

Redband trout, a BLM "sensitive species" and an Idaho "species of special concern" is found throughout the resource area and is managed by the Idaho Department of Fish and Game to protect populations and genetic integrity. The white sturgeon, also a "sensitive species" and "species of special concern," inhabits the free-flowing Snake River above Brownlee Reservoir. Habitat within the area is marginal at best however individuals from good upriver populations may move into this area.

The aquatic habitat and fishery resources of the CRA can be discussed in four parts corresponding to the Boise River, Payette River, Weiser River watersheds and the Snake River reservoirs below the town of Weiser.

The Boise River watershed has 4 miles of BLM land fronting streams and reservoirs. Scattered parcels are located at Quartzburg and Placerville on Granite Creek; Pioneerville and Centerville on Grimes Creek; and at Idaho City near Mores Creek. Fisheries values vary in these creeks and are managed by IDF&G as a coldwater put-and-take fishery. Non-point source pollution resulting from road construction, silviculture, livestock grazing and mining on non-BLM lands has impacted these creeks by increased sediment loads. Little impact to water quality results from BLM management actions of these parcels.

Two minor perennial streams with approximately 2 miles of BLM ownership each are located on the Boise front. Hulls Gulch and Cottonwood Creek have no fishery values, however are noteworthy from a water quality perspective. Livestock grazing, recreational vehicle use, road construction, range fires and mining activities which occur on public lands within these two drainages contribute to high sediment loads and bacteria levels.

Lucky Peak Reservoir, seven miles east of Boise, is a 2,850 surface acre reservoir designed for flood control and irrigation storage. Approximately 4 miles of shoreline is under BLM management. Livestock grazing is the dominate land use activity and has little impact on the fishery or water quality. Lucky Peak has warmwater and coldwater fishing opportunities.

The Payette River watershed has approximately 46 miles of river and stream fisheries and approximately 2,400 surface acres of reservoir fisheries within BLM ownership. Small, widely scattered parcels exist along 25 different streams and rivers. Eight miles of shoreline at Black Canyon Reservoir and one mile of shoreline at Paddock Valley Reservoir are managed for livestock grazing.

Fishery habitat in this watershed is quite varied and ranges from timber lined trout stream habitat of 6,000 feet elevation to the warmwater reservoir habitats of the lowlands. A good network of roads makes this diverse fishery accessible on a year-round basis. The relatively high elevation and greater precipitation in parts of the Payette River watershed where most stream segments are located results largely in good to excellent stream habitat conditions. Livestock use patterns and good livestock distribution has allowed for the development of a good streamside shrub component. Because of the good streamflows and high gradients some streams and their fisheries may be impacted by small hydroelectric generating facility development. Population increases will put additional pressures on the aquatic resources.

Affected Environment

Recreational fishing is important to the economy of the area. In an effort to maintain or enhance fishing opportunities Idaho Department of Fish and Game stocks hatchery raised trout in many of the resource areas waters.

The Weiser River watershed has about 28 miles of streams on BLM lands. Streams in the lower elevations do not provide good quality habitat. Irrigation diversions reduce natural streamflows. Water temperatures are elevated because of reduced flows and lack of shade. Water quality is degraded from livestock and agricultural uses. The upper Weiser River and the Little Weiser River support game fish species. Most of the other lower elevation streams support nongame fish or no fish.

Streams in the higher elevations generally have good aquatic habitat and trout populations. The streams have moderate to high gradients and good instream cover. Livestock use, access roads, and upstream logging practices have all contributed to minor impacts.

The Snake River watershed has about 10 stream miles on public lands. Aquatic habitat ranges from poor to excellent. The poor quality streams are degraded mainly by heavy livestock use and some mining activity. Most of the habitat supports trout populations.

FISH FOUND IN THE CASCADE RESOURCE AREA

Common Name	Scientific Name	Origin
White sturgeon	<u>Acipenser transmontanus</u>	native
Coho salmon	<u>Oncorhynchus kisutch</u>	introduced
Chinook salmon	<u>Oncorhynchus tshawytscha</u>	native
Kokanee	<u>Oncorhynchus nerka</u>	native
Mountain whitefish	<u>Prosopium williamsoni</u>	native
Redband trout	<u>Salmo sp.</u>	native
Rainbow trout	<u>Salmo gairdneri</u>	native
Cutthroat trout	<u>Salmo clarki</u>	native
Brown trout	<u>Salmo trutta</u>	introduced
Brook trout	<u>Salvelinus fontinalis</u>	introduced
Bull trout	<u>Salvelinus confluentus</u>	native
Chiselmouth	<u>Acrocheilus alutaceus</u>	native
Carp	<u>Cyprinus carpio</u>	introduced
Peamouth	<u>Mylocheilus caurinus</u>	native
Northern squawfish	<u>Ptychocheilus oregonensis</u>	native
Longnose dace	<u>Rhinichthys cataractae</u>	native
Speckled dace	<u>Rhinichthys osculus</u>	native
Redside shiner	<u>Richardsonius balteatus</u>	native
Bridgelip sucker	<u>Catostomus columbianus</u>	native
Largescale sucker	<u>Catostomus macrocheilus</u>	native
Black bullhead	<u>Ictalurus melas</u>	introduced
Brown bullhead	<u>Ictalurus nebulosus</u>	introduced
Channel catfish	<u>Ictalurus punctatus</u>	introduced
Tadpole madtom	<u>Noturus gyrinus</u>	introduced
Flathead catfish	<u>Pylodictis olivaris</u>	introduced
Pumpkinseed	<u>Lepomis gibbosus</u>	introduced
Warmouth	<u>Lepomis gulosus</u>	introduced
Bluegill	<u>Lepomis macrochirus</u>	introduced
Smallmouth bass	<u>Micropterus dolomieu</u>	introduced
Largemouth bass	<u>Micropterus salmoides</u>	introduced
Black crappie	<u>Pomoxis nigromaculatus</u>	introduced
Yellow perch	<u>Perca flavescens</u>	introduced
Mottled sculpin	<u>Cottus bairdi</u>	native

Wildlife

A list of all known or potential wildlife species that may occur in the resource area is available in the Boise District Office. Emphasis will be directed only to those species which could be substantially affected either adversely or beneficially, by one or more of the alternatives.

Affected Environment

Approximately 95,000 acres of public lands north of Emmett, Idaho were burned by wildfires during the 1986 fire season. This area supported numerous populations of upland game and non-game wildlife species. It also includes approximately 66,000 acres of crucial mule deer and crucial elk winter range. Because of the fire that affected their traditional habitats, the wintering herds have moved into less traditional areas. A major shrub restoration program is now underway to help restore the severely reduced shrub component in the traditional wintering areas and to rehabilitate the range to pre-burn conditions. The graphics under the affected wildlife species in Chapter 4 displaying the acreages of wildlife habitat in various conditions reflects habitat conditions prior to the 1986 fire season.

Elk

The entire resource area including all land ownerships contains about 582,000 acres of elk winter habitat and an estimated population of about 3,500 animals. The herd composition is generally improving and the Idaho Department of Fish and Game goal for these populations is a 20% increase in the next 20 years.

Habitat use on BLM lands occurs mainly in the winter. Approximately 1,000 elk winter on BLM lands and about 150 elk use BLM lands on a yearlong basis. The largest concentration of wintering elk occurs along the Snake River between Weiser and Hells Canyon Dam. These areas have the highest use during severe winter weather conditions. This area is considered crucial elk winter range. There are approximately 166,000 acres of crucial elk winter habitat identified in the resource area. Of this acreage, 74,000 acres or 45% of the habitat is managed by BLM. Some early spring use does occur on BLM land. This use usually occurs before the snow has receded in the adjoining forested areas.

Elk prefer coniferous habitat but can be found in the interface between forest and non-forest communities. Throughout the year, they utilize ponderosa pine, grassland-shrub and grassland habitat types. In some areas during severe winters, agricultural lands are very important for herd survival. Primarily, elk are grazing animals. In the spring and summer, grass and forbs make up their diet. In fall and winter, dry grasses and browse are utilized. Forage areas seem to be in good condition but thermal and hiding cover seem to be limited.

Approximately 70% of the crucial winter habitat is currently in fair to good condition. About 55% of the winter habitat is in fair to good condition.

Mule Deer

Mule deer are the most abundant big game species in the RMP area. They are widely distributed and occupy a variety of habitat types. Approximately 7,000 mule deer utilize BLM lands. Eleven percent utilize BLM lands on a yearlong basis while 89% only use the area during winter months. The Idaho Fish and Game goal for these populations is a 30% increase over the next 20 years.

Winter habitat is the most critical factor for the deer population in the RMP area. There are approximately 697,000 acres of winter habitat in the resource area. Approximately 281,500 acres are lands administered by BLM. Approximately 53% of this winter habitat is considered crucial winter range. The Snake River breaks from Weiser north and areas along Four-Mile Creek and Little Willow Creek north of Emmett traditionally have large wintering herds of deer.

Mule deer are closely tied to riparian habitats. In the summer, they provide hiding cover, shade, fawning cover and a food source. In winter, thermal cover, a food source and hiding cover are provided before deep snows occur. The condition of these riparian zones affects the carrying capacity of the land for deer. Like deer, livestock concentrate in these areas because of availability of succulent forage, shade and cover. Where these zones have been depleted by grazing rapid improvement can occur by reducing livestock pressure.

Mule deer feed on what is available. In the spring, grasses are utilized until forbs are available. Browse and forbs are preferred in the summer with all resources being used in the winter. The limiting factor in most deer populations is winter browse. Major browse species available include sagebrush, bitterbrush, rabbitbrush, chokecherry, service berry, ponderosa pine and rose. Woody vegetation is also necessary to provide fawning areas, hiding, and thermal cover needed by healthy deer populations.

In the past, frequent wildfires have eliminated or severely reduced shrub composition and weakened native perennial grasses and forbs. Over utilization by livestock in combination with the fires have reduced native species and have permitted the invasion of medusa and cheatgrass. Presently, extensive medusa ranges occupy areas which were traditionally native shrub grasslands.

About 55% of crucial winter habitat and 70% of winter habitat is in fair to good condition.

Antelope

The antelope population in the resource area numbers approximately 50 animals which roam over approximately 150,000 acres. The Idaho Department of Fish and Game have designated this area for transplants and the population should improve over the next 20 years.

The current wintering areas are located just north of Highway 52 along Big Willow and Little Willow Creeks. The areas cover approximately 20,550 acres with 4,400 acres of BLM land and 16,150 acres of private land.

The most commonly used habitats are grassland, grassland-shrub and shrub. Sagebrush and rabbitbrush are important components of the winter diet. Grass and forbs are the principle diet components in spring and summer while forbs and browse are equal in importance for fall diets. Most of the antelope habitat is marginal which is demonstrated by low production. The cause of low production seems to be degradation of habitat due to overutilization by livestock and wildfires. Lack of suitable fawning

Affected Environment

areas and the scarcity of forbs in an area dominated by medusa and cheatgrass also contribute to low herd production. Suitable forage and thermal cover is lacking in winter ranges.

About 96% of the winter range is in poor condition.

Sage Grouse

Sage grouse are found throughout the area north of the Payette River. There are approximately 186,245 acres of sage grouse habitat in the RMP area. The sage grouse habitat has been subject to sheep and cattle grazing for many years. The lack of forbs may have an added effect on the quality of the habitat. In some areas the lack of mature sagebrush may also be a limiting factor for nesting areas and winter thermal cover. Overall, 40% of the habitat in the resource area is in poor condition. Nesting habitat is fair in most areas. There are approximately 50 active and historical strutting grounds (mating areas) located throughout the resource area.

The population trend shows a steady decline. The main cause of this seems to be from a continual loss of habitat. This loss is due to sagebrush eradication, the overall conversion of native habitat to agriculture and most recently, to range fires. In recent years the population has experienced further declines due to adverse winter and spring weather conditions.

Other Wildlife

Other important wildlife species found in the area include black bear, mountain lion, blue grouse, Franklin grouse, ring-necked pheasant, Hungarian partridge, chukar partridge, wild turkeys, ducks and geese. Since these species would not be significantly impacted, they will not be discussed further.

Populations of ruffed grouse, valley quail, and mourning dove are affected by conditions in riparian zones. Their requirements would be met in all alternatives and will not be discussed further.

Various raptor species are found throughout the resource area. Approximately 640 acres of the Snake River Birds of Prey Natural Area are within the southern part of the Cascade Resource Area.

Sensitive Animal Species

Columbian Sharp-tailed Grouse

The Columbian sharp-tailed grouse is almost extinct in western Idaho. The remnant populations are small and scattered. The entire population is estimated at less than 300 birds. The largest known concentration is located 14 miles north of Weiser in the Sage Creek drainage. Four of the five known dancing grounds are located in this area. The fifth known dancing ground is located in the Rock Creek drainage, west of Sage Creek. Other small scattered populations are located around Council. The decline of this native species is directly associated with loss of habitat. Two

primary reasons for this loss is overgrazing of native range and conversion of range to agricultural lands.

There are approximately 119,260 acres of sharp-tailed grouse habitat identified in the resource area. Of this acreage, approximately 28% (32,960 acres) is managed by the BLM. Currently 55% of the habitat on BLM land is in fair to good condition.

Other Sensitive Species

Other sensitive species found in the area include bobcat, river otter, osprey, burrowing owl, and mountain quail. Since these populations would not be impacted by any of the alternatives, they will not be discussed further.

Endangered and Candidate Species

There are two species found in the area which occur on the Federal threatened and endangered lists. These are the bald eagle and peregrine falcon which are listed as endangered.

Nesting bald eagles are found in the vicinity of Cascade Lake. They may also occur in the vicinity of Hells Canyon Dam. Wintering habitat for approximately 100 eagles is located primarily along the Snake, Boise, Weiser and Payette River systems. Winter counts have varied over the years but seem to indicate a decrease in the use of available winter habitat. The Oxbow Dam stretch of the Snake River system is the most important habitat used by wintering bald eagles in the RMP area. The general habitat condition is only fair, due to the lack of roosting and perching trees.

Peregrine falcons no longer occur naturally in the area but are sometimes seen during migration. Efforts have been made to establish a nesting pair of falcons near Cascade Lake.

There are also four candidate species found in the area. They are the Swainson's hawk, ferruginous hawk, long-billed curlew, and Idaho ground squirrel. The raptor species nest throughout the resource area.

Curlew populations in the RMP area are relatively high. There are approximately 1,500 to 2,000 breeding pairs utilizing the grasslands in the resource area. One thousand of these are found in the Black Canyon Curlew Area. This is one of the largest breeding populations in the United States. Optimum habitat for curlew is wide open areas with very short vegetation. In most cases, optimum habitat for curlew is the worst habitat for most species. The lower the vegetation structure the better the habitat for the curlew.

The Idaho ground squirrel will be addressed when site specific proposals may have an impact on their habitat.

Since neither of the endangered or any of the candidate species, with the exception of the long-billed curlew, would be affected by any of the alternatives, they will not be discussed further. The long-billed curlew is discussed throughout the document.