

## Santa Rosa Plain Conservation Strategy (California)

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### I. OVERVIEW & BACKGROUND

Location:	Sonoma County, California
Date established:	December 2005
Size of banks in strategy area:	Range is from 8 to 173 acres
Species:	Sonoma County Distinct Population Segment (DPS) of the California tiger salamander (CTS), Burke's goldfields, Sonoma sunshine, and Sebastopol meadowfoam  At least one of these species is present in each conservation bank.
Method of credit generation:	Habitat preservation and creation
Credits available:	Seven banks have credits available
Interesting feature:	Conservation Strategy encourages the use of conservation and mitigation banking

### II. INTRODUCTION / SITE SELECTION

Located in Sonoma County, California, the Santa Rosa Plain is home to vernal pools, seasonal wetlands, and associated grassland habitat. The 20-mile long, 6-mile wide area supports several federal and state endangered species, including the Sonoma County Distinct Population Segment (DPS) of the California tiger salamander (CTS), Burke's goldfields, Sonoma sunshine, and Sebastopol meadowfoam. The three plant species are found only in vernal pools and their distribution is limited almost exclusively to the Santa Rosa Plain.

In 2005, the Santa Rosa Plain Conservation Strategy Team, made up of representatives of state and federal agencies, including the U.S. Fish & Wildlife Service (USFWS), California Department of Fish & Game (CDFG), U.S. Environmental Protection Agency, and U.S. Army Corps of Engineers (Corps), and other interested agricultural, environmental, and private landowner stakeholders, developed a Conservation Strategy. The Conservation Strategy sets forth a long-term program to offset adverse environmental effects of future development on the Santa Rosa Plain and surrounding areas, with the objective of conserving protected species and contributing to their recovery. In doing so, the Conservation Strategy seeks to mitigate harm to protected species in a manner that minimizes interference with the rights of public and private property owners.

A key aspect of both the Conservation Strategy and the programmatic biological opinion is conservation and mitigation banking. Bank site selection is systematic, and the Conservation Strategy sets forth Preserve Evaluation Criteria (at 4.6.1) that USFWS and CDFG will consider when evaluating bank proposals. Under the criteria, an acceptable property must among other things (1) be within a designated Conservation Area, (2) contain known, occupied CTS habitat and/or a known population of a listed plant(s), or be potential CTS or plant habitat, (3) be free of excessive land surface features (e.g., parking lots) that would render the site unsuitable for habitat, (4) not have significant barriers to CTS movement and dispersal, and (5) not have non-native predatory species, unless they could be removed or eradicated. The Preserve Evaluation Criteria has helped guide bankers to identify appropriate sites.

One of the main bankers in the area said that he considers three things when determining a site. One is profitability; the more endangered species there are the more profitable the bank. The second is the approval process timeline, which can take as long as three years. And the third consideration is to try to get as close to an existing bank as possible. A major part of the Conservation Strategy is to develop species corridors and prevent further fragmentation of land. Figures 1 – 4 depict examples of the four species supported by the Conservation Strategy.



**Figure 1. The California tiger salamander (*Ambystoma californiense*).**



**Figure 2. Burke's goldfields (*Lasthenia burkei*)**



**Figure 3. Sonoma sunshine (*Blennosperma bakeri*)**



**Figure 4. Sebastapol meadowfoam (*Limnanthes vinculans*)**

### III. CREDIT DETERMINATION/METHODOLOGY AND MITIGATION RATIOS

The individual conservation bank agreements govern credit determinations. They have varied in methodology and complexity, in part because the Santa Rosa Plain conservation banks were developed separately from the other banks in the USFWS Sacramento field office and statewide procedures were not always followed. For CTS, credits are now generally based on a 1:1 ratio (1 acre preserved = 1 credit available), and breeding and upland habitat are typically considered together when calculating credits.

Credit calculations for plants have been more complex and controversial. The original formula was not based on scientific literature and developed without input from species experts. Some credit calculations were later revised. For example, a May 2008 revision to the Bank Enabling Instrument for Hale Conservation Bank stated that to simplify the accounting process, each plant preservation credit is now defined as representing one acre of plant habitat present on the bank site.

USFWS is continuing to consider revisions to plant credit methodology. The current draft maintains the 'one acre equals one credit' approach. Credits are based on the area actually occupied by the plants (for preservation) or the amount of area constructed for the plants. The credit release schedule is based on performance standards and endowment funding. With respect to constructed habitat, in order for the bank to receive full credits, the plant must be present and reach a certain population number by the end of year 5. The endowment also must be fully funded.

The Conservation Strategy contemplated that local governments would play an important role, but they were not able to complete implementing ordinances. The USFWS, however, developed a programmatic biological opinion in November 2007 for the CTS and three endangered vernal pool plant species. The Conservation Strategy provided the biological framework for the programmatic biological opinion, which was issued to the Corps for use in permit applications, enforcement actions, and mitigation banks. The programmatic biological opinion seeks to expedite project approvals in part by establishing interim mitigation ratios, such as:

- Mitigation of 3:1 – For projects that are within 500 feet of a known CTS breeding site.
- Mitigation of 2:1 – For projects that are greater than 500 feet and within 2,200 feet of a known CTS breeding site, and for projects beyond 2,200 feet from a known breeding site, but within 500 feet of an adult occurrence.
- Mitigation of 1:1 – For projects that are greater than 2,200 feet and within 1.3 miles of a known CTS breeding site.

The interim mitigation ratios will remain in place until local governments implement the Conservation Strategy.

#### IV. INDIVIDUAL BANKS

There are seven open conservation banks in the Conservation Strategy area, two closed conservation banks, two closed wetland mitigation banks that were used to offset impacts to listed species, and another reported eight proposed banks. The banks thus far have been characterized by small acreage (the largest is approximately 173 acres while the smallest active bank is 8 acres), high land costs, and high credit sale prices. A summary of the banks is provided below. Note that the crediting system was different for older banks and thus straight comparisons with newer banks may not be apt.

##### Active Banks

###### Alton North Conservation Bank

Date established: September 2007  
Size of bank: 22.5 acres (created and preserved)  
Species: CTS, Burke's goldfields, and Sonoma sunshine  
Credits: 22.5 CTS / 7.24 plant mitigation credits  
Financial Assurances: Management Endowment Fund held by CDFG; site has been deeded to CDFG

###### Alton South Conservation Bank

Date established: August 2008  
Size of bank: 8.11 acres (preserved)  
Species: CTS  
Credits: 8.11  
Financial Assurances: Management Endowment Fund held by CDFG; site has been deeded to CDFG

###### Desmond Mitigation Bank

Date established: September 2005  
Size of bank: 48 acres (created and preserved)  
Species: Sebastopol meadowfoam  
Credits: 13.6 preservation / 11.1 wetland creation  
Financial Assurances: Performance security, contingency security, and non-wasting endowment fund

###### Hale Conservation Bank

Date established: May 2008  
Size of bank: 75 acres (created and preserved)  
Species: CTS, Sonoma sunshine, and Sebastopol meadowfoam

Credits (after May 2008 revision): 45.05 (34 credits are CTS only; remaining credits are primarily plant preservation credits, which can be for one or both species, and may be combined with a CTS credit)

Financial Assurances: Management Endowment Fund and Initial Enhancement funding

Hazel Mitigation Bank

Date established: May 2006  
Size of bank: 101 acres (created)  
Species: CTS  
Credits: 71.22CTS / 29.78 wetlands creation  
Financial Assurances: Performance security, contingency security, and a non-wasting endowment fund

Slippery Rock Conservation Bank

Date established: July 2006  
Size of bank: 38.06 acres (created)  
Species: CTS  
Credits: 38.06  
Financial Assurances: Contingency Security and an Endowment Fund

Swift/Turner Conservation Bank

Date established: December 2006  
Size of bank: 34.18 acres (created and preserved)  
Species: CTS, Burke's goldfields, Sonoma sunshine and Sebastopol meadowfoam  
Credits: 26.74 CTS; 6.34 CTS / Sebastopol meadowfoam; 0.1 CTS / Sebastopol meadowfoam / Sonoma sunshine; 0.1 CTS / Burke's goldfields / Sebastopol meadowfoam / Sonoma sunshine  
Financial Assurances: Endowment Fund held by CDFG; site has been deeded to CDFG

**Sold-out and Inactive Conservation Banks**

Wright Preservation Bank

Date established: 1997  
Size of bank: 173.63 acres  
Species: CTS, Sebastopol meadowfoam, Burke's goldfields  
Credits: 600 Sebastopol meadowfoam, 62 CTS

SW Santa Rosa Vernal Pool Preservation Bank

Date established:	June 1997
Size of bank:	39.4 acres
Species:	Sebastopol meadowfoam, Sonoma Sunshine
Credits:	163.05 Sebastopol meadowfoam / 45.19 Sonoma Sunshine
Financial Assurances:	Contingency Security and an Endowment Fund

**V. LESSONS LEARNED**

The experience in Sonoma County demonstrates that regulatory agencies can encourage the establishment of conservation banks by incorporating them as part of an overall Conservation Strategy. It is especially helpful if the Conservation Strategy provides guidance on the types of properties and parcels that agencies will consider to be appropriate candidates for bank sites.

Another lesson, however, is the advantages of uniform procedures. Because the Santa Rosa Plain conservation banks were developed separately from the other banks in the USFWS Sacramento field office, the statewide procedures were not followed. This resulted in “reinventing the wheel” with regard to credit methodologies and release schedules, which in turn led to significant delays in moving bank proposals forward. Since late last year, the Santa Rosa Plain conservation banks have been under the formal banking program in the Sacramento office, and all bank proposals now will be treated in the same manner. USFWS anticipates that this will make the process more predictable for the bank sponsors and help expedite the review process.

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