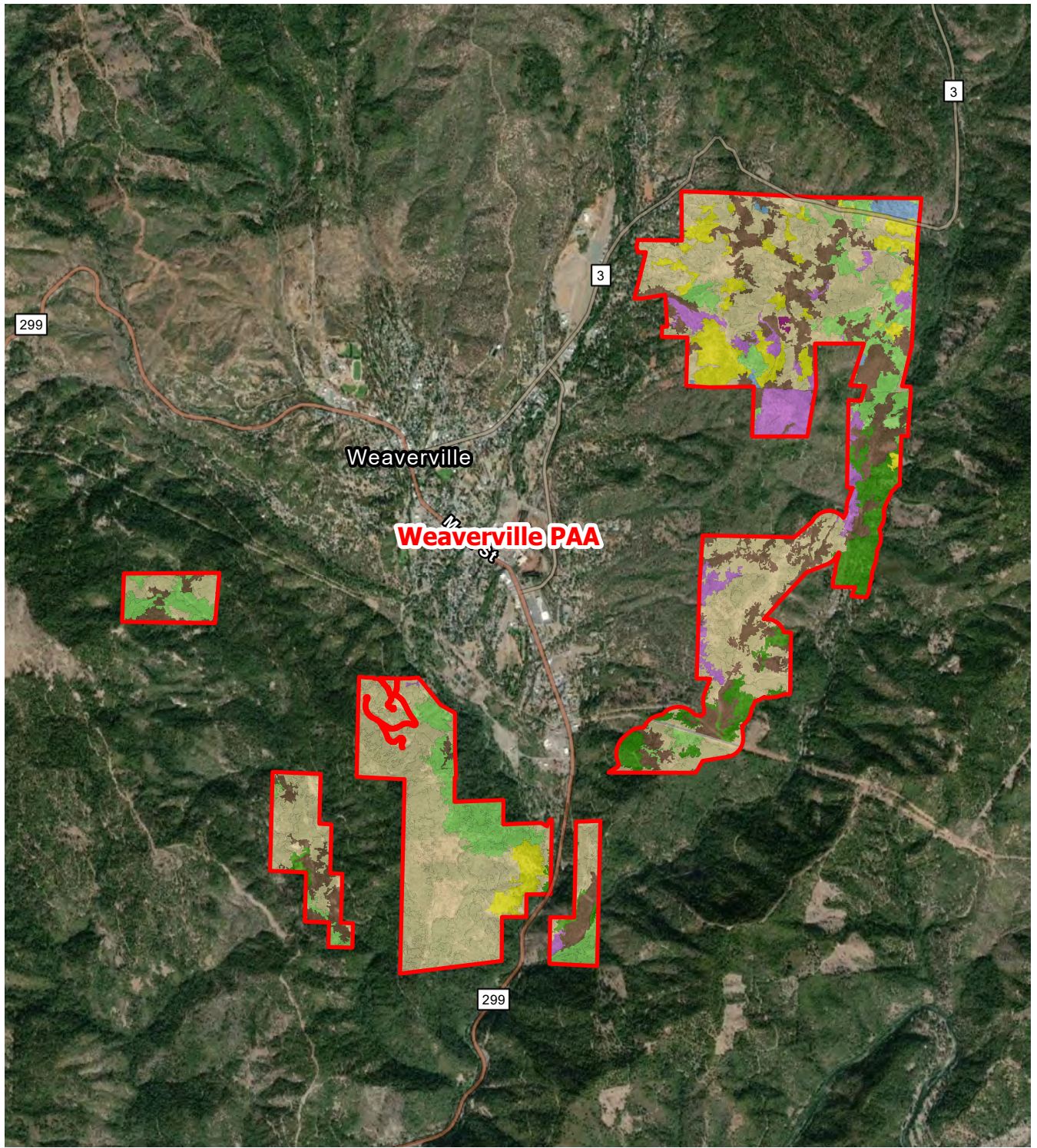
- | | |
|---|--|
|  Freshwater Emergent Wetland |  Riverine |
|  Freshwater Forested/Shrub Wetland |  Project Boundary |
|  Freshwater Pond | |



FIGURE 10C
USFWS WETLANDS
TRINITY COUNTY WILDFIRE
MITIGATION/HAZARDOUS
FUELS REDUCTION PROJECT
GRANT #4382
TRINITY COUNTY, CALIFORNIA



SOURCE: USFWS NATIONAL WETLAND INVENTORY 2022



- Project Boundary
- Annual Grassland
- Barren
- Douglas Fir
- Lacustrine

- Mixed Chaparral
- Montane Chaparral
- Montane Hardwood-Conifer
- Montane Hardwood
- Perennial Grassland

- Ponderosa Pine
- Sierran Mixed Conifer
- Urban
- Wet Meadow

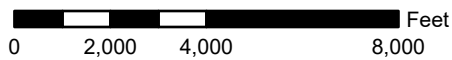
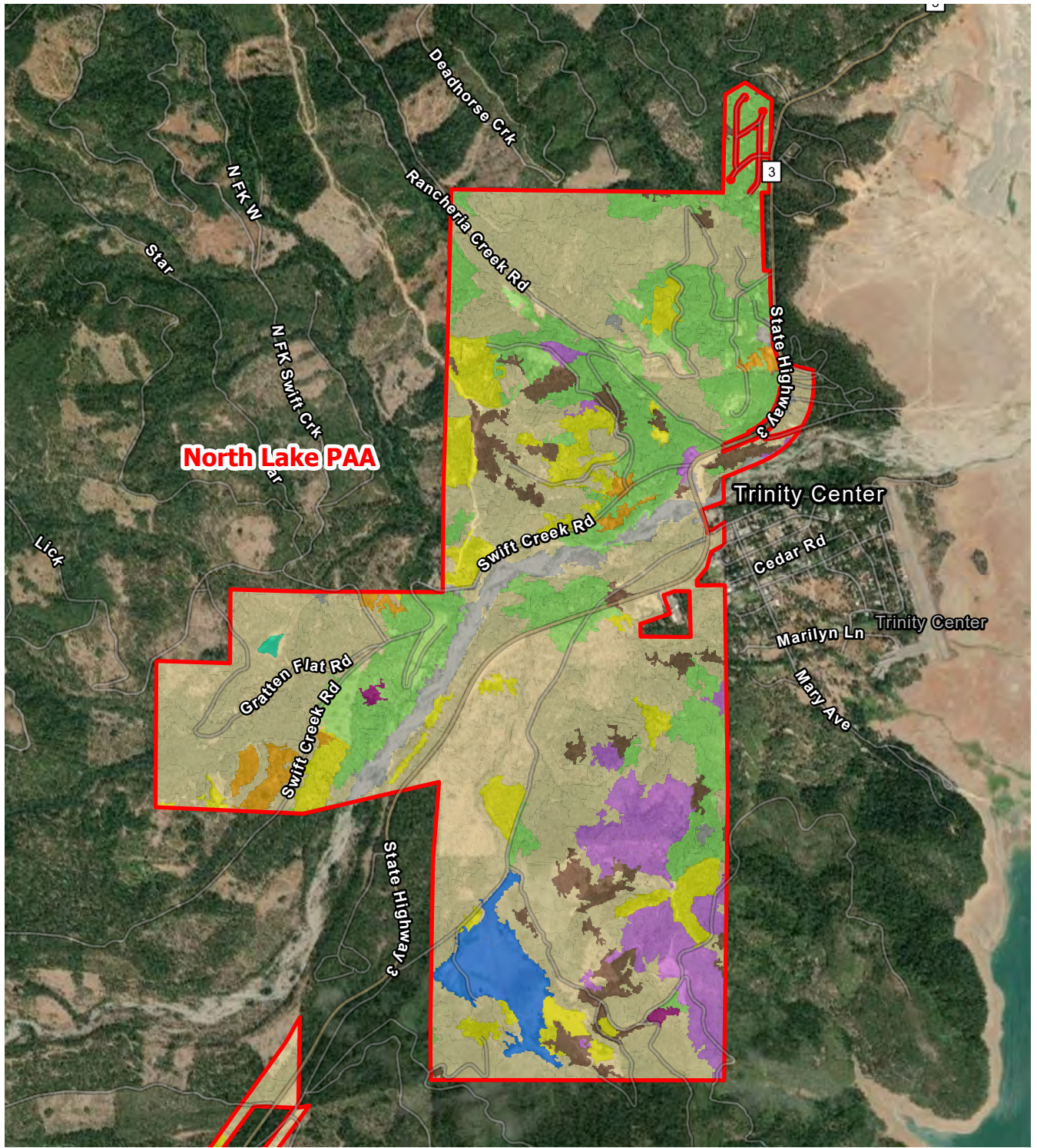


FIGURE 11A
VEGETATION TYPES
 TRINITY COUNTY WILDFIRE
 MITIGATION/HAZARDOUS
 FUELS REDUCTION PROJECT
 GRANT #4382
 TRINITY COUNTY, CALIFORNIA



- | | | |
|------------------|--------------------------|-----------------------|
| Project Boundary | Mixed Chaparral | Ponderosa Pine |
| Annual Grassland | Montane Chaparral | Sierran Mixed Conifer |
| Barren | Montane Hardwood-Conifer | Urban |
| Douglas Fir | Montane Hardwood | Wet Meadow |
| Lacustrine | Perennial Grassland | |

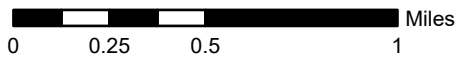
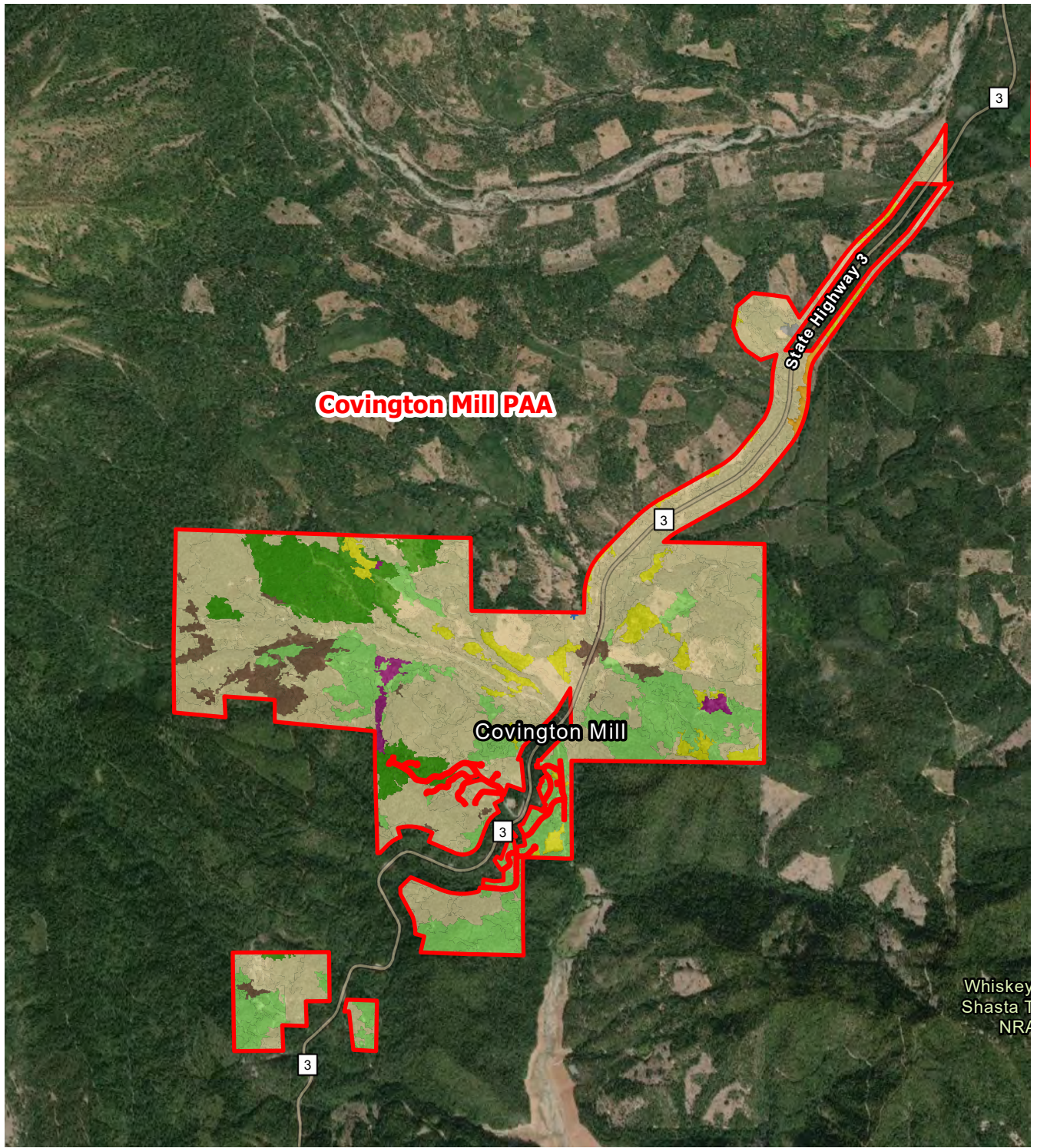


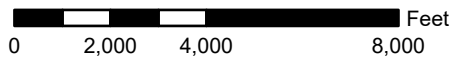
FIGURE 11B
VEGETATION TYPES
 TRINITY COUNTY WILDFIRE
 MITIGATION/HAZARDOUS
 FUELS REDUCTION PROJECT
 GRANT #4382
 TRINITY COUNTY, CALIFORNIA



- Project Boundary
- Annual Grassland
- Barren
- Douglas Fir
- Lacustrine

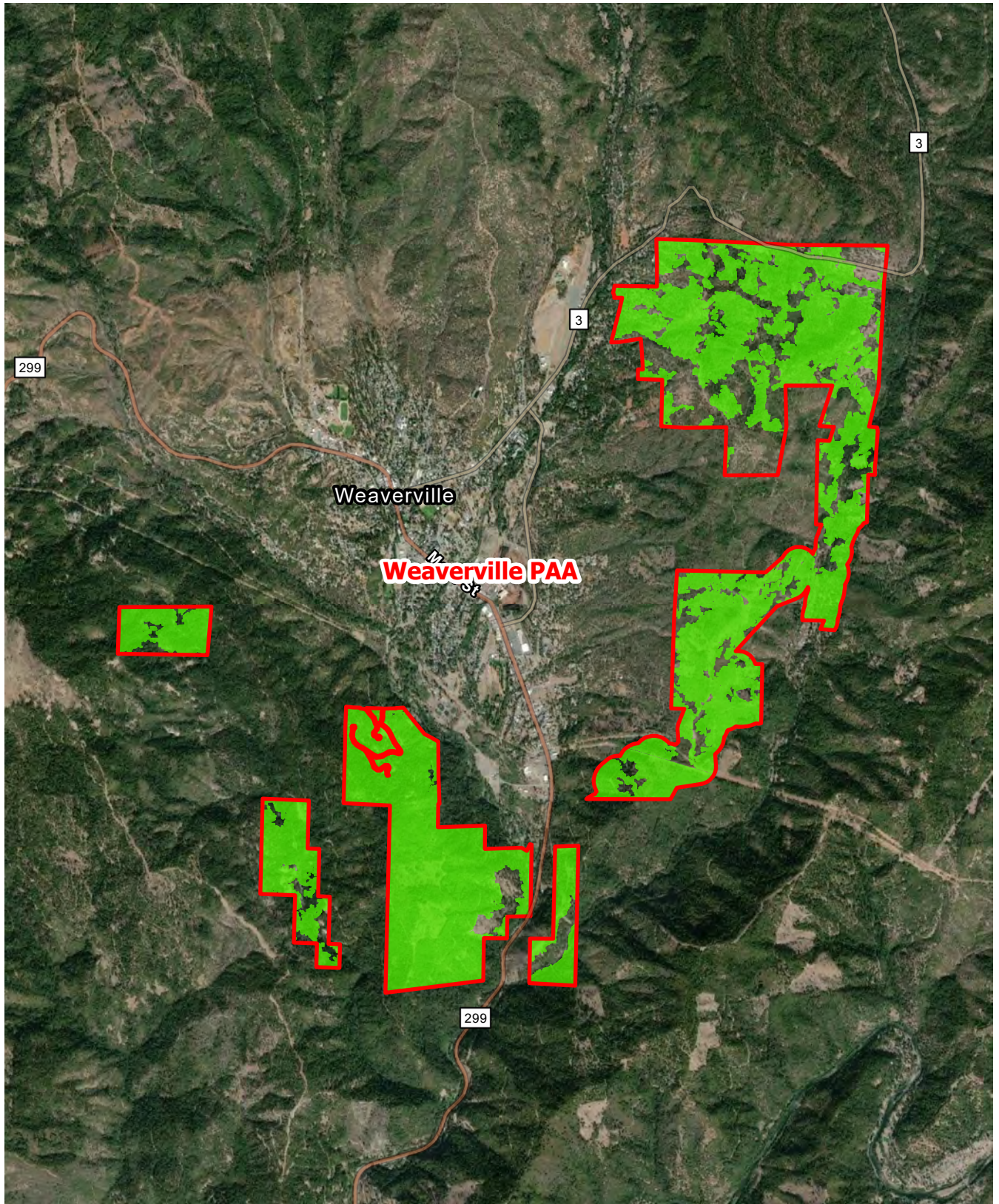
- Mixed Chaparral
- Montane Chaparral
- Montane Hardwood-Conifer
- Montane Hardwood
- Perennial Grassland

- Ponderosa Pine
- Sierran Mixed Conifer
- Urban
- Wet Meadow



Whiskey
Shasta T
NRA

FIGURE 11C
VEGETATION TYPES
TRINITY COUNTY WILDFIRE
MITIGATION/HAZARDOUS
FUELS REDUCTION PROJECT
GRANT #4382
TRINITY COUNTY, CALIFORNIA



- Project Boundary
- Commercial Timberland



SOURCE: USFS CALVEG 2021

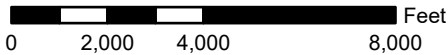
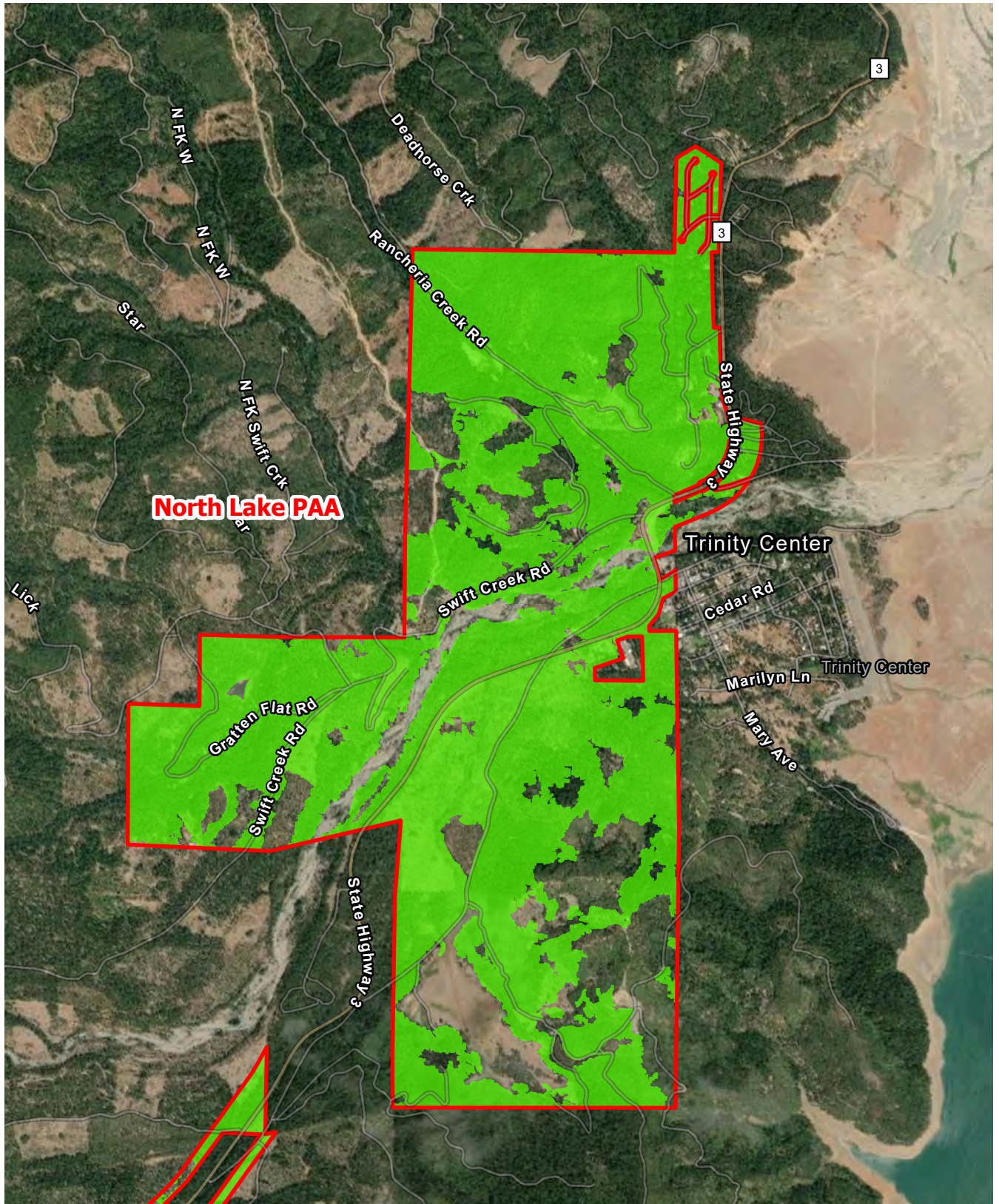


FIGURE 12A
COMMERCIAL TIMBERLAND
 TRINITY COUNTY WILDFIRE
 MITIGATION/HAZARDOUS
 FUELS REDUCTION PROJECT
 GRANT #4382
 TRINITY COUNTY, CALIFORNIA



- Project Boundary
- Commercial Timberland



SOURCE: USFS CALVEG 2021

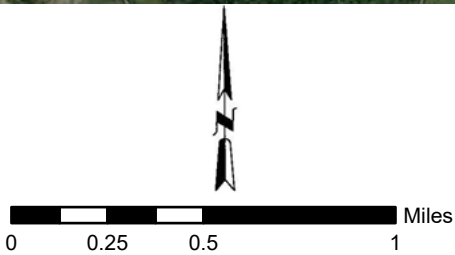
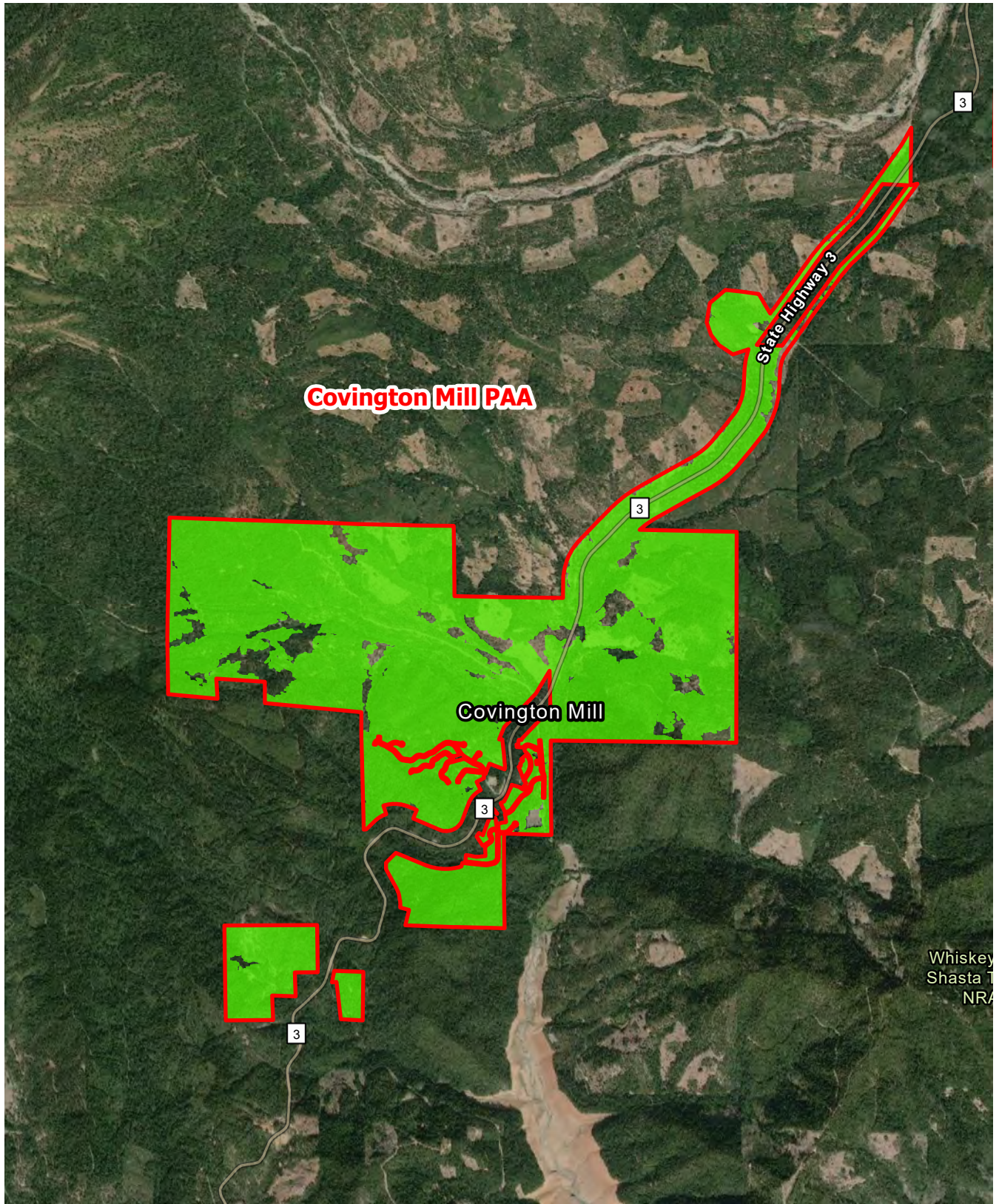


FIGURE 12B
COMMERCIAL TIMBERLAND
TRINITY COUNTY WILDFIRE
MITIGATION/HAZARDOUS
FUELS REDUCTION PROJECT
GRANT #4382
TRINITY COUNTY, CALIFORNIA



- Project Boundary
- Commercial Timberland



SOURCE: USFS CALVEG 2021

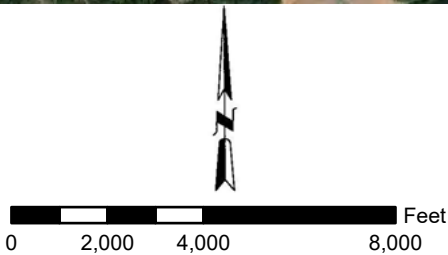
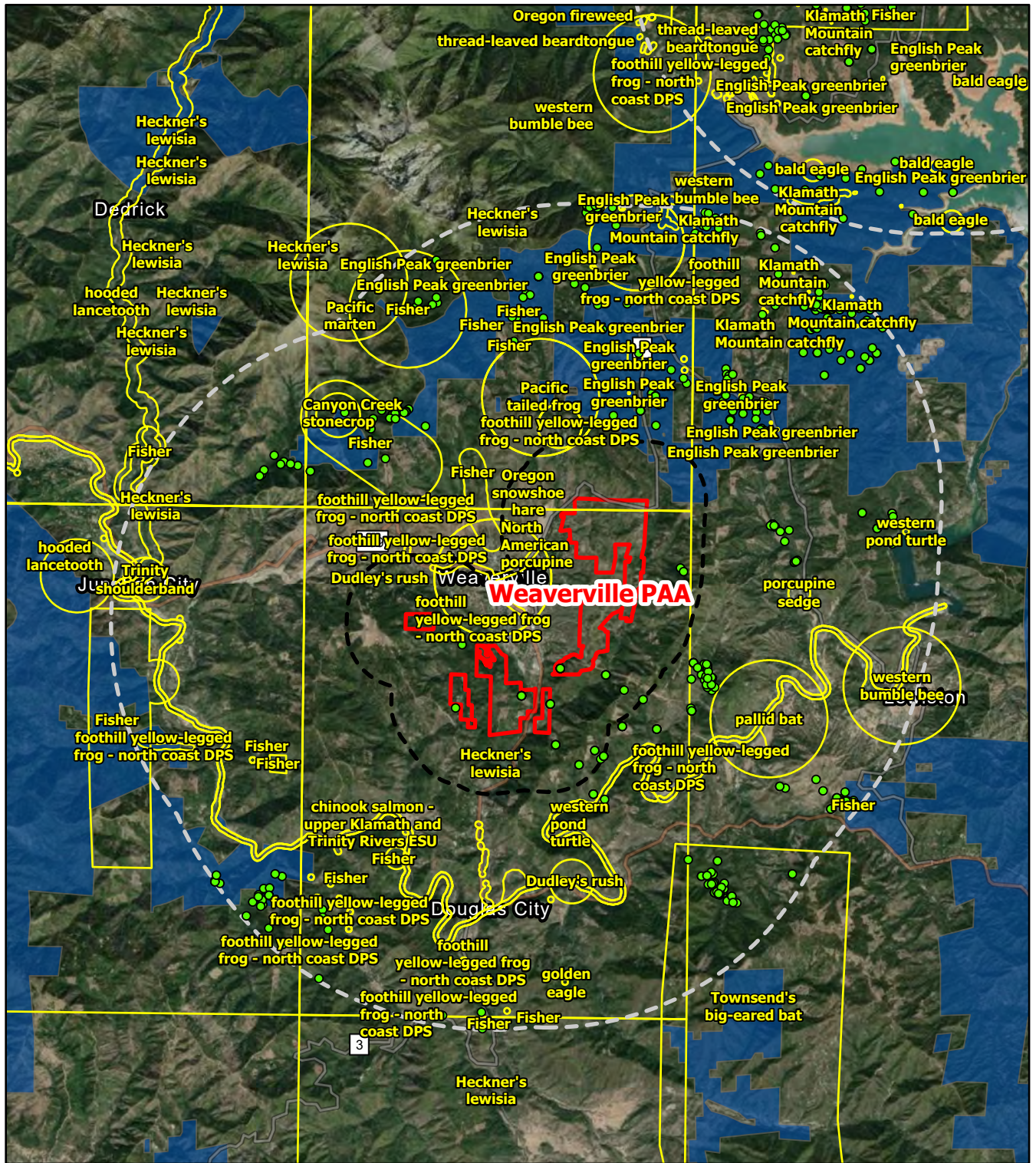


FIGURE 12C
 COMMERCIAL TIMBERLAND
 TRINITY COUNTY WILDFIRE
 MITIGATION/HAZARDOUS
 FUELS REDUCTION PROJECT
 GRANT #4382
 TRINITY COUNTY, CALIFORNIA



- Spotted Owl Observation Location
- 1-Mile Buffer Around Project Boundary
- 5-Mile Buffer Around Project Boundary

- CNDDB Occurrence
- USFWS Northern Spotted Owl Critical Habitat
- Project Boundary

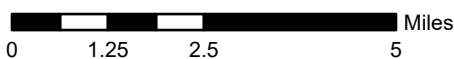
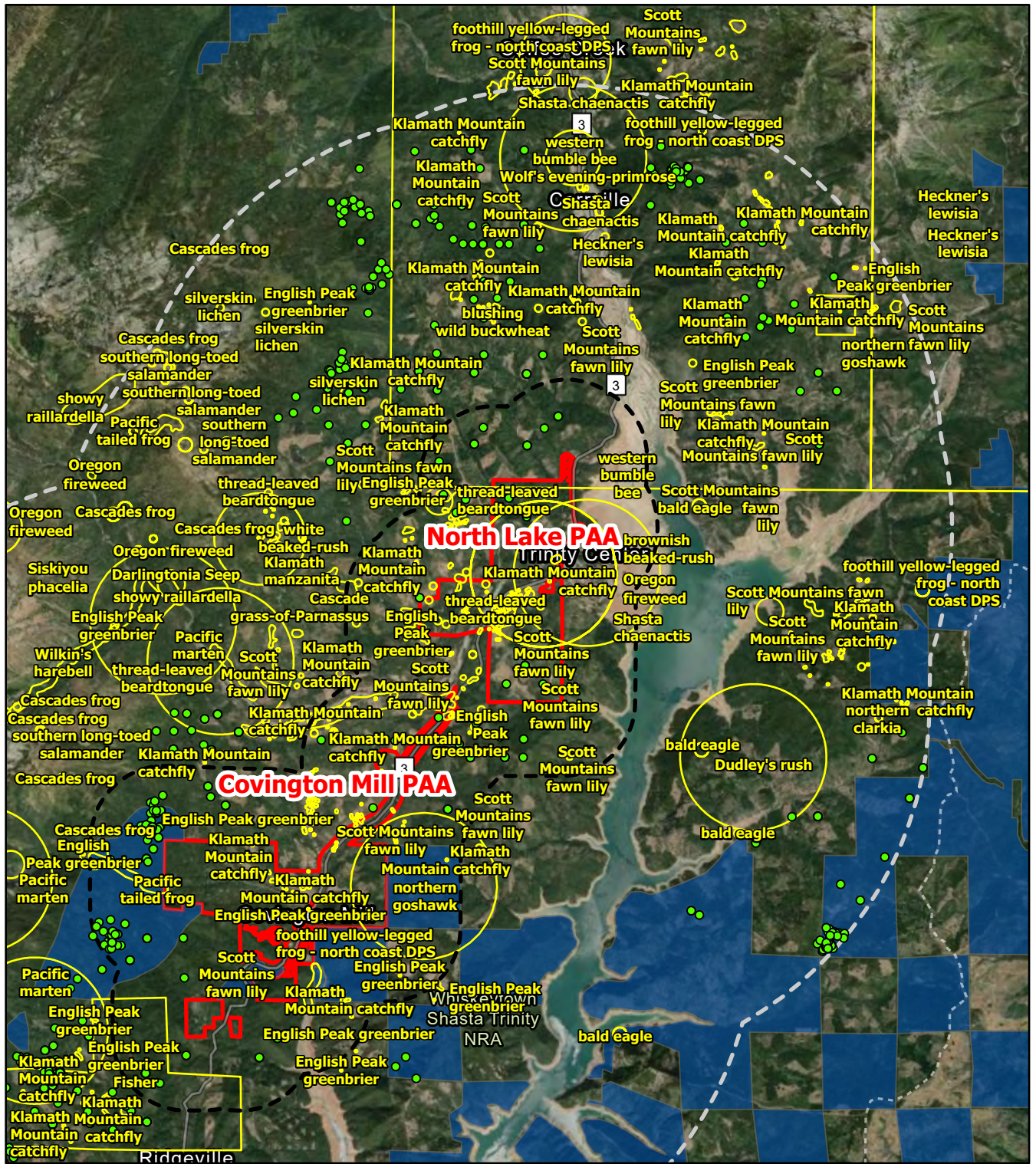


FIGURE 13A
 CNDDB OCCURRENCES
 AND CRITICAL HABITAT
 TRINITY COUNTY WILDFIRE
 MITIGATION/HAZARDOUS
 FUELS REDUCTION PROJECT
 GRANT #4382
 TRINITY COUNTY, CALIFORNIA



SOURCE: CDFW DECEMBER 2022; USFWS 2022



- Spotted Owl Observation Location
- 1-Mile Buffer Around Project Boundary
- 5-Mile Buffer Around Project Boundary

- CNDDB Occurrence
- USFWS Northern Spotted Owl Critical Habitat
- Project Boundary

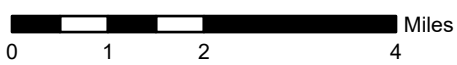


FIGURE 13B
CNDDB OCCURRENCES
AND CRITICAL HABITAT
TRINITY COUNTY WILDFIRE
MITIGATION/HAZARDOUS
FUELS REDUCTION PROJECT
GRANT #4382
TRINITY COUNTY, CALIFORNIA



SOURCE: CDFW DECEMBER 2022; USFWS 2022



- Spotted Owl Observation Location
- 1-Mile Buffer Around Project Boundary
- 5-Mile Buffer Around Project Boundary

- CNDDB Occurrence
- USFWS Northern Spotted Owl Critical Habitat
- Project Boundary

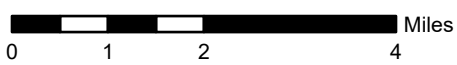


FIGURE 13C
 CNDDB OCCURRENCES
 AND CRITICAL HABITAT
 TRINITY COUNTY WILDFIRE
 MITIGATION/HAZARDOUS
 FUELS REDUCTION PROJECT
 GRANT #4382
 TRINITY COUNTY, CALIFORNIA



SOURCE: CDFW DECEMBER 2022; USFWS 2022



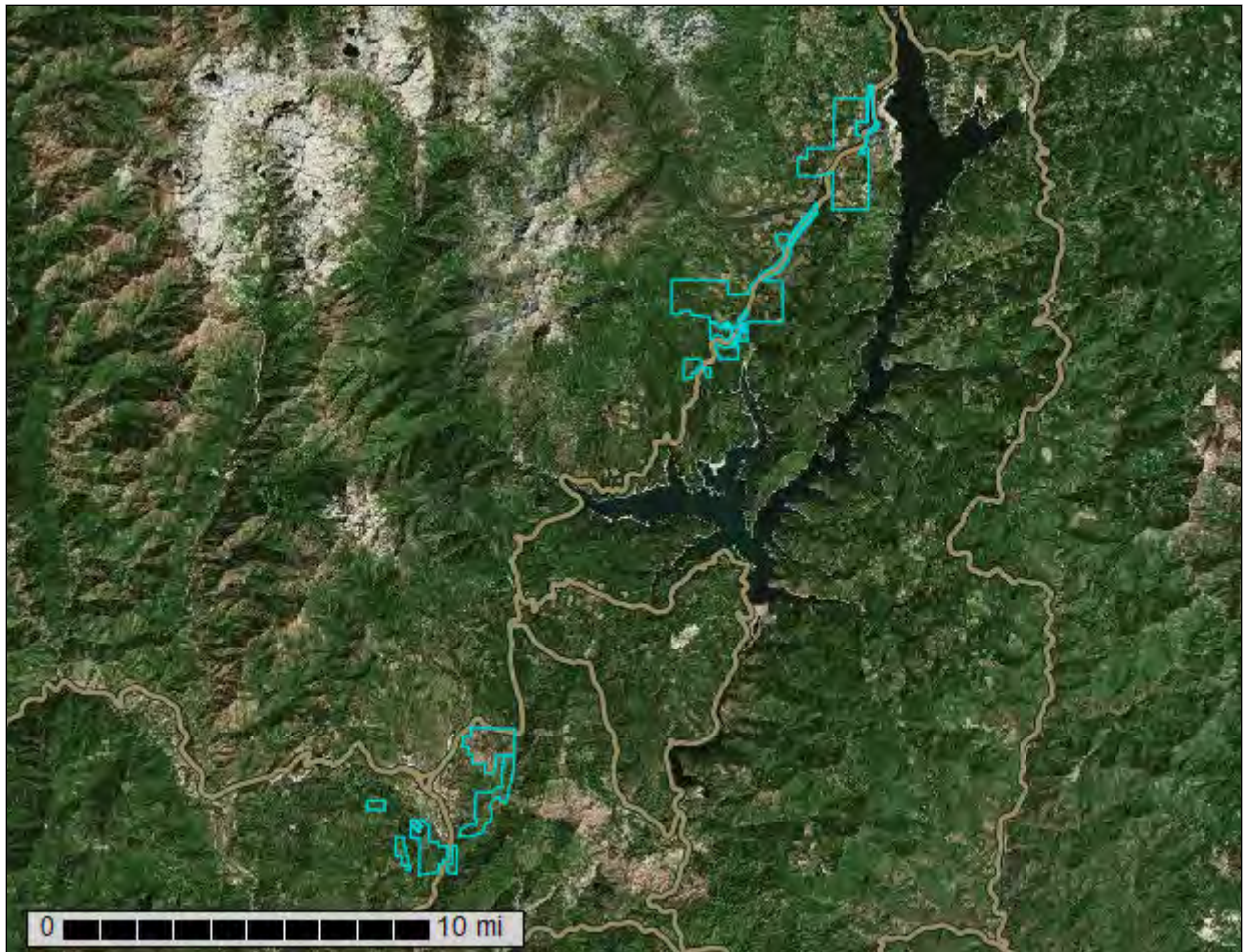
United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Shasta-Trinity National Forest Area, Parts of Humboldt, Siskiyou, Shasta, Tehama, and Trinity Counties, California; and Trinity County, California, Weaverville Area



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

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scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

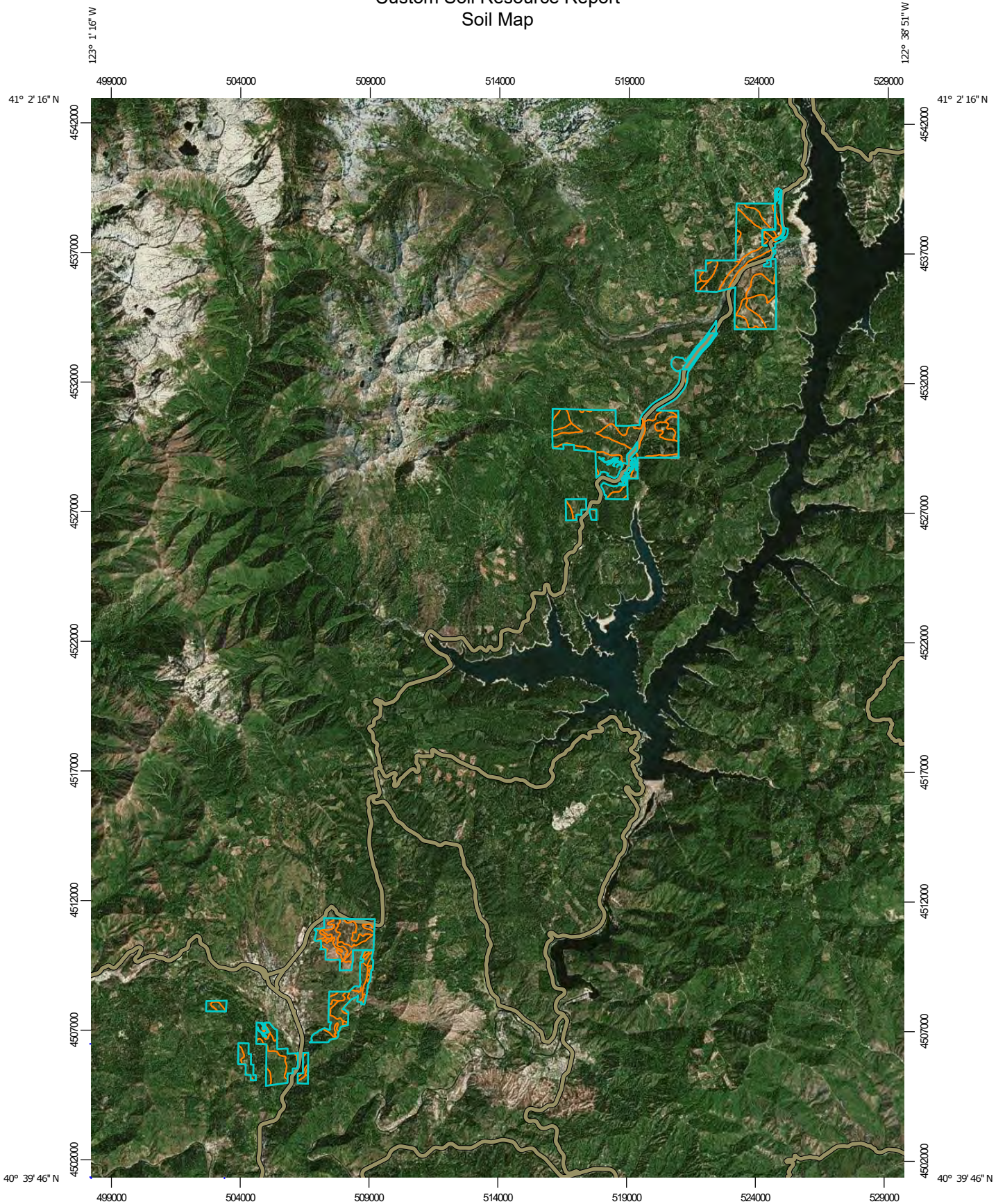
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identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



Map Scale: 1:203,000 if printed on A portrait (8.5" x 11") sheet.




Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)




















Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines


 Soil Map Unit Points

Special Point Features






-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features


Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Shasta-Trinity National Forest Area, Parts of Humboldt, Siskiyou, Shasta, Tehama, and Trinity Counties, California
 Survey Area Data: Version 13, Sep 7, 2022

Soil Survey Area: Trinity County, California, Weaverville Area
 Survey Area Data: Version 15, Sep 2, 2022

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 1, 1999—Dec 31, 2003

MAP LEGEND

MAP INFORMATION

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
20qtw	Placer Mine	76.6	1.1%
hmx5	ATTER-DUMPS, DREDGE TAILINGS-XEROFLUVENTS COMPLEX, 2 TO 9 PERCENT SLOPES	4.3	0.1%
hmxp	BROWNSCREEK-DEDRICK COMPLEX, 50 TO 75 PERCENT SLOPES	19.5	0.3%
hmxs	BROWNSCREEK-DOUGCITY COMPLEX, 50 TO 75 PERCENT SLOPES	178.1	2.5%
hmyf	DOUGCITY-DEDRICK COMPLEX, 50 TO 75 PERCENT SLOPES	236.8	3.3%
hmyg	DOUGCITY-DEMOGUL COMPLEX, 50 TO 75 PERCENT SLOPES	351.4	4.8%
hmz1	HAYSUM GRAVELLY LOAM, 5 TO 9 PERCENT SLOPES	24.8	0.3%
hmzb	HOTAW LOAM, 30 TO 50 PERCENT SLOPES	29.9	0.4%
hmzl	MARPA-HOOSIMBIM-BAMTUSH COMPLEX, 50 TO 75 PERCENT SLOPES	5.4	0.1%
hmzt	MUSSERHILL GRAVELLY LOAM, 15 TO 30 PERCENT SLOPES	272.0	3.7%
hmzv	MUSSERHILL GRAVELLY LOAM, 30 TO 50 PERCENT SLOPES	366.1	5.0%
hmzw	MUSSERHILL-WEAVERVILLE COMPLEX, 15 TO 30 PERCENT SLOPES	144.5	2.0%
hmzx	MUSSERHILL-WEAVERVILLE COMPLEX, 30 TO 50 PERCENT SLOPES	436.5	6.0%
hmzy	MUSSERHILL-WEAVERVILLE-URBAN LAND COMPLEX, 9 TO 30 PERCENT SLOPES	34.5	0.5%
hn0j	URBAN LAND-XERALFS COMPLEX, 5 TO 30 PERCENT SLOPES	3.1	0.0%
hn0s	VITZTHUM-CARGENT COMPLEX, 50 TO 75 PERCENT SLOPES	6.5	0.1%
hn0w	WEITCHPEC-DUBAKELLA COMPLEX, 30 TO 50 PERCENT SLOPES	61.8	0.8%

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Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
hn14	XEROFLUVENTS- RIVERWASH COMPLEX, 0 TO 5 PERCENT SLOPES	0.5	0.0%
hsps	Aquolls-Xerolls complex, 0 to 20 percent slopes	154.0	2.1%
hsq5	Chaix family, 40 to 60 percent slopes.	18.0	0.2%
hsqc	Chawanakee-Chaix families complex, 40 to 60 percent slopes.	98.5	1.4%
hsr6	Dunsmuir family, 15 to 40 percent slopes.	354.3	4.9%
hsr7	Dunsmuir family, 40 to 55 percent slopes.	768.9	10.6%
hsr9	Dunsmuir-Ishi Pishi, deep families complex, 20 to 40 percent slopes.	314.9	4.3%
hsrq	Forbes family, 20 to 40 percent slopes.	27.4	0.4%
hsrr	Forbes family, 40 to 60 percent slopes.	242.2	3.3%
hss5	Goulding family, 40 to 60 percent slopes.	82.9	1.1%
hst9	Holland family, deep, 0 to 20 percent slopes.	13.7	0.2%
hstb	Holland family, deep, 20 to 40 percent slopes.	88.3	1.2%
hstc	Holland family, deep, 40 to 60 percent slopes.	69.6	1.0%
hstk	Holland, deep-Marpa families complex, 20 to 40 percent slopes.	232.1	3.2%
hstl	Holland, deep-Marpa families complex, 40 to 60 percen slopes.	15.6	0.2%
hstm	Holland-Marpa families, deep, 40 to 60 percent slopes.	1.5	0.0%
hstp	Holland, deep-neuns families complex, 40 to 60 percent slopes.	4.1	0.1%
hsvd	Ishi Pishi-Olete families asociation, 20 to 40 percent slopes.	406.7	5.6%
hsvg	Ishi Pishi-Tamflat families association, 35 to 60 percent slopes.	0.1	0.0%
hsw7	Marpa family, 40 to 60 percent slopes.	243.8	3.4%
hsw9	Marpa-Chawanakee families complex, 40 to 60 percent slopes.	164.5	2.3%

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Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
hswf	Marpa-Holland, deep families complex, 0 to 20 percent slopes.	87.3	1.2%
hswg	Marpa-Holland, deep families complex, 20 to 40 percent slopes.	6.5	0.1%
hswh	Marpa-holland, deep families complex, 40 to 60 percent slopes.	733.3	10.1%
hswm	Marpa-Neuns families complex, 40 to 60 percent slopes.	4.6	0.1%
hsxk	Neuns-Hugo families complex, 40 to 60 percent slopes.	395.5	5.4%
hsxm	Neuns-Marpa families complex, 40 to 60 percent slopes.	89.1	1.2%
hsxy	Neuns family, deep-Neuns family complex, 40 to 70 percent slopes.	152.1	2.1%
ht1x	Xerofluvents-Riverwash association, 0 to 20 percent slopes.	244.6	3.4%
Totals for Area of Interest		7,266.3	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a

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given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

**Shasta-Trinity National Forest Area, Parts of Humboldt, Siskiyou,
Shasta, Tehama, and Trinity Counties, California; and Trinity County,
California, Weaverville Area**

20qtw—Placer Mine

Map Unit Composition

Placer mine: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

**hmx5—ATTER-DUMPS, DREDGE TAILINGS-XEROFLUENTS COMPLEX,
2 TO 9 PERCENT SLOPES**

Map Unit Setting

National map unit symbol: hmx5

Elevation: 1,500 to 3,200 feet

Mean annual precipitation: 16 to 45 inches

Mean annual air temperature: 50 to 57 degrees F

Frost-free period: 90 to 180 days

Farmland classification: Not prime farmland

Map Unit Composition

Atter and similar soils: 50 percent

Dumps: 20 percent

Xerofluents and similar soils: 15 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Atter

Setting

Landform: Stream terraces, alluvial fans

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Alluvium derived from mixed and outwash from hydraulic mining

Typical profile

H1 - 0 to 8 inches: extremely gravelly loamy sand

H2 - 8 to 60 inches: stratified extremely gravelly loamy sand to extremely gravelly sandy loam

Properties and qualities

Slope: 2 to 9 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): High to very high (6.00 to 20.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

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Available water supply, 0 to 60 inches: Very low (about 1.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: A

Ecological site: R021XG911CA - Sandy

Hydric soil rating: No

Description of Dumps

Setting

Landform: Stream terraces, alluvial fans

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Dredge tailings

Typical profile

H1 - 0 to 60 inches: fragmental material

Properties and qualities

Slope: 2 to 9 percent

Capacity of the most limiting layer to transmit water (Ksat): High to very high (6.00 to 20.00 in/hr)

Frequency of flooding: Rare

Available water supply, 0 to 60 inches: Very low (about 1.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8w

Hydrologic Soil Group: A

Hydric soil rating: No

Description of Xerofluvents

Setting

Landform: Stream terraces, alluvial fans

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Altered by dredging operations alluvium derived from mixed

Typical profile

H1 - 0 to 5 inches: gravelly sand

H2 - 5 to 60 inches: extremely gravelly coarse sand

Properties and qualities

Slope: 2 to 9 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): High to very high (2.00 to 20.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: OccasionalNone

Frequency of ponding: None

Custom Soil Resource Report

Available water supply, 0 to 60 inches: Very low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: A

Hydric soil rating: Yes

Minor Components

Riverwash

Percent of map unit: 3 percent

Landform: Channels

Hydric soil rating: Yes

Weaverville

Percent of map unit: 3 percent

Hydric soil rating: No

Haysum

Percent of map unit: 2 percent

Hydric soil rating: No

Rock outcrop

Percent of map unit: 2 percent

Hydric soil rating: No

Carrcreek

Percent of map unit: 2 percent

Hydric soil rating: No

Mining ponds

Percent of map unit: 1 percent

Landform: Stream terraces

Hydric soil rating: Yes

Brownbear

Percent of map unit: 1 percent

Hydric soil rating: No

Brockgulch

Percent of map unit: 1 percent

Hydric soil rating: No

hmxp—BROWNSCREEK-DEDRICK COMPLEX, 50 TO 75 PERCENT SLOPES

Map Unit Setting

National map unit symbol: hmxp

Elevation: 1,500 to 4,500 feet

Mean annual precipitation: 30 to 60 inches

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Mean annual air temperature: 52 to 63 degrees F

Frost-free period: 90 to 130 days

Farmland classification: Not prime farmland

Map Unit Composition

Browns creek and similar soils: 50 percent

Dedrick and similar soils: 30 percent

Minor components: 16 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Browns creek

Setting

Landform: Ridges, mountain slopes

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Mountainflank

Down-slope shape: Concave

Across-slope shape: Convex

Parent material: Colluvium derived from mica schist and/or residuum weathered from mica schist

Typical profile

H1 - 0 to 6 inches: gravelly loam

H2 - 6 to 24 inches: very gravelly clay loam

H3 - 24 to 34 inches: very gravelly clay loam

H4 - 34 to 38 inches: unweathered bedrock

Properties and qualities

Slope: 50 to 75 percent

Depth to restrictive feature: 20 to 40 inches to lithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 3.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: C

Ecological site: F005XZ018CA - Moderately Deep Gravelly Mesic Mountains 40-60"ppt

Hydric soil rating: No

Description of Dedrick

Setting

Landform: Mountain slopes

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Mountainflank

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Colluvium derived from sedimentary rock and/or residuum weathered from sedimentary rock

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Typical profile

H1 - 0 to 3 inches: very gravelly loam
H2 - 3 to 15 inches: very gravelly loam
H3 - 15 to 19 inches: unweathered bedrock

Properties and qualities

Slope: 50 to 75 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 0.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Ecological site: F005XZ013CA - Thermic Mountains
Hydric soil rating: No

Minor Components

Dougcity

Percent of map unit: 5 percent
Hydric soil rating: No

Sheetiron

Percent of map unit: 5 percent
Hydric soil rating: No

Sheetiron variant

Percent of map unit: 5 percent
Hydric soil rating: No

Xerofluvents

Percent of map unit: 1 percent
Landform: Stream terraces
Hydric soil rating: Yes

hmxs—BROWNSCREEK-DOUGCITY COMPLEX, 50 TO 75 PERCENT SLOPES

Map Unit Setting

National map unit symbol: hmxs
Elevation: 1,650 to 4,500 feet
Mean annual precipitation: 30 to 60 inches
Mean annual air temperature: 45 to 57 degrees F

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Frost-free period: 90 to 130 days
Farmland classification: Not prime farmland

Map Unit Composition

Browns creek and similar soils: 42 percent
Dougcity and similar soils: 39 percent
Minor components: 19 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Browns creek

Setting

Landform: Ridges, mountain slopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Colluvium derived from mica schist and/or residuum weathered from mica schist

Typical profile

H1 - 0 to 6 inches: gravelly loam
H2 - 6 to 24 inches: very gravelly clay loam
H3 - 24 to 34 inches: very gravelly clay loam
H4 - 34 to 38 inches: unweathered bedrock

Properties and qualities

Slope: 50 to 75 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: C
Ecological site: F005XZ018CA - Moderately Deep Gravelly Mesic Mountains 40-60"ppt
Hydric soil rating: No

Description of Dougcity

Setting

Landform: Mountain slopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Colluvium derived from mica schist

Typical profile

H1 - 0 to 13 inches: gravelly loam

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H2 - 13 to 80 inches: very gravelly clay loam

Properties and qualities

Slope: 50 to 75 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 5.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: C

Ecological site: F005XZ021CA - Very Deep Gravelly Mesic Mountains 40-60"ppt

Hydric soil rating: No

Minor Components

Unnamed, sloping areas

Percent of map unit: 5 percent

Hydric soil rating: No

Sheetiron

Percent of map unit: 5 percent

Hydric soil rating: No

Barpeak

Percent of map unit: 5 percent

Hydric soil rating: No

Unnamed

Percent of map unit: 3 percent

Hydric soil rating: No

Xerofluvents

Percent of map unit: 1 percent

Landform: Stream terraces

Hydric soil rating: Yes

hmyf—DOUGCITY-DEDRICK COMPLEX, 50 TO 75 PERCENT SLOPES

Map Unit Setting

National map unit symbol: hmyf

Elevation: 1,500 to 4,500 feet

Mean annual precipitation: 30 to 60 inches

Mean annual air temperature: 45 to 63 degrees F

Frost-free period: 90 to 130 days

Custom Soil Resource Report

Farmland classification: Not prime farmland

Map Unit Composition

Dougcity and similar soils: 45 percent

Dedrick and similar soils: 35 percent

Minor components: 1 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Dougcity

Setting

Landform: Mountain slopes

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Mountainflank

Down-slope shape: Concave

Across-slope shape: Concave

Parent material: Colluvium derived from mica schist and/or residuum weathered from mica schist

Typical profile

H1 - 0 to 13 inches: gravelly loam

H2 - 13 to 80 inches: very gravelly clay loam

Properties and qualities

Slope: 50 to 75 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 5.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: C

Ecological site: F005XZ021CA - Very Deep Gravelly Mesic Mountains 40-60"ppt

Hydric soil rating: No

Description of Dedrick

Setting

Landform: Ridges

Landform position (two-dimensional): Summit, shoulder

Landform position (three-dimensional): Mountainflank

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Colluvium derived from mica schist and/or residuum weathered from mica schist

Typical profile

H1 - 0 to 3 inches: very gravelly loam

H2 - 3 to 15 inches: very gravelly loam

H3 - 15 to 19 inches: unweathered bedrock

Custom Soil Resource Report

Properties and qualities

Slope: 50 to 75 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 0.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Ecological site: F005XZ013CA - Thermic Mountains
Hydric soil rating: No

Minor Components

Xerofluvents

Percent of map unit: 1 percent
Landform: Stream terraces
Hydric soil rating: Yes

hmyg—DOUGCITY-DEMOGUL COMPLEX, 50 TO 75 PERCENT SLOPES

Map Unit Setting

National map unit symbol: hmyg
Elevation: 1,700 to 4,500 feet
Mean annual precipitation: 30 to 60 inches
Mean annual air temperature: 45 to 57 degrees F
Frost-free period: 90 to 130 days
Farmland classification: Not prime farmland

Map Unit Composition

Dougcity and similar soils: 45 percent
Demogul and similar soils: 35 percent
Minor components: 1 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Dougcity

Setting

Landform: Mountain slopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Concave
Across-slope shape: Convex

Custom Soil Resource Report

Parent material: Colluvium derived from mica schist and/or residuum weathered from mica schist

Typical profile

H1 - 0 to 13 inches: gravelly loam

H2 - 13 to 80 inches: very gravelly clay loam

Properties and qualities

Slope: 50 to 75 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 5.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: C

Ecological site: F005XZ021CA - Very Deep Gravelly Mesic Mountains 40-60"ppt

Hydric soil rating: No

Description of Demogul

Setting

Landform: Mountain slopes

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Mountainflank

Down-slope shape: Concave

Across-slope shape: Concave

Parent material: Colluvium derived from mica schist and/or residuum weathered from mica schist

Typical profile

H1 - 0 to 4 inches: gravelly loam

H2 - 4 to 34 inches: gravelly clay loam

H3 - 34 to 68 inches: gravelly clay loam

Properties and qualities

Slope: 50 to 75 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Moderate (about 8.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: C

Ecological site: F005XZ021CA - Very Deep Gravelly Mesic Mountains 40-60"ppt

Hydric soil rating: No

Minor Components

Xerofluvents

Percent of map unit: 1 percent
Landform: Stream terraces
Hydric soil rating: Yes

hmz1—HAYSUM GRAVELLY LOAM, 5 TO 9 PERCENT SLOPES

Map Unit Setting

National map unit symbol: hmz1
Elevation: 2,200 to 2,600 feet
Mean annual precipitation: 30 to 40 inches
Mean annual air temperature: 50 to 57 degrees F
Frost-free period: 90 to 130 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Haysum and similar soils: 85 percent
Minor components: 4 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Haysum

Setting

Landform: Alluvial fans
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Alluvium derived from mixed

Typical profile

H1 - 0 to 15 inches: gravelly loam
H2 - 15 to 60 inches: gravelly clay loam

Properties and qualities

Slope: 5 to 9 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 8.1 inches)

Interpretive groups

Land capability classification (irrigated): 3e

Custom Soil Resource Report

Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Ecological site: F005XZ003CA - Terraces
Hydric soil rating: No

Minor Components

Xerofluvents

Percent of map unit: 2 percent
Landform: Stream terraces
Hydric soil rating: Yes

Riverwash

Percent of map unit: 2 percent
Landform: Stream terraces
Hydric soil rating: Yes

hmzb—HOTAW LOAM, 30 TO 50 PERCENT SLOPES

Map Unit Setting

National map unit symbol: hmzb
Elevation: 1,800 to 4,000 feet
Mean annual precipitation: 30 to 50 inches
Mean annual air temperature: 52 to 57 degrees F
Frost-free period: 90 to 130 days
Farmland classification: Not prime farmland

Map Unit Composition

Hotaw and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hotaw

Setting

Landform: Mountain slopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Residuum weathered from granite

Typical profile

H1 - 0 to 6 inches: loam
H2 - 6 to 37 inches: sandy clay loam
H3 - 37 to 41 inches: weathered bedrock

Properties and qualities

Slope: 30 to 50 percent
Depth to restrictive feature: 20 to 40 inches to paralithic bedrock
Drainage class: Well drained

Custom Soil Resource Report

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 5.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: C

Ecological site: F005XZ008CA - Deep Mesic Hills 40-60"ppt

Hydric soil rating: No

hmzl—MARPA-HOOSIMBIM-BAMTUSH COMPLEX, 50 TO 75 PERCENT SLOPES

Map Unit Setting

National map unit symbol: hmzl

Elevation: 1,500 to 5,000 feet

Mean annual precipitation: 20 to 65 inches

Mean annual air temperature: 45 to 57 degrees F

Frost-free period: 90 to 250 days

Farmland classification: Not prime farmland

Map Unit Composition

Marpa and similar soils: 35 percent

Hoosimbim and similar soils: 25 percent

Bamtush and similar soils: 20 percent

Minor components: 2 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Marpa

Setting

Landform: Mountain slopes

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Mountainflank

Down-slope shape: Concave

Across-slope shape: Convex

Parent material: Alluvium derived from metasedimentary rock and/or alluvium derived from metavolcanics and/or colluvium derived from metasedimentary rock and/or colluvium derived from metavolcanics

Typical profile

H1 - 0 to 3 inches: very gravelly sandy clay loam

H2 - 3 to 31 inches: very gravelly clay loam

H3 - 31 to 35 inches: unweathered bedrock

Properties and qualities

Slope: 50 to 75 percent

Depth to restrictive feature: 20 to 40 inches to lithic bedrock

Custom Soil Resource Report

Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 2.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: C
Ecological site: F005XZ018CA - Moderately Deep Gravelly Mesic Mountains
40-60"ppt
Hydric soil rating: No

Description of Hoosimbim

Setting

Landform: Mountain slopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Alluvium derived from metavolcanics and/or alluvium derived from
metasedimentary rock and/or colluvium derived from metasedimentary rock
and/or colluvium derived from metavolcanics

Typical profile

H1 - 0 to 4 inches: extremely gravelly sandy loam
H2 - 4 to 16 inches: very gravelly sandy clay loam
H3 - 16 to 42 inches: extremely gravelly sandy clay loam
H4 - 42 to 46 inches: unweathered bedrock

Properties and qualities

Slope: 50 to 75 percent
Depth to restrictive feature: 40 to 60 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 2.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: F005XZ019CA - Deep Mesic Mountains 40-60"ppt
Hydric soil rating: No

Description of Bamtush

Setting

Landform: Mountain slopes
Landform position (two-dimensional): Backslope

Custom Soil Resource Report

Landform position (three-dimensional): Mountainflank

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Alluvium derived from metasedimentary rock and/or alluvium derived from metavolcanics and/or colluvium derived from metavolcanics and/or colluvium derived from metasedimentary rock

Typical profile

H1 - 0 to 6 inches: extremely gravelly loam

H2 - 6 to 14 inches: very gravelly loam

H3 - 14 to 67 inches: very gravelly clay loam

Properties and qualities

Slope: 50 to 75 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 4.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: B

Ecological site: F005XZ021CA - Very Deep Gravelly Mesic Mountains 40-60"ppt

Hydric soil rating: No

Minor Components

Xerofluvents

Percent of map unit: 2 percent

Landform: Drainageways

Hydric soil rating: Yes

hmzt—MUSSERHILL GRAVELLY LOAM, 15 TO 30 PERCENT SLOPES

Map Unit Setting

National map unit symbol: hmzt

Elevation: 2,000 to 3,300 feet

Mean annual precipitation: 30 to 40 inches

Mean annual air temperature: 50 to 57 degrees F

Frost-free period: 90 to 130 days

Farmland classification: Not prime farmland

Map Unit Composition

Musserhill and similar soils: 85 percent

Minor components: 2 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Musserhill

Setting

Landform: Hillslopes

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Concave

Across-slope shape: Convex

Parent material: Residuum weathered from conglomerate

Typical profile

H1 - 0 to 5 inches: gravelly loam

H2 - 5 to 11 inches: very gravelly clay loam

H3 - 11 to 32 inches: extremely cobbly clay loam

H4 - 32 to 36 inches: weathered bedrock

Properties and qualities

Slope: 15 to 30 percent

Depth to restrictive feature: 20 to 40 inches to paralithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Very low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: C

Ecological site: F005XZ006CA - Mesic Hills <40"ppt

Hydric soil rating: No

Minor Components

Xerofluvents

Percent of map unit: 2 percent

Landform: Stream terraces

Hydric soil rating: Yes

hmzv—MUSSEHILL GRAVELLY LOAM, 30 TO 50 PERCENT SLOPES

Map Unit Setting

National map unit symbol: hmzv

Custom Soil Resource Report

Elevation: 2,000 to 3,300 feet
Mean annual precipitation: 30 to 40 inches
Mean annual air temperature: 50 to 57 degrees F
Frost-free period: 90 to 130 days
Farmland classification: Not prime farmland

Map Unit Composition

Musserhill and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Musserhill

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Residuum weathered from conglomerate

Typical profile

H1 - 0 to 5 inches: gravelly loam
H2 - 5 to 11 inches: very gravelly clay loam
H3 - 11 to 32 inches: extremely cobbly clay loam
H4 - 32 to 36 inches: weathered bedrock

Properties and qualities

Slope: 30 to 50 percent
Depth to restrictive feature: 20 to 40 inches to paralithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: F005XZ006CA - Mesic Hills <40"ppt
Hydric soil rating: No

hmzw—MUSSEHILL-WEAVERVILLE COMPLEX, 15 TO 30 PERCENT SLOPES

Map Unit Setting

National map unit symbol: hmzw
Elevation: 1,800 to 3,900 feet
Mean annual precipitation: 30 to 55 inches
Mean annual air temperature: 45 to 57 degrees F

Custom Soil Resource Report

Frost-free period: 90 to 130 days
Farmland classification: Not prime farmland

Map Unit Composition

Musserhill and similar soils: 45 percent
Weaverville and similar soils: 35 percent
Minor components: 2 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Musserhill

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Residuum weathered from conglomerate

Typical profile

H1 - 0 to 5 inches: gravelly loam
H2 - 5 to 11 inches: very gravelly clay loam
H3 - 11 to 32 inches: extremely cobbly clay loam
H4 - 32 to 36 inches: weathered bedrock

Properties and qualities

Slope: 15 to 30 percent
Depth to restrictive feature: 20 to 40 inches to paralithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Ecological site: F005XZ006CA - Mesic Hills <40"ppt
Hydric soil rating: No

Description of Weaverville

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Residuum weathered from sedimentary rock

Typical profile

H1 - 0 to 4 inches: clay loam
H2 - 4 to 56 inches: gravelly clay loam
H3 - 56 to 81 inches: gravelly clay loam

Custom Soil Resource Report

Properties and qualities

Slope: 15 to 30 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Ecological site: F005XZ009CA - Very Deep Mesic Hills 40-60"ppt
Hydric soil rating: No

Minor Components

Xerofluvents

Percent of map unit: 2 percent
Landform: Stream terraces
Hydric soil rating: Yes

hmzx—MUSSERHILL-WEAVERVILLE COMPLEX, 30 TO 50 PERCENT SLOPES

Map Unit Setting

National map unit symbol: hmzx
Elevation: 1,800 to 3,900 feet
Mean annual precipitation: 30 to 55 inches
Mean annual air temperature: 45 to 57 degrees F
Frost-free period: 90 to 130 days
Farmland classification: Not prime farmland

Map Unit Composition

Musserhill and similar soils: 45 percent
Weaverville and similar soils: 30 percent
Minor components: 2 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Musserhill

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope

Custom Soil Resource Report

Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Residuum weathered from conglomerate

Typical profile

H1 - 0 to 5 inches: gravelly loam
H2 - 5 to 11 inches: very gravelly clay loam
H3 - 11 to 32 inches: extremely cobbly clay loam
H4 - 32 to 36 inches: weathered bedrock

Properties and qualities

Slope: 30 to 50 percent
Depth to restrictive feature: 20 to 40 inches to paralithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: F005XZ006CA - Mesic Hills <40"ppt
Hydric soil rating: No

Description of Weaverville

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Residuum weathered from sedimentary rock

Typical profile

H1 - 0 to 4 inches: loam
H2 - 4 to 56 inches: gravelly clay loam
H3 - 56 to 81 inches: gravelly clay loam

Properties and qualities

Slope: 30 to 50 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C

Custom Soil Resource Report

Ecological site: F005XZ009CA - Very Deep Mesic Hills 40-60"ppt
Hydric soil rating: No

Minor Components

Xerofluvents

Percent of map unit: 2 percent
Landform: Stream terraces
Hydric soil rating: Yes

hmzy—MUSSERHILL-WEAVERVILLE-URBAN LAND COMPLEX, 9 TO 30 PERCENT SLOPES

Map Unit Setting

National map unit symbol: hmzy
Elevation: 1,800 to 3,900 feet
Mean annual precipitation: 30 to 55 inches
Mean annual air temperature: 45 to 57 degrees F
Frost-free period: 90 to 130 days
Farmland classification: Not prime farmland

Map Unit Composition

Musserhill and similar soils: 35 percent
Weaverville and similar soils: 30 percent
Urban land: 20 percent
Minor components: 2 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Musserhill

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Residuum weathered from conglomerate

Typical profile

H1 - 0 to 5 inches: gravelly loam
H2 - 5 to 11 inches: very gravelly clay loam
H3 - 11 to 32 inches: extremely cobbly clay loam
H4 - 32 to 36 inches: weathered bedrock

Properties and qualities

Slope: 9 to 30 percent
Depth to restrictive feature: 20 to 40 inches to paralithic bedrock
Drainage class: Well drained

Custom Soil Resource Report

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Very low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: C

Ecological site: F005XZ006CA - Mesic Hills <40"ppt

Hydric soil rating: No

Description of Weaverville

Setting

Landform: Hillslopes

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Concave

Across-slope shape: Concave, convex

Parent material: Residuum weathered from sedimentary rock

Typical profile

H1 - 0 to 4 inches: clay loam

H2 - 4 to 56 inches: gravelly clay loam

H3 - 56 to 81 inches: gravelly clay loam

Properties and qualities

Slope: 9 to 30 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Moderate (about 7.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: C

Ecological site: F005XZ009CA - Very Deep Mesic Hills 40-60"ppt

Hydric soil rating: No

Description of Urban Land

Setting

Landform: Hillslopes

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Earth spread deposits derived from mixed

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s

Hydric soil rating: No

Minor Components

Xerofluvents

Percent of map unit: 2 percent

Landform: Stream terraces

Hydric soil rating: Yes

hn0j—URBAN LAND-XERALFS COMPLEX, 5 TO 30 PERCENT SLOPES

Map Unit Setting

National map unit symbol: hn0j

Elevation: 1,800 to 2,200 feet

Mean annual precipitation: 30 to 40 inches

Mean annual air temperature: 50 to 57 degrees F

Frost-free period: 90 to 130 days

Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 42 percent

Xeralfs and similar soils: 38 percent

Minor components: 2 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Setting

Landform: Hillslopes, terraces

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope, tread

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Residuum weathered from mixed

Typical profile

H1 - 0 to 6 inches: variable

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s

Hydric soil rating: No

Description of Xeralfs

Setting

Landform: Hillslopes, terraces
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope, tread
Down-slope shape: Concave, linear
Across-slope shape: Linear
Parent material: Alluvium derived from igneous, metamorphic and sedimentary rock

Typical profile

H1 - 0 to 1 inches: very gravelly clay loam
H2 - 1 to 30 inches: extremely gravelly clay loam
H3 - 30 to 34 inches: weathered bedrock

Properties and qualities

Slope: 5 to 30 percent
Depth to restrictive feature: 10 to 60 inches to paralithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Xerofluvents

Percent of map unit: 2 percent
Landform: Stream terraces
Hydric soil rating: Yes

hn0s—VITZTHUM-CARGENT COMPLEX, 50 TO 75 PERCENT SLOPES

Map Unit Setting

National map unit symbol: hn0s
Elevation: 1,700 to 4,200 feet
Mean annual precipitation: 30 to 60 inches
Mean annual air temperature: 50 to 63 degrees F
Frost-free period: 90 to 130 days
Farmland classification: Not prime farmland

Map Unit Composition

Vitzthum and similar soils: 50 percent

Cargent and similar soils: 30 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Vitzthum

Setting

Landform: Mountain slopes

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Mountainflank

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Colluvium derived from mica schist and/or residuum weathered from mica schist

Typical profile

H1 - 0 to 6 inches: very gravelly loam

H2 - 6 to 18 inches: very gravelly sandy clay loam

H3 - 18 to 22 inches: unweathered bedrock

Properties and qualities

Slope: 50 to 75 percent

Depth to restrictive feature: 10 to 20 inches to lithic bedrock

Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Very low (about 1.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: D

Ecological site: R005XZ016CA - Shallow Mesic Mountains 40-60"ppt

Hydric soil rating: No

Description of Cargent

Setting

Landform: Mountain slopes

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Mountainflank

Down-slope shape: Concave

Across-slope shape: Convex

Parent material: Colluvium derived from mica schist and/or residuum weathered from mica schist

Typical profile

H1 - 0 to 3 inches: very gravelly sandy clay loam

H2 - 3 to 21 inches: very gravelly loam

H3 - 21 to 32 inches: extremely gravelly loam

H4 - 32 to 36 inches: unweathered bedrock

Properties and qualities

Slope: 50 to 75 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 2.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: C
Ecological site: F005XZ013CA - Thermic Mountains
Hydric soil rating: No

hn0w—WEITCHPEC-DUBAKELLA COMPLEX, 30 TO 50 PERCENT SLOPES

Map Unit Setting

National map unit symbol: hn0w
Elevation: 1,000 to 5,500 feet
Mean annual precipitation: 20 to 75 inches
Mean annual air temperature: 45 to 55 degrees F
Frost-free period: 90 to 235 days
Farmland classification: Not prime farmland

Map Unit Composition

Weitchpec and similar soils: 50 percent
Dubakella and similar soils: 30 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Weitchpec

Setting

Landform: Mountain slopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Residuum weathered from serpentinite

Typical profile

H1 - 0 to 10 inches: gravelly loam
H2 - 10 to 29 inches: very gravelly sandy clay loam
H3 - 29 to 33 inches: unweathered bedrock

Custom Soil Resource Report

Properties and qualities

Slope: 30 to 50 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 2.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: C
Ecological site: F005XZ018CA - Moderately Deep Gravelly Mesic Mountains 40-60"ppt
Hydric soil rating: No

Description of Dubakella

Setting

Landform: Mountain slopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Residuum weathered from serpentinite

Typical profile

H1 - 0 to 5 inches: cobbly clay loam
H2 - 5 to 34 inches: very gravelly clay
H3 - 34 to 38 inches: unweathered bedrock

Properties and qualities

Slope: 30 to 50 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: F005XZ014CA - Mesic Mountains <40"ppt
Hydric soil rating: No

hn14—XEROFLUENTS-RIVERWASH COMPLEX, 0 TO 5 PERCENT SLOPES

Map Unit Setting

National map unit symbol: hn14
Elevation: 700 to 2,900 feet
Mean annual precipitation: 8 to 45 inches
Mean annual air temperature: 46 to 57 degrees F
Frost-free period: 90 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Xerofluents and similar soils: 45 percent
Riverwash: 35 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Xerofluents

Setting

Landform: Flood plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from igneous, metamorphic and sedimentary rock

Typical profile

H1 - 0 to 5 inches: gravelly sand
H2 - 5 to 60 inches: extremely gravelly coarse sand

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (2.00 to 20.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: OccasionalNone
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: A
Hydric soil rating: Yes

Description of Riverwash

Setting

Landform: Channels

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Alluvium derived from igneous, metamorphic and sedimentary rock

Typical profile

H1 - 0 to 5 inches: gravelly coarse sand

H2 - 5 to 60 inches: stratified extremely gravelly coarse sand to gravelly sand

Properties and qualities

Slope: 0 to 5 percent

Drainage class: Excessively drained

Capacity of the most limiting layer to transmit water (Ksat): High to very high (2.00 to 20.00 in/hr)

Depth to water table: About 0 to 24 inches

Available water supply, 0 to 60 inches: Very low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8w

Hydric soil rating: Yes

hsps—Aquolls-Xerolls complex, 0 to 20 percent slopes

Map Unit Setting

National map unit symbol: hsps

Elevation: 3,500 to 6,000 feet

Mean annual precipitation: 40 to 55 inches

Mean annual air temperature: 45 to 52 degrees F

Frost-free period: 100 to 120 days

Farmland classification: Not prime farmland

Map Unit Composition

Aquolls and similar soils: 60 percent

Xerolls and similar soils: 40 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Aquolls

Setting

Landform: Basin floors

Landform position (three-dimensional): Talf

Down-slope shape: Linear

Across-slope shape: Linear

Custom Soil Resource Report

Parent material: Alluvium

Typical profile

H1 - 0 to 8 inches: loam

H2 - 8 to 26 inches: silt loam

H3 - 26 to 37 inches: loam

H4 - 37 to 41 inches: unweathered bedrock

Properties and qualities

Slope: 0 to 20 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6w

Hydrologic Soil Group: D

Ecological site: F022BG201CA - Mesic Ash-Influenced Mountains

Hydric soil rating: Yes

Description of Xerolls

Setting

Landform: Basin floors

Landform position (three-dimensional): Talf

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Alluvium

Typical profile

H1 - 0 to 9 inches: loam

H2 - 9 to 27 inches: loam

H3 - 27 to 31 inches: unweathered bedrock

Properties and qualities

Slope: 0 to 20 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat poorly drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high (0.01 to 0.57 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 3.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: C

Ecological site: F022BG201CA - Mesic Ash-Influenced Mountains

Hydric soil rating: No

hsq5—Chaix family, 40 to 60 percent slopes.

Map Unit Setting

National map unit symbol: hsq5
Elevation: 2,000 to 5,000 feet
Mean annual precipitation: 35 to 60 inches
Mean annual air temperature: 54 to 57 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Chaix family and similar soils: 75 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Chaix Family

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from granite

Typical profile

H1 - 0 to 10 inches: gravelly coarse sandy loam
H2 - 10 to 18 inches: cobbly coarse sandy loam
H3 - 18 to 29 inches: gravelly coarse sandy loam
H4 - 29 to 33 inches: weathered bedrock

Properties and qualities

Slope: 40 to 60 percent
Depth to restrictive feature: 29 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 2.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B
Ecological site: F005XZ019CA - Deep Mesic Mountains 40-60"ppt
Hydric soil rating: No

Minor Components

Hugo family

Percent of map unit: 10 percent
Hydric soil rating: No

Holland family, granitic

Percent of map unit: 5 percent
Hydric soil rating: No

Chawanakee family

Percent of map unit: 5 percent
Hydric soil rating: No

Ovall family

Percent of map unit: 5 percent
Hydric soil rating: No

hsqc—Chawanakee-Chaix families complex, 40 to 60 percent slopes.

Map Unit Setting

National map unit symbol: hsqc
Elevation: 2,000 to 5,000 feet
Mean annual precipitation: 35 to 60 inches
Mean annual air temperature: 54 to 57 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Chawanakee family and similar soils: 45 percent
Chaix family and similar soils: 30 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Chawanakee Family

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from granite

Typical profile

H1 - 0 to 6 inches: gravelly sandy loam
H2 - 6 to 11 inches: cobbly loam
H3 - 11 to 15 inches: weathered bedrock

Properties and qualities

Slope: 40 to 60 percent

Custom Soil Resource Report

Depth to restrictive feature: 11 inches to paralithic bedrock
Drainage class: Somewhat excessively drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Ecological site: F005XZ014CA - Mesic Mountains <40"ppt
Hydric soil rating: No

Description of Chaix Family

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Residuum weathered from granite

Typical profile

H1 - 0 to 10 inches: gravelly coarse sandy loam
H2 - 10 to 18 inches: cobbly coarse sandy loam
H3 - 18 to 29 inches: gravelly coarse sandy loam
H4 - 29 to 33 inches: weathered bedrock

Properties and qualities

Slope: 40 to 60 percent
Depth to restrictive feature: 29 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 2.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: F005XZ019CA - Deep Mesic Mountains 40-60"ppt
Hydric soil rating: No

Minor Components

Ovall family

Percent of map unit: 10 percent
Hydric soil rating: No

Holland family, granitic

Percent of map unit: 10 percent
Hydric soil rating: No

Rock outcrop, granitic

Percent of map unit: 5 percent
Hydric soil rating: No

hsr6—Dunsmuir family, 15 to 40 percent slopes.

Map Unit Setting

National map unit symbol: hsr6
Elevation: 1,500 to 5,500 feet
Mean annual precipitation: 40 to 70 inches
Mean annual air temperature: 50 to 55 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Dunsmuir family and similar soils: 75 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Dunsmuir Family

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from serpentinite

Typical profile

H1 - 0 to 7 inches: gravelly sandy clay loam
H2 - 7 to 44 inches: gravelly clay loam
H3 - 44 to 53 inches: very cobbly clay
H4 - 53 to 57 inches: weathered bedrock

Properties and qualities

Slope: 15 to 40 percent
Depth to restrictive feature: 53 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None

Custom Soil Resource Report

Available water supply, 0 to 60 inches: Moderate (about 7.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: C

Hydric soil rating: No

Minor Components

Holland family, deep

Percent of map unit: 10 percent

Hydric soil rating: No

Ishi pishi family, deep

Percent of map unit: 10 percent

Hydric soil rating: No

Holland family

Percent of map unit: 5 percent

Hydric soil rating: No

hsr7—Dunsmuir family, 40 to 55 percent slopes.

Map Unit Setting

National map unit symbol: hsr7

Elevation: 1,500 to 5,500 feet

Mean annual precipitation: 40 to 70 inches

Mean annual air temperature: 50 to 55 degrees F

Frost-free period: 130 to 160 days

Farmland classification: Not prime farmland

Map Unit Composition

Dunsmuir family and similar soils: 75 percent

Minor components: 25 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Dunsmuir Family

Setting

Landform: Mountains

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Mountainflank

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Residuum weathered from serpentinite

Typical profile

H1 - 0 to 7 inches: gravelly sandy clay loam

H2 - 7 to 44 inches: gravelly clay loam

H3 - 44 to 53 inches: very cobbly clay

H4 - 53 to 57 inches: weathered bedrock

Custom Soil Resource Report

Properties and qualities

Slope: 40 to 55 percent
Depth to restrictive feature: 53 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Ishi pishi family, deep

Percent of map unit: 10 percent
Hydric soil rating: No

Holland family, deep

Percent of map unit: 10 percent
Hydric soil rating: No

Ishi pishi family

Percent of map unit: 5 percent
Hydric soil rating: No

hsr9—Dunsmuir-Ishi Pishi, deep families complex, 20 to 40 percent slopes.

Map Unit Setting

National map unit symbol: hsr9
Elevation: 1,500 to 5,500 feet
Mean annual precipitation: 40 to 70 inches
Mean annual air temperature: 50 to 55 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Dunsmuir family and similar soils: 55 percent
Ishi pishi family, deep, and similar soils: 25 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Dunsmuir Family

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from serpentinite

Typical profile

H1 - 0 to 7 inches: gravelly sandy clay loam
H2 - 7 to 44 inches: gravelly clay loam
H3 - 44 to 53 inches: very cobbly clay
H4 - 53 to 57 inches: weathered bedrock

Properties and qualities

Slope: 20 to 40 percent
Depth to restrictive feature: 53 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Hydric soil rating: No

Description of Ishi Pishi Family, Deep

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Residuum weathered from ultramafic rock

Typical profile

H1 - 0 to 7 inches: gravelly loam
H2 - 7 to 48 inches: very cobbly clay
H3 - 48 to 58 inches: unweathered bedrock

Properties and qualities

Slope: 20 to 40 percent
Depth to restrictive feature: 48 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high (0.01 to 0.20 in/hr)
Depth to water table: More than 80 inches

Custom Soil Resource Report

Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Holland family, deep

Percent of map unit: 10 percent
Hydric soil rating: No

Ishi pishi family

Percent of map unit: 10 percent
Hydric soil rating: No

hsrq—Forbes family, 20 to 40 percent slopes.

Map Unit Setting

National map unit symbol: hsrq
Elevation: 2,000 to 3,200 feet
Mean annual precipitation: 35 to 45 inches
Mean annual air temperature: 54 to 57 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Forbes family and similar soils: 75 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Forbes Family

Setting

Landform: Terraces
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Non-marine alluvium

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 67 inches: gravelly sandy clay

Properties and qualities

Slope: 20 to 40 percent

Custom Soil Resource Report

Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Holland family, deep

Percent of map unit: 10 percent
Hydric soil rating: No

Marpa family

Percent of map unit: 5 percent
Hydric soil rating: No

Soulajule family

Percent of map unit: 5 percent
Hydric soil rating: No

hsrr—Forbes family, 40 to 60 percent slopes.

Map Unit Setting

National map unit symbol: hsrr
Elevation: 2,000 to 3,200 feet
Mean annual precipitation: 35 to 45 inches
Mean annual air temperature: 54 to 57 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Forbes family and similar soils: 75 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Forbes Family

Setting

Landform: Terraces
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Tread

Custom Soil Resource Report

Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Non-marine alluvium

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 67 inches: gravelly sandy clay

Properties and qualities

Slope: 40 to 60 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: C
Ecological site: F022BG201CA - Mesic Ash-Influenced Mountains
Hydric soil rating: No

Minor Components

Marpa family

Percent of map unit: 13 percent
Hydric soil rating: No

Soulajule family

Percent of map unit: 12 percent
Hydric soil rating: No

hss5—Goulding family, 40 to 60 percent slopes.

Map Unit Setting

National map unit symbol: hss5
Elevation: 2,000 to 4,500 feet
Mean annual precipitation: 30 to 50 inches
Mean annual air temperature: 55 to 59 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Goulding family and similar soils: 75 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Goulding Family

Setting

Landform: Mountains

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Mountainflank

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Residuum weathered from metasedimentary rock and/or
residuum weathered from metavolcanics

Typical profile

H1 - 0 to 7 inches: very gravelly loam

H2 - 7 to 15 inches: very gravelly loam

H3 - 15 to 19 inches: unweathered bedrock

Properties and qualities

Slope: 40 to 60 percent

Depth to restrictive feature: 15 inches to lithic bedrock

Drainage class: Well drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to
1.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Very low (about 1.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: D

Ecological site: F005XZ014CA - Mesic Mountains <40"ppt

Hydric soil rating: No

Minor Components

Typic xerorthents

Percent of map unit: 10 percent

Hydric soil rating: No

Chawanakee family

Percent of map unit: 5 percent

Hydric soil rating: No

Etsel family

Percent of map unit: 5 percent

Hydric soil rating: No

Rock outcrop, metamorphic

Percent of map unit: 5 percent

Hydric soil rating: No

hst9—Holland family, deep, 0 to 20 percent slopes.

Map Unit Setting

National map unit symbol: hst9
Elevation: 1,500 to 5,500 feet
Mean annual precipitation: 35 to 70 inches
Mean annual air temperature: 52 to 55 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Holland family, deep, and similar soils: 75 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Holland Family, Deep

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from granite and/or residuum weathered from metasedimentary rock and/or residuum weathered from metavolcanics

Typical profile

H1 - 0 to 3 inches: gravelly loam
H2 - 3 to 46 inches: gravelly clay loam
H3 - 46 to 50 inches: extremely cobbly clay loam
H4 - 50 to 59 inches: weathered bedrock

Properties and qualities

Slope: 0 to 20 percent
Depth to restrictive feature: 39 to 59 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Hugo family

Percent of map unit: 10 percent
Hydric soil rating: No

Marpa family

Percent of map unit: 5 percent
Hydric soil rating: No

Holland family

Percent of map unit: 5 percent
Hydric soil rating: No

Marpa family, deep

Percent of map unit: 5 percent
Hydric soil rating: No

hstb—Holland family, deep, 20 to 40 percent slopes.

Map Unit Setting

National map unit symbol: hstb
Elevation: 1,500 to 5,500 feet
Mean annual precipitation: 35 to 70 inches
Mean annual air temperature: 52 to 55 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Holland family, deep, and similar soils: 75 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Holland Family, Deep

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from metavolcanics and/or residuum weathered from metasedimentary rock and/or residuum weathered from granite

Typical profile

H1 - 0 to 3 inches: gravelly loam
H2 - 3 to 46 inches: gravelly clay loam
H3 - 46 to 50 inches: extremely cobbly clay loam
H4 - 50 to 59 inches: weathered bedrock

Custom Soil Resource Report

Properties and qualities

Slope: 20 to 40 percent
Depth to restrictive feature: 39 to 59 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Holland family

Percent of map unit: 10 percent
Hydric soil rating: No

Marpa family, deep

Percent of map unit: 10 percent
Hydric soil rating: No

Marpa family

Percent of map unit: 5 percent
Hydric soil rating: No

hstc—Holland family, deep, 40 to 60 percent slopes.

Map Unit Setting

National map unit symbol: hstc
Elevation: 1,500 to 5,500 feet
Mean annual precipitation: 35 to 70 inches
Mean annual air temperature: 52 to 55 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Holland family, deep, and similar soils: 75 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Holland Family, Deep

Setting

Landform: Mountains

Custom Soil Resource Report

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Mountainflank

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Residuum weathered from metasedimentary rock and/or
residuum weathered from metavolcanics and/or residuum weathered from
granite

Typical profile

H1 - 0 to 3 inches: gravelly loam

H2 - 3 to 46 inches: gravelly clay loam

H3 - 46 to 50 inches: extremely cobbly clay loam

H4 - 50 to 59 inches: weathered bedrock

Properties and qualities

Slope: 40 to 60 percent

Depth to restrictive feature: 39 to 59 inches to paralithic bedrock

Drainage class: Well drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately
low (0.00 to 0.06 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Moderate (about 7.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: C

Hydric soil rating: No

Minor Components

Marpa family, deep

Percent of map unit: 5 percent

Hydric soil rating: No

Hugo family

Percent of map unit: 5 percent

Hydric soil rating: No

Ovall family

Percent of map unit: 5 percent

Hydric soil rating: No

Marpa family

Percent of map unit: 5 percent

Hydric soil rating: No

Holland family, moderately deep

Percent of map unit: 5 percent

Hydric soil rating: No

hstk—Holland, deep-Marpa families complex, 20 to 40 percent slopes.

Map Unit Setting

National map unit symbol: hstk
Elevation: 2,500 to 5,000 feet
Mean annual precipitation: 40 to 70 inches
Mean annual air temperature: 52 to 59 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Holland family, deep, and similar soils: 50 percent
Marpa family and similar soils: 30 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Holland Family, Deep

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from metasedimentary rock and/or
residuum weathered from metavolcanics and/or residuum weathered from
granite

Typical profile

H1 - 0 to 3 inches: gravelly loam
H2 - 3 to 46 inches: gravelly clay loam
H3 - 46 to 50 inches: extremely cobbly clay loam
H4 - 50 to 59 inches: weathered bedrock

Properties and qualities

Slope: 20 to 40 percent
Depth to restrictive feature: 39 to 59 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately
low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C

Custom Soil Resource Report

Hydric soil rating: No

Description of Marpa Family

Setting

Landform: Mountains

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Mountainflank

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Residuum weathered from metamorphic and sedimentary rock

Typical profile

H1 - 0 to 13 inches: gravelly loam

H2 - 13 to 26 inches: very gravelly clay loam

H3 - 26 to 36 inches: unweathered bedrock

Properties and qualities

Slope: 20 to 40 percent

Depth to restrictive feature: 26 inches to lithic bedrock

Drainage class: Well drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high
(0.01 to 0.57 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: C

Ecological site: F005XZ018CA - Moderately Deep Gravelly Mesic Mountains
40-60"ppt

Hydric soil rating: No

Minor Components

Holland family

Percent of map unit: 10 percent

Hydric soil rating: No

Hugo family

Percent of map unit: 5 percent

Hydric soil rating: No

Marpa family, deep

Percent of map unit: 5 percent

Hydric soil rating: No

hstl—Holland, deep-Marpa families complex, 40 to 60 percent slopes.

Map Unit Setting

National map unit symbol: hstl
Elevation: 2,500 to 5,000 feet
Mean annual precipitation: 40 to 70 inches
Mean annual air temperature: 52 to 59 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Holland family, deep, and similar soils: 50 percent
Marpa family and similar soils: 30 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Holland Family, Deep

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from granite and/or residuum weathered from metavolcanics and/or residuum weathered from metasedimentary rock

Typical profile

H1 - 0 to 3 inches: gravelly loam
H2 - 3 to 46 inches: gravelly clay loam
H3 - 46 to 50 inches: extremely cobbly clay loam
H4 - 50 to 59 inches: weathered bedrock

Properties and qualities

Slope: 40 to 60 percent
Depth to restrictive feature: 39 to 59 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C

Custom Soil Resource Report

Hydric soil rating: No

Description of Marpa Family

Setting

Landform: Mountains

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Mountainflank

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Residuum weathered from metamorphic and sedimentary rock

Typical profile

H1 - 0 to 13 inches: gravelly loam

H2 - 13 to 26 inches: very gravelly clay loam

H3 - 26 to 36 inches: unweathered bedrock

Properties and qualities

Slope: 40 to 60 percent

Depth to restrictive feature: 26 inches to lithic bedrock

Drainage class: Well drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high
(0.01 to 0.57 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: C

Ecological site: F005XZ018CA - Moderately Deep Gravelly Mesic Mountains

40-60"ppt

Hydric soil rating: No

Minor Components

Holland family

Percent of map unit: 10 percent

Hydric soil rating: No

Hugo family

Percent of map unit: 5 percent

Hydric soil rating: No

Marpa family, deep

Percent of map unit: 5 percent

Hydric soil rating: No

hstm—Holland-Marpa families, deep, 40 to 60 percent slopes.

Map Unit Setting

National map unit symbol: hstm
Elevation: 2,500 to 5,000 feet
Mean annual precipitation: 40 to 70 inches
Mean annual air temperature: 52 to 59 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Holland family, deep, and similar soils: 55 percent
Marpa family, deep, and similar soils: 25 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Holland Family, Deep

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from metasedimentary rock and/or
residuum weathered from metavolcanics and/or residuum weathered from
granite

Typical profile

H1 - 0 to 3 inches: gravelly loam
H2 - 3 to 46 inches: gravelly clay loam
H3 - 46 to 50 inches: extremely cobbly clay loam
H4 - 50 to 59 inches: weathered bedrock

Properties and qualities

Slope: 40 to 60 percent
Depth to restrictive feature: 39 to 59 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately
low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e

Custom Soil Resource Report

Hydrologic Soil Group: C
Hydric soil rating: No

Description of Marpa Family, Deep

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from metamorphic and sedimentary rock

Typical profile

H1 - 0 to 6 inches: gravelly loam
H2 - 6 to 60 inches: very gravelly clay loam
H3 - 60 to 64 inches: unweathered bedrock

Properties and qualities

Slope: 40 to 60 percent
Depth to restrictive feature: 60 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high
(0.01 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 6.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: F005XZ018CA - Moderately Deep Gravelly Mesic Mountains
40-60"ppt
Hydric soil rating: No

Minor Components

Neuns family, deep

Percent of map unit: 5 percent
Hydric soil rating: No

Neuns family

Percent of map unit: 5 percent
Hydric soil rating: No

Holland family

Percent of map unit: 5 percent
Hydric soil rating: No

Marpa family

Percent of map unit: 5 percent
Hydric soil rating: No

hstp—Holland, deep-neuns families complex, 40 to 60 percent slopes.

Map Unit Setting

National map unit symbol: hstp
Elevation: 2,500 to 5,000 feet
Mean annual precipitation: 40 to 70 inches
Mean annual air temperature: 50 to 55 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Holland family, deep, and similar soils: 50 percent
Neuns family and similar soils: 30 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Holland Family, Deep

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from metasedimentary rock and/or
residuum weathered from metavolcanics and/or residuum weathered from
granite

Typical profile

H1 - 0 to 3 inches: gravelly loam
H2 - 3 to 46 inches: gravelly clay loam
H3 - 46 to 50 inches: extremely cobbly clay loam
H4 - 50 to 59 inches: weathered bedrock

Properties and qualities

Slope: 40 to 60 percent
Depth to restrictive feature: 39 to 59 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately
low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e

Custom Soil Resource Report

Hydrologic Soil Group: C
Hydric soil rating: No

Description of Neuns Family

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from igneous, metamorphic and sedimentary rock

Typical profile

H1 - 0 to 11 inches: very gravelly sandy loam
H2 - 11 to 23 inches: very gravelly sandy loam
H3 - 23 to 33 inches: unweathered bedrock

Properties and qualities

Slope: 40 to 60 percent
Depth to restrictive feature: 23 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B
Ecological site: F005XZ018CA - Moderately Deep Gravelly Mesic Mountains 40-60"ppt
Hydric soil rating: No

Minor Components

Neuns family, deep

Percent of map unit: 10 percent
Hydric soil rating: No

Marpa family

Percent of map unit: 5 percent
Hydric soil rating: No

Holland family

Percent of map unit: 5 percent
Hydric soil rating: No

hsvd—Ishi Pishi-Olete families asociation, 20 to 40 percent slopes.

Map Unit Setting

National map unit symbol: hsvd
Elevation: 2,200 to 6,000 feet
Mean annual precipitation: 50 to 70 inches
Mean annual air temperature: 48 to 55 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Ishi pishi family and similar soils: 50 percent
Olete family and similar soils: 30 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ishi Pishi Family

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from ultramafic rock

Typical profile

H1 - 0 to 7 inches: gravelly loam
H2 - 7 to 34 inches: very gravelly clay
H3 - 34 to 44 inches: unweathered bedrock

Properties and qualities

Slope: 20 to 40 percent
Depth to restrictive feature: 34 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high
(0.01 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: D
Hydric soil rating: No

Description of Olete Family

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from ultramafic rock

Typical profile

H1 - 0 to 6 inches: gravelly loam
H2 - 6 to 35 inches: very gravelly loam
H3 - 35 to 39 inches: unweathered bedrock

Properties and qualities

Slope: 20 to 40 percent
Depth to restrictive feature: 35 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Konocti family

Percent of map unit: 10 percent
Hydric soil rating: No

Ishi pishi family, deep

Percent of map unit: 10 percent
Hydric soil rating: No

hsvg—Ishi Pishi-Tamflat families association, 35 to 60 percent slopes.

Map Unit Setting

National map unit symbol: hsvg
Elevation: 2,200 to 6,000 feet
Mean annual precipitation: 50 to 70 inches
Mean annual air temperature: 48 to 52 degrees F

Custom Soil Resource Report

Frost-free period: 130 to 160 days

Farmland classification: Not prime farmland

Map Unit Composition

Ishi pishi family and similar soils: 55 percent

Tamflat family and similar soils: 35 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ishi Pishi Family

Setting

Landform: Mountains

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Mountainflank

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Residuum weathered from ultramafic rock

Typical profile

H1 - 0 to 7 inches: gravelly loam

H2 - 7 to 34 inches: very gravelly clay

H3 - 34 to 44 inches: unweathered bedrock

Properties and qualities

Slope: 35 to 60 percent

Depth to restrictive feature: 34 inches to lithic bedrock

Drainage class: Well drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high
(0.01 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: D

Hydric soil rating: No

Description of Tamflat Family

Setting

Landform: Mountains

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Mountainflank

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Residuum weathered from ultramafic rock

Typical profile

H1 - 0 to 1 inches: very cobbly loam

H2 - 1 to 19 inches: extremely gravelly clay

H3 - 19 to 20 inches: unweathered bedrock

Properties and qualities

Slope: 35 to 60 percent
Depth to restrictive feature: 19 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high
(0.01 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Ishi pishi family, deep

Percent of map unit: 3 percent
Hydric soil rating: No

Beaughton family

Percent of map unit: 3 percent
Hydric soil rating: No

Rock outcrop, ultramafic

Percent of map unit: 3 percent
Hydric soil rating: No

Lithic haploxeralfs

Percent of map unit: 1 percent
Hydric soil rating: No

hsw7—Marpa family, 40 to 60 percent slopes.

Map Unit Setting

National map unit symbol: hsw7
Elevation: 1,000 to 5,500 feet
Mean annual precipitation: 40 to 70 inches
Mean annual air temperature: 55 to 59 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Marpa family and similar soils: 75 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Marpa Family

Setting

Landform: Mountains

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Mountainflank

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Residuum weathered from metamorphic and sedimentary rock

Typical profile

H1 - 0 to 13 inches: gravelly loam

H2 - 13 to 26 inches: very gravelly clay loam

H3 - 26 to 36 inches: unweathered bedrock

Properties and qualities

Slope: 40 to 60 percent

Depth to restrictive feature: 26 inches to lithic bedrock

Drainage class: Well drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high
(0.01 to 0.57 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: C

Ecological site: F005XZ018CA - Moderately Deep Gravelly Mesic Mountains
40-60"ppt

Hydric soil rating: No

Minor Components

Neuns family

Percent of map unit: 10 percent

Hydric soil rating: No

Holland family

Percent of map unit: 5 percent

Hydric soil rating: No

Deadwood family

Percent of map unit: 5 percent

Hydric soil rating: No

Rock outcrop, metamorphic

Percent of map unit: 5 percent

Hydric soil rating: No

hsw9—Marpa-Chawanakee families complex, 40 to 60 percent slopes.

Map Unit Setting

National map unit symbol: hsw9
Elevation: 2,000 to 5,000 feet
Mean annual precipitation: 40 to 70 inches
Mean annual air temperature: 54 to 59 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Marpa family and similar soils: 60 percent
Chawanakee family and similar soils: 30 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Marpa Family

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from metamorphic and sedimentary rock

Typical profile

H1 - 0 to 13 inches: gravelly loam
H2 - 13 to 26 inches: very gravelly clay loam
H3 - 26 to 36 inches: unweathered bedrock

Properties and qualities

Slope: 40 to 60 percent
Depth to restrictive feature: 26 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high
(0.01 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: F005XZ018CA - Moderately Deep Gravelly Mesic Mountains
40-60"ppt
Hydric soil rating: No

Description of Chawanakee Family

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from granite

Typical profile

H1 - 0 to 6 inches: gravelly sandy loam
H2 - 6 to 11 inches: cobbly loam
H3 - 11 to 15 inches: weathered bedrock

Properties and qualities

Slope: 40 to 60 percent
Depth to restrictive feature: 11 inches to paralithic bedrock
Drainage class: Somewhat excessively drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: D
Ecological site: F005XZ014CA - Mesic Mountains <40"ppt
Hydric soil rating: No

Minor Components

Neuns family

Percent of map unit: 3 percent
Hydric soil rating: No

Rock outcrop, metamorphic

Percent of map unit: 3 percent
Hydric soil rating: No

Deadwood family

Percent of map unit: 3 percent
Hydric soil rating: No

Goulding family

Percent of map unit: 1 percent
Hydric soil rating: No

hswf—Marpa-Holland, deep families complex, 0 to 20 percent slopes.

Map Unit Setting

National map unit symbol: hswf
Elevation: 2,500 to 5,000 feet
Mean annual precipitation: 40 to 70 inches
Mean annual air temperature: 52 to 59 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Marpa family and similar soils: 50 percent
Holland family, deep, and similar soils: 30 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Marpa Family

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from metamorphic and sedimentary rock

Typical profile

H1 - 0 to 13 inches: gravelly loam
H2 - 13 to 26 inches: very gravelly clay loam
H3 - 26 to 36 inches: unweathered bedrock

Properties and qualities

Slope: 0 to 20 percent
Depth to restrictive feature: 26 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high
(0.01 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: F005XZ018CA - Moderately Deep Gravelly Mesic Mountains
40-60"ppt

Custom Soil Resource Report

Hydric soil rating: No

Description of Holland Family, Deep

Setting

Landform: Mountains

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Mountainflank

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Residuum weathered from metasedimentary rock and/or
residuum weathered from metavolcanics and/or residuum weathered from
granite

Typical profile

H1 - 0 to 3 inches: gravelly loam

H2 - 3 to 46 inches: gravelly clay loam

H3 - 46 to 50 inches: extremely cobbly clay loam

H4 - 50 to 59 inches: weathered bedrock

Properties and qualities

Slope: 0 to 20 percent

Depth to restrictive feature: 39 to 59 inches to paralithic bedrock

Drainage class: Well drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately
low (0.00 to 0.06 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Moderate (about 7.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: C

Hydric soil rating: No

Minor Components

Holland family

Percent of map unit: 10 percent

Hydric soil rating: No

Hugo family

Percent of map unit: 5 percent

Hydric soil rating: No

Neuns family

Percent of map unit: 5 percent

Hydric soil rating: No

hswg—Marpa-Holland, deep families complex, 20 to 40 percent slopes.

Map Unit Setting

National map unit symbol: hswg
Elevation: 2,500 to 5,000 feet
Mean annual precipitation: 40 to 70 inches
Mean annual air temperature: 52 to 59 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Marpa family and similar soils: 60 percent
Holland family, deep, and similar soils: 30 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Marpa Family

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from metamorphic and sedimentary rock

Typical profile

H1 - 0 to 13 inches: gravelly loam
H2 - 13 to 26 inches: very gravelly clay loam
H3 - 26 to 36 inches: unweathered bedrock

Properties and qualities

Slope: 20 to 40 percent
Depth to restrictive feature: 26 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high
(0.01 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: F005XZ018CA - Moderately Deep Gravelly Mesic Mountains
40-60"ppt

Custom Soil Resource Report

Hydric soil rating: No

Description of Holland Family, Deep

Setting

Landform: Mountains

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Mountainflank

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Residuum weathered from granite and/or residuum weathered from metavolcanics and/or residuum weathered from metasedimentary rock

Typical profile

H1 - 0 to 3 inches: gravelly loam

H2 - 3 to 46 inches: gravelly clay loam

H3 - 46 to 50 inches: extremely cobbly clay loam

H4 - 50 to 59 inches: weathered bedrock

Properties and qualities

Slope: 20 to 40 percent

Depth to restrictive feature: 39 to 59 inches to paralithic bedrock

Drainage class: Well drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Moderate (about 7.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: C

Hydric soil rating: No

Minor Components

Neuns family

Percent of map unit: 3 percent

Hydric soil rating: No

Holland family

Percent of map unit: 3 percent

Hydric soil rating: No

Hugo family

Percent of map unit: 3 percent

Hydric soil rating: No

Forbes family

Percent of map unit: 1 percent

Hydric soil rating: No

hsw—Marpa-holland, deep families complex, 40 to 60 percent slopes.

Map Unit Setting

National map unit symbol: hsw
Elevation: 2,500 to 5,000 feet
Mean annual precipitation: 40 to 70 inches
Mean annual air temperature: 52 to 59 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Marpa family and similar soils: 60 percent
Holland family, deep, and similar soils: 30 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Marpa Family

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from metamorphic and sedimentary rock

Typical profile

H1 - 0 to 13 inches: gravelly loam
H2 - 13 to 26 inches: very gravelly clay loam
H3 - 26 to 36 inches: unweathered bedrock

Properties and qualities

Slope: 40 to 60 percent
Depth to restrictive feature: 26 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high
(0.01 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: F005XZ018CA - Moderately Deep Gravelly Mesic Mountains
40-60"ppt

Custom Soil Resource Report

Hydric soil rating: No

Description of Holland Family, Deep

Setting

Landform: Mountains

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Mountainflank

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Residuum weathered from metasedimentary rock and/or
residuum weathered from metavolcanics and/or residuum weathered from
granite

Typical profile

H1 - 0 to 3 inches: gravelly loam

H2 - 3 to 46 inches: gravelly clay loam

H3 - 46 to 50 inches: extremely cobbly clay loam

H4 - 50 to 59 inches: weathered bedrock

Properties and qualities

Slope: 40 to 60 percent

Depth to restrictive feature: 39 to 59 inches to paralithic bedrock

Drainage class: Well drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately
low (0.00 to 0.06 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Moderate (about 7.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: C

Hydric soil rating: No

Minor Components

Holland family

Percent of map unit: 3 percent

Hydric soil rating: No

Forbes family

Percent of map unit: 3 percent

Hydric soil rating: No

Neuns family

Percent of map unit: 3 percent

Hydric soil rating: No

Hugo family

Percent of map unit: 1 percent

Hydric soil rating: No

hswm—Marpa-Neuns families complex, 40 to 60 percent slopes.

Map Unit Setting

National map unit symbol: hswm
Elevation: 2,500 to 5,000 feet
Mean annual precipitation: 40 to 70 inches
Mean annual air temperature: 50 to 59 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Marpa family and similar soils: 60 percent
Neuns family and similar soils: 30 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Marpa Family

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from metamorphic and sedimentary rock

Typical profile

H1 - 0 to 13 inches: gravelly loam
H2 - 13 to 26 inches: very gravelly clay loam
H3 - 26 to 36 inches: unweathered bedrock

Properties and qualities

Slope: 40 to 60 percent
Depth to restrictive feature: 26 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high
(0.01 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: F005XZ018CA - Moderately Deep Gravelly Mesic Mountains
40-60"ppt

Custom Soil Resource Report

Hydric soil rating: No

Description of Neuns Family

Setting

Landform: Mountains

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Mountainflank

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Residuum weathered from igneous, metamorphic and sedimentary rock

Typical profile

H1 - 0 to 11 inches: very gravelly sandy loam

H2 - 11 to 23 inches: very gravelly sandy loam

H3 - 23 to 33 inches: unweathered bedrock

Properties and qualities

Slope: 40 to 60 percent

Depth to restrictive feature: 23 inches to lithic bedrock

Drainage class: Well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 5.95 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Very low (about 1.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: B

Ecological site: F005XZ018CA - Moderately Deep Gravelly Mesic Mountains
40-60"ppt

Hydric soil rating: No

Minor Components

Holland family

Percent of map unit: 3 percent

Hydric soil rating: No

Neuns family, deep

Percent of map unit: 3 percent

Hydric soil rating: No

Deadwood family

Percent of map unit: 3 percent

Hydric soil rating: No

Neuns family, schist substratum

Percent of map unit: 1 percent

Hydric soil rating: No

hsxk—Neuns-Hugo families complex, 40 to 60 percent slopes.

Map Unit Setting

National map unit symbol: hsxk
Elevation: 1,500 to 5,500 feet
Mean annual precipitation: 35 to 70 inches
Mean annual air temperature: 50 to 55 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Neuns family and similar soils: 50 percent
Hugo family and similar soils: 30 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Neuns Family

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from igneous, metamorphic and sedimentary rock

Typical profile

H1 - 0 to 11 inches: very gravelly sandy loam
H2 - 11 to 23 inches: very gravelly sandy loam
H3 - 23 to 27 inches: unweathered bedrock

Properties and qualities

Slope: 40 to 60 percent
Depth to restrictive feature: 23 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B

Custom Soil Resource Report

Ecological site: F005XZ018CA - Moderately Deep Gravelly Mesic Mountains
40-60"ppt
Hydric soil rating: No

Description of Hugo Family

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Residuum weathered from granite and/or residuum weathered from metavolcanics and/or residuum weathered from metasedimentary rock

Typical profile

H1 - 0 to 4 inches: loam
H2 - 4 to 22 inches: loam
H3 - 22 to 50 inches: gravelly sandy clay loam
H4 - 50 to 59 inches: weathered bedrock

Properties and qualities

Slope: 40 to 60 percent
Depth to restrictive feature: 50 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Neuns family, deep

Percent of map unit: 10 percent
Hydric soil rating: No

Deadwood family

Percent of map unit: 5 percent
Hydric soil rating: No

Hugo family, moderately deep

Percent of map unit: 5 percent
Hydric soil rating: No

hsxm—Neuns-Marpa families complex, 40 to 60 percent slopes.

Map Unit Setting

National map unit symbol: hsxm
Elevation: 2,500 to 5,000 feet
Mean annual precipitation: 40 to 70 inches
Mean annual air temperature: 50 to 59 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Neuns family and similar soils: 50 percent
Marpa family and similar soils: 30 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Neuns Family

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from igneous, metamorphic and sedimentary rock

Typical profile

H1 - 0 to 11 inches: very gravelly sandy loam
H2 - 11 to 23 inches: very gravelly sandy loam
H3 - 23 to 33 inches: unweathered bedrock

Properties and qualities

Slope: 40 to 60 percent
Depth to restrictive feature: 23 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B

Custom Soil Resource Report

Ecological site: F005XZ018CA - Moderately Deep Gravelly Mesic Mountains
40-60"ppt
Hydric soil rating: No

Description of Marpa Family

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Residuum weathered from metamorphic and sedimentary rock

Typical profile

H1 - 0 to 13 inches: gravelly loam
H2 - 13 to 26 inches: very gravelly clay loam
H3 - 26 to 36 inches: unweathered bedrock

Properties and qualities

Slope: 40 to 60 percent
Depth to restrictive feature: 26 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high
(0.01 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: F005XZ018CA - Moderately Deep Gravelly Mesic Mountains
40-60"ppt
Hydric soil rating: No

Minor Components

Deadwood family

Percent of map unit: 10 percent
Hydric soil rating: No

Typic xerorthents

Percent of map unit: 5 percent
Hydric soil rating: No

Hugo family, moderately deep

Percent of map unit: 5 percent
Hydric soil rating: No

hsxy—Neuns family, deep-Neuns family complex, 40 to 70 percent slopes.

Map Unit Setting

National map unit symbol: hsxy
Elevation: 2,500 to 5,000 feet
Mean annual precipitation: 40 to 70 inches
Mean annual air temperature: 50 to 54 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Neuns family, deep, and similar soils: 50 percent
Neuns family and similar soils: 30 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Neuns Family, Deep

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from igneous, metamorphic and sedimentary rock

Typical profile

H1 - 0 to 9 inches: very gravelly loam
H2 - 9 to 61 inches: very gravelly loam
H3 - 61 to 65 inches: unweathered bedrock

Properties and qualities

Slope: 40 to 70 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e

Custom Soil Resource Report

Hydrologic Soil Group: B

Ecological site: F005XZ018CA - Moderately Deep Gravelly Mesic Mountains
40-60"ppt

Hydric soil rating: No

Description of Neuns Family

Setting

Landform: Mountains

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Mountainflank

Down-slope shape: Concave

Across-slope shape: Concave

Parent material: Residuum weathered from metamorphic rock and/or residuum weathered from metavolcanics and/or residuum weathered from metasedimentary rock

Typical profile

H1 - 0 to 11 inches: very gravelly sandy loam

H2 - 11 to 23 inches: very gravelly sandy loam

H3 - 23 to 27 inches: unweathered bedrock

Properties and qualities

Slope: 40 to 70 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 5.95 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Very low (about 1.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: A

Ecological site: F005XZ018CA - Moderately Deep Gravelly Mesic Mountains
40-60"ppt

Hydric soil rating: No

Minor Components

Marpa family, deep

Percent of map unit: 10 percent

Hydric soil rating: No

Marpa family

Percent of map unit: 5 percent

Hydric soil rating: No

Deadwood family

Percent of map unit: 5 percent

Hydric soil rating: No

ht1x—Xerofluvents-Riverwash association, 0 to 20 percent slopes.

Map Unit Setting

National map unit symbol: ht1x
Elevation: 1,000 to 7,000 feet
Mean annual precipitation: 40 to 70 inches
Mean annual air temperature: 52 to 55 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Xerofluvents and similar soils: 70 percent
Riverwash: 30 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Xerofluvents

Setting

Landform: Alluvial fans
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Flat
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Alluvium

Typical profile

H1 - 0 to 11 inches: sandy loam
H2 - 11 to 60 inches: stratified very gravelly sandy loam to gravelly loam

Properties and qualities

Slope: 0 to 20 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: NoneRare
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: A
Ecological site: F022BG201CA - Mesic Ash-Influenced Mountains
Hydric soil rating: No

Description of Riverwash

Setting

Landform: Drainageways

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Flat

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Alluvium

Typical profile

H1 - 0 to 60 inches: very gravelly sand

Properties and qualities

Slope: 0 to 20 percent

Drainage class: Excessively drained

Runoff class: Very high

Frequency of flooding: Frequent

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8

Hydrologic Soil Group: D

Hydric soil rating: Yes

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Attachment C

Tribal Consultation and Cultural Records Search Documentation

North Coast Regional Water Quality Control Board

April 18, 2023

Bethany Llewellyn
Trinity County Resource Conservation District
30 Horseshoe Lane
Weaverville, CA 96093

Subject: Trinity County Wildfire Mitigation/Hazardous Fuels Reduction Project

Dear Bethany Llewellyn,

The North Coast Regional Water Quality Control Board (RWB) appreciates the opportunity to comment on this Project. The purpose of this letter is to advise the Trinity County Resource Conservation District about compliance with the *Categorical Waiver of Waste Discharge Requirements for Discharges Related to Timber Harvest Activities On Non-Federal Lands in the North Coast Region*, Order R1-2014-0011¹ (Waiver).

Project Summary

The project proposes mechanical and manual thinning of roadside vegetation in three general areas: Weaverville, Covington Mill, and North Trinity Lake. Up to ~7200 acres may be treated. Steep slopes and watercourse buffers will be excluded.

Waiver of Waste Discharge Requirements

The State Water Board Policy for the Implementation and Enforcement of the Nonpoint Source Pollution Control Program (Nonpoint Source Policy) requires that all nonpoint source discharges of waste be regulated by WDRs, waiver of WDRs, or prohibitions to ensure compliance with the Basin Plan. The Project is located within the Trinity River Watershed, which is listed on the Clean Water Act section 303(d) impaired waters list for Sediment. The Project must be in compliance with the total maximum daily load (TMDL) for the Trinity River watershed.

The Regional Water Board developed and adopted the Waiver as a means for timber projects to comply with the Nonpoint Source Policy, the Water Code, and the TMDL. Projects that receive coverage under the CALFIRE Timber Harvest Plan Exemption,

¹ The Waiver was extended via a Short Term Renewal Order, R1-2019-0008

Forest Practice Rules Section 1038, are automatically enrolled under the Waiver. The Waiver is available for review and can be downloaded at the following web address:
http://www.waterboards.ca.gov/northcoast/water_issues/programs/timber_operations/timber_waiver/

If you have any questions, please feel free to contact me at
chad.johnson@waterboards.ca.gov.

Sincerely,

Chad Johnson
Environmental Scientist
Northern Forestry Unit

230418 CRJ TCRCD Fuels Reduction IS MND comments

Received from CalTrans by email from Michael.Battles@dot.co.gov, at 1:22 pm on 4/19/2023

Good afternoon Bethany,

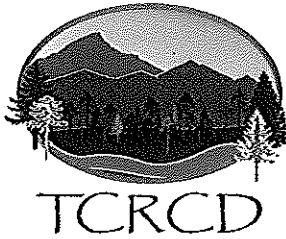
Thank you for the opportunity to review and comment on the IS/MND for the Trinity County Hazardous Fuels Reduction Project. Caltrans District 2 staff have the following comments:

1. All work within the State Right of Way will require a Caltrans Encroachment Permit
2. An environmental document of some level will be required
3. Should the vegetation management activity impact the highway (for example, flying wood chips from a masticator), traffic control will be required
4. If a tree to be felled has the potential to land within 20-feet of the state highway, traffic control will be required
5. Traffic control shall conform to Caltrans standards, and be performed by qualified personnel, preferably by a C31 licensed sub-contractor
6. Unless the Forest Practices Act will govern, a storm-water plan may be needed
7. Log deck areas within the State Right of Way need to be clearly identified for review and approval
8. The contractor may need to be a Licensed Timber Operator

Once again, thank you for the opportunity for Caltrans District 2 staff to review and comment on this IS/MND. Please let me know if you have any questions regarding the above comments, and I will get clarification from the functional reviewer.

Sincerely,

Mike Battles
Associate Transportation Planner
Regional Planning and Local Development Review
Caltrans District 2



Trinity County Resource Conservation District

Post Office Box 1450 · 30 Horseshoe Lane · Weaverville, CA 96093-1450

April 26, 2023

Trinity County Resource Conservation District
PO Box 1450
Weaverville, CA 96093-1450

Re: Comments received from Caltrans District 2 regarding the IS/MND for the Trinity County Hazardous Fuels Reduction Project

To: Caltrans District 2

The District appreciates the thoughtful review of this document provided by the Caltrans District 2 team via email on 4/19/2023. The comments provided helpful clarification to limitations on work performed in the state right of way, and will not require substantive changes to project design. District staff have prepared the following responses:

Comment 1. All work within the State Right of Way will require a Caltrans Encroachment Permit
Response: No work will take place in the State Right of Way on this project.

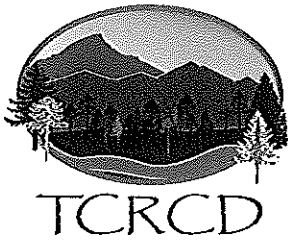
Comment 2. An environmental document of some level will be required
Response: As no work will take place in the State Right of Way, Caltrans should not require an additional environmental document.

Comments 3-5. Should the vegetation management activity impact the highway (for example, flying wood chips from a masticator), traffic control will be required. If a tree to be felled has the potential to land within 20-feet of the state highway, traffic control will be required. Traffic control shall conform to Caltrans standards, and be performed by qualified personnel, preferably by a C31 licensed sub-contractor
Response: If traffic control is required, including in circumstances described in comments 3 and 4, a Traffic Control Plan will be submitted to the responsible entity (Caltrans for State Highways), and will conform with agency standards (see resource analysis for Transportation, page 68).

Comment 6. Unless the Forest Practices Act will govern, a storm-water plan may be needed.
Response: This project will fall under the *Waiver of Waste Discharge Requirements for Discharges Related to Timber Harvest Activities On Non-Federal Lands in the North Coast Region*, Order R1-2014-0011, Order R1-2014-00111. The project will comply with the limitations and requirements of this waiver. Waiver eligibility has been confirmed with the Water Board.

Comment 7. Log deck areas within the State Right of Way need to be clearly identified for review and approval
Response: It is not anticipated that logs will be decked in the State Right of Way, and in the event that they are identification will conform to Caltrans standards.

Comment 8. The contractor may need to be a Licensed Timber Operator
Response: Contractors will need to hold all legally required licenses, including LTO where applicable.



Trinity County Resource Conservation District

Post Office Box 1450 · 30 Horseshoe Lane · Weaverville, CA 96093-1450

If any of the above responses require further discussion, please contact Bethany Llewellyn at bllewellyn@tcrd.net or (530)623-6004 ext.220

Thank you,

Kelly Sheen
District Manager

**RESOLUTION OF THE
TRINITY COUNTY RESOURCE CONSERVATION DISTRICT,
STATE OF CALIFORNIA**

Resolution No.: 23-03

WHEREAS, Penal Code Sections 11105(b)(11) and 13300(b)(11) authorize cities, counties, districts and joint powers authorities to access state and local summary criminal history information for employment, licensing or certification purposes; and

WHEREAS, Penal Code Section 11105(b)(11) authorizes cities, counties, districts and joint powers authorities to access federal level criminal history information by transmitting fingerprint images and related information to the Department of Justice to be transmitted to the Federal Bureau of Investigation; and

WHEREAS, Penal Code Sections 11105(b)(11) and 13300(b)(11) require that there be a requirement or exclusion from employment, licensing, or certification based on specific criminal conduct on the part of the subject of the record; and

WHEREAS, Penal Code Sections 11105(b)(11) and 13300(b)(11) require the Board of Directors of Trinity County Resource Conservation District to specifically authorize access to summary criminal history information for employment, licensing, or certification purposes.

NOW THEREFORE, BE IT RESOLVED, that the Board of Directors of Trinity County Resource Conservation District are hereby authorized to access state summary criminal history information for employment (including volunteers and contract employees), licensing of Fiscal Manager and/or District Manager, or certification for Fiscal Manager and/or District Manager purposes and may not disseminate the information to a private entity.

The foregoing resolution was approved and adopted this ____ day of May, 2023, by the following vote:
(Board of Directors)

Ayes: ____ Noes: ____ Absent: ____

--CERTIFICATION OF RESOLUTION--

ATTEST:

BOARD SECRETARY

I _____, Board Member of the Board of Directors of Trinity County Resource Conservation District, witness my hand or the seal of the Board of Directors of the Trinity County Resource Conservation District on the day of ____ of May, 2023.

Signature

Title