2016
SHASTA COUNTY
COMMUNITY WILDFIRE PROTECTION PLAN

COW CREEK
PLANNING AREA

Covering the communities of:

- Backbone Ridge
- Bella Vista (east)
- Millville
- Montgomery Creek
- Oak Run
- Palo Cedro
- Round Mountain
- Whitmore

COW CREEK PLANNING AREA
(2016)

I. PROPOSED PROJECTS

A. THE PLANNING AREA

The Cow Creek planning area includes the communities of Palo Cedro, Bella Vista, Whitmore, Oak Run, Round Mountain, Montgomery Creek, and Backbone Ridge. Land ownership is predominately private lands with approximately 98% in private ownership and 2% managed by public agencies. The Latour State Forest is the largest block of public lands in the watershed and is managed by CAL FIRE for multiple uses including sustained yields of timber harvest, recreation, and wildlife management. Population is concentrated in the five major tributaries; North (Little) Cow, Oak Run, Clover, Old Cow and South Cow Creeks. Palo Cedro is the largest community.

The Cow Creek Watershed encompasses approximately 275,000 acres and is located in Shasta County on the eastern side of the Sacramento River**.** The topography of the Cow Creek Watershed varies significantly from the flat valley areas around the main stem to mountainous upper reaches. Elevation of the watershed varies from 340 feet above sea level at the valley floor to over 7300 feet at the upper reaches of the watershed. This steep elevational gradient results in a diverse mix of ecotypes throughout the watershed. The summers are hot and dry and winters are cool with moderate rainfall and snow above the 4,000 feet. Annual precipitation ranges from about 25 inches in the valley to about 65 inches in the northeastern portion of the watershed. Most of the precipitation falls in the winter between November 1 and April 30.

B. PROJECT PRIORITIES

COW CREEK PLANNING AREA FUEL REDUCTION PROJECTS				
PROPOSED PROJECT	**MAP NUMBER[1]**	**TYPE**	**AREA (acres)**	**ESTIMATED COST[2]**
Phillips Road	1	Fuelbreak	84	$436,582
Bullskin Ridge	2	Fuelbreak	56	$291,055
Buzzards Roost Road	3	Fuelbreak	42	$221,455
Mill Creek Subdivision	4	Fuelbreak	80	$584,800
Oak Run to Fern Road	5	Fuelbreak	101	$525,164
Fern Road East	6	Fuelbreak	131	$956,945
Oak Run Road	7	Fuelbreak	245	$1,278,109
Whitmore Road	8	Fuelbreak	221	$1,151,564
McCandless Gulch Road	9	Fuelbreak	32	$164,509
Fern Road	10	Fuelbreak	92	$480,873
Tamarack Road	11	Fuelbreak	131	$683,345
Bateman Road	12	Fuelbreak	168	$879,491
Ponderosa Way	13	Fuelbreak	61	$316,364

The identified fuel reduction projects fall into two categories:

1. defensible space for homes and structures, and
2. roadside and ridgeline shaded fuelbreaks intended to create safe ingress and egress for fire personnel and escape routes for residents.

Projects were prioritized based on need and factors such as the following:

- Protection of private residences and properties;
- Access or escape route for the public and fire suppression forces;
- Identification of staging areas in conjunction with the fuelbreak development to provide fire suppression forces strategic locations for planning fire management and suppression actions.
- Connections to other fuelbreaks or areas of lower risk.

Landowners and residents are strongly encouraged to develop defensible space or maintain the fuels reduction projects on their properties to keep the integrity of the work done and to show project sustainability which could lead to additional future projects.

[1] Proposed projects are numbered on the map according to priority.
[2] Estimated costs of the projects are for planning purposes only. More accurate costs will be determined for the preparation of project proposals.

COW CREEK PLANNING AREA BASIC ASSUMPTIONS[3]	
Estimated cost of fuelbreak (roadside)	$5,220 per acre
Estimated cost of fuelbreak (ridgetop or off-road)	$7,310 per acre
Estimated cost of defensible space (hand labor)	$600 per dwelling (<1 acre)
Standard fuelbreak width	200 feet
Population	2.6 per dwelling
Property Value (~ $201,250 - $475,000 per dwelling)	$260,000
Schools	$145,000,000
Commercial Structures Value[4]	$415,500 – $23,900,000
Power line	$250,000/mile

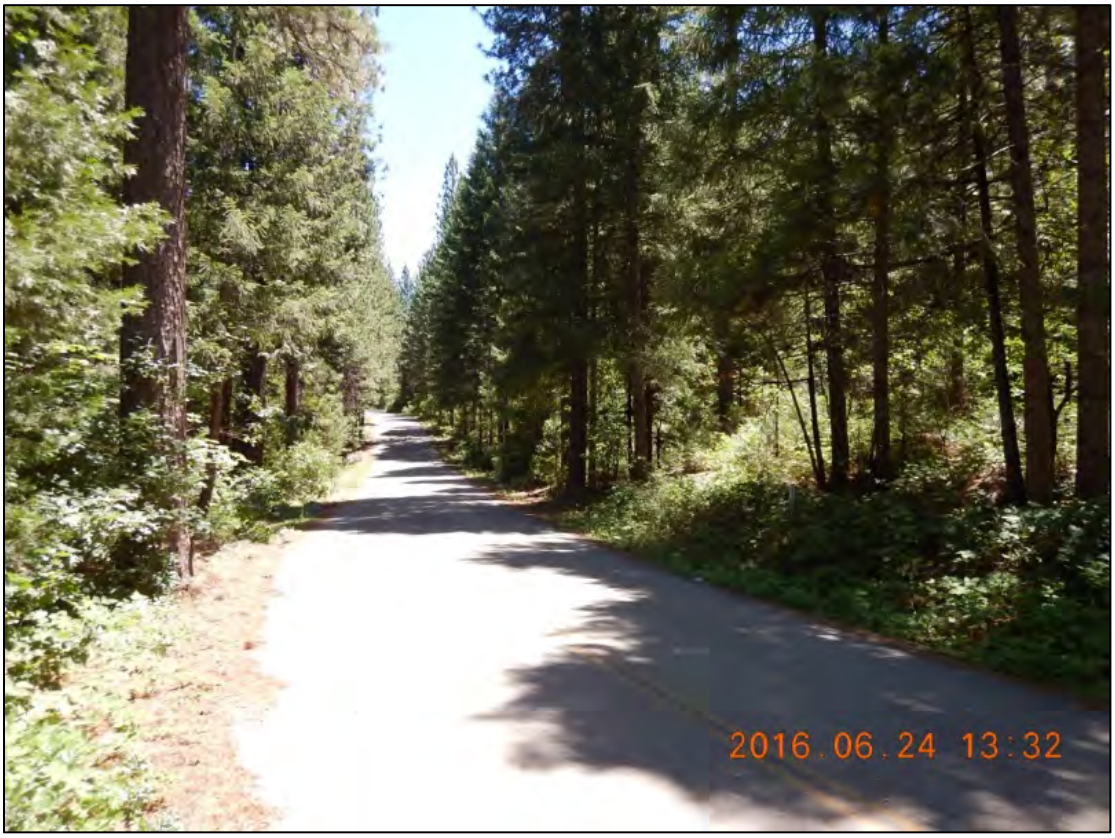
[3] Estimated costs of the projects are for planning purposes only. More accurate costs will be determined for the preparation of project proposals.
[4] County assessed values, 2010

#1 – Phillips Road

- Poor fire access and escape along Phillips Road.
- Provides a north-south fuelbreak in the watershed, predominantly within mixed conifer forests and perpendicular to prevailing winds;
- Provides important access for fire suppression forces in this portion of the watershed; and
- Connects to the proposed fuelbreak on Oak Run to Fern Road, which provides another level of protection to residents and property in this area.

Proposed Solution:

Construct shaded fuelbreaks near Phillips Road.
6.9 miles long x 100 feet across to the right-of-way = 84 acres.



Phillips Road: Note the dense brush and trees up to edge of the road.

#2 – Bullskin Ridge Road

- Provides another link in the fuelbreak system to the Oak Run Road Fuelbreak; and
- Provides protection to numerous private residences that are vulnerable to being destroyed by wildfire.

Proposed Solution:

Construct shaded fuelbreaks near Bullskin Ridge Road:
4.5 miles long x 100 feet across to the right-of-way = 56 acres.

Bullskin Ridge Road: Note the dense vegetation up to the edge of the road.

#3 – Buzzards Roost Road

- Provides another link in the fuelbreak system to the Oak Run Road Fuelbreak;
- Provides protection to the areas of numerous private residences that are vulnerable of being destroyed by wildfire; and
- Ties the eastern end of the project into areas burned under the Fountain Fire;

Proposed Solution:

Construct shaded fuelbreaks near Buzzards Roost Road:
3.5 miles long x 100 feet across to the right-of-way = 42 acres.

Buzzards Roost Road: Note the dense vegetation up to the edge of the road.

#4 – Mill Creek Subdivision

- Provides a fuelbreak around the Mill Creek subdivision;
- Provides protection to numerous private residences that are vulnerable to being destroyed by wildfire; and
- Identifies staging areas in conjunction with the fuelbreak development to provide fire suppression forces strategic locations for planning fire management and suppression actions.

Proposed Solution:

- Construct shaded fuelbreaks around the subdivision connecting Phillips Road on the north and south of the subdivision:
  3.3 miles long x 200 feet across = 80 acres.

Mill Creek Subdivision: Note the dense vegetation up to the edge of the narrow, winding road.

#5 – Oak Run to Fern Road

- Is located in an area that has had little fuel reduction activities implemented in the past;
- Provides a critical first step in providing a strategic fuel reduction project in the area;
- Provides a fuelbreak perpendicular to prevailing winds;
- Helps protect life and property of numerous private residences that are vulnerable to being destroyed by wildfire;
- Identifies staging areas in conjunction with the fuelbreak development will provide fire suppression forces strategic locations for planning fire management and suppression actions;
- Provides relatively low cost for implementation for about one-half of the project;
- Enables other areas of dense conifer vegetation to be treated with mechanical methods and commercial harvests (both biomass and timber), which will speed implementation and reduce overall project costs; and
- Provides a critical access route for public escape and fire suppression forces from Oak Run to Whitmore.

Proposed Solution:

Construct shaded fuelbreaks along Oak Run to Fern Road:
8.3 miles long x 100 feet across to the right-of-way = 101 acres.

Oak Run to Fern Road Fuelbreak: Note dense brush and trees up to the edge of the road

#6 – Fern Road East

- Links to the Oak Run to Fern Road Fuelbreak, providing a continuous fuelbreak from Highway 299 to Whitmore Road;
- Is perpendicular to prevailing winds;
- Provides a critical access route for fire suppression forces accessing both sides of the Cow Creek Watershed; and
- Protects a telecommunications tower.

Proposed Solution:

Construct shaded fuelbreaks near Fern Road East:
5.4 miles long x 200 feet across = 131 acres.

Fern Road East Fuelbreak: Note dense brush and trees up to the edge of the road.

#7 – Oak Run Road

- Provides the start of a north-south fuelbreak that will begin to divide the Cow Creek Watershed, helping to keep fire from spreading up the watershed into heavier fuels and will be perpendicular to prevailing winds in most locations;
- Helps protect numerous private residences that are vulnerable to being destroyed by wildfire, and fuel reduction will help protect life and property;
- Identifies staging areas in irrigated pastures and other clearings in conjunction with the development of the fuelbreak that will provide fire suppression forces strategic locations for planning fire management and suppression actions; and
- Enables vegetation to be treated with mechanical methods and commercial harvests (both biomass and timber), which will speed implementation and reduce overall project costs.

Proposed Solution:

Construct shaded fuelbreaks along Oak Run Road:
20 miles long x 100 feet wide or right-of-way = 245 acres.

Oak Run Road between Highway 299 and Buzzards Roost Road. Lower elevations along Oak Run Road are dominated by oak woodlands which do not require construction of a shaded fuelbreak.

#8 – Whitmore Road

- Provides a significant east-west fuelbreak from Millville to Whitmore, effectively bisecting the southern 1/3 of the watershed;
- Reduces fuels around residences, helping to protect them from being destroyed by wildfire;
- Develops large block burning activities through the CVMP on lands adjacent to the fuelbreak, effectively protecting much larger areas of the watershed; and
- Enables vegetation to be treated with mechanical methods and commercial harvests (both biomass and timber), which will speed implementation and reduce overall project costs.

Proposed Solution:
Construct shaded fuelbreaks near Whitman Road:
18.2 miles long x 100 feet across to the right-of-way = 221 acres.

Whitmore Road east of Whitmore. Lower elevations along Whitmore Road are dominated by oak woodlands which do not require construction of a shaded fuelbreak.

#9 – McCandless Gulch Road

- Provides an north-south fuelbreak through commercial timberlands that can have extremely active fire behavior and very high fire severity;
- Utilizes existing and planned fuelbreaks and forest management activities;
- Provides protection to the upper watershed, as part of a series of three interconnected fuelbreaks (Tamarack, Ponderosa, and Bateman); and

Proposed Solution:
Construct shaded fuelbreaks along McCandless Gulch Road:
2.6 miles long x 100 feet across to the right-of-way = 32 acres.

McCandless Gulch Road Fuelbreak: Note dense brush and trees up to the edge of the road.

#10 – Fern Road

- Provides a significant east-west fuelbreak from Whitmore to Oak Run, effectively bisecting the eastern 1/3 of the watershed; and
- Provides ingress and egress for emergency crews and residents.

Proposed Solution:
Construct shaded fuelbreaks along Fern Road:
7.6 miles long x 100 feet across to the right-of-way = 92 acres.

#11 –Tamarack Road

- Concern over the regrowth of flammable fuels.
- Protects the community of Whitmore, which includes a fire station, school, store, community center, post office, churches, timberland, and some businesses.

Proposed Solution:
Conduct maintenance along Tamarack Road:
10.8 miles long x 100 feet across to the right-of-way = 131 acres.

#12 – Bateman Road

- Provides a significant east-west fuelbreak from Latour State Forest to Whitmore, effectively bisecting the southern 1/3 of the watershed;
- Provides ingress and egress for emergency crews and residents.

Proposed Solution:
Maintain fuelbreak along Bateman Road:
13.9 miles long x 100 feet across to the right-of-way = 168 acres.

#13 – Ponderosa Way

- Provides a significant east-west fuelbreak from Millville to Whitmore, effectively bisecting the southern 1/3 of the watershed; and
- Provides ingress and egress for emergency crews and residents.

Proposed Solution:
Maintain shaded fuelbreak along Ponderosa Way:
5 miles long x 100 feet across to the right-of-way = 61 acres.

II. COMMUNITY PRIORITIES

A. OVERALL COMMUNITY WILDFIRE RISK ASSESSMENT

COW CREEK PLANNING AREA OVERALL COMMUNITY WILDFIRE RISK ASSESSMENT								
Community, structure or area at risk	**Map Number**	**Fuel Hazard**	**Wildfire Occurrence Risk**	**Structural Ignitability**	**Preparedness Capability**	**Overall Risk**	**Fire Hazard Severity Zone Rating**	**WUI**
Phillips Road	1	High	High	High	Low	High	Very High	Yes
Bullskin Ridge	2	High	High	High	Low	High	Very High	Yes
Buzzards Roost Road	3	High	High	High	Low	High	Very High	Yes
Mill Creek Subdivision	4	High	High	High	Low	High	Very High	Yes
Oak Run to Fern Road	5	High	High	High	Low	High	Very High	Yes
Fern Road East	6	High	High	High	Low	High	Very High	Yes
Oak Run Road	7	High	High	High	Low	High	Very High	Yes
Whitmore Road	8	High	High	High	Low	High	Very High	Yes
McCandless Road Gulch	9	High	High	High	Low	High	Very High	Yes
Fern Road	10	High	High	High	Low	High	Very High	Yes
Tamarack Road	11	High	High	High	Low	High	Very High	Yes
Bateman Road	12	High	High	High	Low	High	Very High	Yes
Ponderosa Way	13	High	High	High	Low	High	Very High	Yes

B. OVERALL COMMUNITY HAZARD REDUCTION ASSESSMENT

COW CREEK PLANNING AREA OVERALL COMMUNITY HAZARD REDUCTION ASSESSMENT					
Community, structure or area at risk	**Map Number**	**Overall Risk**	**Cultural Value**	**Treatment Type**	**Treatment Method**
Phillips Road	1	High	High	Fuelbreak	Brush and tree removal, pruning
Bullskin Ridge	2	High	High	Fuelbreak	Brush and tree removal, pruning
Buzzards Roost Road	3	High	High	Fuelbreak	Brush and tree removal, pruning
Mill Creek Subdivision	4	High	High	Fuelbreak	Brush and tree removal, pruning
Oak Run to Fern Road	5	High	High	Fuelbreak	Brush and tree removal, pruning
Fern Road East	6	High	High	Fuelbreak	Brush and tree removal, pruning
Oak Run Road	7	High	High	Fuelbreak	Brush and tree removal, pruning
Whitmore Road	8	High	High	Fuelbreak	Brush and tree removal, pruning
McCandless Road Gulch	9	High	High	Fuelbreak	Brush and tree removal, pruning
Fern Road	10	High	High	Fuelbreak	Brush and tree removal, pruning
Tamarack Road	11	High	High	Fuelbreak	Brush and tree removal, pruning
Bateman Road	12	High	High	Fuelbreak	Brush and tree removal, pruning
Ponderosa Way	13	High	High	Fuelbreak	Brush and tree removal, pruning

III. COMMUNITY VALUES

RESIDENCES AND MAJOR STRUCTURES

The landscapes of residential settlements are a particularly sensitive aesthetic resource. Research has demonstrated that as many as one in five residents in the wildland-urban intermix feel a lush landscape today is more important than saving their home from a wildfire that may or may not occur. Comments in focus groups and public meetings reinforce the notion that rich vegetation across the landscape is essential to the quality of life they experience as part of living in a forest landscape

Oak Run Country Store

Oak Run Volunteer Fire Department Station

Whitmore Community Center

Whitmore School

MAPS OF COW CREEK PLANNING AREA

1. **COW CREEK PROPOSED PROJECTS AND PLANNING AREA**
2. **FIRE SEVERITY RATING**
3. **VEGETATION**
4. **SPECIAL STATUS SPECIES AND HABITAT**

Cow Creek CWPP Fuels Projects

Legend

Projects

- Proposed
- Complete

#15 - Backbone-McCandless FB
#9 - McCandless Gulch Rd FB
#3 - Buzzards Roost Rd FB
#14 - Backbone Ridge DFPZ
#4 - Mill Creek Subdivision FB
#1 - Phillips Rd. FB
#2 - Bullskin Ridge Rd FB
#5 - Oak Run to Fern Rd. FB
#6 - Fern Rd. East FB
#11 - Tamarack Rd. East FB
#7 - Oak Run Rd FB
#10 - Fern Rd. FB
#8 - Whitmore Rd. FB
#11 - Tamarack Rd West - Whitmore FB
#13 - Ponderosa Way FB
#12 - Bateman Rd. FB (West)
#12 - Bateman Rd. FB (East)

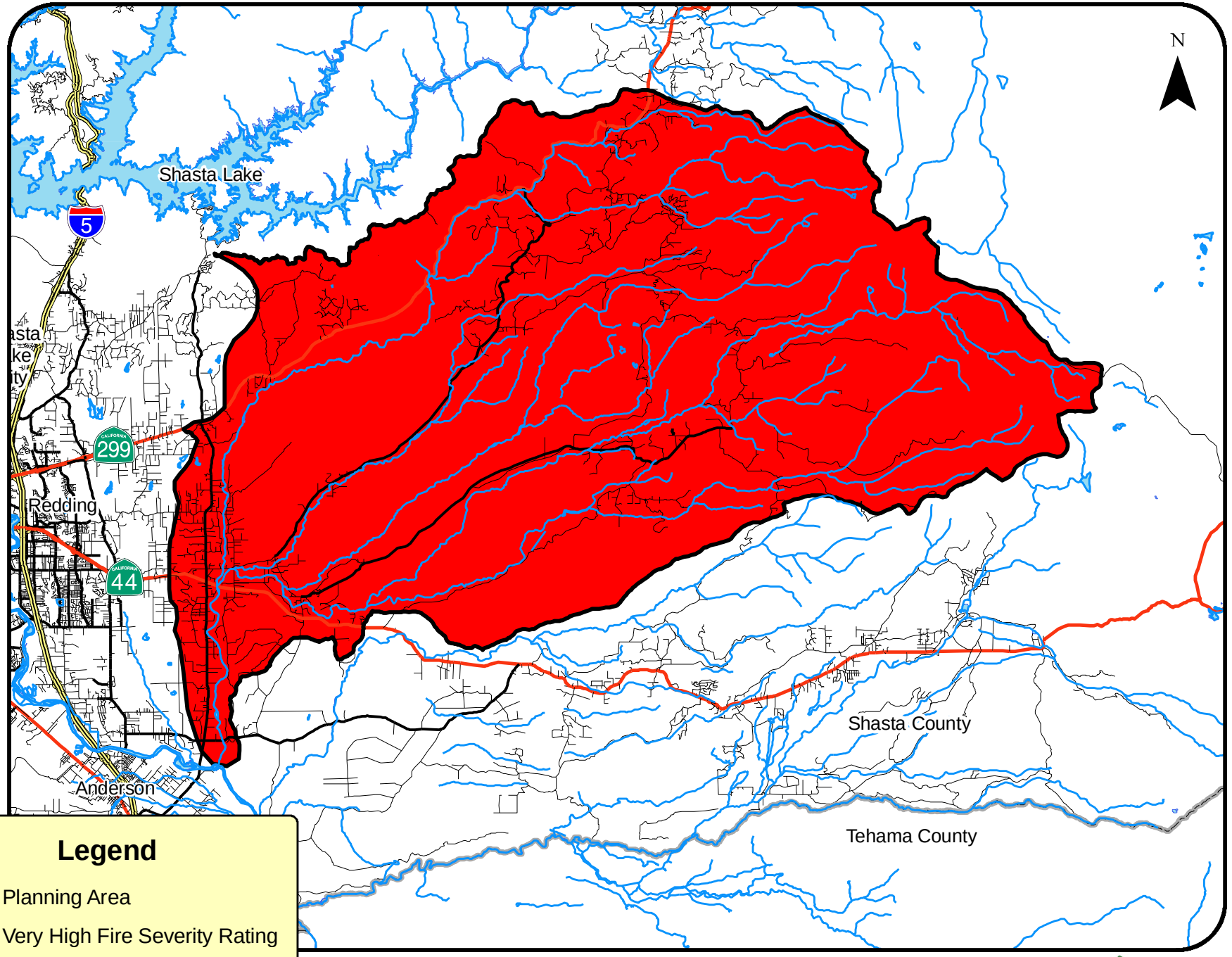
Priority	Project Name
1	Phillips Rd. FB
2	Bullskin Ridge Rd FB
3	Buzzards Roost Rd FB
4	Mill Creek Subdivision FB
5	Oak Run to Fern Rd. FB
6	Fern Rd. East FB
7	Oak Run Rd FB
8	Whitmore Rd. FB
9	McCandless Gulch Rd FB
10	Fern Rd. FB
11	Tamarack Rd. East FB
11	Tamarack Rd West - Whitmore FB
12	Bateman Rd. FB (East)
12	Bateman Rd. FB (West)
13	Ponderosa Way FB
14	Backbone Ridge DFPZ
15	Backbone-McCandless FB

0 2 4 6 8 Miles

N

WESTERN SHASTA RESOURCE CONSERVATION DISTRICT

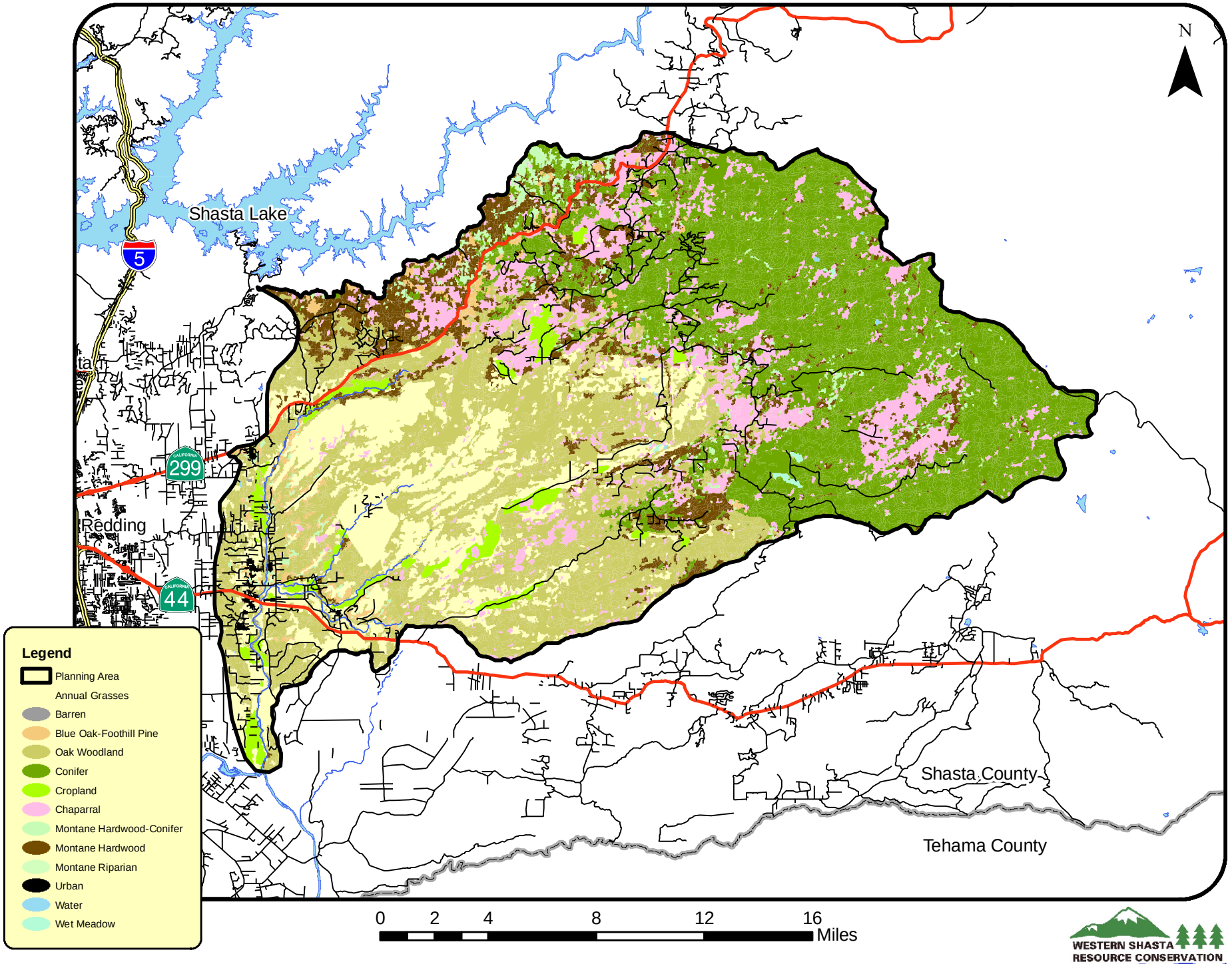
COW CREEK FIRE SEVERITY RATING



VERY HIGH FIRE HAZARD SEVERITY ZONE
as Recommended by CAL FIRE

WESTERN SHASTA RESOURCE CONSERVATION DISTRICT

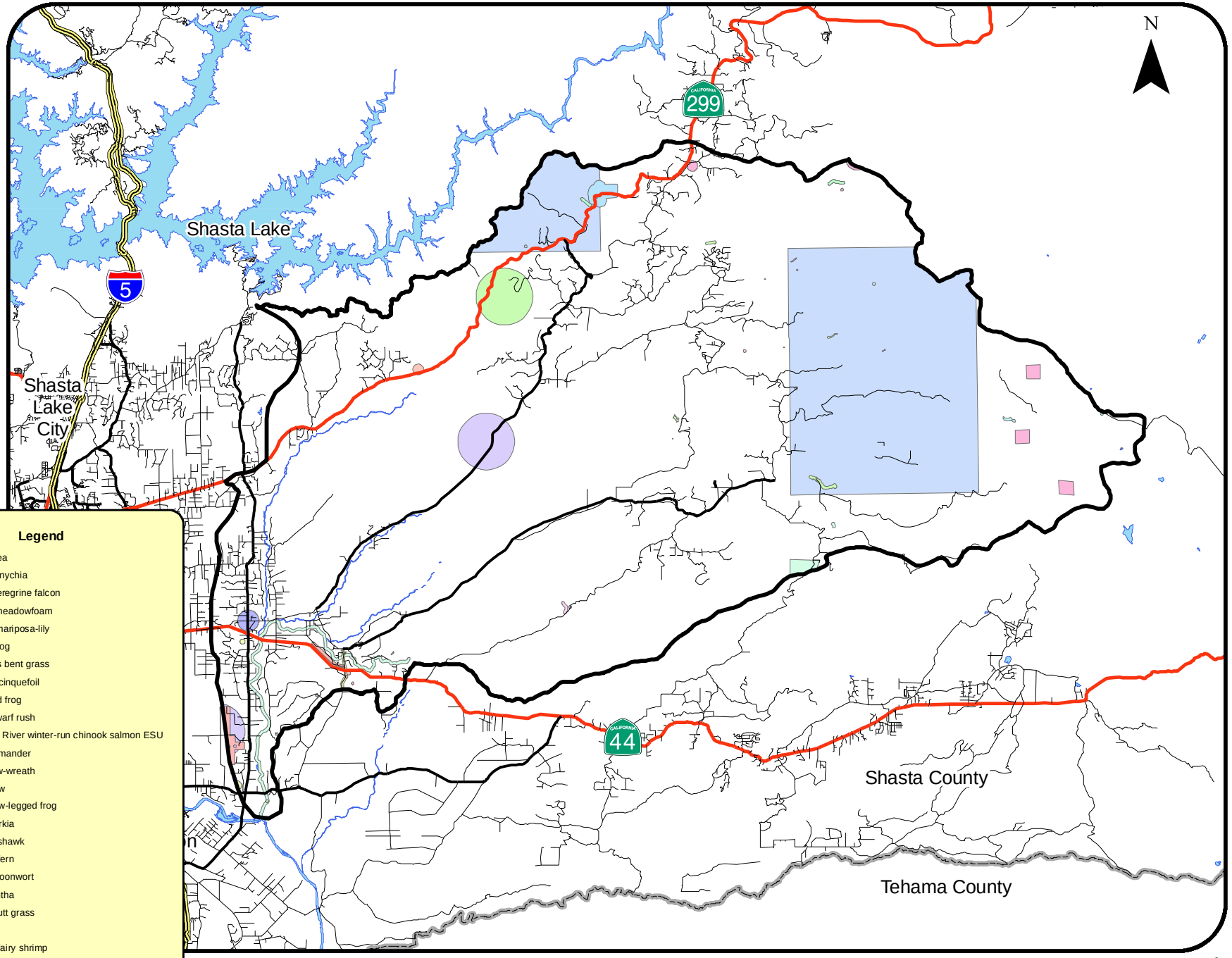
COW CREEK VEGETATION MAP



WESTERN SHASTA RESOURCE CONSERVATION DISTRICT

MAP 4

SPECIAL STATUS WILDLIFE AND PLANT SPECIES



Legend

- Planning Area
- Ahart's paronychia
- American peregrine falcon
- Bellinger's meadowfoam
- Callahan's mariposa-lily
- Cascades frog
- Henderson's bent grass
- Newberry's cinquefoil
- Pacific tailed frog
- Red Bluff dwarf rush
- Sacramento River winter-run chinook salmon ESU
- Shasta salamander
- Shasta snow-wreath
- bank swallow
- foothill yellow-legged frog
- northern clarkia
- northern goshawk
- rattlesnake fern
- scalloped moonwort
- silky cryptantha
- slender Orcutt grass
- spotted bat
- vernal pool fairy shrimp
- vernal pool tadpole shrimp
- western pond turtle

WESTERN SHASTA RESOURCE CONSERVATION DISTRICT

Department Name: Shasta County Board of Supervisors
Agreement Number: FAF-040020
Dollar Amount: $53,500