



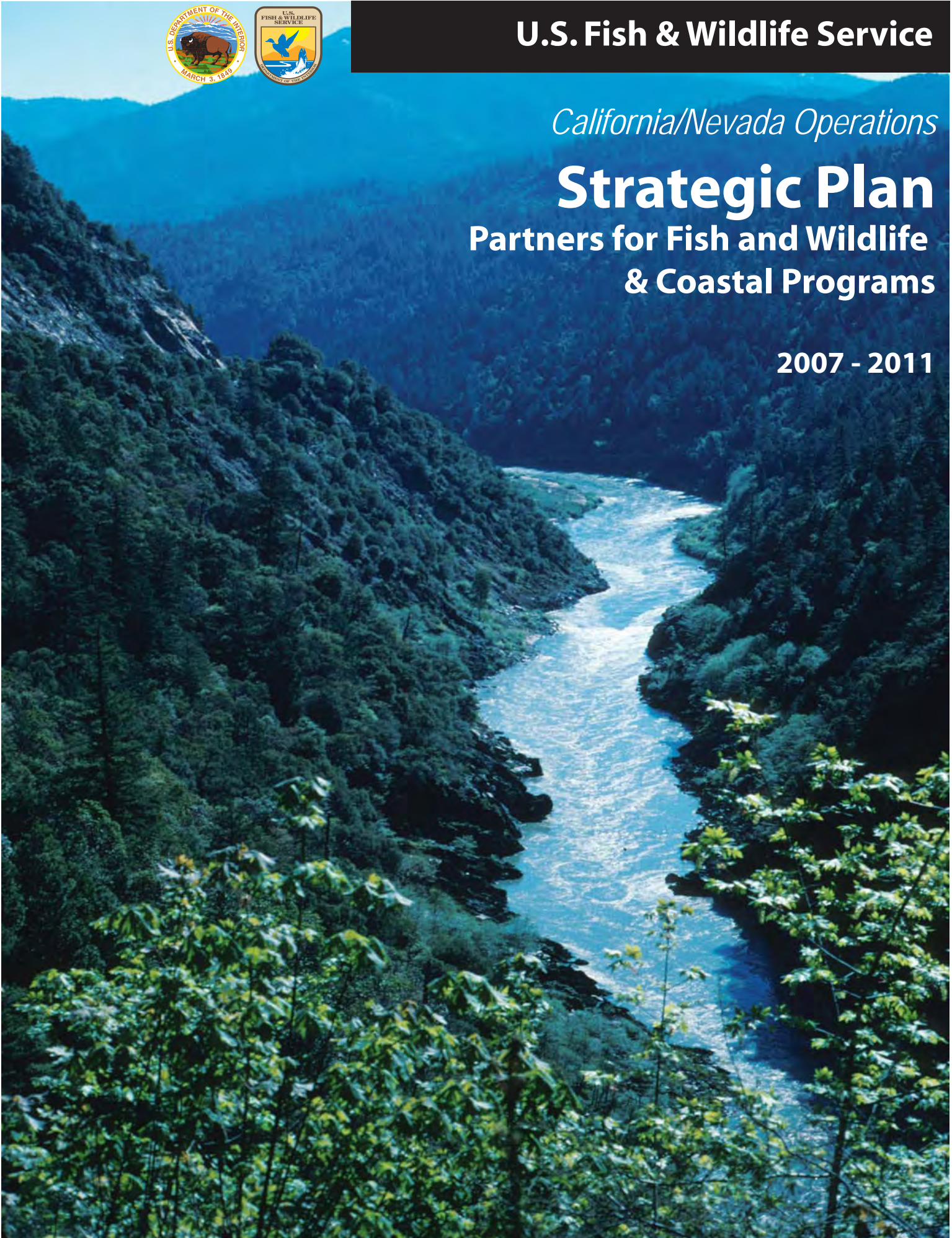
U.S. Fish & Wildlife Service

California/Nevada Operations

Strategic Plan

Partners for Fish and Wildlife & Coastal Programs

2007 - 2011



CNO's 2007-2011 Strategic Plan for the Partners for Fish and Wildlife & Coastal Programs

Introduction

The U.S. Fish and Wildlife Service's (Service) Partners for Fish and Wildlife and Coastal programs in California, Nevada, and the Klamath River Basin, Oregon (CNO) continue to be highly successful and have accomplished tremendous achievements since their inception. To date, the programs have restored over 110,500 acres of wetlands, 48,000 acres of uplands, and 515 miles of riparian and stream habitats.

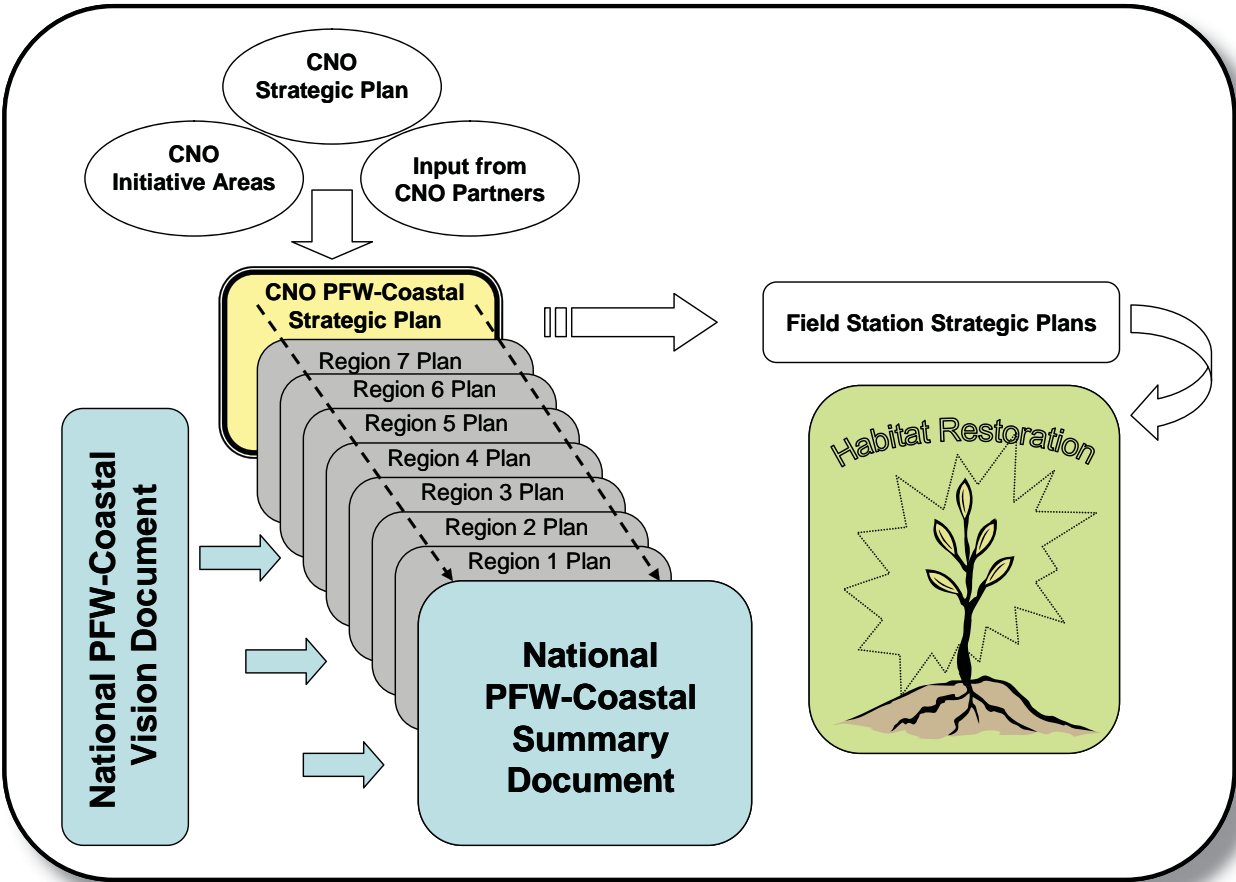
These programs are based on the premise that fish and wildlife conservation is a responsibility shared by citizens and their government. Our approach is to engage willing partners, through non-regulatory incentives to conserve and protect valuable fish and wildlife habitat. We do this by providing technical assistance and leveraging the funding support needed to make on-the-ground conservation affordable, feasible, and effective.

This CNO strategic plan is combined for both the Coastal Program and the Partners for Fish and Wildlife (Partners) Program because, while they each have a different origin and focus, they share a common vision. Both Programs work toward the same core goals and accomplishment standards and share a common role in delivering the mission of the Fish and Wildlife Service (Service), which is "working with others to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefits of the American people."

In this plan the term "Program" will be used to describe both the Coastal and the Partners for Fish and Wildlife programs, unless specifically identified in the text. In addition, "partner" will infer the private landowner along with other contributors like nonprofits, Federal and state agencies.

This document represents Part 2 of a three part national strategic planning process. Part 1, "The Vision Document" was completed in 2006 (Service, 2006). The Vision Document provides a national overview of the Program and five Program goals that will be comprehensively addressed in Parts 2 and 3. This CNO strategic plan (Part 2) is our guiding document for the Program covering the time period from fiscal year 2007 through 2011. Part 3 will be a roll up of Part 2 Regional Plans into a National Plan (Figure 1).

Figure 1. Flow of National, Regional and Office Strategic Plans



Five Program goals are described that have been established in the Vision Document, which are:

- Goal One: Conserve Habitat
- Goal Two: Broaden and Strengthen Partnerships
- Goal Three: Improve Information Sharing and Communication
- Goal Four: Enhance Our Workforce
- Goal Five: Increase Accountability

To achieve these goals efficiently and effectively, four overarching strategies will be implemented. These are:

- **Cooperative Conservation:**
Seeking and promoting voluntary cooperative efforts to achieve conservation goals.
- **Strategic Habitat Conservation:**
Using a priority watershed/ecosystem and geographic focus area approach to habitat conservation.
- **Adaptive Management:**
Using information gained from our monitoring efforts and supporting information from our partners to adapt or modify our approach; learning by doing.
- **Improving Program effectiveness:**
Creating the highest quality work environment to facilitate recruitment and retention of the most qualified personnel, and which enhances employee accountability.

Under each of the five program goals this strategic plan will also describe the objectives, identify the targets that are tied to performance measures, and list key strategic activities that will help us meet our objectives. Implementation strategies included in this plan will be clarified as needed in subsequent program and policy guidance to field staff.

This strategic plan has been developed in collaboration with our many partners. A list of partners is provided in Appendix A.

Goal One. Conserve Habitat

Initiative Areas

CNO has initiated a strategic planning approach to protecting and conserving the important biological resources of the region. The approach maximizes our human and fiscal capital to address resource issues of greatest biological, social, and political need. By strategically concentrating our abilities and energies, CNO expects to stabilize or reverse resource declines for species and habitats of greatest concern. In order to accomplish this objective, CNO, through consultation with field offices and partners, has identified geographically distinct regions to focus our collective efforts. These geographic designations are described as “*Initiative Areas*” although some other regions may use the terminology as *focus areas* for comparable designations in their area. CNO Initiative Areas represent opportunities for the Service to affect the myriad of environmental issues endemic to the region, on a landscape basis.

During 2005 and 2006, CNO examined critical resource needs in California, Nevada, and the Klamath Basin, as they related to our mission. All major programs within CNO, including Refuges, Fisheries, Ecological Services, Migratory Birds and others, were directed to identify important resource issues and the geographic areas that contain them. Each program had its own criteria with which to measure important resources, based on the program’s purpose and goals.

For this program and strategic plan's purpose, the field offices were directed to identify their important resource issues and the geographic areas that contain them by using the following criteria:

- Benefits to imperiled species
- Habitat connectivity
- Importance to migratory birds and anadromous fish
- Solving problems specific to the Initiative areas
- Ability to partner with the agricultural community
- Improve local public relations

Additional criteria were considered including the amount of degraded habitat with high restoration potential, the concentration of federally listed species, current land use, the condition of watersheds, principle threats and potential partnerships. We also examined strategic plans and priority areas of our partners including other agencies, organizations and governments at the local and regional levels.

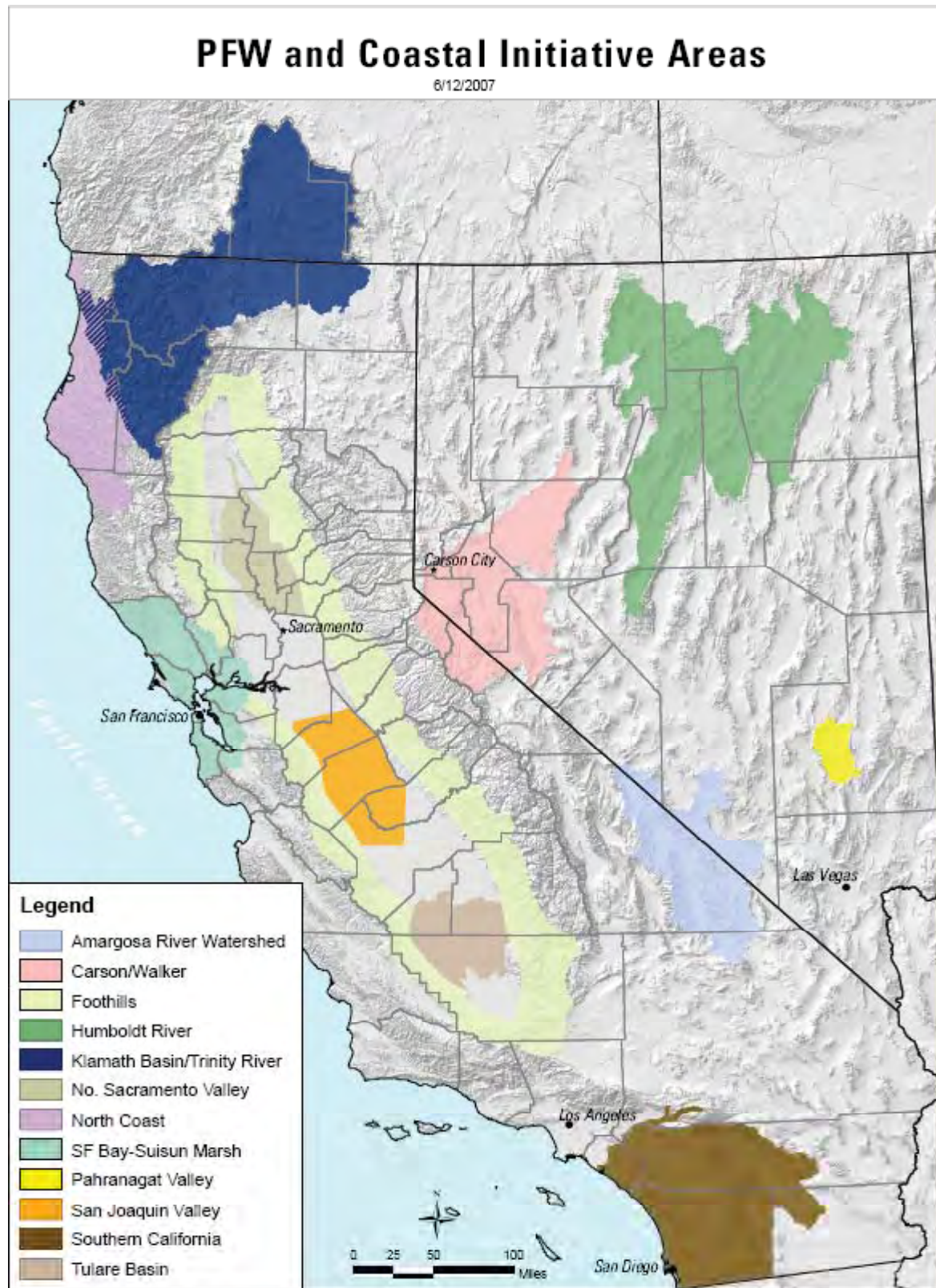
We carefully and deliberately identified 12 geographic Initiative Areas specifically for the Partners and Coastal programs. Those 12 Initiative Areas are (see Figure 2):

- Armagosa River Watershed
- Carson/Walker
- Foothill Ring
- Humboldt River Basin
- Klamath Basin/Trinity River
- Northern Sacramento Valley
- North Coast California
- Parhanagat Valley
- San Francisco Bay-Suisun Marsh
- San Joaquin Valley
- Southern California
- Tulare Basin

Each Initiative Area has unique resource issues and needs that lead to its identification as a priority for the Service. Yet, even though the 12 Initiative Areas are diverse in resources and threats, three common themes emerged in nearly all the Initiatives; eminent development pressure, ability to recover species and habitat, and support of existing plans or current efforts underway.

Below are the descriptions of each Initiative area and include: the geographic region, the resource issues and habitat needs, the species that will benefit from this strategic approach, the restoration potential, and the targets we intend to accomplish over the next five years.

Figure 2.



Amargosa River Watershed Initiative Area

The area includes the entire watershed of the Amargosa River beginning with the headwaters north of Beatty, Nevada and terminating in Death Valley National Park in Inyo County, California. The Amargosa River is an ephemeral river that provides surface water much of the year near its headwaters, but flows underground for much of its length. The geography is comprised of desert springs, riparian corridors and desert washes surrounded by peaks, cliffs, canyons, dry washes, sand dunes, and playas. Temperatures range from 95 to 120°F in summer to 20 to 30°F in winter. The area receives less than six inches of rain per year. Vegetation ranges from creosote, blackbush, and desert needlegrass scrub-steppe to cottonwood, willow, ash, and wetland species. Land uses include mining, recreation, grazing, pasture, and farming. Much of the area is federally managed; however important wildlife habitat springs and tributaries are under private ownership.

Resource Issues

The insular nature of many habitats has given rise to a variety of endemic species with limited ranges. They include the federally endangered Devil's Hole pupfish, southwestern willow flycatcher, as well as the yellow-billed cuckoo, a candidate for Federal listing. Other endemic species such as the Amargosa toad, the Oasis Valley speckled dace, and 27 species on Ash Meadows National Wildlife Refuge occur only within this area. The federally threatened desert tortoise also occurs within the watershed.

This area is threatened by groundwater pumping, invasive plants, diversion of water for agriculture, destruction and fragmentation of habitat by urbanization, mining, off-road vehicles, military exercises, invasive plant species, and fire. The Nevada and California State Wildlife Action Plans recommend several actions to restore and conserve wildlife in the region, including improving stewardship on Federal lands to protect wildlife diversity; protecting and restoring riparian, spring, seep, and wetland areas; working to reduce off-road vehicle damage to wildlife habitats; and providing resources and coordinating efforts to control invasive species.

Restoration Potential

At the watershed level, the Service is working in the Amargosa River Basin to improve habitats for the Amargosa toad, a species of concern to state and Federal agencies. The Service is working with private landowners and the Nevada Department of Wildlife (NDOW) to implement the Amargosa Toad Conservation Agreement. Efforts include projects that improve water use efficiency for landowners to provide seasonal ponds for toad breeding habitat, including repair and replacement of water pipes and installation of water control structures to keep water available for toads throughout the year. The

projects are securing and improving wet habitats in the Amargosa River Basin, a recommendation of both the California and Nevada Wildlife Action Plans. The control and eradication of non-native invasive plants is another Service emphasis. Collaborative efforts between landowners and Federal, state, and local agencies to control the spread of invasive plants is necessary to meet habitat restoration objectives in the Initiative Area.

The Service is also supporting projects to improve habitats for rare species through upland restoration of perennial grasses, shrubs, and native annuals, riparian restoration, removal of invasive plants, and restoration of native fish habitats. Protecting and restoring desert springs and rivers is essential to riparian and aquatic species.

Partners with the Service in all of our efforts within this Initiative Area include NDOW, California Fish and Game, Nevada Division of Forestry, National Park Service, Department of Defense, Bureau of Land Management, off-road vehicle groups, ranchers and grazing lease-holders, and local communities.

5 year Targets (FY07-FY11) based on FY06 funding

Partners for Fish and Wildlife Program

Wetland acres - 17

Upland acres - 35

Riparian acres - 95

Riparian and Instream miles – 5.5

Carson/Walker Initiative Area

The Carson/Walker Initiative Area lies on the east side of the Sierra Nevada Mountains. It spans from the Humboldt-Toiyabe National Forest through the Highway 395 corridor in California, across the Nevada border to incorporate the Carson and Walker River watersheds, and northeast to the Carson and Humboldt Sinks. Most of the area is part of the Great Basin, a plateau characterized by isolated mountain ranges separated by arid basins. Mountain ranges rise to altitudes of 7,000 to 10,000 feet. Lowland vegetation includes sagebrush, rabbitbrush, saltbush, and other arid-adapted shrubs with annual and perennial grasses. Vegetation in mountainous areas transitions from fir and spruce at higher elevations, ponderosa and lodgepole pines at mid-elevations, to pinyon pine and juniper forests of the foothills. Grazing is the most common land use. Much of the grazing land is rapidly being lost to urban and residential development.

Aquatic habitats in Nevada support the greatest number of federally-listed fish species (26) of any state in the nation. Desert springs, streams, and riparian areas are vital to amphibians and mollusks, as well as for fish and migratory birds. Commonly located on private land, because homesteaders settled near limited water sources, nearly all of these aquatic systems have been degraded, causing many native species to be listed by the Service as threatened or endangered. Aquatic systems are the life of the desert, supporting the economy through agriculture, grazing, recreation, mining, and urban development.

Resource Issues

A resource of particular interest to the Service and its partners is the greater sage grouse, to which a major threat is the degradation and destruction of sagebrush habitats. Agriculture, grazing practices, and urban development have negatively impacted millions of acres of sagebrush habitat. Although the greater sage grouse does not warrant protection under the Endangered Species Act at this time, the species remains of concern to the Service which is working with agency and rangeland partners to restore and conserve sage grouse habitat so Federal listing will not be needed in the future. Conservation actions underway by the Service include installation of livestock fencing, manipulation of decadent sagebrush to improve vegetative productivity, native plant seeding, reclaiming sagebrush lands lost to pinyon/juniper encroachment, controlling invasive plants, and working with ranchers to develop sage grouse habitat management plans. The State of Nevada's "Wildlife Action Plan" recommends a variety of sage grouse conservation measures that coincide with the goals of the Service. Those include stabilizing the loss of sagebrush to wildfire and invasions of exotic species, reducing pinyon/juniper encroachment, restoring healthy range conditions to sagebrush habitat, and adopting the objectives

of the State of Nevada's "Greater Sage-Grouse Conservation Plan for Nevada and Eastern California" to maintain healthy populations of sage grouse at a stable or increasing trend.

At the watershed level, the Service has recently embarked on a comprehensive, partnership-based, Lahontan cutthroat trout (LCT) and watershed restoration program in the Initiative Area. The watershed program focuses on restoring habitat and connectivity along the East and West Forks and mainstem Walker River. The Service has established an Interagency Walker Basin Riparian Restoration Steering Committee comprised of local conservation districts, Walker River Paiute Tribe, Natural Resources Conservation Service (NRCS), the Walker River Irrigation District, the Nature Conservancy (TNC), and the States of California and Nevada. The initial phase of planning involves a comprehensive, basin-wide assessment, which will be the basis for a restoration plan.

At the landscape level, the Carson/Walker region is one of the fastest growing areas of Nevada. The Service is working with private landowners and conservation organizations to promote fish and wildlife friendly farming and ranching and to help secure important riparian habitats and

5 year Targets (FY07-FY11) based on FY06 funding

Partners for Fish and Wildlife Program

Wetland acres - 200

Upland acres - 50

Riparian acres - 120

Riparian and Instream miles - 5

desert springs. Projects such as fencing springs and streams to manage cattle access and providing off-site water help restore habitats, while continuing economically important ranching practices on the land. Developing and implementing plans for the control of invasive/noxious plants is a Service emphasis in the area. Collaborative efforts between landowners and Federal, state and local agencies to control the spread of invasive plants are derived through voluntary cooperative conservation on the part of private landowners.

Restoration Potential

The Service is working with landowners to protect and restore populations of native species in western Nevada, some of which are federally listed. These include LCT, bald eagle, pygmy rabbit, Webbers ivesia, Yosemite toad, and mountain yellow-legged frog. Significant portions of the Carson and Walker River watersheds are identified by the Intermountain West Joint Venture as important Bird Habitat Conservation Areas. These activities are in line with the recommendations of Nevada's

and California's State Wildlife Action Plans calling for Federal and state agencies to work with private landowners to implement agricultural and rangeland management practices that are compatible with fish and wildlife conservation.

Foothill Ring Initiative Area

This “ring” of habitat occurs above the floor of the Central Valley of California, encircling it from an elevation of approximately 300 to 2,500 feet, or generally to the level where coniferous forest becomes dominant. It includes a mix of valley oak savannah, oak woodlands, blue oak-foothill pine woodlands, open grasslands, vernal pools, riparian, and wetland habitats that harbor unique ecosystems and species of plants and animals. Major land uses include livestock grazing, vineyard and orchard crops, firewood harvest, and recreation. The land is primarily privately owned, much of it as rangeland, and supports important ecosystems essential for maintaining healthy populations of fish and wildlife. Much of the area is at risk to urban and residential development that threatens to convert and fragment important habitats.

Resource Issues

Supporting a diversity of plants and wildlife, the area is one of the most important in the state for migratory raptors and songbirds that thrive on the variety of vegetation types and habitats of the foothill region. Some habitats, such as vernal pools and areas of gabbro soils, support unique assemblages of plants and animals of great interest to the Service and its partners. Species of special interest include the federally listed California red-legged frog, California tiger salamander, vernal pool fairy shrimp, vernal pool tadpole shrimp, El Dorado bedstraw, and along the southern portions of the interior coast range, the California condor. Central Coast foothill ranchers will be important partners with the Service in recovering these

species. The Foothill Initiative and California’s Wildlife Action Plan both recognize the importance of maintaining and restoring habitats for these species by reducing habitat fragmentation and providing connectivity between habitats. In areas where development is occurring or projected, the Service is working with landowners, agencies, cities, and counties to secure sensitive habitats and key wildlife migration corridors. Toward this effort, the Service and over 60 other agency and private partners have teamed to form the California Rangeland Conservation Coalition. Formed to recover listed species, enhance habitats, and keep private ranching economically viable while “...keeping common species common”, the Coalition is working to protect and improve the ranching industry and its culture by providing economic, social, and other incentives, reducing regulatory burdens to proactive stewardship on private ranchlands, and demonstrating that livestock grazing can benefit fish and wildlife.

At the watershed level, the area provides an opportunity for the Service to work with the ranching community to protect and restore large areas of intact habitat, an opportunity not available in other areas of California. The Service is providing technical and

fiscal assistance to landowners for planting native vegetation, controlling non-native invasive species, installing livestock management fencing, and designing and implementing numerous other habitat improvement activities.

At the landscape level, the foothill area is experiencing rapid urban and residential growth that threatens important habitats for migratory birds, listed species, and other resources of importance to the Service, the State of California, and its agency and private partners. To address that threat, the Service is working to implement recommendations of the State Wildlife Action Plan that include the following: develop policies and incentives to better integrate wildlife conservation considerations into local and regional planning and land-use decision-making; work to insure that infrastructure development projects are designed and sited to avoid harmful effects on sensitive species and habitats; develop policies and incentives to better integrate wildlife conservation into state and regional transportation planning; strive to allocate sufficient water for ecosystem uses and wildlife needs when planning-for and meeting regional water supply needs; and give greater priority to wildlife and natural resources conservation education.

5 year Targets (FY07-FY11) based on FY06 funding *Partners for Fish and Wildlife Program*

Wetland acres - 375
Upland acres - 2,500
Riparian acres - 340
Riparian and Instream miles - 80

Restoration Potential

Foothill rangelands and the species on which they depend persist today because of the responsible land stewardship practices of ranchers that own these lands. Maintaining a strong and viable ranching community that keeps working lands working will help protect important habitats and wildlife movement corridors. For example, the Service is working with ranchers in the foothill area to improve habitats for the California tiger salamander and California red-legged frog that thrive in livestock watering

ponds. Habitat protection and restoration efforts include repairing water impoundment structures, installation of off-stream water for cattle, riparian fencing, and planting native plants.

For the Service, the key to achieving its goals of habitat restoration, while supporting the long-term viability and culture of the ranching industry, lies in developing partnerships. Encouraging voluntary, collaborative, locally-led conservation has proven to be effective in educating the public

about the benefits of grazing and ranching to wildlife, and in maintaining and enhancing working landscapes.

Partners with the Service in this effort include CDFG, the California Rangeland Trust, California Cattlemen's Association, Audubon California, California Association of Resource Conservation Districts, Defenders of Wildlife, TNC, the California Farm Bureau Federation, NRCS, Bureau of Reclamation (BOR), BLM, and many others.

Humboldt River Basin Focus Area

The Humboldt River Basin Focus Area is located in the Great Basin desert in Northeastern Nevada – an area characterized by isolated mountain ranges separated by arid basins. It includes the counties of Elko, Eureka, Lander, Humboldt, and northern Nye where many primary streams provide important aquatic and riparian habitat for Nevada’s sensitive and listed species. The Humboldt River flows from east to west intersecting the northern and southern subbasins where it terminates in ancient Lake Lahontan near Lovelock. Originating in mountains that range in altitudes between 6,000 and 11,000 feet, habitat types vary from high elevation alpine tundra in the Ruby Mountains to sagebrush steppe in the Osgood Mountains. Vegetation transitions from mixed salt desert scrub, Great Basin xeric sagebrush shrubland, big sagebrush shrublands, mountain mahogany shrublands, riparian woodlands, aspen forest communities, and herbaceous communities such as intermountain basin semi-desert grasslands. All of these habitat types play a significant role in supporting the most common land use which is livestock grazing. This area also plays a significant role in supporting one of Nevada’s traditional economies, gold and silver mining.

Aquatic habitats in the arid Great Basin support many of Nevada’s unique and endemic species. Desert springs, streams, wetlands, and riparian areas are vital to species such as Columbia spotted frog, Lahontan cutthroat trout, greater sage grouse, migratory birds and waterbirds. These aquatic systems also drew early

homesteaders who depended upon them to develop agriculture, grazing, recreation, and mining economies. Although these traditional lifestyles continue, these aquatic systems face new uses such as urban development and water exportation. Some of these systems have been degraded, leading to the listing of several species. However, many of these systems are highly resilient and are responsive to habitat restoration.

Resource issues

Maintaining healthy riparian conditions and preventing the degradation of sagebrush habitats due to catastrophic wildfire and inappropriate grazing are issues of particular concern to the Service and its partners. In 2006, lightning caused fires burned over 1,000,000 acres of high quality habitat for sage grouse, pygmy rabbit and mule deer. In addition, hundreds of stream miles have burned within Elko and Humboldt Counties since 1999, many of which support Lahontan cutthroat trout and Columbia spotted frogs. Restoration and protection of aquatic habitats in the Humboldt River basin are a high priority for the Service and its partners. Species of interest include the Lahontan cutthroat trout, Columbia spotted frog, Independence Valley and Clover Valley speckled dace, yellow-billed cuckoo, willow flycatcher, greater sage grouse,

pygmy rabbit, and migratory waterfowl. The Service’s Initiative Area plan and the State of Nevada’s Wildlife Action Plan both recognize the importance of providing incentives to ranchers, farmers, and other landowners to protect, restore, and rehabilitate important habitats for these species. Our strategy is to work cooperatively with our partners to meet private landowner’s needs within the boundaries of private property while meeting federal land management requirements on adjacent allotments. Conservation actions underway by the Service include installation of livestock fencing, native plant seeding, fish barrier removal, manipulation of decadent sagebrush and pinyon juniper woodlands, controlling invasive plants, and implementing objectives of the Greater Sage Grouse Conservation plan for Northeastern Nevada by implementing projects that maintain healthy populations of sage grouse at stable or increasing trends.

At the basin level, the Service is working with private landowners and ranchers to protect and restore native species habitat by partnering with other agencies and multiple landowners to accomplish common goals. Much of the Humboldt River basin has been identified by the Nevada Department of Wildlife and the Intermountain

5 year Targets (FY07-FY11) based on FY06 funding

Partners for Fish and Wildlife Program

Wetland acres - 900

Upland acres - 350

Riparian acres - 680

Riparian and Instream miles - 25

West Joint Venture as an important Bird Habitat Conservation Area. Many habitat restoration projects that the Service has implemented with its partners and landowners include fencing of riparian and sensitive spring habitats to improve management of livestock, planting native vegetation, fish passage improvement projects, wetland and wet meadow restoration and fire rehabilitation projects. These activities are consistent with the recommendations of Nevada's Wildlife Action Plan, Nevada Partners in Flight Bird Conservation Plan, the Lahontan Cutthroat Trout Species Management Plan for the Upper Humboldt River Drainage Basin, and the Columbia Spotted Frog Conservation Agreement and Strategy which call for federal and state agencies to work with private landowners to implement agricultural and rangeland management practices compatible with wildlife conservation.

At the landscape level, the Humboldt River Basin is sparsely populated creating large, open tracts of land and opportunities for implementing small scale projects that can positively affect large acreages of private and federal

property. Many of Nevada's ranchers own isolated tracts of land that are found within large expanses of federally owned land. These properties are important because they provide water for livestock, fish and wildlife. The Bureau of Land Management, the U.S. Forest Service, and the Service are implementing and improving rangeland and riparian area management guidelines on federal land while we are working with private landowners to improve habitat on their lands. Small improvements in grazing management, livestock watering, and agricultural practices on private land may improve conditions on federal and private lands over time as we ensure that private landowners are able to continue economically important ranching practices at the landscape level.

Restoration Potential

The Focus Area supports the greatest number of self sustaining population of the federally threatened Lahontan cutthroat trout and the greater sage grouse in Nevada. Principle threats to these species include habitat degradation and loss due to catastrophic wildfire, inappropriate livestock grazing, mining

development, water diversions, poor water quality, hybridization with nonnative trout, and loss of important wet meadow habitats due to the incision of stream channels. Service partnership activities within the area include; 1) improving habitat conditions to reconnect metapopulations and extend the range of self sustaining populations of Lahontan cutthroat trout in the Humboldt River basin, 2) securing habitat to sustain viable populations within this area, 3) working with private landowners to improve agricultural and livestock production operations while restoring riparian areas along Lahontan cutthroat trout streams, and 4) working to rehabilitate fire ravaged habitat for sagebrush obligate species such as sage grouse and pygmy rabbit.

Partners with the Service in this endeavor include the Nevada Department of Wildlife, Humboldt-Toiyabe National Forest, Nevada Division of Forestry, Ranch Open Space of Nevada, Duck Valley Shoshone Tribe, South Fork Shoshone Tribe, Nevada Land Conservancy, Natural Resources Conservation Service, Bureau of Land Management, and the Eastern Nevada Landscape Coalition.

Klamath Basin/Trinity River Initiative Area

The Initiative Area is defined by the second longest river in California – the Klamath River. The Klamath watershed drains 15,688 square miles, while flowing more than 350 miles from upstream of Upper Klamath Lake in Oregon to the Pacific Ocean at Requa, California. Its headwaters lie in a high-elevation basin containing wetlands, lakes, forests, and Great Basin steppe. From the upper basin, the Klamath River flows through rocky canyons and forested mountains, and finally to its estuary. Along the way, it is fed by the Shasta, Scott, Salmon, and Trinity Rivers, and many smaller streams. Fertile alluvial valleys lie along some of these tributaries.

Historically, the pristine habitats in the Klamath River watershed attracted over 6 million migrating waterfowl annually, and produced the third largest salmon runs on the west coast of the United States. The Klamath River watershed is one of the most timber-dominated along the north coast of California, providing habitat for the marbled murrelet and northern spotted owl. Its numerous rivers and streams provide spawning and cold water habitat for salmon, suckers, trout, steelhead, lamprey, sturgeon, and other aquatic species. In the upper Klamath Basin predominant land uses are livestock grazing and agriculture including hay, alfalfa, grains, and potatoes. Commercial, tribal, and recreational fishing, timber harvest, and grazing are major land uses in the lower Basin.

Resource Issues

Natural resources are vital to rural economies, and water is essential to those resources. In the watershed, conflicting demands for water are increasing. Several aquatic

species have been designated as threatened or endangered due to poor water quality and habitat loss. The incidence of endemic fish diseases in the Klamath River has increased recently. There are six dams on the Klamath River, used either for hydroelectricity or diversion of water for agriculture. Currently, the lowermost dam blocks the passage of anadromous fish to nearly half of the watershed. Federally listed aquatic species include Lost River and shortnose suckers, bull trout, and Coho salmon.

At the watershed level, since 1986 the Service has been funding and implementing habitat restoration and enhancement activities in the Klamath watershed, in cooperation with Federal, state, tribal, and local partners. With these partners, the Service has been collecting information critical to understanding the habitat needs of aquatic species: hydrology, water quality, fish productivity, and fish health. Streams in the upper portion of the watershed are an area of focus because of their importance to the endangered Lost River and shortnose suckers, as well as for bull trout. Here the Service, along with many landowner and agency partners, is restoring spring wetland complexes and their connectivity to the river, enhancing riparian habitats through fencing and providing off-stream livestock water, restoring

riverine morphology, developing ranch management plans, and restoring form and function to a variety of habitats. The Klamath Basin refuges are implementing “walking wetlands,” which rotate production of agricultural lands with that of wetland habitats. All of these projects are designed to accommodate the goals of the Oregon Conservation Strategy for government agencies to work with private landowners.

At the landscape level, the tributaries of the middle and lower Klamath watershed are important to spawning, rearing, and migration of anadromous fishes. The Service will be working closely with agricultural communities to implement habitat restoration actions similar to those being made for suckers. In the forests, the Service will continue to cooperate with the tribes, the U. S. Forest Service, timber companies, and others to reduce upslope sediment, remove fish passage barriers, and improve instream habitat. Near the estuary, the Service will focus on streams that provide important cold water habitat for outmigrating Coho smolts.

Restoration Potential

Service activities in the Initiative Area contribute to the improvement of aquatic habitats while maintaining the needs of landowners. Achieving success is

5 year Targets (FY07-FY11) based on FY06 funding

Partners for Fish and Wildlife Program

Wetland acres - 9,775

Upland acres - 7,800

Riparian acres - 2,000

Riparian and Instream miles - 280

essential for sustaining economic prosperity and viable fish and wildlife populations, as well as Native American cultural, religious, and subsistence use. The Service continues to bring together partners to achieve healthy fish and wildlife populations. Partners include CDFG, Oregon Department of Fish and Wildlife, BLM, BOR,

U.S. Forest Service, NRCS, U.S. Geological Survey, California Conservation Corps, Humboldt State University, City of Yreka, Salmon River Restoration Council, Scott Valley Watershed Council, Shasta River CRMP, Shasta Valley Resource Conservation District (RCD), Siskiyou RCD, Klamath Basin Ecosystem Foundation,

Klamath Basin Rangeland Trust, Upper Klamath Basin Watershed Council, Ducks Unlimited, Bureau of Indian Affairs, The Klamath Tribe, The Hoopa Valley Tribe, The Karuk Tribe, The Yurok Tribe, Green Diamond Timber Company, William Kier Associates, Oregon Watershed Enhancement Board, TNC, private landowners, and many other partners.

Northern Sacramento Valley Initiative Area

The area contains the American, Butte, Colusa, and Sutter Basins of California, and is intersected by the Sacramento River and its tributaries. Entirely below 300 feet in elevation, the area once contained extensive wetlands and large blocks of riparian forest. About 92 percent of the historic wetlands, 95 percent of the riparian habitats, and 99 percent of the native grasslands have been lost to agriculture and development. Typical wetland plants include hardste, tuberous, river and alkali bulrush, cattails, spike rush, swamp timothy, dock, watergrass, smartweeds, and cocklebur. Riparian areas consist of valley oak, western sycamore, Fremont cottonwood, Oregon ash, willows, box elder, and elderberry. Sacramento, Colusa, Delevan and other units of the Sacramento NWR Complex anchor the Service's wildlife habitat protection and restoration goals in the Valley. Agriculture is the major land use of the area, with orchards, riceland, wheat, row crops, cattle, and hay production being the main products.

Resource Issues

Conservation and restoration of wildlife habitats on private lands is a major Service emphasis in the area. That same emphasis is reflected in the California State Wildlife Action Plan which calls on CDFG, the Service, NRCS, and local resource conservation districts to improve conservation and restoration on private lands. Agencies cannot protect all important areas for wildlife in the region through acquisitions and regulatory approaches alone. Knowing that, the Service is working with landowners, the Central Valley Joint Venture,

and its agency and non-profit partners to restore habitats through voluntary programs, including the use of conservation easements to protect fish and wildlife habitats and agricultural communities.

At the landscape level, wetland restoration in the initiative area will help to meet the objectives of the North American Waterfowl Management Plan and its component Central Valley Joint Venture (CVJV), U.S. Shorebird Conservation Plan, The Southern Pacific Shorebird Conservation Plan, The North American Waterbird Conservation Plan and The Grassland Bird Conservation Plan. The CVJV has set habitat protection, restoration, and enhancement objectives for four hydrologic basins in the Initiative Area. Within the Initiative Area, CVJV habitat restoration accomplishments (acres) for Sutter, American, Colusa and Butte Basin are at 7%, 14%, 39% and 52% for restoration objectives, respectively. The CVJV is prioritizing conservation activities in the Sutter and American Basins over the next five years to protect wetland and agricultural resources from increasing threats of urban development.

In addition to supporting migratory bird resources, the restoration and protection of wetlands and associated uplands in the four basins will address the needs of

imperiled species. Restoration of semi-permanent wetlands, permanent wetlands and associated uplands will specifically address the needs of the threatened Giant Garter Snake as identified in the "Draft Recovery Plan for the Giant Garter Snake". The draft recovery plan identifies a number of Federal species of concern that would benefit from the restoration of GGS habitat including tricolored blackbirds, white-faced Ibis, American bittern and northwestern pond turtles. Similarly, diverse native uplands restored in association with wetlands will benefit a number of species of concern including western burrowing owls, white-tailed kites and loggerhead shrikes.

At the watershed level the Service is providing financial assistance to remove non-native invasive plants from riparian and wetland areas. The Service is working with the Big Chico Creek Ecological Reserve and four private landowners to manually remove invasive Spanish and French broom and restore native riparian habitat to 16 miles of creek. The broom outcompetes native riparian vegetation needed by the yellow-billed cuckoo, willow flycatcher, and other riparian species of concern, and alters the hydrology of an important salmon and steelhead stream.

Finally, state and Federal agencies and private organizations are

5 year Targets (FY07-FY11) based on FY06 funding

Partners for Fish and Wildlife Program

Wetland acres - 1,500

Upland acres - 100

Riparian acres - 100

Riparian and Instream miles - 4

collaborating to protect and restore habitat connectivity along major rivers in the Central Valley. Service priorities for the area reflect those of the California State Wildlife Action Plan, with the plan calling for the funding of riparian habitat restoration and conservation. The prevalence of Service programs and incentives to assist ranchers, farmers, and other landowners to restore and conserve riparian habitats reflects those priorities.

Restoration Potential

Wetland restoration is addressing habitat protection and restoration needs for the millions of wintering waterfowl, other waterbirds. Other species who would also benefit from wetland restoration includes

the federally threatened giant garter snake (GGS), tricolored blackbird, white-faced ibis, and northern pacific pond turtle. Projects consist of “deleveling” (restoring historic wetland topography to) agricultural fields, planting native vegetation to wetlands and adjacent uplands, providing permanent wetlands, and managing vegetation to increase wetland productivity.

Riparian restoration along the Sacramento River and in the foothills will provide various benefits to federally endangered winter run Chinook salmon, federally threatened Central Valley spring-run Chinook salmon, Central Valley steelhead, green sturgeon (Southern Distinct

Population Segment), as well as migratory birds, amphibians and reptiles. The area is of particular importance to raptors, including the state listed Swainson’s hawk.

Restoring native uplands and protecting agricultural lands from conversion and development will be an important component to restoration activities in the Initiative Area.

Partnering with the Service in all of these restoration efforts are the NRCS, BOR, CDFG, Local RCD’s, Audubon California, TNC, California Waterfowl Association, Ducks Unlimited, River Partners, National Oceanic and Atmospheric Administration (NOAA), WCB, and many other agency and non-governmental partners.

North Coast Initiative Area

Located along the rugged coast of northern California, the area includes the Eel, Mattole, Mad, and Smith River watersheds and Humboldt Bay as major fish and wildlife habitat features. Encompassed by the Coast Range, the diverse landscape includes dune forest, coastal prairies, lagoons, large rivers, steep mountains, oak woodlands, and redwood forest. The weather, topography, and vegetation are all affected by the marine environment; with their influence declining as elevation increases (up to 6,000 feet inland). Rainfall amounts are among the highest in the state, with fog and cool temperatures along the coast and higher temperatures inland. Characteristic coastal vegetation includes black cottonwood and alder forests along riparian and delta areas, often mixed with Sitka spruce and coast redwood. Continuous or mixed stands of coniferous and oak-hardwood forests are prevalent inland. Major land uses include dairy and beef cattle, timber production, organic farming, instream gravel mining, rural subdivision development, and tourism. Historically, commercial fishing was a major industry.

Resource Issues

The North Coast Initiative Area provides an opportunity to restore and conserve a relatively unfragmented landscape. Agricultural lands and lifestyles, the desire for open space, and a community interested in natural resource conservation has led to a shared goal between private landowners and the conservation community: conserving working agricultural lands. Agricultural and timber lands provide important

habitat for fish and wildlife, including the Aleutian cackling goose, shorebirds, wintering raptors, and songbirds. These lands also contain habitat for listed species including Coho salmon, Chinook salmon, steelhead, and tidewater goby. The North Coast Initiative Area and California's Wildlife Action Plan both target the Federal and state listed Coho salmon as a species of special emphasis. The Coho salmon is also important to the commercial fishing industry and is considered an indicator of watershed health. Joint Federal and state efforts are being directed at recovering Coho populations through a variety of habitat improvement efforts. Protection of coastal dune habitats, tidal habitats, and coastal baylands are also important resource issues of focus for the Service.

At the watershed level, Service-sponsored assessments and restoration projects have been developed with landowners and watershed groups. Plans and projects are being conducted that restore habitat connectivity by removing barriers to fish passage, planting riparian areas, reestablishing floodplain connection, providing fish cover, reducing sediment input to streams,

and removing invasive plant species. Both the Service and the state share mutual goals of reducing impacts from past and current land use activities through restoration of riparian and coastal habitats.

At the landscape level, the Service works with CDFG to protect and restore remaining areas of intact fish and wildlife habitat. For example, both Federal and state efforts will continue with existing work to protect and restore conditions for up-migrating salmon in Redwood Creek, the Eel, Mattole, and other north coast river systems. The potential for achieving successful connectivity between public and private land in the area is high because many private lands lay adjacent to areas protected by the U.S. Forest Service, BLM, National Park Service, Humboldt Bay NWR, and CDFG.

Restoration Potential

Humboldt Bay is the second largest estuary in California, sustains the largest area of eelgrass beds between Baja California and Willapa Bay (Washington), and is second only to San Francisco Bay in the number and diversity

5 year Targets (FY07-FY11) based on FY06 funding

Coastal Program

Wetland acres - 850

Upland acres - 40

Riparian and Instream miles - 10

Partners for Fish and Wildlife Program

Wetland acres - 110

Upland acres - 40

Riparian and Instream miles - 20

of migratory, water-associated birds wintering in the coastal segment of California's Pacific Flyway. However, over 90% of the bay's saltmarsh has been either lost to development or converted to agricultural land. In order to restore estuarine functions, a variety of partners are working with the Service to accomplish restoration projects that benefit the overall health of the bay, including key species such as salmonids, tidewater goby, Pacific brant and shorebirds.

The most prominent recovery issue is restoration of habitats for listed Coho salmon, Chinook salmon, and steelhead. The California Coho salmon population is estimated at between 6-15 percent of what it was in the 1940s, and Chinook and steelhead populations have also declined significantly. The tidewater goby is another federally listed species that uses estuarine

areas and has been impacted by channelization of streams and diking of former tidelands. Service efforts to restore salmonid habitat includes developing off-stream livestock water and fencing, restoring riparian areas and floodplains through tree planting and setback levees, stabilizing eroding stream banks, removing roads, removing barriers to fish passage, and working with private landowners to improve dairy and rangeland management in several watersheds, including the Mattole River and Humboldt Bay tributaries.

The coastal dunes and dune forest system found in the Initiative Area are among the most pristine and unique habitats of their type left in the lower 48 states. They have an amazing diversity of insects, birds, and flora, which includes a globally endangered vegetative community as well as two listed plants and

several state sensitive plants. This biodiversity is maintained by Service-led efforts to remove invasive non-native plants, which allows for restoration of natural dune processes.

Partners include Humboldt Bay National Wildlife Refuge, CDFG, the California Coastal Conservancy, California Conservation Corps, California Sea-Grant, Humboldt State University, Cities of Arcata and Eureka, NRCS, NOAA Fisheries, Redwood National Park, Wiyot Tribe, North Coast Regional Land Trust, Mattole Restoration Council, Eel River Watershed Improvement Group, Humboldt Fish Action Council, Humboldt and Del Norte County RCD's, Aleutian Goose Working Group, Friends of the Dunes, private landowners, and others.

Pahranagat Valley Initiative Area

This area is a narrow valley approximately 40 miles long and contains Hiko, Crystal and Ash springs that drain south terminating in Pahranagat National Wildlife Refuge. Historically, the valley contained a natural stream system, wetlands and woodlands. Today the major land use is agriculture. The valley is flanked by hills, canyons, and dry washes and is near the northern limit of the Mohave Desert. It is surrounded by federally managed lands. The area receives less than six inches of rain a year with temperatures over 100° F in summer to below freezing in winter. Vegetation ranges from creosote, blackbush, and needlegrass scrub-steppe vegetation in the desert to cottonwood, willow, ash, cattails and other wetland vegetation in the central valley.

Resource Issues

The Pahranagat Valley is a unique riparian area within the Mojave Desert that provides habitat to endemic and federal trust species. Springs, springbrooks, wetlands and riparian habitats under public and private ownership provide habitat to the federally listed as endangered Pahranagat round-tail chub, Hiko White River springfish, White River springfish, southwestern willow flycatcher and the federal candidate species, the yellow-billed cuckoo. These areas also provide essential habitat to other endemic fish and snails, and a diversity of migratory birds. This area has also been designated as an Important Bird Area by the Audubon Society with private lands contributing to the integrity of migratory bird habitat between Pahranagat National Wildlife Refuge and the Key

Pittman Wildlife Management Area (managed by Nevada Department of Wildlife).

These important habitats in Pahranagat Valley are primarily threatened by groundwater pumping, water diversion, excessive livestock grazing and the establishment of nonnative species. Much of the existing, historical and potential habitats for these species are on private lands where traditional land uses often conflict with wildlife conservation.

The Nevada State Wildlife Action Plan recommends several actions to restore and conserve wildlife and their habitats that the Service is currently working on. Some of these actions include (1) restore degraded springs and associated riparian areas; (2) work with landowners to manage spring habitats; and (3) establish conservation easements, Safe Harbor Agreements, and Candidate Conservation Agreements with willing landowners.

Restoration Potential

In order to restore important habitat and recover these species in Pahranagat Valley, a watershed approach is essential. The Conservation Partnerships Program is teaming up with the Endangered Species Program, Pahranagat National Wildlife Refuge, Nevada Department of Wildlife (NDOW), Natural Resources Conservation Service (NRCS) and private

landowners to assess the watershed and identify potential habitat improvement and restoration projects. A Safe Harbor Agreement between the Service and NDOW is near completion and will provide assurances to landowners who complete habitat projects that benefit the valley's endangered species. The Service is also working with the NRCS to develop conservation measures for NRCS funded projects in the valley.

Outreach and education on conservation issues is another essential component to the recovery of these species and their habitats. The Partners for Fish and Wildlife Program in the Southern Nevada Field office provides a source of information and a point of contact through which activities are coordinated.

5 year Targets (FY07-FY11) based on FY06 funding

Partners for Fish and Wildlife Program

Wetland acres - 17

Upland acres - 8

Riparian and Instream miles - 2.5

San Francisco Bay- Suisun Marsh Initiative Area

The area is composed of 12 counties surrounding San Francisco Bay and the Sacramento/ San Joaquin River Delta in California; Marin, Sonoma, Napa, Solano, Yolo, Sacramento, San Joaquin, Alameda, Contra Costa, Santa Clara, San Mateo, and San Francisco Counties. Encompassing 1,600 square miles, the San Francisco Bay and adjacent Delta form the nation's second largest estuary. The Bay and Delta are two very different zones of the estuary. The Delta was a large inland sea of bulrush; today it is a complex of waterways and diked agricultural island of peat soil. Peat is oxidizing and subsiding and islands today are as much as 20 feet below sea level. The Sacramento and San Joaquin Rivers carry rain and snowmelt from the northern and central parts of the state into the Delta. Waters in the delta are kept fresh thru water management activities. The western edge of the delta supports Suisun Marsh and the water quality is brackish. Much of Suisun Marsh is managed (non-tidal) brackish marshes managed for waterfowl hunting. West of Suisun and through the Carquinez Strait, the estuary opens up into brackish but mostly salty San Pablo Bay, Central Bay, and South Bay. Lands adjacent to the Bay are characteristic of a coastal plain with low-lying baylands and river deltas supporting salt marsh, coastal scrub, redwood forests, freshwater creeks, terrace prairies, tidal mudflats, and salt ponds that provide habitat for seabirds, waterfowl, songbirds, and shorebirds of the Pacific Flyway. Elevations and temperatures rise inland, reaching 3,000 feet at the peaks of the coastal mountains, and

support grasslands, chaparral, and oak woodlands. Other major rivers in the Bay area include the Napa and Petaluma rivers, and Sonoma, Petaluma, and Coyote Creeks. Protected habitats owned by the National Park Service, the Service, California State Parks, and private holdings protected by conservation easements are intermixed with agricultural lands in a densely populated urban setting. Much of the area is rural, supporting an agricultural economy of dairy and livestock, orchards, vineyards, and specialty crops.

Resource Issues

The San Francisco Bay is one of the most urbanized coastal bays in the nation, currently home to over nine million people. Much of the estuary is fringed by intense urban development extending down to the bay's edge. In San Pablo Bay, substantial baylands (diked former tidal marsh and/or mudflats now pasture or hay field) remain. South Bay watersheds are protected from development at higher elevations to benefit water supply. Agriculture remains in this Initiative Area, particularly for orchards, vineyards, and specialty crops.

A key area for wintering habitat in the Pacific Flyway, the area also is

home to over 280 species of birds each year. Millions of shorebirds and waterfowl stop to refuel along the coastal shoreline during the spring and fall migration.

Diking and/or filling of the bayland habitats were extensive up until recent decades. Many creeks in urban areas were put underground for ease of development. Contamination of habitats was extensive in the early part of the 20th century. Non-native invasive species were allowed and continue to invade in ways that have caused serious disruption to the ecosystem.

At the watershed level, the Initiative Area contains eight California red-legged frog core population areas as identified in the Service's Recovery Plan for the species. Service projects that benefit the frog are taking place on private lands in Marin, Sonoma, and San Mateo counties, through wetland and riparian restoration and improvements in dairy management. For the federally endangered San Francisco garter snake, habitat restoration, using prescribed burning and other habitat improvement techniques, is underway with funding from the Service and its partners that is

5 year Targets (FY07-FY11) based on FY06 funding

Coastal Program

Wetland acres - 1,000

Upland acres - 100

Riparian and Instream miles - 15

Partners for Fish and Wildlife Program

Wetland acres - 110

Upland acres - 300

Riparian acres - 20

Riparian and Instream miles - 13

providing immediate benefits to the garter snake and other species endemic to the habitat.

At the landscape level, protecting and restoring lowland habitat linkages, which provide connectivity between tidal marshes, salt ponds, and stream corridors which link baylands with upland areas, is the focus for both the Service and the California Wildlife Action Plan. The Initiative Area contains listed species whose entire range is limited to the Bay Area, including the San Francisco garter snake, California freshwater shrimp, salt marsh harvest mouse, and Alameda whipsnake.

Restoration Potential

The Program, in conjunction with San Francisco Bay NWR, is implementing major restoration activities throughout the San Francisco Bay. Resource restoration is costly in this Initiative Area due to the extent of development and high land values. Opportunities to restore tidal influence on many diked areas can benefit the California clapper rail and salt marsh harvest

mouse. Restoration of wetlands and riparian areas along the coast will provide habitat for a variety of shorebirds.

Populations of federally endangered Delta smelt are in decline, an indication of a reduction in quality of Bay and Delta habitats. The greatest causes for the decline include reduced Delta inflows and outflows and the construction of dams and diversions that alter river flows, increase water temperatures and salinities, trap and kill fish, and change the dynamics of sloughs and streams. Other important factors include loss and modification of floodplain, riparian, and estuarine habitats through diking, draining, and flood control, and the impact of invasive aquatic species. Service activities to maintain and enhance fish populations critical to commercial, sport, and recreational fisheries include: reducing sediment; improving water quality; coordinating Operations of Delta pumps to improve conditions and habitats; and protecting and restoring stream channels, floodplains, and other aquatic, upland, and riparian habitats.

Habitat improvements by the Service and its partners include removing fish passage barriers such as dams and diversions, reestablishing natural flow and temperature regimes to rivers, restoring riverine and floodplain habitats and ecological processes, and restoring salmon populations.

The area supports a number of important habitats currently under threat from development and other human impacts. Working with agricultural groups to protect farm and ranch lands will benefit the San Francisco garter snake, California red-legged frog, and California freshwater shrimp. Several agricultural groups have made a strong commitment to working with the Service to achieve common goals. The San Francisco Bay NWR, Environmental Defense, San Francisco Bay Joint Venture, NOAA, the California Resources Agency, Environmental Protection Agency, Audubon California, The Bay Institute, California Cattlemen's Association, local dairy operators, California State Parks and many other Service partners are active in supporting wildlife-friendly agriculture that assists in species recovery.

San Joaquin Valley Initiative Area

The area includes portions of Merced, Stanislaus, Fresno, Madera, Tuolumne, and Mariposa counties in California. It encompasses the Grasslands Wildlife Management Area (GWMA) and the San Joaquin River and its tributaries. The GWMA is a 179,460-acre mosaic of Federal, state, and private lands containing about 30% of the 310,000 acres of wetlands remaining in the Central Valley. Entirely below 300 feet in elevation, agriculture dominates the area and few remnants of native habitats remain. Rivers support valley riparian habitat containing Fremont cottonwood, willows, box elder, valley oak, elderberry, and non-native invasive species including giant reed, perennial pepperweed, water hyacinth and tree of heaven. The San Joaquin River has become a major focus for many agencies as one of the most imperiled watersheds in the nation and the target of a major effort to restore salmon to the river. Upland habitats include annual and perennial grasslands, valley oaks on the valley floor and floodplains, and vernal pools on higher terraces. The primary land use is agriculture, particularly cotton, field crops, hay and alfalfa, dairy and beef cattle, orchards, and vineyards.

Resource Issues

Restoration and protection of riparian areas, wetlands in the GWMA, and salmon habitat in the San Joaquin River are major resource issues for the Service in the area. Species of interest include the federally listed riparian brush rabbit, riparian woodrat, San Joaquin kit fox, giant garter snake, least Bell's vireo, Chinook salmon,

and vernal pool species. Non-listed species of interest include the tricolored blackbird, Aleutian cackling goose, and greater sandhill crane. The Service's Initiative Area plan and California's Wildlife Action Plan both recognize the importance of providing incentives to ranchers, farmers, and other landowners to protect and restore habitats for these species.

At the watershed level, the recent discovery of federally endangered least Bell's vireos nesting at San Joaquin River NWR, the first recorded nesting activity for the species in the Central Valley in over 50 years, presents an exciting opportunity for the Service to work with its partners to improve habitats for the species. Recovery of the species lies not only in providing adequate habitat, but also in providing corridors between habitats.

At the landscape level, the San Joaquin Valley is under pressure from development due to population growth and changing agricultural practices. It is estimated that 18,000,000 people will move to the area within the next 15 years. Wetlands and wildlife-compatible agriculture are being lost to housing developments, dairies, orchards, and vineyards. The corresponding loss of wetlands and open space will adversely affect populations of

migratory birds and other species of concern. Protecting agricultural lands and river floodplains, restoration of wetlands and riparian habitats, and supporting wildlife-friendly farming and ranching will help sustain fish and wildlife populations under threat from population growth.

Restoration Potential

Riparian habitat protection and restoration have been identified by Federal and state agencies as a recovery focus in the northern San Joaquin Valley. The federally listed riparian brush rabbit, riparian woodrat, and valley elderberry longhorn beetle are riparian-associated species that will benefit from measures to restore some of the 89% of historic riparian woodland that has been lost to agriculture and development. To help recover the species, captive-reared brush rabbits have been released at the San Joaquin River NWR, and a private landowner adjacent to the Refuge has allowed brush rabbits to be released onto his land. Riparian restoration along the San Joaquin River by the Service and its partners will contribute to species recovery. Conservation easements, Service landowner agreements, retirement of agricultural lands for habitat restoration, and Service funding for riparian planting and installation of livestock management fencing are tools being used by the Service to help recover the species.

5 year Targets (FY07-FY11) based on FY06 funding

Partners for Fish and Wildlife Program

Wetland acres - 4,000

Upland acres - 600

Riparian acres - 150

Riparian and Instream miles - 8

Potential partners with the Service in its various restoration and recovery efforts are CDFG, NRCS, River Partners, Central Valley Joint Venture, PRBO Conservation Science, WCB, TNC, Ducks Unlimited, and the California Waterfowl Association. Acquisition and restoration of the San Joaquin River basin has been designated as a major objective of the CalFed Bay-Delta Program. The recently signed San Joaquin Settlement Agreement is an historic document that will serve as the basis for restoring flows to the San Joaquin River and to returning spring Chinook salmon to the River. Lands near the San Joaquin River are being protected and restored through actions of the Service and its partners including the Tuolumne River Trust and the interagency Tuolumne River Coalition.

Southern California Initiative Area

This biologically diverse area encompasses coastal wetlands and estuaries, coastal plains, mesas and foothills, multiple watersheds, coastal and inland mountain ranges, valleys, desert and dunes. Elevations range from sea level in coastal counties to 11,800 feet (3,500 meters) on San Geronio Peak. Annual rainfall is variable but averages 10 inches. Southern California's inversion layer is an attribute of the relatively-rare Mediterranean climate. Fire is a natural component of the ecosystem, and many species are adapted to withstand frequent fires. Natural vegetation communities and habitats include coastal strand, salt marsh, bay and river-mouth estuaries, coastal scrub, grasslands, vernal pool and seasonally flooded alkali plains, chaparral, riparian, alluvial fan, woodland, and coastal and inland aeolian systems. Major land uses include urbanization, military installations and other public lands, recreation, agriculture, and grazing.

Resource Issues

The intersection of biological resources and urbanization has made southern California the most threatened biologically diverse area in the continental U.S. There are over 100 federally listed endangered, threatened, or candidate species within the Southern California Initiative Area. More than 150 species of animals and 200 species of plants are either listed as protected or considered sensitive by resource agencies and conservation groups. Habitat fragmentation, due to development/urbanization, exotic/invasive species, altered fire regimes, agriculture, grazing, and recreation, is one of the primary threats to species throughout southern California.

At the watershed level, restoration of coastal wetlands and habitats for migratory birds and listed species is being undertaken by the Service and its partners. In highly urbanized southern California, regional conservation priorities are to acquire and restore surviving remnants of coastal wetland ecosystems. Multiple candidate, endangered, or threatened species are dependent upon this coastal zone as are other Federal trust species, especially shorebirds and waterfowl. Recovery of coastal estuarine habitats, like the Bolsa Chica Lowlands Restoration Project, are being undertaken with cooperation from other Federal, state, and private resource entities to aid in the recovery of species of concern, such as the California least tern, western snowy plover, light-footed clapper rail, and salt marsh bird's beak. Additional cooperative endeavors are designed to remove non-native plants and to create new nesting opportunities for colonial nesting seabirds, such as elegant tern and black skimmer. Rehabilitation of southern California's estuaries will require restoring tidal influence, reinvigorating the wetland ecosystem, and reestablishing habitat for many species dependent

on coastal communities. Because of the complexity and expense of coastal wetland restoration, no one agency can carry the whole burden. Developing and strengthening partnerships between many agencies and organizations is vital.

On a landscape level, the Service is working cooperatively with the State, cities, counties, municipalities, tribes, other Federal agencies, and private landowners to restore native habitats. Coastal scrub communities contain a mix of drought-resistant shrubs and forbs found no where else in the country, commonly including California sagebrush, buckwheat, and sage species. This rare habitat is home to the coastal California gnatcatcher, cactus wren, and Palos Verdes blue butterfly among many other species. Inland and coastal systems contain rare dune habitats that support many endemic species. Isolated grasslands, vernal pools, and alkali vernal plains are interspersed in the landscape and support unique and endemic species such as thread-leaved brodiaea, San Diego button celery, Stephens' kangaroo rat, and fairy shrimp species.

5 year Targets (FY07-FY11) based on FY06 funding

Coastal Program

Wetland acres - 2,900

Upland acres - 200

Riparian acres - 50

Riparian and Instream miles - 5

Partners for Fish and Wildlife Program

Wetland acres - 6,000

Upland acres - 700

Riparian acres - 50

Riparian and Instream miles - 3

Restoration Potential

The Service and its partners will continue efforts to promote habitat conservation, restoration, and recovery of sensitive species in southern California and to pursue opportunities to compliment the anticipated conservation benefits of regional plans (e.g, Habitat Conservation Plans) including additional habitat acquisition, conservation easements, and habitat restoration for multiple species; research; potential species reintroductions; and working with landowners and managers adjacent to plan areas to improve habitat

connectivity and wildlife linkages. The Program is a founding member of the Southern California Wetlands Recovery Project, and frequently cooperates with or conducts activities supporting other Service and state programs in the southern California coastal zone, such as migratory birds, environmental contaminants, species recovery, and invasive species. Partners include California Department of Fish and Game (CDFG), TNC, Audubon California, local land conservancies and non-profit groups, California State Parks, California Coastal Conservancy, San Diego Zoo,

U.S. Forest Service, National Park Service, multiple Department of Defense installations, NRCS, California Wildlife Conservation Board (WCB), Bureau of Land Management (BLM), California Department of Forestry & Fire Protection, Ports of San Diego, Long Beach, and Los Angeles, Sonoran Joint Venture, California Waterfowl Association, tribes, private landowners, and many other non-governmental groups in the U.S. and Mexico.

Tulare Basin Initiative Area

The Tulare Basin is made up of the lake beds of the former Tulare, Buena Vista, Goose and Kern lakes, and includes portions of Kings, Tulare, Kern, and San Luis Obispo Counties in California. Historically the Basin contained the largest freshwater wetland west of the Mississippi River, about 500 square miles in size. Flows from the Kings, Tule, Kaweah, and Kern Rivers created extensive wetlands, sloughs, ponds and marshes, most of which have been lost to agricultural development and water diversion. Also lost were extensive grassland and saltbush scrub uplands. Despite the losses, the area still contains significant wetlands, many of which are privately-owned hunting clubs, increasingly isolated by development. The area is recognized for its international importance to migratory waterfowl and shorebirds of the Pacific Flyway. Wetlands support cattails, hardstem and alkali bulrush, swamp timothy, spikerush, smartweed, and watergrass. The primary land use is agriculture, with Tulare County ranking second in the nation in agricultural productivity. Cotton, vegetables, grain, alfalfa, dairy and silage, beef cattle, and orchards are major products. Oil production is another land use, having unique implications for fish and wildlife.

Resource Issues

With agriculture a major land use in the Basin, conflicts between wildlife and agriculture are bound to occur. An example involves the tricolored blackbird. A species restricted mainly to California, its population has declined precipitously, such that the species was recently petitioned for listing

under the Endangered Species Act. In recent years most breeding tricolored blackbirds have come to nest in dairy silage fields, setting up a conflict between the birds' nesting cycle and the timing of silage harvest. The Service has had to intervene to prevent nests and young birds from being destroyed during harvest. The Service, CDFG, landowners, and other partners are working to institute the recommendation put forth in the State Wildlife Action Plan calling for regional coordination of habitat preservation to better serve wide-ranging species, such as the tricolored blackbird, that are trying to survive in an environment of reduced and degraded habitats. The Service and its partners have teamed to form the Tricolored Blackbird Working Group. Working to find solutions when tricolored blackbirds and farming activities conflict, the group is working jointly to find ways to protect breeding colonies of this sensitive and increasingly rare species. Partners in this effort include NRCS, CDFG, California Department of Food and Agriculture, California Farm Bureau Federation, Western United Dairymen, California Cattlemen's Association, Sustainable Conservation, and Audubon California.

Another important resource issue is the need for improvement in water quality for wetland dependent

wildlife. Impacts to waterbirds from elevated levels of salinity, pH, selenium, boron, chloride, molybdenum, and sulfate in Basin wetlands are of concern to fish and wildlife agencies. The Service and its partners are working together to insure wetlands receive adequate, quality water for migratory birds, threatened and endangered species, and other important resources.

At the watershed level, the Service and its partners are working to construct a water conveyance system in Kern County that will extend Pintail Slough to the north and south, and which will connect Poso Creek to the Alpaugh Canal. The project will further the restoration and enhancement of 2,000 acres of wetlands and adjacent uplands. Consistent with the goals and objectives of the Central Valley Joint Venture, the project will contribute to the objective of enhancing wetlands and waterfowl habitat on 291,555 acres of public and private lands. Partners include the Tulare Basin Wetlands Association, Semitropic Water Storage District, Alpaugh Irrigation District, private landowners, California Waterfowl Association, BOR, NRCS, CDFG, and WCB.

At the landscape level, restoring and protecting upland habitats and providing linkages to existing uplands in the Basin is a focus of the Service. Important habitat

5 year Targets (FY07-FY11) based on FY06 funding *Partners for Fish and Wildlife Program*

Wetland acres - 400

Upland acres - 250

Riparian and Instream miles - 0.5

linkages of isolated uplands occur between Kern and Pixley NWRs, Allensworth Ecological Reserve, Semitropic Ridge, and the Foothill Ring Initiative Area. Uplands provide habitats for Federal and state threatened and endangered species including the San Joaquin kit fox, blunt-nosed leopard lizard, giant kangaroo rat, Tipton kangaroo rat, and Buena Vista Lake shrew. Several listed plant species including the California jewelflower, palmate-bracted bird's beak, Kern mallow, and Bakersfield cactus will also benefit.

Restoration Potential

The Service's Recovery Plan for Upland Species of the San Joaquin Valley recommends a number of tasks to recover listed species that are being implemented by the Service. Those include purchasing lands and easements, establishing vegetation buffers to reduce habitat fragmentation and provide linkages between habitats, restoring native uplands on agricultural land, improving grazing management, increasing plant productivity by manipulating habitats mechanically or through

fire or grazing, controlling invasive plants and animals, and fencing to manage livestock and exclude off-road vehicle use. Partners with the Service in these and other efforts are CDFG, NRCS, WCB, BLM, BOR, Audubon California, TNC, Sequoia River Land Trust, Tulare Basin Wildlife Partners, and ranchers with large tracts of grazing land that provide habitat for upland species.

Goal Two. Broaden and Strengthen Partnerships

Introduction

The mission of the Program is to efficiently achieve voluntary habitat improvement through financial and technical assistance for the benefit of Federal trust species. Our partners help us meet our mission and enable us to fulfill our accomplishments. Partnerships result in improved projects by pooling all available resources for greater impact, better efficiency, improved communication, innovative solutions through the sharing of various technical knowledge, and increased public support. The foundation of our Program is our established partnerships and the shared interest in habitat conservation. The following objectives will allow us to broaden and strengthen our partnerships.

Objectives

- 2.1 Cultivate existing partnerships and create incentives for future activities
Continuing to invest in our existing productive partnerships will be a priority for our Program. These partnerships are a key to past and future successes of our Program.

Five Year Performance Targets (FY07-FY11)

Strengthen existing partnerships and build upon them by having at least 75% of on-the-ground efforts supported by our partners within 5 years.

Key Strategic Activities

- Hire a Grant Programs Coordinator who will assist field staff in fostering existing partnerships.
- Increase our Program staff in the field to provide closer contacts with our partners.
- Maintain communication with partners by regularly participating in project meetings, field visits, and project selection.
- Co-locate Program staff at partner work stations.
- Nominate partners and landowners for local, state, and national recognition

- 2.2 Seek new diverse partners that reflect the economic, social, biological, and geographical composition of California, Nevada, and Klamath Basin.
CNO is composed of a broad and diverse population with a tremendous opportunity for partnerships. Identification of Initiative Areas will help our Program to focus efforts on locating new effective partnerships to increase and improve habitat projects.

Five Year Performance Targets (FY07-FY11)

Build our partners base threefold over the next five years.

Key Strategic Activities

- Hire a Grant Programs Coordinator who will assist field staff in seeking out new partners at both the Regional and Field level.
- Increase Program staff in the field to seek other partnerships.
- Coordinate more closely with other Service programs to help identify different partners.
- Attend conferences and meetings on broad resource topics.
- Increase our interactions with schools and educational departments.
- Increase Program visibility at public events.
- Develop a public outreach plan.

2.3 Improve delivery of services to our partners

Some of the best partnerships are ones that reflect immediate results. It will be advantageous for partners to work with us if we can demonstrate products and outcomes quickly.

Five Year Performance Targets (FY07-FY11)

During most years, at least 70% of our projects will be implemented within the same year an agreement has been secured.

Key Strategic Activities

- Place at least one restoration staff person in each Initiative Area.
- Coordinate closely with FWS contracting officers to ensure quick and seamless review of agreements and create standardized documents for the Program.
- Ensure field restoration staff are trained in compliance requirements.
- Maintain administration of restoration programs under the same Division for coordination and “one-stop-shopping” convenience for our partners.
- Work with our partners routinely to evaluate our effectiveness, identify problems, and develop solutions for increased efficiency.
- Monitor results of resource projects and share the information with our partners and the public.

2.4 Leverage time, talent, and funds for project activities

Budget limitations exist within the Program as well as with all other partnering programs.

Through collaboration, the Program can help our partners identify and utilize appropriate sources of funds and leverage secured funding towards implementation of our conservation projects.

Five Year Performance Targets (FY07-FY11)

Leverage our funding ratio to 1:10 by 2011.

Key Strategic Activities

- Jointly fund positions with partners to meet the goals of our Initiative Areas.
- Train field staff to achieve a high level of expertise in restoration activities, grant writing, and partnership building.
- Encourage field staff to participate in leadership roles.
- Hire a Grant Programs Coordinator to bring new and non-traditional funds to the Program and train and inform field staff on funding opportunities.

Goal Three. Improve Information Sharing and Communications

Introduction

The fundamental success of any program is effective communication. It is essential that important information be shared in the best manner possible with our partners, decision-makers, fellow scientists, accomplish positive results for our trust resources. It is also critical that staff restoration scientists are highly skilled in building trust and respect from existing and potential partners. All forms of communication (verbal and nonverbal) will continue to be our strongest asset and the Program will strive to improve on these qualities. The following objectives will allow us to improve information sharing and communications.

Objectives

3.1 Improve internal communications within the Program

Program staff need to function as a network, fully informed and working collaboratively on Program issues.

Five Year Performance Targets (FY07-FY11)

CNO and field staff will communicate regularly based on individual needs and through Program conference calls. CNO and WO staff will communicate regularly. All accomplishment will be reported in HabITS will be consistent, accurate, and up-to-date. Written narratives and outreach materials will be provided to the Washington Office in a timely manner.

Key Strategic Activities

- Participate in nationwide and statewide database systems that track habitat restoration efforts.
- Regularly input project information in HabITS.
- Increase the number of photos and polygons entered into HabITS.
- Conduct biannual meetings with Program staff and include partners.
- Field restoration staff and the CNO office will coordinate on a regular basis.
- Field staff will represent CNO on national teams and meetings.
- Develop a Regional Program Handbook to ensure program consistency and to support new staff.

3.2 Improve communications within the FWS

In CNO, the Partners program is administered at the field level by Ecological Services, Fisheries, and Refuges. The Coastal program is administered by Ecological Services in the field offices, yet it works closely with Refuges to help meet mutual goals. This wide dispersal of Program personnel in Service offices helps all employees to become familiar with our Program and understand and contribute to accomplishments for our Program. However, with added emphasis we can improve on our coordination and communication inside the Service.

Five Year Performance Targets (FY07-FY11)

By 2011, at least 70% of our projects will meet cross-program objectives.

Key Strategic Activities

- Update internal and external websites.
- Invite other programs to biannual meetings.
- Continue to administer habitat restoration programs under one office.
- Invite other programs to Program biannual meetings, and participate in other programs' meetings.
- Develop a mentoring or job shadowing program within CNO, with potential for cross-program opportunities, and possibly in other regions.

3.3 Improve communications with our partners

All of our partners need to have a clear understanding of our Program and how to reach us.

Five Year Performance Targets (FY07-FY11)

We will communicate with our partners on a regular basis. Communication with partners will be on a consistent basis while projects are being implemented, and at a minimum, on a yearly basis after a project has been completed.

Key Strategic Activities

- Increase the number of publications on partners activities.
- Coordinate closely with our external affairs staff.
- Update internal and external websites.
- Monitor projects and share outcomes with our partners.
- Place at least one restoration staff person in each Initiative Area.
- Nominate partners and landowners for local, state, and national recognition.

3.4 Improve communications with the public

It is a constant challenge to spread the word about our Program. As population and social trends change so must our outreach efforts. To prepare for trend adjustments and the latest communication technologies, CNO and each field office will develop and implement an outreach strategy for the Program.

Five Year Performance Targets (FY07-FY11)

By 2011, a majority of the conservation community within CNO will recognize our Program by name.

Key Strategic Activities

- Increase the number of publications on partners activities to targeted audiences.
- Coordinate closely with our external affairs staff to find opportunities for media exposure.
- Update internal and external websites.
- Monitor projects and share outcomes.
- Develop tours for local officials and partners.
- Increase Program visibility at public events.

Goal Four. Enhance our Workforce

Introduction

Successful implementation of the Program requires a diverse, highly skilled and motivated workforce. These technical staff deliver the habitat conservation projects and are the front line of communication to our partners. CNO is committed to having highly capable staff that focus on results, act with integrity, and seek creative partnerships and solutions to technical fish and wildlife resource issues. Maintaining and supporting staff is the key to a well-established, highly functioning Program. The following objectives will allow us to enhance our workforce.

Objectives

4.1 Develop and foster high quality restoration scientists

The CNO Program has tripled in number of staff from two years ago. Many of the Program's technical staff are new to the Program and new to the region. It is essential to cultivate the upcoming staff to become proficient in the field as fast as possible. It is also important to expand the knowledge and expertise of our experienced staff.

Five Year Performance Targets (FY07-FY11)

All restoration scientists will take at least two courses or 40 hours of training per year. Experienced technical staff will be encouraged to volunteer in leadership activities.

Key Strategic Activities

- Ensure all Program staff have access to, and complete a variety of selected training courses.
- Train field staff to achieve the highest level of skill in conservation partnerships, grant writing, and habitat restoration techniques.
- Develop a mentoring or job shadowing program within CNO, and possibly in other regions, with potential for cross-program opportunities.
- Develop and provide Program staff-led trainings and workshops.
- Develop Regional Program Handbook to facilitate program consistency and training of new staff.
- Encourage participation and membership (both individual and programmatic) in professional societies (e.g. Society for Ecological Restoration).

4.2 Provide technical staff access to the most current state-of-the-art tools for developing and implementing resource habitat projects

Regardless of the training rendered or experience received, restoration projects cannot be fully implemented without the correct tools. To be successful, the Program needs to advance with present day technology. Although efficiencies are encouraged, high quality projects are expected. CNO will strive to support the Program by providing the most current tools for project development.

Five Year Performance Targets (FY07-FY11)

To the extent possible, within 2011, our Program staff will have a complete set of restoration tools.

Key Strategic Activities

- Find innovative ways to provide useful technology or equipment that will give field staff the knowledge and expertise necessary to complete projects.
- Work with partners to combine equipment and supplies.
- Seek out partners that can provide necessary expertise.
- Encourage participation and membership (both individual and programmatic) in professional societies (e.g. Society for Ecological Restoration).
- Share tools and expertise across the region.

4.3 Maintain institutional knowledge and build leadership in the Program

In the last year, many new employees have joined the Program. It is essential to pass on to new staff members important techniques, style, and lessons learned to making partnerships work and projects successful. Much of this information is not documented and typically the best source for this type of critical information comes from experienced restoration scientists. Additionally, although turnover in the Program is usually low because the rewards of voluntary habitat restoration programs are high, it is important to continually stimulate experienced technical staff and expand their influence within the Service and the community. Encouraging and promoting our staff will help the Program, help our customers, and help our trust resources.

Five Year Performance Targets (FY07-FY11)

By 2011, have a fully functioning field and regional staff of at least 30 restoration scientists who have at least 5 or more years of experience.

Key Strategic Activities

- Nominate one interested person/year for the Service's "Stepping Up To Leadership" program.
- Develop short term and long term career goals with all Program staff shortly after joining the Program.
- Standardize position descriptions.
- Performance standards will be jointly developed between the supervisor and program staff.
- Recognize valuable employees by developing an award system within the Program.
- Encourage participation and membership (both individual and programmatic) in professional societies (e.g. Society for Ecological Restoration).

Goal Five. Increase Accountability

Introduction

As the Program grows, so does the need to clearly and accurately account for all of our accomplishments. Those measures can adjust from time-to-time and all staff need to be aware of what they are and the criteria used to describe certain measures. They also need to articulate up-to-date accomplishments and produce consistent reports. It is the responsibility of the government to ensure to the public accurate expenditures of funds and appropriate outcomes. The following objectives will help to increase our accountability.

Objectives

5.1 Ensure all Program funding and activities are consistent with current policy

The proper use of funds is essential to the integrity of the Program. CNO will actively track funding history in all offices.

Five Year Performance Targets (FY07-FY11)

- All offices will use 1121 and 1124 funds within the confines of the Program.

Key Strategic Activities

- CNO will conduct periodic office reviews to ensure integrity of Program funds.

5.2 Improve quality and consistency of accomplishment reporting

It is imperative that all levels of activities, projects and technical assistance, be claimed in the same manner over the years and among the field staff.

Five Year Performance Targets (FY07-FY11)

All accomplishment reporting in HabITS will be consistent, accurate, and up-to-date.

Key Strategic Activities

- Have field personnel trained periodically and enter all projects and technical assistance into HabITS annually.
- CNO will conduct annual reviews of all field office entries and ground truth a subsample of these entries.
- Have representation on the national HabITS working team.

5.3 Track progress on the 2007 Strategic Plan

It is critical that this strategic plan becomes an effective tool to lead and assist us for success of the Program. CNO will commit to following through with the objectives and activities identified in this document.

Five Year Performance Targets (FY07-FY11)

By 2011, all objectives of the strategic plan will be implemented..

Key Strategic Activities

- Conduct periodic review, at least quarterly, of the objectives and activities completed and make planning adjustments to achieve undelivered objectives.
- Revisit the plan annually at Program meetings with regional staff.