# San Sebastian Marsh- San Felipe Creek Watershed Restoration Project Federal FY03 Annual Work Plan

## Background

The decline and disappearance of riparian habitat and associated cienegas, or freshwater marshes, throughout the American southwest over the past 250 years has been well documented. Desert riparian habitat and cienegas were never abundant in the California desert, but because of the presence of available water, such habitats were (and still are) critically important to many forms of wildlife.

In the western Colorado Desert of southern California (eastern San Diego County and western Imperial County) there are three critically important cienegas (Sentenac Cienega, Carrizo Marsh and San Sebastian Marsh) and four major stream or riparian systems that feed them (San Felipe Creek, Vallecito Creek, Fish Creek and Carrizo Creek). These stream systems all have their beginnings along the eastern escarpment of the Peninsular Ranges in eastern San Diego County, flowing mostly eastward toward the southwestern portion of the Salton Sea. Vallecito Creek flows into Carrizo Creek just west of Carrizo Marsh in Anza Borrego Desert State Park (ABDSP) near the San Diego–Imperial County line. Fish, Carrizo, and San Felipe creeks all flow together at San Sebastian Marsh, in Imperial County, from which San Felipe Creek flows onto the Salton Sea.



The three cienegas are primarily in public ownership as conservation lands. Sentenac Cienega was recently acquired by ABDSP, after some 150 years as a private ranch. Carrizo Marsh has been in State Park ownership (ABDSP) for approximately seventy years. San Sebastian Marsh and its immediate surroundings are mostly held by the Bureau of Land Management (BLM) as an Area of Critical Environmental Concern (ACEC). The California Department of Fish and Game (CDFG) owns and manages about 1,240 acres of San Sebastian Marsh as the San Felipe Creek Ecological Reserve. The remainder of the land that comprises San Sebastian Marsh is in private ownership. The ownership of the four major stream systems is much more complicated.

Besides their overall importance to wildlife, these riparian habitats and cienegas are critical to the survival of many rare, threatened, or endangered species recognized by the State and Federal governments. These include: desert pupfish, Peninsular bighorn sheep, least Bell's vireo, yellow-billed cuckoo, Southwestern willow flycatcher, unarmored three-spined stickleback, black rail, and arroyo toad. Additionally, there are many species of special concern that inhabit these areas, including: yellow-breasted chat, yellow warbler, loggerhead shrike, Vaux's swift, summer tanager, lowland leopard frog, California red-legged frog, Orcutt's aster, and others.

The San Felipe Creek drainage falls within the Essential Habitat Recovery Regions 7 and 8 for the federally and state-listed endangered population of Peninsular bighorn sheep. The Vallecito and Fish Creek drainages fall within the Essential Habitat Recovery Region 8, and the Carrizo Creek drainage falls within Essential Habitat Recovery Region 9 for the endangered Peninsular bighorn sheep population.

Vallecito Creek, at Campbell Grade, has the largest breeding population of the endangered least Bell's vireo in eastern San Diego County.

The ecological health of these systems has been adversely impacted by, among other things, the introduction of species such as salt cedar (*Tamarix ramosissima)*. Salt cedar effectively out-competes native flora, provides little wildlife forage, uses massive amounts of water, and is often so dense that many animals cannot reach the associated water sources. The removal of salt cedar results in a tremendous increase in biological diversity due to the reestablishment of native plants and animal species. Recovery after treatment usually occurs within one or three years and includes salt cedar removal followed retreatments and often by planting native plants.

**Project Proposal**



The respective land management agencies (BLM, ABDSP, and CDFG) have initiated Salt Cedar control and habitat restoration efforts over portions of the watershed with much success. There has been little to no effort on the intermixed private land. No effort to restore the watershed on an interagency, landscape base has been made. By managing restoration activities on a landscape or watershed basis, the following benefits are gained:

1. Control and restoration activities can be prioritized to make better use of funding and available resources. Activities that are dependant on completion of other activities can be better coordinated and scheduled.

2. The project can be better marketed for partnerships and grants.

3. Resources can be shared across agency boundaries where feasible. Resources might include equipment, personnel, or expertise.

4. Long-term, watershed planning can be better accomplished.

5. The potential to involve private land owners and other stakeholders.

**Tasks**

1. Initiate a GIS mapping project to determine the extent of the tamarisk infestation within the watershed. This data will be used for project planning, budgeting, a tracking of project goals and accomplishments. Potentially involve Chico State in data interpretation.

2. Develop short term and long range budgets that reflect agency funding, and potential grants and partnerships. This task will be based largely on the results of the GIS mapping project.

3. Develop priority short term and long range restoration and acquisition actions.

4. Develop a monitoring plan. It was suggested that Rob Fisher with GS may be interested in helping with this.

5. Develop and get signed an MOU between the BLM, State Parks, Fish and Game, and the GS. This MOU will serve as a framework for future agreements and partnerships. It will address sharing of on-the-ground resources, coordination, and development of the monitoring plan.

6. Develop an outreach/marking plan and package. Actively sell the project to potential funding sources and partners.

7. Eradicate (yet to be determined by FY03 budgets) acres of tamarisk. BLM and State Parks have informally agreed to share crew resources.



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