

2016
SHASTA COUNTY
COMMUNITY WILDFIRE PROTECTION PLAN

OLD STATION / HAT CREEK VALLEY
PLANNING AREA



Covering the communities of:

- Hat Creek
- Old Station
- Cassel

OLD STATION / HAT CREEK VALLEY PLANNING AREA (2016)

I. PROPOSED PROJECTS

A. THE WATERSHED AND PLANNING AREA

The Hat Creek Valley covers an area about 30 miles long and 18 miles wide, equaling a total area of about 183 square miles or 117,338 acres. The Hat Creek Valley is located 50 miles east of Redding, California and 235 miles north of San Francisco, and is part of the Pit River Basin, making it an important watershed of the Sacramento River and Shasta Lake. The area has remained relatively undeveloped over time and is a high quality water supply source for Lake Britton and later the Central Valley Project, which supplies water throughout California. Area communities include Old Station, Hat Creek, Cassel, McArthur-Burney Falls State Park, and surrounding developed areas.

Vegetation in the area is characterized by seven vegetation types: Douglas-fir- Mixed Conifer Forest, Mixed Conifer, Ponderosa Pine, Canyon Live Oak Woodland, Black Oak Woodland, Gray Pine Woodland, and Chaparral. Vegetation outside the developed agriculture areas is mainly trees and brush. It includes ponderosa pine, sugar pine, California black oak, incense-cedar, Douglas-fir, and white fir, with a mixed understory of ceanothus and manzanita. Vegetative elements include wild herbaceous plants, shrubs, desert shrubs, riparian shrubs and trees, and coniferous trees. Deep side canyons typically support significant stands of aspen, cottonwood, and other riparian vegetation.

Elevation ranges for these vegetation types are between 3,182 feet on the valley floor at Rock Spring near Cassel and 4,500 feet at Old Station, to the peak of 7,863 at Burney Mountain. Mean annual precipitation is 20 to 40 inches, some of which is snow. The mean annual air temperature is estimated to be 57 to 65 degrees Fahrenheit. Climatic data is quoted from *The Soil Survey of Lassen National Forest Area, California*.

HCV-FSC Demonstration Project

The Hat Creek Valley Fire Safe Council (HCV-FSC) is conducting three fuel reduction demonstrations where two sites were treated mechanically and one by hand. The demonstration project, although small in scope, requires environmental permits under the scope of the California Environmental Quality Act (CEQA). Specifically, compliance with the Endangered Species Act (ESA/Migratory Bird Treaty Act (MBTA) and the National Historic Preservation Act (NHPA) were required. This element was contracted out to a professional archeologist and biologist that performed field surveys and delivered a final report. There were no significant findings in Cassel or Hat Creek, although there were historical references identified in Old Station. The Final Report is available through the Hat Creek Valley Fire Safe Council. An encroachment permit from the California Department of Transportation was also secured for the site in Hat Creek. The permit requires a six inch road base, approximately 20' X 30', in the entryway off State Highway 89.



B. PROJECT PRIORITIES

OLD STATION/HAT CREEK VALLEY PLANNING AREA FUEL REDUCTION PROJECTS				
PROPOSED PROJECT	MAP NUMBER ¹	TYPE	AREA (acres)	ESTIMATED COST ²
Old Station/Rim Rock/Hat Creek Village Subdivision	1	Fuelbreak	53	\$278,400
Hat Creek Highlands	2	Fuelbreak	27	\$139,200
Big Spring Estates	3	Fuelbreak	36	\$189,818
Wild Bird Lane	4	Fuelbreak	17	\$88,582
HWY-89 near Honn Creek Ln	5	Fuelbreak	24	\$126,545
Crane Road	6	Fuelbreak	27	\$139,000
Cassel Community West	7	Fuelbreak	20	\$105,000

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 only. More accurate costs will be determined for the preparation of project proposals.

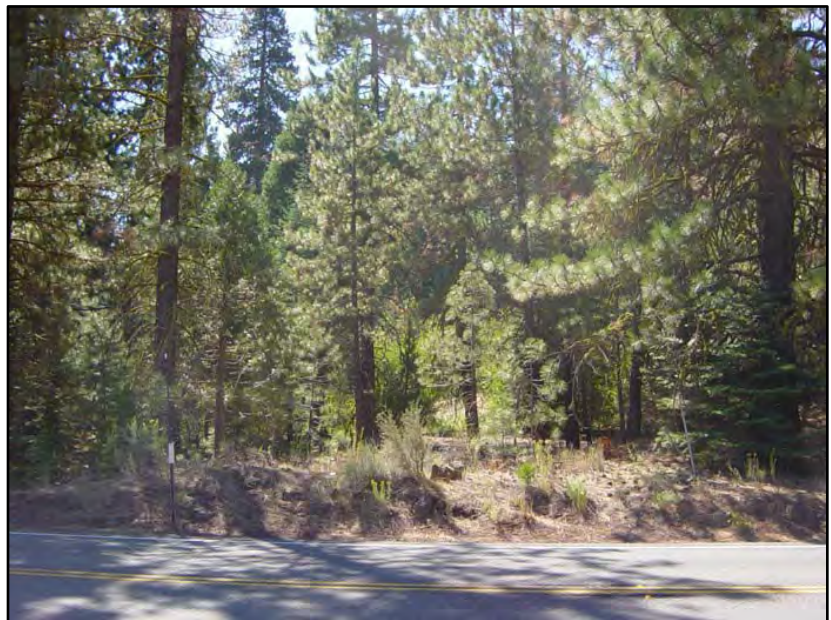
OLD STATION/HAT CREEK VALLEY PLANNING AREA BASIC ASSUMPTIONS ³	
Estimated cost of fuelbreak (roadside)	\$5,220 per acre
Estimated cost of fuelbreak (ridgetop or off-road)	\$7,310 per acre
Estimated cost of defensible space (hand labor)	\$600 per dwelling (<1 acre)
Standard fuelbreak width	200 feet
Population	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

#1 – Old Station/Rim Rock/Hat Creek Village Subdivision

- Provides protection to residences and ingress/egress for emergency crews and residents.

Proposed Solution:

Construct shaded fuelbreak around the community of Old Station near HWY-89. 2.2 miles long x 200 feet across = 53 acres.



*Old Station/Rim Rock/Hat Creek Village Subdivision.
Note the dense vegetation up to the roadside.*

³ Estimated costs of the projects are for planning only. More accurate costs will be determined for the preparation of project proposals.

⁴ County assessed values, 2010

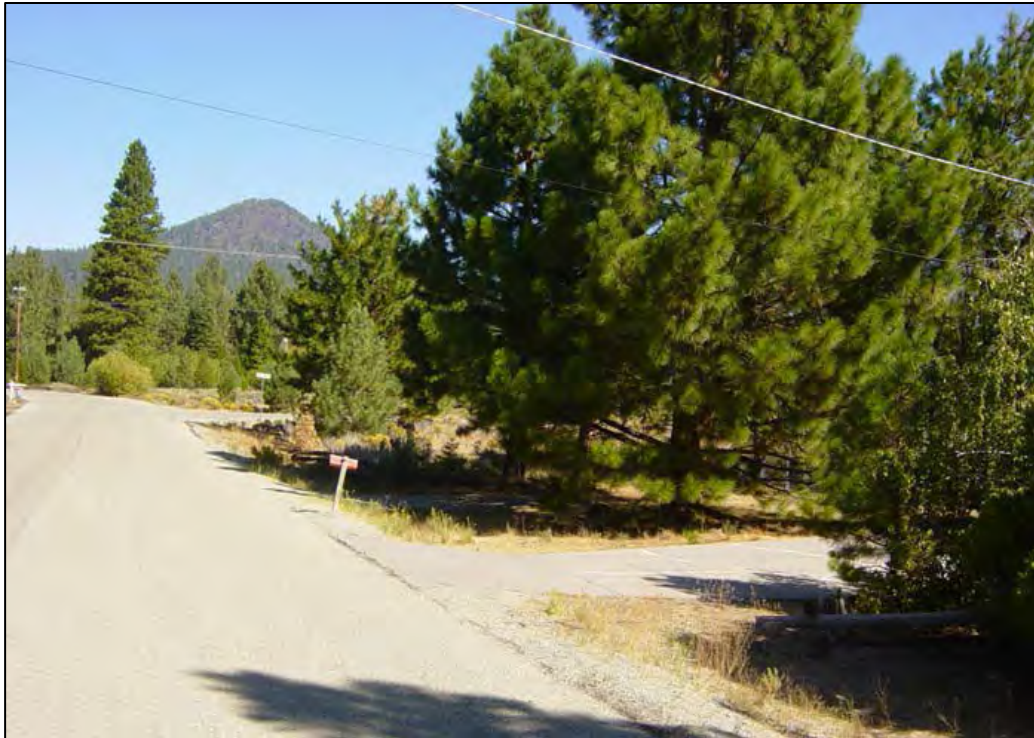
#2 – Hat Creek Highlands

- Provides ingress and egress for emergency crews and residents.

Proposed Solution:

Construct shaded fuelbreaks around the community near Sugar Loaf Lane.

1.1 miles long x 200 feet across = 27 acres.



*Hat Creek Highlands along Sugar Loaf Lane.
Note the dense vegetation along the roadside.*

#3 – Big Springs Estates

- Provides ingress and egress for emergency crews and residents.

Proposed Solution:

Maintain fuelbreak around the rural Big Spring Estates with under-burning.
1.5 miles long x 200 feet across = 36 acres.



Big Pine Campground. Note the dense vegetation along the roadside.



Near Big Spring Estates. Note the dense vegetation along the roadside.

#4 – Wildbird Lane

- Provides ingress and egress for emergency crews and residents.

Proposed Solution:

Construct shaded fuelbreaks around the community near Sugar Loaf Lane.

0.7 miles long x 200 feet across = 17 acres.



Wild Bird Lane. Note the dense vegetation up to the roadside.

#5 – HWY-89 near Honn Creek Lane

- Provides ingress and egress for emergency crews and residents.

Proposed Solution:

Construct shaded fuelbreaks around the community near Sugar Loaf Lane.

1.0 miles long x 200 feet across = 24 acres.



HWY-89 near Honn Creek Lane. Note the dense vegetation up to the roadside.



Near Honn Creek Lane. Note the dense vegetation up to the roadside.

#6 – Crane Road

- Provides protection to residences and ingress/egress for emergency crews and residents.

Proposed Solution:

Maintain fuelbreak west of Crane Road.

1.1 miles long x 200 feet across = 27 acres.

#7 – Cassel Community West

- Provides protection to residences and ingress/egress for emergency crews and residents.

Proposed Solution:

Maintain fuelbreak west of town of Cassel.

0.8 miles long x 200 feet across = 20 acres.

II. COMMUNITY PRIORITIES

A. OVERALL COMMUNITY WILDFIRE RISK ASSESSMENT

OLD STATION/HAT CREEK VALLEY 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
Old Station/Rim Rock/Hat Creek Village Subdivision	1	High	High	High	Medium	High	Very High	Yes
Hat Creek Highlands	2	High	High	High	Low	High	Very High	Yes
Big Spring Estates	3	High	High	High	Low	High	Very High	Yes
Wild Bird Lane	4	High	High	High	Low	High	Very High	Yes
HWY -89 near Honn Creek Ln	5	High	High	High	Medium	High	Very High	Yes
Crane Road	6	High	High	High	Medium	High	Very High	Yes
Cassel Community West	7	High	High	High	Medium	High	Very High	Yes

B. OVERALL COMMUNITY HAZARD REDUCTION ASSESSMENT

OLD STATION/HAT CREEK VALLEY PLANNING AREA OVERALL COMMUNITY HAZARD REDUCTION ASSESSMENT						
Community, structure or area at risk	Map Number	Overall Risk	Cultural Value	Treatment Type	Treatment Method	
Old Station/Rim Rock/Hat Creek Village Subdivision	1	High	High	Fuelbreak	Brush and tree removal, pruning	
Hat Creek Highlands	2	High	High	Fuelbreak	Brush and tree removal, pruning	
Big Spring Estates	3	High	High	Fuelbreak	Brush and tree removal, pruning	
Wild Bird Lane	4	High	High	Fuelbreak	Brush and tree removal, pruning	
HWY-89 near Honn Creek Ln	5	High	High	Fuelbreak	Brush and tree removal, pruning	
Crane Road	6	High	High	Fuelbreak	Brush and tree removal, pruning	
Cassel Community West	7	High	High	Fuelbreak	Brush and tree removal, pruning	

III. COMMUNITY VALUES

RESIDENCES AND MAJOR STRUCTURES

About 773 homes make up the communities of Old Station, Hat Creek, and Cassel, and the surrounding area. Major structures include stores, post offices, restaurants, schools, and resorts. The year-round population is 849 residents. In summer, the population swells due to recreational tourism.



Old Station volunteer firehouse



Hat Creek Store, Old Station



JJ's Café, Old Station



Hat Creek volunteer firehouse



Cassel volunteer firehouse



MAPS OF OLD STATION / HAT CREEK VALLEY PLANNING AREA

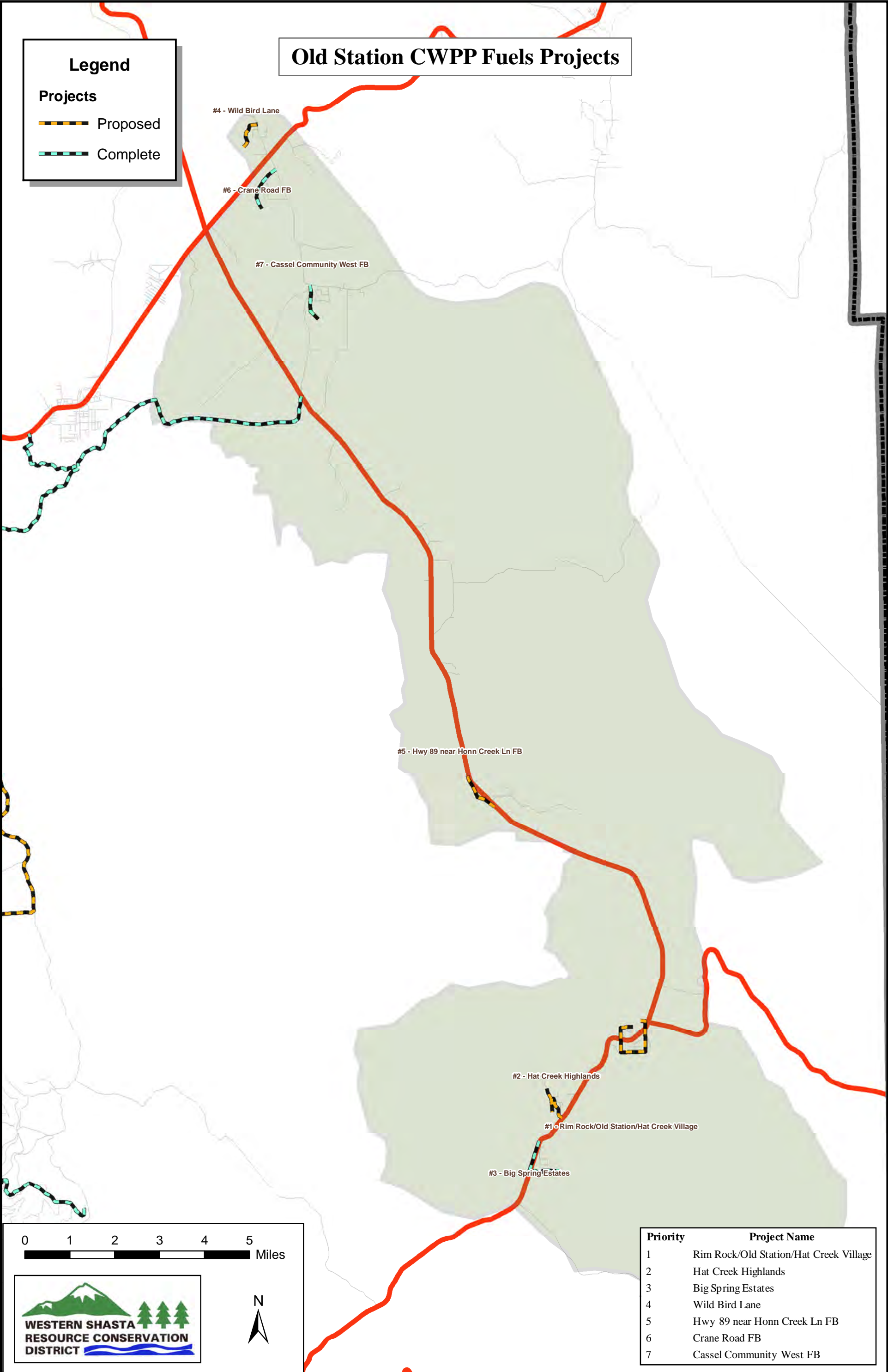
1. OLD STATION / HAT CREEK VALLEY PROPOSED PROJECTS AND PLANNING AREA
2. FIRE SEVERITY RATING
3. VEGETATION
4. SPECIAL STATUS SPECIES AND HABITAT

Old Station CWPP Fuels Projects

Legend

Projects

-  Proposed
-  Complete



#4 - Wild Bird Lane

#6 - Crane Road FB

#7 - Cassel Community West FB

#5 - Hwy 89 near Honn Creek Ln FB

#2 - Hat Creek Highlands

#1 - Rim Rock/Old Station/Hat Creek Village

#3 - Big Spring Estates



Priority	Project Name
1	Rim Rock/Old Station/Hat Creek Village
2	Hat Creek Highlands
3	Big Spring Estates
4	Wild Bird Lane
5	Hwy 89 near Honn Creek Ln FB
6	Crane Road FB
7	Cassel Community West FB

Map # 2 Hat Creek Valley Fire Safe Council Fuels Model








0 0.5 1 2 3 4
Miles



Map Revised
10.05.07

1:150,000

Data Source:
Fuels Model --
Fuels Staff, USFS,
Hat Creek Ranger Station,
Fall River Mills.

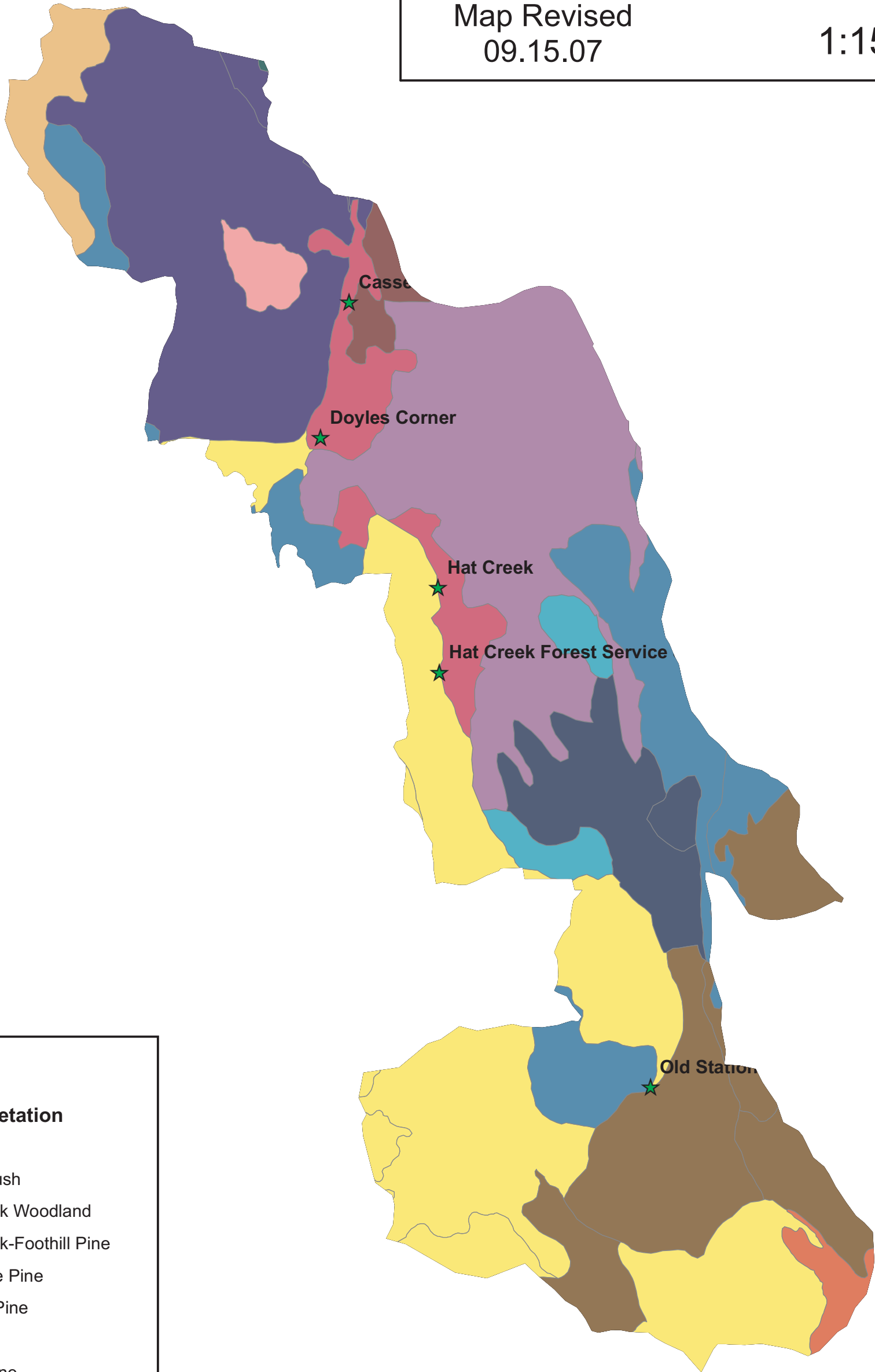
- Fuel Type**
-  Bare Ground
 -  Agriculture
 -  Long Needle Litter
 -  Moderate Load, Dry Climate Shrub
 -  High Load, Conifer Litter
 -  Very High Load, Dry Climate Shrub
 -  Very High Load, Dry Climate Timber - Shrub

Map # 3
 Hat Creek Valley Fire Safe Council
 General Vegetation



Map Revised
 09.15.07

1:150,000



★ Places

GENVEG
General Vegetation

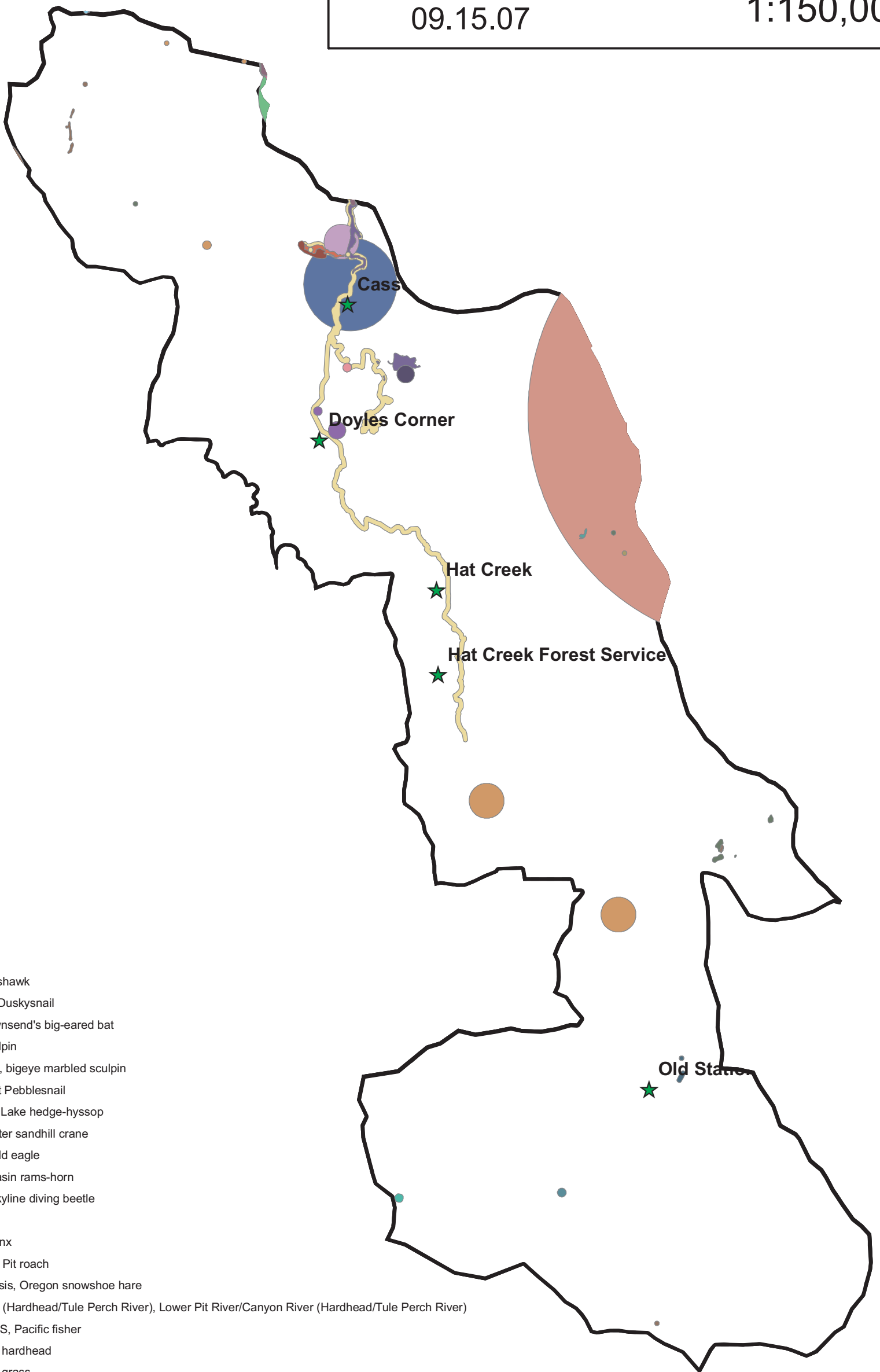
- Barren
- Bitterbrush
- Blue Oak Woodland
- Blue Oak-Foothill Pine
- Eastside Pine
- Jeffrey Pine
- Juniper
- Lacustrine
- Montane Hardwood
- Montane Hardwood-Conifer
- Pasture
- Perennial Grassland
- Sierran Mixed Conifer
- Wet Meadow

Map # 4 Hat Creek Valley Fire Safe Council Plants & Wildlife (CNDDDB)



Map Revised
09.15.07

1:150,000



Places

cnddb

SNAME, CNAME

-  Accipiter gentilis, northern goshawk
-  Colligyrus convexus, Canary Dusksnail
-  Corynorhinus townsendii, Townsend's big-eared bat
-  Cottus asperrimus, rough sculpin
-  Cottus klamathensis macrops, bigeye marbled sculpin
-  Fluminicola seminalis, Nugget Pebblesnail
-  Gratiola heterosepala, Boggs Lake hedge-hyssop
-  Grus canadensis tabida, greater sandhill crane
-  Haliaeetus leucocephalus, bald eagle
-  Helisoma newberryi, Great Basin rams-horn
-  Hydroporus leechi, Leech's skyline diving beetle
-  Juga acutiflora, topaz juga
-  Lanx patelloides, Kneecap Lanx
-  Lavinia symmetricus mitrulus, Pit roach
-  Lepus americanus klamathensis, Oregon snowshoe hare
-  Lower Pit River/Canyon River (Hardhead/Tule Perch River), Lower Pit River/Canyon River (Hardhead/Tule Perch River)
-  Martes pennanti (pacific) DPS, Pacific fisher
-  Mylopharodon conocephalus, hardhead
-  Orcuttia tenuis, slender orcutt grass
-  Pacifastacus fortis, Shasta crayfish
-  Pandion haliaetus, osprey
-  Pit R. Drainage Rough Sculpin/Shasta Crayfish Spring Stream, Pit R. Drainage Rough Sculpin/Shasta Crayfish Spring Stream
-  Pogogyne floribunda, profuse-flowered pogogyne
-  Potamogeton zosteriformis, eel-grass pondweed
-  Pyrgulopsis archimedis, Archimedes Pyrg
-  Riparia riparia, bank swallow
-  Tuctoria greenei, Greene's tuctoria

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