Large Scale Conservation Planning and the Protection of Vernal Pools

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ABSTRACT. Large scale conservation planning is one of the most effective tools for endangered species recovery. The main mechanism available under the Endangered Species Act of 1973 for achieving large scale planning is the use of Habitat Conservation Plans (HCP) and larger preserves, which reduce management costs and streamline permitting processes. There are numerous examples of ongoing HCP efforts throughout northern California. Recent examples include the San Joaquin HCP and the Natomas HCP for the City of Sacramento and Sutter County. The draft East Contra Costa County HCP permit was issued in July 2007. An example of large scale planning that will utilize a programmatic biological opinion is the Santa Rosa Conservation Strategy. This is a planning effort for the conservation of the endangered California tiger salamander and four listed plants. In addition, the U. S. Fish and Wildlife Service is required to develop recovery plans, which contain recommendations and guidelines for the recovery of listed species. Multi-species recovery plans such as the Vernal Pool Recovery Plan provide the necessary information to guide conservation on these large scale planning efforts.

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INTRODUCTION

Large scale planning as opposed to reviewing projects on a case-by-case basis has numerous benefits for the conservation and recovery of endangered species. Large scale or regional planning is especially important with the challenges facing California. Endangered species and their habitats in the Golden State have been lost due to many factors but primarily agricultural and urban conversion. Increased pressure on imperiled plants and animals will continue due to high human population growth and the concurrent rate of resource consumption.

Currently there are over 308 federally protected species, and 232 state-protected species; another 69 species are listed as in peril in the state. There are federal and state legislative mandates to protect listed species and wetlands. Some of the tools used to protect listed species through the administration of the Endangered Species Act (ESA) (U. S. Congress, 1988) include the development of recovery plans, listing of new species, consultations under Section 7 of the ESA, Habitat Conservation Plans (HCPs), conservation banks and safe harbors. Other critical elements include partnerships and education.

LARGE SCALE PLANNING

Review of projects on an individual or piecemeal basis can result in preserves scattered throughout the landscape, which may be adjacent to unprotected wildlife habitat and potentially limit long-term conservation value. With the increase in pressures from surrounding development, preserves can be ultimately surrounded by roads, buildings, and other human activities, such as results of chemical pollution and trash dumping, which reduce their biological value. In fact, over time this may result in reduction of size of preserves due to the urban encroachment. The long-term result is reduction or elimination of the biological value of the preserves that originally protected listed species and other wildlife.

Advantages of regional planning include the ability to develop larger preserve systems due to the consolidation of individual projects and their mitigation requirements. If properly designed, these preserve systems provide significant benefits due to several factors, including larger areas and inclusion of migration corridors. Results include improved species connectivity, bigger population sizes, and greater resilience to inbreeding, predators and disease. Ulti-

mately this results better performance standards, reduced costs in management and overall improved land stewardship. These regional planning efforts usually include the local jurisdictions (city or county governments) fostering partnerships for stewardship. These planning efforts also result in streamlining the permitting process. Another benefit is an overall improved workload efficiency for Department of Fish and Game (DFG), the U. S. Fish and Wildlife Service (FWS), National Marine Fisheries Service (NMFS) and the local governments.

There are two regulatory mechanisms to achieve large scale planning under the ESA. These are the HCPs and programmatic biological opinions.

HABITAT CONSERVATION PLANS

Section 10 of the ESA provides for the authorization of projects that do not have a federal nexus, such as a Federal Permit or funding through the development of HCPs. Regional HCPs are developed with local governments and ultimately the implementation of an HCP rests with the local agencies that receive Section 10 permits. Successful development of an HCP requires collaboration with FWS, NMFS, DFG and the local jurisdictions. For many HCPs the process may stall without a local leader to ensure the HCP receives local support; therefore, this local champion is integral in maintaining progress and ultimate approval of the plan. HCPs must have a high level of public participation, use principals of sound conservation biology, and include assured funding and long-term viability. Regional HCPs provide a framework for both development and resource preservation, and can be in place for up to a 50-year period.

HCPs are being developed in the following northern California counties: Placer, Sutter and Yuba, Sacramento, Yolo, Solano, Santa Clara, and in the Kern Valley Floor. The San Joaquin Multi-Species HCP and the Natomas Basin HCP are two regional plans that have received their Section 10 permits. San Joaquin HCP received its permit in May 2001 and includes seven cities and the entire County. The ultimate preserve area will cover over 100,841 acres. This HCP was developed with the San Joaquin County's open space element as part of the General Plan update. The Natomas Basin HCP includes the City of Sacramento and Sutter County as the permittees. This permit was issued in June 2003, and covers 17,500. Both of these HCPs had difficulty in early stages of implementation but now have been very successful in conserving endangered species and their habitats in a more comprehensive fashion and biologically valuable manner than if development projects had been authorized on an individual basis.

PROGRAMMATIC BIOLOGICAL OPINIONS

A programmatic biological opinion is issued under Section 7 of the ESA. This is an effective tool if there is a federal nexus available, for example, the area has numerous wetlands that require projects to obtain a 404 Clean Water Act permit. A programmatic biological opinion can be used to implement large scale planning efforts through a regional conservation strategy. Currently there are two major efforts that are under development that are using this mechanism—the Suisun Marsh Plan and the Santa Rosa Conservation Strategy. The Santa Rosa Conservation Strategy (Conservation Strategy) will be discussed in detail. This strategy is located in Sonoma County and includes the entire range of California tiger salamander (*Ambystoma californiense*). Also included are four listed plant species: Burke's goldfields (*Lasthenia burkei*), Sebastopol meadowfoam (*Limnanthes vinculans*), Sonoma sunshine (*Blennosperma bakeri*), and the many-flowered navarretia (*Navarretia plieantha*). The Conservation Strategy designates the area where conservation should occur, describes how preserves will be established and managed, establishes interim and long-term mitigation requirements, and sets guidelines for translocation, adaptive management and funding. Currently the biological opinion is being prepared by the FWS.

RECOVERY PLANS

Recovery plans are not regulatory actions under the ESA, but instead provide a road map for listed species recovery. Recovery plans provide guidance for research, protection (large scale planning) and management. These activities in turn tie into outreach and education; all are needed for successful implementation. Recovery plans are vital for providing guidance in large scale planning efforts such as HCPs or Conservation Strategies (under a programmatic biological opinion).

Recent recovery plans that include ecosystem-based strategies include the *Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon* (U. S. Fish and Wildlife Service, 2005); *Recovery Plan for Upland Species of the San Joaquin Valley, Cali-*

fornia (U. S. Fish and Wildlife Service, 1998a); and T*he Serpentine Soil Species of the San Francisco Bay Area Recovery Plan* (U. S. Fish and Wildlife Service, 1998b). The Vernal Pool plan includes 33 species of plants and animals with 20 listed species. This recovery plan includes an ecosystem approach with an over-arching strategy of habitat protection and management. To successfully implement this recovery plan, local vernal pool implementation teams would help guide and promote local recovery efforts. The San Joaquin plan includes 34 species of plants and animals, 12 of which are federally listed. This plan also includes an ecosystem approach, with community level strategy for the recovery of the species in the plan. This recovery plan has been helpful in guiding HCP development and recovery implementation within the San Joaquin Valley. The serpentine recovery plan includes 28 species of plants and animals, with 14 federally listed species. This plan focuses on habitat protection, monitoring, research programs, and habitat management. The Bay Area serpentine recovery plan has been instrumental in guiding habitat protection in Santa Clara County and the development of the Santa Clara HCP.

CONCLUSIONS

There are two regulatory mechanisms in the ESA that authorize the incidental take of listed species and can be used to design and implement large scale planning efforts: Section 10 for HCPs and Section 7 for programmatic biological opinions. Recovery Plans provide the overall road map to help develop these large scale planning efforts. Regardless of the regulatory mechanism, large scale conservation planning provides one of the most effective tools for achieving the conservation and recovery of listed species. It can consolidate mitigation into large preserve areas, which result in the long-term and effective conservation of listed species and wildlife through improved ecological and biological values, habitat connectivity, and overall biodiversity. Ultimately, both HCPs and programmatic biological opinions provide important tools for the conservation and recovery of listed species.

LITERATURE CITED

U. S. CONGRESS. 1988. Endangered Species Act of 1973, as amended. Washington, D. C.

U. S. FISH AND WILDLIFE SERVICE. 1998a. Recovery Plan for Upland Species of the San Joaquin Valley, California. Portland, OR.

U. S. FISH AND WILDLIFE SERVICE. 1998b. Serpentine Soil Species of the San Francisco Bay Area Recovery Plan. Portland, OR.

U. S. FISH AND WILDLIFE SERVICE. 2005. Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon. Portland, OR.