SECTION II

II - D. SOIL INTERPRETATIONS

6. Wildlife

INTRODUCTION

General

Fish and wildlife are supported or produced on farms, ranches, or other lands and are related to and inseparable from soil, water, and plant resources management and are therefore integral components of all primary land and water use management systems.

Soils influence wildlife populations primarily through the kinds of vegetation and other habitat components they support. Wildlife habitat soils ratings serve several purposes. First, such ratings aid in the selection of sites for habitat management by identifying sites with soils capable of supporting particular habitat elements. Second, they indicate the kinds and intensity of management activities that activities that can be satisfactorily accomplished. Third, the ratings provide a means of considering and grouping known soil conditions during broad-scale wildlife land-use planning, wildlife land acquisition, and park and other recreation developments. Along with soil survey maps, the ratings aid in showing landowners where management practices are appropriate. They may also be useful in showing why certain objectives may not be feasible.

Most wildlife habitats are created, improved, or maintained by planting suitable vegetation, manipulating existing vegetation, inducing natural establishment of desired plants, or combinations of these measures. The behavior of soils can be predicted from knowledge of their properties. The growth and characteristics of plant communities that constitute wildlife habitat are affected by soil properties. Soils can be interpreted for a variety of habitat elements. From the appraisal of a combination of elements, the potential of land for various kinds of wildlife, under specific conditions can be evaluated.

CALIFORNIA WILDLIFE INTERPRETATIONS

Desert Tortoise (CA)

This interpretation gives information about the soils as potential habitat for the desert tortoise. It is intended to be used only in those soil survey areas that have the potential for desert tortoise habitat. The soils are rated according to their suitability for burrowing by desert tortoises. Burrows are considered a necessary part of the habitat.

This interpretation is intended to provide guidelines in the identification and selection of sites that have the best potential for preserving, maintaining, or increasing local populations of the desert tortoise. It is of a general nature. It is designed to be used in the planning process to identify areas of concern prior to the application of conservation practices. Based upon the wildlife objectives, these areas can be avoided or practices can be adjusted to minimize damage to the burrow habitat. The guide does not take into account climate or soil temperature, which may influence the presence or distribution patterns of a wildlife species. The presence or absence of a species is determined at the local level.

The interpretation provides suitability ratings and identifies the dominant soil characteristics that influence the suitability of a site for burrowing by desert tortoises. This information allows the user to plan and develop alternatives in site selection by identifying the site that best meets the wildlife habitat requirements.

Soils that are rated "well suited" have no restrictions and are favorable for burrowing by desert tortoises. Colonization and population densities may be above average if other habitat factors are not limiting. A rating of "suited" indicates that the soil is suitable for burrowing by desert tortoises and that some restrictive features may limit the use of the habitat. Colonization and population densities may be average if the other habitat requirements are met. A rating of "poorly suited" indicates that the soil characteristics may limit establishment, maintenance, or use of the soil by burrowing species. Colonization and population densities may be restricted by the limiting factors even though all the other species habitat requirements are met.

The final identification and selection of a site for burrowing by desert tortoises are determined by the limitations of the soils that influence excavation, maintenance, and preservation of the burrows. This interpretation identifies the soil-related restricting features that have the most significant effects on the habitat.

Within the Soil Data Mart, this interpretation is available by selecting the “Selected Soil Interpretations” report and selecting the “WLF – Desert Tortoise II (CA)” interpretation from the drop down list of available interpretations. The Desert Tortoise interpretation is only available in California soil survey areas that have a likelihood of desert tortoise populations.

Within the Web Soil Survey, the Desert Tortoise interpretation report is available under the “Soil Reports” tab, under the section “Wildlife Management”.

WILDLIFE HABITAT RELATIONSHIPS

A number of methods or processes for habitat inventory and evaluation have been developed. Any system used by NRCS must be objective, replicable, technologically feasible, and habitat-based. The inventory and evaluation process should be documented to provide a record of supporting data that can readily be reviewed.

Data collected during habitat inventories and evaluations can be used to help (1) identify and assess the status or baseline condition of fish and wildlife habitats in a planning area, (2) analyze habitat needs for featured species, (3) identify enhancement opportunities, (4) project future impacts on habitats with or without particular conservation activities, and (5) quantify mitigation or compensation needs, where applicable and appropriate. Habitat evaluation procedures can also be used to assess the impacts of various conservation practices on fish and wildlife. NRCS in California can utilize the California Wildlife Habitat Relationships database as a tool for predicting wildlife response to habitats and habitat management.

The California Wildlife Habitat Relationships (CWHR) program is a tool NRCS can utilize in planning wildlife habitat development and management. CWHR is a state-of-art information system for California's wildlife. CWHR contains life history, management, and habitat relationships information on 675 species of amphibians, reptiles, birds, and mammals known to occur in California. Because of the predictive nature of the models, CWHR has many applications for wildlife resource issues, including wildlife population, community, and habitat conservation and management, land use planning, impact assessment, education, and research.

CHWR is operated and maintained by the California department of Fish and Game in cooperation with the California Interagency Wildlife Task Group (CIWTG). The CIWTG was created in 1985 to develop standards and guidelines for studying California's wildlife communities and habitats. NRCS is a member of the CIWTG and subscribes to CWHR. Copies of CWHR are provided to NRCS biologists in California.

The computerized database can produce several types of reports listing wildlife species that are predicted to occur in a given area and habitat type. Habitat suitability indices and habitat units can be calculated for the habitat types, and these values can be compared between two different habitat conditions for land use planning assessments. Geographic areas that can be used in CWHR queries include counties, 1-minute x 1-minute blocks of latitude and longitude, Calwater Hydrologic Regions, California Department of Fish and Game Regions, U.S. National Forests, U.S. Bureau of Land Management Field Offices, USDA Ecological Regions, and CERES Bioregions.

Fifty-nine habitat types can be used in queries including forest, woodland, grassland, shrubland, agricultural, and aquatic habitats. Each habitat type is further described using vegetation size, and vegetation classes. A total of 124 special habitat elements, such as, snags, logs, water, etc., can also be used in CWHR queries to describe habitat conditions and further refine the predicted species lists.

Each species has its own habitat relationships model. Within the model, habitat sustainability values are given for all habitat types and vegetation size and cover classes used by the species for three life requisites: breeding, cover, and feeding. Suitability indices are also given for the same three life requisites for the special habitat elements. Other wildlife information in the database

includes taxonomy, seasonality, and legal status. Furthermore, each species has its own published species note describing life history attributes.

http://www.dfg.ca.gov/biogeodata/cwhr/morecwhr.asp