

What is critical habitat?

Critical habitat is an area essential to the conservation of a population of fish and wildlife species. Wetlands, meadows, forests, floodplains, riparian areas, shorelines, and cold water zones of the lake are all examples of critical habitat areas in the Lake Almanor Watershed.

Wetlands

Marshes, swamps, bogs, and other types of wetlands play an important role in the Lake Almanor Watershed as the transition between dry land and water. Wetlands are vital for maintaining the health of the watershed and protecting fisheries and wildlife.

Wetlands:

- Reduce the severity of floods by absorbing and storing water
- Allow surface water to seep into groundwater, potentially increasing the supply of water during dry periods
- Provide fish and wildlife – including rare and threatened species – with resting areas, feeding grounds, and breeding habitat
- Control erosion and pollution by collecting and filtering sediment and the contaminants carried with it



AMERICAN AVOCET PHOTO BY BUD TURNER

- Increase opportunities for recreation, such as bird watching and photography

The Lake Almanor Watershed is home to several wildlife species that depend on healthy wetlands. Frogs, toads, and other amphibians and reptiles are the most dependent and sensitive wildlife associated with wetlands. More than half of the 30 amphibian species native to the Sierra Nevada have experienced population declines.

Floodplains

Natural stream channels and adjacent lands that are periodically flooded are called floodplains. Floodplains absorb and store flood waters, which slows the release of water into a stream and reduces channel erosion.



PHOTO BY BUD TURNER

Healthy floodplains are a vegetated transition zone between rivers and upland habitats, and serve a variety of ecosystem functions. Plants filter sediments and pollutants. Trees and plants anchor stream banks, preventing bank erosion and providing shade to reduce water temperatures and improve habitat. Leaves that fall into the water are broken down by aquatic organisms, and provide the basis for the river's food chain. Floodplains and their vegetation, also called riparian areas, provide shelter, food, and migration corridors for wildlife. The survival of the endangered Willow Flycatcher, which is present in the watershed, depends almost exclusively on floodplain or riparian habitat.

Floodplain size is directly related to the overall health of a stream. As floodplains are more intensively developed, habitat for dependent wildlife species is affected and the ability of the watershed to buffer storm events and protect the lake is reduced.

Forest Ecosystems

Forests are important ecosystems in the Lake Almanor Watershed. They provide habitat for animals and plants, replenish the atmosphere with oxygen, store carbon, provide resources for human use, stabilize the soil with their roots, help water runoff seep into the ground, and assist with nutrient recycling and climate control.



MIXED CONIFER FOREST PHOTO BY BUD TURNER

In the Sierra Nevada, older, more diverse forest ecosystems have declined since Anglo-European settlement in the 1850s. This has led to a decline in habitat for diverse species, such as the California spotted owl, fisher, northern goshawk, and the bald eagle.

In the Almanor Basin, a number of factors affect the quantity and quality of old and new forest ecosystems, and the habitat they provide. Fire suppression, historical logging practices, development, and forest management practices have all changed forest ecosystems. Development and forest management, unless properly implemented, can negatively affect the migration, feeding, and reproduction patterns of dependent wildlife species.



PHOTO BY ROGER WALDEN

Protecting critical habitat areas in the Lake Almanor Watershed

Critical habitat areas in the Lake Almanor Watershed are identified and protected in a variety of ways.

1. *Government Regulations:* Federal laws such as the Endangered Species Act, management plans for national forests and national parks, and the Plumas County General Plan all regulate the protection of critical habitat areas in the basin.
2. *Research:* Studies such as the recent Lake Almanor Watershed Assessment and the Lake Almanor Water Quality Report help identify critical habitat areas and important management issues.
3. *Public Participation:* Involvement of local residents can be one of the most effective means for identifying and protecting critical habitat for fish and wildlife in the watershed. The citizen-based Almanor Basin Watershed Advisory Committee is using available research and public participation processes to identify priority areas and advise on their protection. This involves direct input from diverse stakeholders in the watershed such as ranchers, real estate interests, land management agencies, environmental organizations, community residents, and others.

All residents of the watershed are invited to get involved in the Almanor Basin Watershed planning effort.



BLACK-TAILED DEER PHOTO BY ROGER WALDEN



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For more information concerning the Lake Almanor Watershed planning effort and how you can become involved, contact the Watershed Coordinator at (530) 284-1022 or WatershedInfo@SierraInstitute.us



CRITICAL HABITAT AREAS AND FISH & WILDLIFE OF THE LAKE ALMANOR WATERSHED



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LAKE ALMANOR WATERSHED PROJECT

FACT SHEET #4