

Chapter 13: Wildlife and Vegetation

Introduction and Setting

Nevada County contains an extremely wide range of plants, animals and habitat types. With topographic elevations ranging from 300 feet in the west to 9,143 feet in the east and average annual precipitation amounts varying from 30 inches in the west to 60 inches in Nevada City and near the crest of the Sierras, the County supports a true diversity of habitat types. Generally, the county can be characterized by gently rolling oak woodlands in the west transitioning to coniferous forest and then to an almost desert-like association on the eastern slope of the Sierras.

The State of California Department of Fish and Game recognizes five primary wildlife habitat types in California: tree dominated; shrub dominated; herbaceous dominated; aquatic; and developed. These habitats occur in continuous stretches, as well as isolated "pockets" depending on the overall topography, elevation, climate and pattern of development of a particular area. Animals may move between various habitat types to satisfy their life requirements. Animals will utilize riparian corridors, low lying or "saddle" areas of ridges, established trails, and other corridors for this inter-habitat movement. In addition, many species including deer move seasonally throughout the county in response to their seasonal habitat requirements.

Habitats throughout the county have been modified by human activity. The western portions of the county have experienced rapid residential growth in recent years and the resultant parcelization, fencing, alteration of vegetation, introduction of cats and dogs, roadways, noise and night lighting have served to reduce the habitat values throughout the area. In the mid to high elevations, logging, mining, and development of second homes and rural subdivisions have also served to alter habitats. Habitat values can be reduced by both direct (construction of housing) and indirect (increased density in wide movement corridors) activities. Although the overall trend in the county is toward a decline in habitat values as identified by the Department of Fish and Game, there is a wide localized variation in habitats, tolerances of species and degrees of human disturbance. In some cases, disruption of predator-prey balances occur; in others, food sources are affected; while in others, breeding or birthing areas are disturbed. While some species may benefit, the larger percentage of species are adversely affected.

Chapter 13: Wildlife and Vegetation Element

Nevada County supports a variety of wildlife habitats which are important or unique. These habitats consist of movement corridors, wetlands and riparian areas, and residence/breeding/foraging areas.

Movement corridors serve two primary purposes: first, to enable migratory animals, especially deer, to move seasonally from and between winter and summer habitats, and second, to allow animals to move within their home range or residence areas. Seasonal corridors also sustain overall habitat values and insure population density and diversity. These corridors are not necessarily individual paths, but can also be characterized as zones or corridors through which animals move. In the case of deer, the corridors serve to link winter and summer habitats which serve the life cycle of the animal. In general, animal movement generally occurs along riparian corridors and/or low-lying “saddles” which connect various micro-habitat areas. The creeks, streams and drainages in the County constitute riparian corridors which are capable of support, for both migratory and resident wildlife movement.

The deer population in Nevada County is made up of both resident and migrating animals. The western portion of the county supports both resident deer and winter populations of migrating deer. The migratory populations tend to move seasonally with winter ranges located in the eastern slope near Reno or western slope, and summer and spring ranges moving into the timbered area of mid-county. Much of the summer range is in the forested mid-county area currently designated for timber preserve. Deer populations throughout the county have been characterized by both the California Department of Fish and Game and the Tahoe National Forest as unstable and declining. The east side of the County supports portions of the Truckee-Loyalton migratory deer herd, while the western portion of the County supports the migratory Nevada City deer herd, as well as resident populations of the Motherlode deer herd. Winter ranges of the Nevada City and Motherlode herds often overlap.

Aside from deer, most mammals in the County move locally through established vegetation. Even corridors which have been impacted by residential development, road construction or other uses can retain residual values and support animal movement.

The highest values for resident wildlife in the County generally occur in areas which have not yet been disturbed by development. The areas of the county which are still in large-parcel, undeveloped acreage generally represent the more valuable habitat areas simply due to their essentially open space and low density land uses, although the values vary locally with density and diversity varying in response to local vegetational characteristics. Animals which do not migrate, but which move throughout a home range can be severely affected by development within their range, especially those species which are less tolerant of human activity or are dependent on specific habitat characteristics which are altered by development. Wetlands and riparian areas both serve as important habitats in their own right, as well as critical components in animal movement and migration and as supporting habitat for special status species.

Oak woodlands and savannas provide an important habitat which serves as a significant grazing resource for area ranchers, a wildlife habitat of diverse values, and as a source of hardwood.

Additionally, oak woodlands and savannas contribute to the overall protection of watersheds by stabilizing soils on even the steepest slopes.

The oak trees of California have been experiencing a significant decline in reproduction rates in recent years. Since 1979, or before, this phenomenon had been documented and concerns have been raised. The decline in regeneration has resulted in a variety of studies and the development of guidelines for resource management. While the Nevada County oak woodlands have not been officially evaluated, oak populations, both locally and statewide, appear to be experiencing a decline in both numbers and regeneration due to impacts of agricultural practices, residential development, and cord wood harvesting (affecting primarily Blue Oak and Black Oak) in the western foothill area and due to timber practices in the mid-county area (affecting Black Oak).

As contributions to wildlife values, oaks are extremely important. Oak trees, although varying by species and by associated plant communities, provide food (acorns), shelter, roosting, and nesting habitats for a wide variety of birds. The understory associated with the oaks can also provide browsing, shelter and breeding habitat for mammals, insects and reptiles. They also provide microhabitats due to their shading characteristics, which contribute to the overall diversity of species in areas where they occur.

Plants or animals which are recognized by the California State Department of Fish and Game or the U.S. Fish and Wildlife Service as being rare, endangered, or threatened are classified as special status species. Generally, species are considered to be endangered if its survival is threatened by factors such as environmental pollution, serious disturbance of habitat, introduction of unwanted species or inability to adapt to environmental change. A species may be defined as "rare" if it is nowhere abundant, confined to a small specialized habitat, or so limited that it could become endangered.

There are approximately 50 known locations of special status species in Nevada County. There is also a high potential that special status species exist in areas not yet officially mapped, as the majority of the county has not been systematically surveyed and studied. According to the Department of Fish and Game, the overall trend in the county is toward a decline in habitat values. It is probable that such a decline could result in an increase in plant and animal species gaining formal listing as endangered, rare, or threatened. Additionally, without ongoing management and monitoring, species in the County that are currently listed as endangered, rare, or threatened could become extinct in the County.

Further discussion of wildlife and vegetation in the county is contained in Section 4: Open Space/Conservation Inventory, of Volume 2 of the Nevada County General Plan; and in Section 5 of the Nevada County Master Environmental Inventory, which is part of Volume 3 of the Nevada County General Plan.

Goals, Objectives, and Policies

Chapter 13: Wildlife and Vegetation Element

The extremely wide variety of wildlife, vegetation, and habitats within the County has been significantly modified by human activities. Some wildlife species and forests are experiencing a decline. Without management, some species could become extinct in the County.

Additional goals, policies and objectives generally related to wildlife and vegetation are located in Chapter 1: Land Use; Chapter 5: Recreation; Chapter 6: Open Space; Chapter 11: Water; Chapter 15: Forest; and Chapter 18: Aesthetics.

Goal 13.1

Identify and manage significant areas to achieve sustainable habitat.

Objective 13.1

Discourage intrusion and encroachment by incompatible land uses in significant and sensitive habitats.

Directive Policy

Policy 13.1

Where significant environmental features, as defined in Policy 1.17, are identified during review of projects, the County shall require all portions of the project site that contain or influence said areas to be retained as non-disturbance open space through clustered development on suitable portions of the project site, or other means where mandatory clustering cannot be achieved.

The intent and emphasis of such open space designation and non-disturbance is to promote continued viability of contiguous or inter-dependent habitats by avoiding fragmentation of existing habitat areas and preserving movement corridors between related habitats. Vegetation management for the benefit of habitat preservation or restoration shall be considered consistent with the intent of this policy.

Also see: Chapter 1: Land Use

Policy 1.18

Chapter 6: Open Space

Policy 6.2

Chapter 11: Water

Policy 11.3; Policy 11.4

Chapter 15: Forest

Policy 15.3

Action Policies

Policy 13.2

As part of the Comprehensive Site Development Standards, include standards to minimize removal of existing vegetation and require installation and long-term maintenance of landscaping in

setbacks and buffer areas. These standards shall be applicable to all discretionary projects and to all ministerial projects other than a single-family residence located on an individual lot. Tree removal may be allowed where necessary to comply with public right-of-way development or dedication, or development of required site access and public utilities. Individual trees or groups of trees shall be protected during construction to prevent damage to the trees and their root systems. Vegetation in proximity to structures shall conform to applicable fire protection standards.

Policy 13.2A

Project review standards shall include a requirement to conduct a site-specific biological inventory to determine the presence of special status species or habitat for such species that may be affected by a proposed project. The results of the biological inventory shall be used as the basis for establishing land use siting and design tools required to achieve the objective of no net loss of habitat function or value for special status species.

Where a Habitat Management Plan is deemed appropriate, the Plan shall be prepared to comply with the requirements of the Federal Endangered Species Act (FESA) and the California Endangered Species Act (CESA). The plan shall provide the background data, impact analysis, and mitigation programs necessary to obtain a FESA Section 10(a) and CESA Section 2081 permit authorizing incidental take of federal and state listed threatened and endangered species that occur in areas proposed for future development. Prior to implementation of an adopted Habitat Management Plan, project applicants proposing the development of a project that would impact a federal or state listed species, or a species that is proposed for listing, shall be individually responsible for obtaining federal and state incidental take permits on a project-by-project basis.

Policy 13.2B

Development projects which have the potential to remove natural riparian or wetland habitat of 1 acre or more shall not be permitted unless:

- a. No suitable alternative site or design exists for the land use;
- b. There is no degradation of the habitat or reduction in the numbers of any rare, threatened, or endangered plant or animal species as a result of the project;
- c. Habitat of superior quantity and superior or comparable quality will be created or restored to compensate for the loss; and

- d. The project conforms with regulations and guidelines of the U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, California Department of Fish and Game, and other relevant agencies.

Also See: Chapter 1: Land Use

Policy 1.17

Chapter 10: Safety

Policy FP-10.8.5.2

Policy 13.3

As part of the Comprehensive Site Development Standards, require the maximum feasible use of drought tolerant native plant species for landscaping of all new multi-family residential, commercial, industrial, and public projects. Invasive, non-native plants, as determined by a landscape architect or other similar expert, that may displace native vegetation on adjoining undeveloped lands shall not be used. Landscaping with native trees and shrubs shall be encouraged to provide suitable habitat for native wildlife, particularly in proposed open space uses of future development.

Also See: Chapter 1: Land Use

Policy 1.17

Directive Policy

Policy 13.4

Encourage long-term sustainability and maintenance of landscaped areas.

Policy 13.4A

No net loss of habitat functions or values shall be caused by development where rare and endangered species and wetlands of over 1 acre, in aggregate, are identified during the review of proposed projects. No net loss shall be achieved through avoidance of the resource, or through creation or restoration of habitat of superior or comparable quality, in accordance with guidelines of the U.S. Fish and Wildlife Service and the California Department of Fish and Game.

Policy 13.4B

Habitat that is required to be protected, restored, or created as mitigation for a project's impacts shall be monitored and maintained in accord with a County-approved Habitat Management Plan.

- Policy 13.4C** The land use designations and associated acreages identified on the proposed General Plan land use maps for Special Development Areas should be modified as necessary at the Specific Plan stage to protect sensitive natural communities and other important biotic resources.
- Policy 13.4D** The County shall prepare and implement a Habitat Management Plan for rare and endangered species and wetlands habitat while allowing the preparation of individual project habitat management plans as an alternative, including an offsite ecological reserve.
- Policy 13.4E** The County shall investigate establishing interagency agreements with adjoining counties where new developments could impact significant natural resource areas shared by adjoining counties. The agreements shall require notification of development projects within one mile of the County's borders and provide for review and comment by affected counties.
- Policy 13.4F** To minimize the loss of wildlife habitat and fragmentation, clustering shall be required on parcels of 20 acres in size or larger within the North San Juan and Penn Valley areas, when such parcels are located in areas where the existing parcelization pattern in the immediate vicinity is currently 20 acres or more.
- Policy 13.4G** To minimize the loss or disturbance of deer habitat, clustering shall be required on parcels of 40 acres in size or larger in critical migratory deer winter ranges in Rural Regions within the western portion of the County, when such parcels are located in areas where the existing parcelization in the immediate vicinity is currently 40 acres or more.
- Policy 13.4H** Non-development buffers shall be maintained adjacent to perennial stream corridors through the use of clustering, the designation of a Planned Development, or the implementation of other siting and design tools. Buffers shall be sufficient in size to protect the stream corridor for movement, as well as provide some adjacent upland habitat for foraging.

Objective 13.2

Minimize impacts to corridors to ensure movement of wildlife.

See: Policy 13.1

Objective 13.3

Provide for the integrity and continuity of wildlife environments.

See: Policy 13.1; Policy 13.2

Objective 13.4

Support the acquisition, development, maintenance and restoration, where feasible, of habitat lands for wildlife enhancement.

Directive Policy

Policy 13.5

Participate in all bio-regional planning councils, initiated by Federal or State agencies, that involve lands within the jurisdiction of Nevada County. County representatives on such councils shall be appointed by the Board of Supervisors. The purpose of participation shall be to ensure the policies of the General Plan are complemented by and incorporated into any bio-regional plan encompassing all or part of Nevada County.

See: Policy 13.1

Objective 13.5

Support, where feasible, the continued diversity and sustain ability of the habitat resource through restoration and protection.

Directive Policy

Policy 13.6

Monitor, through the input of other agencies, the sensitive wildlife and habitat resources of Nevada County to ensure the continued validity and effectiveness of General Plan policies intended to protect, preserve and enhance these resources. Results of monitoring shall be incorporated into the General Plan Update process.

Also see: Chapter 1: Land Use

Policy 1.35

Action Policy

Policy 13.7

Require a Conditional Use Permit (CUP) for alteration of significant environmental features (as defined in Policy 1.18) not associated with a development project for parcels planned for subdivision or for multi-family residential, commercial or industrial development. Exempted from this requirement are actions

necessary for evaluation of environmental characteristics, and for control of fire fuels.

*Also see: Chapter 1: Land Use
Policy 1.17*

Objective 13.6

Discourage significant adverse environmental impacts of land development, agricultural, forest and mining activities on important and sensitive habitats.

*See: Policy 13.1
Also see: Chapter 1: Land Use
Policy 1.17; Policy 1.18
Chapter 15: Forest
Policy 15.1
Chapter 17: Mineral Management
Policy 17.15*

Objective 13.7

Identify and preserve heritage and landmark trees and groves where appropriate.

Directive Policy

Policy 13.8 As part of the Comprehensive Site Development Standards, include measures applicable to all discretionary and ministerial projects to minimize disturbance of heritage and landmark trees and groves. These measures shall include, but are not limited to, requirements for on-site vegetation inventories and mandatory clustering of development in areas likely to support such vegetation or habitat.

Policy 13.9 Development in the vicinity of significant oak groves of all oak species shall be designed and sited to maximize the long-term preservation of the trees and the integrity of their natural setting. The County shall adopt a regulation to protect native heritage oak trees and significant oak groves. All native oak tree species with a trunk diameter of 36" or greater shall be protected.

*See: Policy 13.2
Also see: Chapter 1: Land Use
Policy 1.17*

Objective 13.8

Minimize removal or disturbance of low elevation oak habitat.

See: Policy 13.8