

INTRODUCTION

It is the goal of the federal agencies to have healthy ecosystems which provide sustainable and beneficial uses to the public. Watershed analysis looks at the ecosystem as a whole and not just the individual parts. This analysis provides a logical way to learn more about how ecological systems function within the watershed by incorporating knowledge specific to the watershed into the planning process. It is intended to help the agencies gain a better understanding of how past land use activities interact with the physical and biological environments in the watershed. This information is essential to protect and sustain the beneficial uses and to protect the natural systems occurring within the watershed. This document presents a current understanding of the processes and interactions of concern occurring within the Deep Creek watershed.

The Deep Creek watershed is located in southcentral Oregon (see Map 1). The southern tip extends into California. There are 15 subsheds (180,046 acres) within the watershed. Map 2 identifies the subsheds and ownership. Public lands account for 68% of the watershed: USDA Forest Service, Lakeview Ranger District, 36%; USDI, Bureau of Land Management, Lakeview District, Lakeview Resource Area, 31%; and the State of Oregon and Modoc National Forest (California), 1%. The remaining 32% is in private ownership.

The watershed is within the Basin and Range physiographic province characterized by fault-block mountains enclosing basins with internal drainages. It is located in the Warner Mountains immediately to the east of Lakeview, Oregon and includes Drake Peak (8,407 feet), Rogger Peak (7,302 feet) and Crane Mountain (8,456 feet). This range is the southern continuation of Abert Rim, the largest exposed fault on the North American Continent, and is a series of north to south running ridges separating Goose Lake Valley from the eastern Oregon high desert. It is in the semiarid rain shadow region east of the Cascade Mountains characterized by cool temperatures, light precipitation and moderate winds. The watershed is not prone to large scale fire disturbances. Basalt and tuff derived soils are the most common. Three vegetation types dominate the watershed: upland forest, riparian and rangeland. Forested vegetation consists of ponderosa pine, lodgepole pine, mixed conifer and juniper woodlands. Seventy percent of riparian vegetation is on private land. On National Forest System lands, the majority of riparian acres support coniferous and deciduous tree cover. Herbaceous meadows are the second greatest vegetation. Riparian vegetation on BLM-administered lands are represented by silver sagebrush-grass types in drier areas and grasslike types which include sedges, rushes and bluegrass. Dominant vegetation on rangeland is low sagebrush-grass and mountain big sagebrush-grass. Eight sensitive plant species are known to occur in the watershed.

The watershed contains 517 miles of streams. In general, National Forest System lands are at the headwaters and upper reaches of the watershed, private lands occupy the middle elevation meadow areas and BLM-administered lands are in the lower elevation areas. Water uses include the Town of Lakeview, irrigation, livestock and wildlife, fisheries habitat and road dust abatement.

Wildlife habitats support a variety of species including the northern bald eagle and American peregrine falcon, federally listed threatened and endangered species respectively. The Warner

sucker and Warner Valley redband trout and their habitats also occupy the watershed. The Warner sucker is a federally listed threatened species and the redband trout is a USDA Forest Service Pacific Northwest Region Sensitive Species. Other sensitive species include the western sage grouse and California bighorn sheep. Mule deer, elk, pronghorn antelope and rainbow, redband and brook trout comprise the major game species.

Timber harvest, road construction and cattle/sheep grazing has occurred within the majority of the watershed. Most of the timber stands on public land have been entered in the last fifty years to remove large ponderosa pine. Many stands have been entered a second or third time. A road system was constructed to support timber harvest. Early livestock grazing (1870-1940) on public land occurred year-round with no regulation on the number or type of livestock. Presently, there are 20 grazing allotments.

The analysis was conducted by an 11-member interagency core team from the Fremont National Forest Supervisor's Office and the Lakeview Resource Area, Lakeview District, Bureau of Land Management consisting of a hydrologist, wildlife biologists, fisheries biologist, silviculturist, range management specialist and archaeologist. Watershed assessment data was provided to the core team by district/area specialists. The team followed the six-step process outlined in Ecosystem Analysis at the Watershed Scale, Federal Guide for Watershed Analysis. The process includes: characterization of the watershed, identification of issues and key questions, description of current conditions, description of reference conditions, synthesis and interpretation of information and management recommendations. Each of the steps are further evaluated in relationship to seven core topics: erosion processes, hydrology, vegetation, stream channel, water quality, terrestrial and aquatic species and habitats and human uses.

This document reports the findings of the core team. **It is not a decision document**, nor does it make changes in land allocation or select specific projects to be implemented. Individual land use or resource management plans have been developed by the Fremont National Forest and the Lakeview Resource Area, Lakeview District, Bureau of Land Management which relate to or otherwise govern how management is carried out within the watershed. The Lakeview Ranger District and Lakeview Resource Area will use this analysis to select specific projects that will move the watershed toward the desired future condition. These projects will then be addressed through separate analyses conducted on a project-by-project basis by a district/area interdisciplinary team. The project analysis process will include involvement by the public and result in a site-specific decision as required by the National Environmental Policy Act.