

REPORT TO THE LEGISLATURE

CALIFORNIA WETLAND MITIGATION BANKING

State of California
Resources Agency
Department of Fish and Game

November 25, 2003

Report To The Legislature
California Wetland Mitigation Banking
November 25, 2003

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EXECUTIVE SUMMARY

Fish and Game Code Section 1851 requires the California Department of Fish and Game (Department) to provide biennial reports to the Legislature that describe basic information about and the status of existing wetland mitigation banks in California. This is the second report since the enactment of this requirement in September 2000.

Fish and Game Code Section 1851 requires the following information to be reported for each wetland mitigation bank (“mitigation bank” or “bank”):

- Bank creator contact information
- Bank operator contact information
- Bank creation date
- Bank's service area
- Pre-bank habitat functions on site
- Types of financial assurances
- Bank goals
- Wetland acres and habitat functions created
- Credits issued
- Biological productivity of created wetlands
- Wetland acres and habitat functions lost as result of permitted projects

The report provides a brief overview of wetland mitigation banking in California and the status of California's banks. Topics include background information about wetland mitigation and mitigation banking, descriptive and explanatory information about the wetland mitigation bank information contained in the report, and methods for compiling, managing, and distributing the bank information. A list of the banks included in the report is provided in Table 1, and status information about each bank is provided in Appendix A.

I. BACKGROUND ON WETLAND MITIGATION BANKING

Under existing State and federal statutes, any individual, firm, or public agency that undertakes activities that destroy, degrade, or adversely alter the environment may be required to set aside and/or restore habitat in order to offset the adverse impacts of the proposed activity. For the area impacted, a project proponent may be required to set aside or restore a specified amount of acreage or resources.

Environmental mitigation is required under several State laws. For example, under the California Environmental Quality Act, if a proposed project will "substantially diminish habitat for fish, wildlife or plants," mitigation is required. Compensatory mitigation may also be required as a condition to "take" (kill, capture, etc.) a species under the California Endangered Species Act.

Environmental mitigation is also required under federal statutes. For example, under the Federal Endangered Species Act, a habitat conservation plan that is designed to protect and recover a threatened or endangered species can require that a landowner "minimize or mitigate" for activities that are damaging to the species. The Federal Clean Water Act also requires mitigation for activities that alter or harm existing wetlands.

Conventional Mitigation

Despite their purpose to offset environmental impacts, mandated single-project mitigation measures often have an insufficient benefit to offset the full impacts to biological resources. Mitigation is applied at the development or project site, resulting in piecemeal patches of conservation, requiring complex in-kind compensation (such as replacing wetlands with similar wetlands elsewhere), and/or has not addressed the broader conservation objectives agencies have for the region within which the development project occurs.

For example, a property owner who seeks to develop or alter his or her property may take the steps necessary to satisfy the mitigation requirements by doing so on a portion of the property to be developed. On a parcel of ten acres, two or three acres might be set aside as a reserve in order to mitigate for the proposed development. Such a set-aside may not substantially advance regional environmental objectives or provide for the long-term viability and functional value of the resources (species and habitats in question). The set-aside reserve may not be of high ecological importance, or may not be connected to other protected open space with priority habitat value. Over the long term, the set-aside reserve may lose some or all of its biological value because of its small size and isolation from other set-aside reserves. The process of designing, implementing, managing and monitoring each new mitigation set-aside for each development project can be time consuming and costly for the project proponent.

Wetland Mitigation Banking

Since the mid-1980s, the State and others have actively sought to prevent the inadequate, small, fragmented habitat reserves that often resulted from project-by-project mitigation. One approach to remedy the inadequacy of single-project mitigation has been the development of mitigation banks. Wetland mitigation banks are large areas of constructed, restored, enhanced, or preserved wetlands set aside for the express purpose of providing mitigation for project impacts to wetland habitats. A bank is authorized to sell credits which represent the habitat values created on the bank. Credits are sold to landowners or others who need to provide compensation for wetlands lost to development where avoidance or on-site mitigation is not feasible. Mitigation banks may be used to consolidate single-project mitigation lands into large and biologically meaningful reserves. Banks can be designed to maximize the resulting biological and functional value of a site by restoring otherwise degraded habitat. For those parties needing to mitigate for project impacts, mitigation banks serve to streamline the regulatory process by providing a pre-established mitigation site which

the regulating state and federal agencies have already agreed may provide mitigation for certain wetland habitats or species (as specified in the bank agreement). By mitigating at a bank, the project proponent can avoid the time and cost of finding and protecting a suitable mitigation site.

Mitigation banks also have several ecological advantages over project-by-project mitigation, including:

- **Mitigation Before Impact.** The wetland habitat can be created prior to project impacts reducing or eliminating temporal loss of habitat values and function.
- **Large Reserve Size.** The wetland mitigation from many small isolated impacts can be consolidated into one larger area of habitat, protecting the site in perpetuity, and better protecting threatened ecosystems.
- **Resources and Expertise.** Wetland banks can consolidate financial resources, planning, and biological expertise which improves successful establishment and long-term management of compensatory habitats.

In recent years, the State has sought to consolidate mitigation requirements for wetland impacts under the State Fish and Game Code and the Federal Clean Water Act. In April 1995, the California Resources Agency and the California Environmental Protection Agency issued a joint policy on conservation (mitigation) banks¹ (Appendix B). This policy provided the rationale for establishing banks, and policy on establishment and operation of banks. In addition, the California Wetlands Conservation Policy² identifies wetland mitigation banking as a part of statewide initiatives and regional strategies to be implemented toward achieving the objectives of the policy.

¹ Resources Agency/California Environmental Protection Agency, Official Policy on Conservation Banks, April 7, 1995

² Wilson, Pete. Executive Order W-59-93. California Wetlands Conservation Policy. August 23, 1993.

In November 1995, five federal agencies (U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, U.S.D.A. Natural Resources Conservation Service, U.S. Fish and Wildlife Service, and the National Oceanic and Atmospheric Administration) issued a formal policy on the establishment, use, and operation of mitigation banks³. The federal guidance was provided to assist the regulatory and banking communities in meeting the requirements of Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act, the wetland conservation provisions of the Food Security Act (FS) (i.e., "Swampbuster"), and other applicable Federal statutes and regulations when undertaking banking. The guidance is intended to clarify the applicability of existing federal requirements to mitigation banking. It also designates the Army Corps of Engineers or the Natural Resources Conservation Service as the lead federal agency in the bank establishment process. Under the federal mitigation bank establishment process, a Mitigation Bank Review Team (MBRT) is formed consisting of representatives of the agencies which have jurisdiction over wetlands and will be signatory to the bank agreement. The Department of Fish and Game participates on the MBRT which develops the terms of the bank agreement. The MBRT strives to obtain consensus in developing the terms of the bank agreement and on any actions it takes in regard to bank establishment, site inspection/monitoring, credit release, or other aspects of bank operations.

II. DESCRIPTION OF WETLAND MITIGATION BANK REPORT INFORMATION

Statutory Reporting Requirements

Fish and Game Code Section 1851 (Section 1851) states that the following information will be reported for each existing wetland mitigation bank in operation as of January 1, 2001:

- Bank creator contact information - "The name, address, and telephone

³ "Federal Guidance for the Establishment, Use and Operation of Mitigation Banks." Federal Register 60:228 (November 28, 1995) p. 58605

number of the person or agency who created the wetland mitigation bank site."

- Bank operator contact information - "The name, address, and telephone number of the wetland mitigation bank operator and the address or other appropriate physical description of the location of the wetland mitigation bank site."
- Bank creation date - "The date the wetland mitigation bank site was created".
- Bank's service area - "A description of the wetland mitigation bank site's service area."
- Pre-bank habitat functions on site - "A description of existing habitat functions at the wetland mitigation bank site prior to its development as a wetland mitigation bank site."
- Types of financial assurances - "The type of financial assurances secured by the wetland mitigation bank operator to ensure management of the wetland mitigation bank site in perpetuity."
- Bank goals - "Whether goals were established for the wetland mitigation bank site and what percentage of those goals have been achieved."
- Wetland acres and habitat functions established - "Utilizing existing information compiled by the United States Army Corps of Engineers or other federal agencies, the number of wetland acres and habitat functions created at the bank site."
- Credits issued - "The number of credits issued and to whom."
- Biological productivity of created wetlands - "An assessment of the biological productivity of the created wetlands."
- Wetland acres and habitat functions lost as result of permitted projects - "Utilizing existing information that is publicly available within the records of state or federal agencies, a comparison of the wetland acreage and habitat functions that were created at the bank site and those that were lost as a result of the permitted projects for which credits were obtained."

Most of the wetland mitigation banks in California included in this report were established prior to enactment of Section 1851. Because the reporting requirements for these banks were set before enactment of Section 1851, much of the information the banks are required to provide to the agencies does not reflect the information requirements of Section 1851. Section 1851 does not define or provide guidance on how to report some of the specified items. To clarify what information is reported here, each of the reporting requirements is discussed in the next section.

Description of the Reporting Requirements and Information Included in this Report

Appendix A provides a brief overview of sixteen existing wetland mitigation banks. The information for each bank is organized in four general sections:

Contact Information - bank owner and bank operator name and contact information

Bank Information - bank creation date, total bank acreage, total credits established, total credits sold, and total credits remaining for sale, general location of the bank, service area description, service area counties, financial assurance type, and signatory agencies

Biological Information - bank site goals, percentage of goals achieved, wetland habitat functions before bank creation, wetland habitat functions created at the bank site, total wetland acres established, and overall wetland habitat success

Operational Information - wetland functions lost to impacts, wetland acres lost to impacts, number of credit sold and to whom.

Descriptions of each reporting requirement and the information reported in Appendix A are as follows. Additional information or explanation about the reporting requirement or the information reported is also provided here for further clarification.

Bank creator contact information

Statutory language of the reporting requirement: Fish and Game Code Section 1851(a) - "The name, address, and telephone number of the person or agency who created the wetland mitigation bank site."

Definition/explanation: Bank creator is defined in this report as the person or entity that signed the bank agreement.

Information reported: In place of bank creator, bank owner name and contact information is reported for each bank. If the bank creator and the bank owner are not the same person or entity, the name of the bank creator is also provided.

Additional information: While the bank creator is usually also the bank owner, some banks have had a change in ownership since they were created. When an inquiry is made about a bank the requestor usually wants to know who owns or operates the bank. Reporting information about the bank owner is more meaningful and useful than reporting information about the bank creator.

Bank operator contact information

Statutory language of the reporting requirement: Fish and Game Code Section 1851(b) - "The name, address, and telephone number of the wetland mitigation bank operator and the address or other appropriate physical description of the location of the wetland mitigation bank site."

Definition/explanation: Statutory language is self-explanatory.

Information reported: The name, address, and telephone number of the wetland mitigation bank operator are provided for each bank. If the bank operator has a website, the website address is also included. The address or other appropriate physical description of the location of the bank is provided under a separate heading, "General location of the bank."

Additional information: None.

Bank creation date

Statutory language of the reporting requirement: Fish and Game Code Section 1851(c)
- "The date the wetland mitigation bank site was created."

Definition/explanation: The bank creation date reported for each bank is the date that the bank agreement was signed by all parties.

Information reported: Bank creation date is reported for each bank.

Additional information: None.

Bank's service area

Statutory language of the reporting requirement: Fish and Game Code Section 1851(d)
- "A description of the wetland mitigation bank site's service area."

Definition/explanation: The service area for the bank is the geographic area within which the bank credits can reasonably be expected to appropriately serve as mitigation for projects impacting wetlands.

Information reported: A description of the wetland mitigation bank site's service area is provided for each bank. A list of the counties which the service area overlaps is also included.

Additional information: A bank's service area may overlap only part of a county.

Pre-bank habitat functions on site

Statutory language of the reporting requirement: Fish and Game Code Section 1851(e) - "A description of existing habitat functions at the wetland mitigation bank site prior to its development as a wetland mitigation bank site."

Definition/explanation: For a description and explanation of habitat functions, see the section below titled "Further discussion of the Habitat functions and Biological productivity of created wetlands reporting requirements and information included in this report."

Information reported: Existing habitat functions at the wetland mitigation bank site prior to its development as a wetland mitigation bank site are listed for each bank.

Additional information: None.

Types of financial assurances

Statutory language of the reporting requirement: Fish and Game Code Section 1851(f) - "The type of financial assurances secured by the wetland mitigation bank operator to ensure management of the wetland mitigation bank site in perpetuity."

Definition/explanation: Banks are required to provide financial assurances to help ensure that the habitat is established and succeeds. A financial assurance is a mechanism to: 1) ensure that the obligations of a mitigation bank to establish wetland habitat on the bank site are fulfilled in the event that the bank operator is unable or unwilling to do so, or 2) provide funding for management of the bank site in perpetuity. The mechanism is typically some form of financial instrument used as a guarantee that habitat will be successfully established or that funds will be provided for long-term management costs. The financial assurances create an economic incentive for banks to meet their obligations to establish the habitat. If a bank defaults on its obligation to establish habitat, the financial instrument provides funding for the regulatory agencies to complete the habitat work, or if the obligations are met, the financial instrument is

dissolved and any collateral is returned to the mitigation bank. Financial assurances are typically provided separately for: 1) habitat establishment activities (i.e., construction and planting activities to create, restore, or enhance the habitat); 2) maintenance of the habitat until it is fully established (see discussion about success criteria below in the section titled "Description and explanation of wetland establishment."); and 3) management of the bank site in perpetuity.

Information reported: The type of financial assurances to ensure management of the wetland mitigation bank site in perpetuity is reported for each bank.

Additional information: Information about the financial assurances provided for completion of habitat establishment and maintenance is provided in this report, but is not a reporting requirement under Section 1851.

Bank goals

Statutory language of the reporting requirement: Fish and Game Code Section 1851(g) - "Whether goals were established for the wetland mitigation bank site and what percentage of those goals have been achieved."

Definition/explanation: Report whether goals were established for a bank site and what percentage of those goals has been achieved.

Information reported: Goals reported for each bank are the biological/ecological goals as specified in bank documents or reports or as interpreted from descriptions of planned habitats or target species. The percentage of goals achieved is reported as interpreted from information in the bank's annual reports.

Additional information: Biological/ecological goals for bank sites have not always been specifically described in bank documents. Often, the goals are inferred by the descriptions of the types of habitats planned and/or target species. Some of the bank documents and reports reviewed either did not specify biological/ecological goals for

bank sites or only made reference to the goal of serving as a provider of compensatory wetland mitigation.

Wetland acres and habitat functions established

Statutory language of the reporting requirement: Fish and Game Code Section 1851(h) - "Utilizing existing information compiled by the United States Army Corps of Engineers or other federal agencies, the number of wetland acres and habitat functions created at the bank site."

Definition/explanation: The information reported is the number of acres of wetland *established* and the habitat functions *established* rather than just the number of acres or habitat functions *created*. In practice, banks establish habitat by creation, restoration, or enhancement. For more information see the section below titled "Description and explanation of wetland establishment."

Information reported: The number of acres of wetland established is reported for each bank. The number of acres reported is based on either the target acreage to be established as specified in bank documents, or the acreage delineated after habitat establishment activities. Habitat functions established at each bank site are reported as specified in bank documents, reports, or as interpreted from descriptions of planned or established habitat. See the discussion of habitat functions in the section below titled "Description and explanation of habitat functions."

Additional information: None.

Credits issued

Statutory language of the reporting requirement: Fish and Game Code Section 1851(i) - "The number of credits issued and to whom."

Definition/explanation: Statutory language is self-explanatory.

Information reported: The number of credits issued and to whom is reported for each bank as the number of credits sold and whether the credits were sold to a private party or a government agency.

Additional information: None.

Biological productivity of created wetlands

Statutory language of the reporting requirement: Fish and Game Code Section 1851(j) - "An assessment of the biological productivity of the created wetlands."

Definition/explanation: See the discussion about this reporting requirement below in the section titled "Further discussion of the Habitat functions and Biological productivity of created wetlands reporting requirements and information included in this report."

Information reported: Assuming the reporting requirement is aimed at determining whether the wetland habitat is successfully established, information about the overall success of the wetland habitat or progress toward habitat success is reported as "Overall Wetland Habitat Success" for each bank. The information reported is based on the general success or progress toward success of the wetland habitat as specified in annual monitoring reports submitted to the agencies.

Additional information: The requirement is to report on "created" wetlands. The information reported is for "established" wetlands which include wetlands established by creation, restoration, or enhancement activities. See the discussion below in the section titled "Description and explanation of wetland establishment."

Wetland acres and habitat functions lost as result of permitted projects

Statutory language of the reporting requirement: Fish and Game Code Section 1851(k) - "Utilizing existing information that is publicly available within the records of state or federal agencies, a comparison of the wetland acreage and habitat functions that were

created at the bank site and those that were lost as a result of the permitted projects for which credits were obtained."

Definition/explanation: See the discussion about this reporting requirement below in the section titled "Further discussion of the Habitat functions and Biological productivity of created wetlands reporting requirements and information included in this report."

Information reported: The wetland acreage lost as a result of permitted projects is reported for a bank if the bank reported the information in their credit sales transaction reports.

Additional information: None.

Description and Explanation of Wetland Establishment

Some of the Section 1851 reporting requirements are to provide information about habitat functions or biological productivity of "created" wetland habitat. The report information is for "established" wetlands because not all the wetland habitat in mitigation banks is created. The main goal for a wetland mitigation bank is to produce wetland habitat for which credits can be approved by the agencies and sold to projects in need of mitigation. Wetland habitat credits can be produced by establishing habitat. Establishing habitat means undertaking specific activities to achieve self-sustaining habitat that has the physical and ecological characteristics (e.g., proper hydrology and plant and animal communities) associated with the specific type of wetland habitat targeted for establishment. The specific habitat establishment activities may include but are not limited to construction, planting, exotics species control, necessary structure installation, monitoring, maintenance, and remediation. These activities are carried out in accordance with bank objectives, a written habitat establishment plan, detailed design specifications, and success criteria approved in conjunction with the bank agreement. Construction activities may include landscape excavation and grading in a location that

has the proper soil types to produce the slopes and water depths needed to establish the proper hydrology and vegetation. Once the construction and other necessary habitat establishment activities are completed, monitoring is conducted to determine the success of wetland habitat establishment. Success criteria are a set of standards used to evaluate the development and successful establishment of created, restored, or enhanced wetland habitat or to evaluate whether the quality of preserved wetland habitat persists. The success criteria and the frequency of monitoring are stated in the bank agreement or a supporting document to the bank agreement. If created, restored, or enhanced habitat does not develop as planned or preserved habitat declines, remediation activities may need to be implemented. Once the final success criteria are fully met the habitat is considered successfully established.

The four basic approaches to habitat establishment are preservation, creation, restoration, and enhancement. Protecting wetland habitat already in existence on the property before it is a bank site is considered preservation. The wetland habitat is not modified in any way once the property is established as a bank site. It is simply preserved to protect and maintain its values. Created wetland habitat is wetland habitat which is created in a location that was never previously wetland habitat. Restored wetland habitat is wetland habitat which was previously destroyed or degraded and is re-established as viable, functioning wetland. Enhanced wetland habitat is wetland habitat which already exists as functional wetland habitat but its values or functions are increased by specific actions such as increasing its size, developing special habitat areas in or around it, removing undesirable vegetation, connecting it to other nearby wetland habitat, etc. Each of the four approaches employs various specific habitat establishment activities to varying degrees, with preservation usually requiring the fewest activities and creation requiring the most.

Further Discussion of the Habitat Functions and Biological Productivity of Created Wetlands Reporting Requirements and Information

Section 1851 reporting requirements include four items which require further discussion: Pre-bank habitat functions on site, Wetland acres and habitat functions established, Wetland acres and habitat functions lost as result of permitted projects, and Biological productivity of created wetlands. The terms "habitat functions" and "biological productivity" are explained here.

Description and Explanation of Habitat Functions.

Wetland functions are the normal or characteristic activities that take place in wetland ecosystems. Wetlands perform a variety of functions as a result of their physical, chemical, and biological characteristics.

The reporting requirements in Section 1851 do not define or provide guidance on how to report on habitat functions. For this report, the habitat function terms used in the bank summaries (Appendix A) are derived from concepts in functional wetland assessment approaches developed by the U.S. Environmental Protection Agency⁴ and U.S. Army Corps of Engineers⁵ which describe a set of functions that can be measured for wetlands. These include:

1. Hydrology
 - a. Short-term Surface Water Storage
The temporary storage of surface water for short periods.
(Replenishes soil moisture; helps maintain and improve surface water quality.)

⁴ U.S. EPA, Wetlands Division. Wetlands Functions and Values. In: Watershed Ecology Modules. Watershed Academy Web, Internet Online Training in Watershed Management, available on the U.S. EPA website at <http://www.epa.gov/watertrain>

⁵ Smith, R. D., Ammann, A., Bartoldus, C., and Brinson, M. M. 1995. An approach for assessing wetland functions using hydrogeomorphic classification, reference wetlands, and functional indices. Technical Report WRP-DE-9. U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS. 88 p.

- b. Long-term Surface Water Storage
The storage of surface water for long periods. (Recharges groundwater and provides habitat.)
 - c. Flood Energy Dissipation
The reduction of energy in moving water. (Reduces peak flood flows and amount of particulates carried (improves surface water quality).)
 - d. High Water Table Maintenance
The maintenance of the level of the water table. (Maintains groundwater storage, seasonal stream flows and water temperatures in streams.)
2. Biogeochemical
- a. Nutrient Cycling
The conversion of elements from one form to another through abiotic and biotic processes. (Helps to maintain or improve surface water quality.)
 - b. Retention of Inorganic Sediments
The removal of particulate matter. (Reduces sediment and inorganic substances in surface water (improves water quality).)
 - c. Retention/Removal of Imported Elements
The removal of nutrients, contaminants or other elements and compounds through burial, incorporation into biomass, or biochemical reactions. (Improves water quality.)
3. Biology
- a. Plant Habitat
The maintenance of plant communities that are characteristic with respect to species composition, abundance, and age structure. (Provides proper conditions for wetland plant survival, reproduction, and diversity.)

b. Fish and Wildlife Habitat

The maintenance of animal communities that are characteristic with respect to species composition, abundance, and age structure.

Maintains corridors between habitat islands and landscape/regional biodiversity.

Description and Explanation of Biological Productivity.

Section 1851 does not provide a definition for "biological productivity" or guidance on what specifically should be reported. The terms "productivity" and "production" are often confused, even by ecology students. Primary productivity, as used by ecologists, is the rate at which new plant growth occurs. This contrasts with primary production, or biomass, which is the amount of living (plant and animal) material. Younger ecosystems often have high rates of productivity and low biomass, compared to older ecosystems in which rates of productivity decrease as biomass increases. Measuring productivity of wetlands over time may thus result in decreasing numbers, even though there is more standing vegetation on the site. Reporting such data merely gives a numerical value of one aspect of a wetland which, as a whole, is not very meaningful. Also, measuring productivity is an intensive undertaking that would likely require bank operators to invest significant amounts of time, funding, and resources thereby adding to the cost of establishing a bank or delaying the approval or release of credits. Neither productivity nor biomass data are commonly collected in bank site monitoring activities.

Assuming the biological productivity reporting requirement is aimed at providing information about the successful establishment of wetland habitat in a bank, and since no data on "Biological Productivity" have been collected for the sixteen banks in this report, information about the general, overall success of the wetland habitat or progress toward habitat success is reported for each bank. The information reported is gathered from monitoring reports submitted to the agencies. Overall success of the wetland

habitat (or the progress toward success) is a reasonable replacement for the Biological Productivity reporting requirement and is much more meaningful information.

III. DATA COLLECTION

The criteria for including a wetland mitigation bank in this report are:

- 1) the bank is existing/in operation (i.e., the bank has a fully approved bank agreement and is approved to sell credits), and
- 2) the bank sells credits to the public in California.

Data was compiled for all known existing wetland mitigation banks in California which meet the criteria. The data were collected from approved bank agreements and bank documents such as bank management plans and annual reports. Bank agreements typically contain information about bank creators, bank operators, bank creation dates, bank service areas, and types of financial assurances. Bank management plans, in some cases, provided information on bank goals and pre-bank habitat functions. Annual reports, in some cases, provided information about the numbers of wetland acres and habitat functions created at the bank, the number of credits issued, and wetland acres lost as a result of permitted projects.

The Department was unable to obtain all required bank information from State and federal agencies. Some information was either not readily available or the other agencies did not respond to requests for information in time to include the information in this report. The Department is continuing its effort to obtain data and information that was not available at the time this report was produced.

Obtaining data for habitat functions and biological productivity reporting requirements was particularly difficult. Section 1851 directs the Department to report wetland mitigation bank information that is much more specific than what the State and federal banking policies suggest the bank operators report to the Department. The State

and federal banking policies were published in 1995, five years before Section 1851 became effective. The banking policies are general in their specifications for reporting, and neither policy specifies that wetland mitigation bank operators should report detailed wetland information such as descriptions of habitat functions prior to bank establishment (Pre-bank habitat functions on site), habitat functions created at the bank (Wetland acres and habitat functions established), wetland acreage and habitat functions lost (Wetland acres and habitat functions lost as result of permitted projects), or assessment of wetland biological productivity (Biological productivity of created wetlands). As a result, the types and amount of information on these aspects of banks are somewhat limited in availability for inclusion in this report. While some banks may report some information about habitat functions at the bank site, there are no banks that report on biological productivity. As future banks are developed and approved, provisions can be made for getting assistance from the banks in compiling the needed information about habitat functions at bank sites.

Information for the reporting requirement, Wetland acres and habitat functions lost as result of permitted projects, is not readily available in bank documents or annual reports. There are specific types of documents and information necessary to assess wetland acreage and functions established at a bank. An entirely different set of specific documents and information are needed to assess acreage and functions lost through implementation of a development project. Because the 1995 banking policies do not require banks to collect and report this information, there is often little consistency as to which of those document types and information the banks submit to the agencies. Specific information about project impacts is not routinely collected and maintained by the banks. The project impact information must be obtained from the permitting authority (agency) that approves the mitigation for the project. The Department continues its efforts to obtain the needed information from other regulatory agencies.

IV. CONCLUSION

Few generalizations can be made about wetland mitigation banks. For numerous reasons, there is great variability in all aspects of the banks in this report, making it difficult to make any specific, direct comparisons. The banks in this report are in various stages of implementation - from the earliest operational stage (bank agreement approved and nearly ready to begin habitat establishment) to the last operational stage (credit sales completed and long-term management started). Table 1 provides a general summary and comparison of the banks.

To summarize:

- the overall size of the bank sites ranges from 12 acres to 834 acres,
- the range of wetland acreage established is 4.3 to 345.8 acres,
- the banks are located throughout the state:

County	Number of Wetland Banks
Alameda	1
Lassen	1
Marin	1
Placer	1
Riverside	2
Sacramento	3
San Diego	2
Shasta	2
Sonoma	3

Of these sixteen banks:

- eleven are privately owned/operated, and
- five are government owned/operated.

Appendix A provides a brief overview of sixteen existing wetland mitigation banks. The information for each bank is organized in four general sections: a) Contact Information; b) Bank Information; c) Biological Information; d) Operational Information.

Data Management and Information Distribution

Fish and Game Code, Section 1850 requires the Department to establish and maintain a database of all existing and operating wetland mitigation banks that sell credits to the public in California and to use the California Environmental Resources Evaluation System (CERES) California Environmental Information Catalog (CEIC) to make the information available to the public. A computer database was developed using Microsoft Access software to meet the requirement in Section 1850. The database contains the information required in this report along with some additional information necessary for compiling and tracking bank data used in this report. The bank database is maintained in the Department's Habitat Conservation Planning Branch. The Department will provide information about the mitigation bank dataset for inclusion in the CERES CEIC.

The Department continues to evaluate ways to best meet the Legislature's and the public's interest in information about banks. The Department will continue to work with bank operators and regulatory agencies to obtain the information needed to update the database, post current bank information on the Department's website, and produce future legislative reports.

Additional information on the Department's conservation and mitigation banking program is available at <http://www.dfg.ca.gov/hcpb/conplan/mitbank/mitbank.shtml>. For questions about this report please contact the Habitat Conservation Planning Branch at (916) 653-4875.

Table 1. Overview of wetland mitigation banks in California.

Name of Bank (Appendix page #)	County where bank is located	Service area countries (counties which the bank's service area overlaps)	Date the bank was created	Signatory agencies	Overall acreage of the bank	Wetland acreage established at the bank	# credits agreed to in the Bank Agreement	# credits sold	# credits remaining available for sale
Barry Jones Wetland Mitigation Bank (A-1)	Riverside	western portion of Riverside	3/16/1998	USACOE, USFWS, CDFG	140	0 (preservation only, 33 acres)	136.0	13.45	122.55
Burdell Ranch Wetland Mitigation Bank (A-3)	Marin	portions of Sonoma, Napa, Marin, Solano, and Contra Costa	9/12/2001	USACOE, USEPA, USFWS, CDFG	77.8	13	130	48	82
Clay Station Mitigation Bank (A-5)	Sacramento	Portions of Sacramento, Placer, El Dorado, Sutter, Amador, San Joaquin	7/28/1999	USACOE, USEPA, USFWS, CDFG	405	86.9	61.10	37.69	23.41
Cottonwood Creek Wetland Mitigation Bank (A-8)	Shasta	portions of Shasta and Tehama	5/23/1994	USACOE, CDFG	90	22.21	23.9	23.9	0
Honey Lake Wetlands Mitigation Bank (A-10)	Lassen	portions of Lassen, Modoc, and Plumas	3/6/2001	USACOE, USEPA, USFWS, Caltrans, CDFG	300	92 (proposed ¹)	17	0	17 ²

¹ Habitat establishment work not yet complete.

² No credits have been released for sale. Credits will be released for sale when habitat construction is completed.

Table 1. Overview of wetland mitigation banks in California. (continued)

Name of Bank (Appendix page #)	County where bank is located	Service area (counties which the bank's service area overlaps) depending on the service area, portions of	Date the bank was created	Signatory agencies	Overall acreage of the bank	Wetland acreage established at the bank	# credits agreed to in the Bank Agreement	# credits sold	# credits remaining available for sale
Kimball Island Mitigation Bank (A-12)	Sacramento	Sacramento, Alameda, Contra Costa, San Joaquin, Solano, Yolo	3/31/1998	USACOE, USFWS, NMFS, CDFG	109	See Appendix A	See Appendix A	See Appendix A	See Appendix A
Laguna (Carinalli) Mitigation Bank (A-15)	Sonoma	portions of Sonoma, Napa, Marin	5/20/2001	USACOE, USEPA, USFWS, CDFG	28	5.5	55	55	0
Laguna Creek Mitigation Bank (A-17)	Sacramento	portions of Sacramento, Yuba, Sutter, Butte, Glenn, Colusa, Yolo, Solano, Contra Costa, San Joaquin, Stanislaus, Tuolumne, Calaveras, Amador, El Dorado, Placer, Nevada	12/31/1998	USACOE, USFWS	780	195	Data Not Available ³	Data Not Available ³	Data Not Available ³
Pilgrim Creek Mitigation Bank (A-19)	San Diego	a portion of San Diego	3/16/2000	USACOE, CDFG, Caltrans, SANDAG	121	49.8	49.8	37.93	6.11

³ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

Table 1. Overview of wetland mitigation banks in California. (continued)

Name of Bank (Appendix page #)	County where bank is located	Service area countries (counties which the bank's service area overlaps)	Date the bank was created	Signatory agencies	Overall acreage of the bank	Wetland acreage established at the bank	# credits agreed to in the Bank Agreement	# credits sold	# credits remaining available for sale
Rancho Jamul Mitigation Bank (A-21)	San Diego	a portion of San Diego	11/29/2000	USACOE, USEPA, USFWS, CDFG	109	46.47	44.85	19.532	25.318
Santa Ana River Mitigation Bank (A-23)	Riverside	a portion of Riverside	2/11/1997	USACOE, USFWS, County of Riverside, Riverside County Park & Open-space District	174	174	173.97	Data Not Available ³	Data Not Available ³
Southwest Santa Rosa Vernal Pool Preservation Bank (A-25)	Sonoma	Sonoma	6/2/1997	USACOE, USEPA, USFWS, CDFG	39.4	4.3	251.24	251.24	0
Springtown Natural Communities Reserve (A-27)	Alameda	portions of Alameda, Contra Costa, Santa Clara, Santa Cruz, San Mateo, San Francisco, Marin, Solano, Napa, Sacramento, San Joaquin, Stanislaus	1/17/1997	CDFG	51.74	34.33	517.4	221.1	296.3

³ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

Table 1. Overview of wetland mitigation banks in California. (continued)

Name of Bank (Appendix page #)	County where bank is located	Service area countries (counties which the bank's service area overlaps)	Date the bank was created	Signatory agencies	Overall acreage of the bank	Wetland acreage established at the bank	# credits agreed to in the Bank Agreement	# credits sold	# credits remaining available for sale
Stillwater Plains Mitigation Bank (A-29)	Shasta	Primary service area: portions of Shasta and Tehama	5/8/2000	USACOE, USEPA, USFWS, CDFG	834	5 (proposed)	52.785	9.684	43.101
Wikiup Mitigation Bank (A-31)	Sonoma	portions of Sonoma, Napa, and Marin	7/28/1995	USACOE, USEPA, USFWS, CDFG	12	6	60	60	0
Wildlands Mitigation Bank (A-33)	Placer	Sutter and portions of Glenn, Colusa, Butte, Yuba, Nevada, Placer, El Dorado, San Joaquin, Solano, Yolo, Sacramento	10/14/1994	USACOE, USFWS, CDFG	636.33	308.81	308.81	205	103.8

Appendix A. Wetland Mitigation Banks in California, November 2003

Barry Jones Wetland Mitigation Bank

Contact Information:

Bank Owner: Pacific Bay Homes
Karin T. Krogius
Address: 4041 MacArthur Blvd., Ste 500
City, State, Zip: Newport Beach, CA 92660
Phone Number: (949) 440-7202

Bank Operator: Same as Bank Owner

For information about credit sales:

McCollum Associates
Michael McCollum
10196 Clover Ranch Drive
Sacramento, CA 95829-6574
(916) 688-2040

Website: www.mccollum.com/Mitbanks.htm

Bank Information:

Bank Creation Date: 3/16/1998	Total Credits Established: 136.0
Total Bank Acreage: 140	Total Credits Sold: 13.45
	Total Credits Remaining For Sale: 122.55 (as of 8/20/03)

General location of the bank: Riverside County, approximately 35 miles south of the City of Riverside and approximately 39 miles north of the City of Escondido

Service Area Description: western boundary is the Riverside County line; northern boundary is the Riverside County line to San Timoteo Canyon Road; southern boundary is the Riverside County line to State Hwy 79; eastern boundary - no description available

Service Area Counties: western Riverside County

Financial Assurance Type:

Financial Assurances for Wetlands Establishment: Management Account (funded by the Bank Operator)

Financial Assurances for Maintenance Period: Management Account (funded by the Bank Operator)

Financial Assurances for Long-term management: Endowment

Signatory Agencies: US Army Corps of Engineers, US Fish & Wildlife Service, CA Department of Fish and Game

Biological Information:

Bank Site Goals

Maintain the overall diversity of the native flora and fauna within the Skunk Hollow Preserve.

Percentage of Goals Achieved

Data Not Available¹

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Barry Jones Wetland Mitigation Bank (continued)

Biological Information: (continued)

Wetland Habitat Functions:

Functions Before Bank Creation

Plant habitat
 Fish and Wildlife Habitat
 Short-term water storage

Functions Created at the Bank Site

Plant habitat
 Fish and Wildlife Habitat
 Short-term water storage

Total Wetland Acres Established: 0 (preservation only)

Total Wetland Acres (preservation only): 33.0

Overall Wetland Habitat Success

Progress toward meeting success criteria:

Habitat establishment work completed (date): N/A - preservation bank

Annual monitoring requirement: 30 years

Annual monitoring completed: Data Not Available¹

Success criteria fully met (date): N/A - no success criteria established since no habitat establishment will be conducted (preservation bank).

Current status of established wetland habitat: N/A - no habitat establishment (preservation bank).

Information about status of preserved wetland habitat not available¹

Operational Information:

Impacts Mitigated by Bank:

Wetland Functions Lost:

Data Not Reported²

Wetland Acres Lost:

Data Not Reported²

Credit Sales Summary:

Credits Sold To:	# Credits Sold:	Credits Sold To:	# Credits Sold:
Private Party	3.2	Private Party	1.5
Private Party	1.3	Private Party	0.5
Private Party	1.0	Private Party	0.25
Private Party	0.7	Private Party	1.0
Private Party	1.1	Private Party	1.52
Private Party	0.5	Private Party	0.88
Total Credits Sold:	13.45		

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Burdell Ranch Wetland Mitigation Bank

Contact Information:

Bank Owner: Mount Burdell Enterprises James McKenney	Bank Operator: Mount Burdell Enterprises Tony Georges
Address: 365 Bel Marin Keys Blvd., Ste 100	Address: P.O. Box 2039
City, State, Zip: Novato, CA 94949	City, State, Zip: Mill Valley, CA 94942
Phone Number: (415) 884-2164	Phone Number: (415) 454-4151
	Website: http://www.burdell.net/Wetland.htm

Bank Information:

Bank Creation Date: 9/12/2001	Total Credits Established: 130
Total Bank Acreage: 77.8	Total Credits Sold: 48
	Total Credits Remaining For Sale: 82 (as of 8/2/02)

General location of the bank: Northern Marin County east of Highway 101 approximately 25 miles north of San Francisco and 7 miles south of Petaluma

Service Area Description: Marin County, exclusive of any areas west or south of State Route 1; Sonoma County within the Petaluma River and Walker Creek drainages and in the Sonoma Creek drainage from approximately the Town of Sonoma south; Napa County from the City of Napa west; Solano County from the City of Vallejo (Napa River drainage only) west; and Contra Cost County bordering San Pablo Bay lying between the Carquinez and Richmond-San Rafael bridges, with an inland boundary of Interstate 80 on the east and Cutting Boulevard and Interstate 580 on the south.

Service Area Counties: portions of Sonoma, Napa, Marin, Solano, and Contra Costa

Financial Assurance Type:

Financial Assurances for Wetlands Establishment: Performance Bond
Financial Assurances for Maintenance Period: Performance Bond
Financial Assurances for Long-term management: Endowment

Signatory Agencies: US Army Corps of Engineers, US Environmental Protection Agency, US Fish & Wildlife Service, CA Department of Fish and Game

Biological Information:

Bank Site Goals

Restore/enhance seasonal marsh, marsh riparian and native grassland/upland

Percentage of Goals Achieved

Hydrological performance has been met for 13 acres of constructed wetland habitat (Aug 2002)

Wetland Habitat Functions:

Functions Before Bank Creation

Plant habitat
Wildlife Habitat
Short-term water storage
Maintenance of high-water table

Functions Created at the Bank Site

Plant habitat and diversity
Wildlife Habitat
Short-term water storage
Maintenance of high-water table

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Burdell Ranch Wetland Mitigation Bank (continued)

Biological Information: (continued)

Total Wetland Acres Established: 13

Overall Wetland Habitat Success

Progress toward meeting success criteria:

Habitat establishment work completed (date): November 2002

Annual monitoring requirement: Years 1-5 or until two consecutive years of success (all criteria)

Annual monitoring completed: Year 1

Success criteria met (date): Hydrology met for 13 acres of wetland in 2002.

Current status of established wetland habitat: Succeeding. Hydrological conditions have been met.

Operational Information:

Impacts Mitigated by Bank:

Wetland Functions Lost:

Data Not Reported²

Wetland Acres Lost:

Data Not Reported²

Credit Sales Summary:

Credits Sold To:	# Credits Sold:
Private Party	2.0
Private Party	17.0
Private Party	12.0
Private Party	13.0
Private Party	4.0
Total Credits Sold:	48.0

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Clay Station Mitigation Bank

Contact Information:

Bank Owner: Elliot Homes, Inc.
Address: 2930 E. Bidwell St.
City, State, Zip: Folsom, CA 95630
Phone Number: (916) 984-1300

Bank Operator: ECORP
Bjorn Gregersen
Address: 2260 Douglas Blvd. Suite 160
City, State, Zip: Roseville, CA 95661
Phone Number: (916) 782-9100

Website: <http://www.ecorpcorconsulting.com/restoration.htm>

Bank Information:

Bank Creation Date: 7/28/1999

Total Bank Credits Established: 61.10

Phase I 38.05

Phase II & III 23.05

Total Bank Acreage: 405
Phase I 168
Phase II 117.75
Phase III 119.25

Total Credits Sold: 37.69

Total Credits Remaining For Sale: 23.41 (as of 11/6/00)

General location of the bank: southern Sacramento County, approximately 25 miles southeast of the City of Sacramento, on Clay Station Road, and adjacent to Laguna and Brown's Creeks

Service Area Description: Ecological Subsections* 262Ag (Hardpan Terraces), M261 (Lower Foothills Metamorphic Belt), the portion of 262Ao (Camanche Terraces) north of the Mokelumne River, and with the additional limits of the Mokelumne River to the south, U.S. Interstate 5 to the west, the northern extent of the boundary of Placer County to the north, and the 1500 foot elevation to the east.

Service Area Counties: portions of Sacramento, Placer, El Dorado, Sutter, Amador, San Joaquin

Financial Assurance Type:

Financial Assurances for Wetlands Establishment: Phase I - None; Phase II, & III - Performance Bond

Financial Assurances for Maintenance Period: Phase I, II, & III - Performance Bond

Financial Assurances for Long-term management: Phase I, II, & III - Endowment

Signatory Agencies: US Army Corps of Engineers, US Environmental Protection Agency, US Fish & Wildlife Service, CA Department of Fish and Game

Biological Information:

Bank Site Goals

Create/restore/enhance vernal pools and seasonal marsh, provide habitat connectivity

Percentage of Goals Achieved

Phase I - 100%

Phase II & III: as of 2002, 50% of the established vernal pools and 58% of the established seasonal marsh habitat have met the success criteria

* USDA Forest Service. 1997. Ecological Subregions of California. Section and subsection descriptions. R5-EM-TP-005. September 1997.

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Clay Station Mitigation Bank (continued)

Biological Information: (continued)

Wetland Habitat Functions:

Functions Before Bank Creation

Little or No Habitat Function

Functions Created at the Bank Site

Plant habitat
Fish and Wildlife Habitat
Short-term water storage

Total Wetland Acres Established: 86.9
Phase I - 38.05 (created)
Phase II & III - 48.85 (created)

Overall Wetland Habitat Success

Progress toward meeting success criteria:

Habitat establishment work completed (date): Phase I - October 1994; Phase II & III - Aug 1999

Annual monitoring requirement: 5 years (all Phases)

Annual monitoring completed: Phase I - 5 years; additional monitoring conducted 1 year
Phase II & III - 2 years (2000-01, 2001-02)

Current status of established wetland habitat: Succeeding after additional habitat work completed. Hydrological conditions have been met, target vegetation types and amounts have been established, desired animal species have been observed, and overall the habitat is developing and functioning as intended.

Success criteria fully met (date): Phase I - 2000; Phase II & III as of 2002, 50% of the established vernal pools and 58% of the established seasonal marsh habitat have met the success criteria

Operational Information:

Impacts Mitigated by Bank:

Wetland Functions Lost:

Data Not Reported²

Wetland Acres Lost:

Data Not Reported²

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Clay Station Mitigation Bank (continued)

Operational Information: (continued)

Credit Sales Summary:

Credits Sold To:	# Credits Sold:	Credits Sold To:	# Credits Sold:
Private Party	0.74	Private Party	2.08
Private Party	1.88	Private Party	0.02
Private Party	24.12	Private Party	0.25
Private Party	0.04	Private Party	2.52
Private Party	1.18	Private Party	0.88
Private Party	2.20	Private Party	1.64
Total Credits Sold:	37.69		

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Cottonwood Creek Wetland Mitigation Bank

Contact Information:

Bank Owner: CA Department of Fish and Game Northern California - North Coast Region Bob Williams	Bank Operator: CA Department of Fish and Game Northern California - North Coast Region Steve Arrison
Address: 601 Locust Street	Address: 601 Locust Street
City, State, Zip: Redding, CA 96001	City, State, Zip: Redding, CA 96001
Phone Number: (530) 225-2365	Phone Number: (530) 225-2317

Bank Information:

Bank Creation Date: 5/23/1994	Total Credits Established: 23.9
Total Bank Acreage: 90	Total Credits Sold: 23.9
	Total Credits Remaining For Sale: 0.0 (as of 9/28/01)

General location of the bank: Shasta County, approximately 3 miles east of the town of Cottonwood, adjacent to the Mouth of Cottonwood Creek Wildlife Area and near the confluence of Cottonwood Creek and the Sacramento River

Service Area Description: the Sacramento Valley floor within Shasta and Tehama Counties

Service Area Counties: portions of Shasta and Tehama

Financial Assurance Type:

Financial Assurances for Wetlands Establishment: some of the funds generated from credit sales
Financial Assurances for Maintenance Period: some of the funds generated from credit sales
Financial Assurances for Long-term management: Endowment

Signatory Agencies: US Army Corps of Engineers, CA Department of Fish and Game

Biological Information:

Bank Site Goals

Restore wetlands, upland wildlife habitat; preserve valley oak habitat; maintain riparian habitat

Percentage of Goals Achieved

All but one of the created wetland habitats were meeting success criteria (as of May 2001 monitoring).

Wetland Habitat Functions:

Functions Before Bank Creation

Plant habitat
Fish and Wildlife Habitat
Short-term water storage

Functions Created at the Bank Site

Plant habitat
Fish and Wildlife Habitat
Short-term water storage
Long-term water storage

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Cottonwood Creek Wetland Mitigation Bank (continued)

Biological Information: (continued)

Total Wetland Acres Established: 22.21 (created/restored)

Overall Wetland Habitat Success

Progress toward meeting success criteria:

Habitat establishment work completed (date): 1996, 1999, 2000, 2001

Annual monitoring requirement: 5 years on each individual wetland built

Annual monitoring completed: 5 years on the first wetlands built (1997-98, 1998-99, 1999-2000, 2000-01, 2001-02)

Success criteria fully met (date): Fifth year monitoring data for the wetlands constructed in 1996 is still being processed. Monitoring still in progress on the other constructed wetlands.

Current status of established wetland habitat: Of the eight individual wetlands constructed, six have met hydrological function criteria and the annual target vegetation criteria. The other two wetlands need some additional habitat work.

Operational Information:

Impacts Mitigated by Bank:

Wetland Functions Lost:

Data Not Reported²

Wetland Acres Lost:

14.85

Credit Sales Summary:

Credits Sold To:	# Credits Sold:	Credits Sold To:	# Credits Sold:
Private Party	1.15	Private Party	0.93
Private Party	1.15	Private Party	0.93
Private Party	0.20	Private Party	1.33
Private Party	0.52	Private Party	1.32
Private Party	2.46	Private Party	0.08
Private Party	2.00	Other Private Parties	13.91

Total Credits Sold: 23.9

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Honey Lake Wetlands Mitigation Bank

Contact Information:

Bank Owner: CA Department of Fish and Game Northern California - North Coast Region Jack Miller	Bank Operator: Same as Owner
Address: 601 Locust Street	Address:
City, State, Zip: Redding, CA 96001	City, State, Zip:
Phone Number: (530) 225-2273	Phone Number:
	Website:

Bank Information:

Bank Creation Date: 3/6/2001	Total Credits Established: 17.0*
Total Bank Acreage: 300	Total Credits Sold: 0.0
	Total Credits Remaining For Sale: 17.0** (as of 8/00)

General location of the bank: Lassen County, southeast of the City of Susanville, adjacent to the west boundary of the Dakin Unit of the Honey Lake Wildlife Area

Service Area Description: the area encompassing the overlap of the Modoc Plateau Region of the Great Basin Floristic Province with the jurisdictional boundaries of the U.S. Army Corps of Engineers - Sacramento District and the Central Valley and Lahontan Regional Water Quality Control Boards

Service Area Counties: portions of Lassen, Modoc, and Plumas

Financial Assurance Type:

Financial Assurances for Wetlands Establishment: Operation/Maintenance Fund consisting of funds from DFG and Caltrans agency funds and some of the funds generated by credit sales
Financial Assurances for Maintenance Period: Operation/Maintenance Fund consisting of funds from DFG and Caltrans agency funds and some of the funds generated by credit sales
Financial Assurances for Long-term management: Endowment

Signatory Agencies: US Army Corps of Engineers, US Environmental Protection Agency, US Fish & Wildlife Service, CA Department of Fish and Game, CA Department of Transportation (Caltrans)

Biological Information:

Bank Site Goals

Restore/enhance/create emergent wetlands, provide habitat for migrating waterfowl and other wetland associated flora and fauna

Percentage of Goals Achieved

No progress to report. No monitoring has been done yet because the habitat construction has not yet been completed.

* The number of credits available for sale to the public. The total number of credits agreed to in the Bank Enabling Instrument is 92, with 75 credits for use by the bank Co-Sponsor, Caltrans, and 17 credits for sale to the public.

** No credits have been released for sale. Credits will be released for sale when habitat construction is completed.

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Honey Lake Wetlands Mitigation Bank (continued)

Biological Information: (continued)

Wetland Habitat Functions:

Functions Before Bank Creation

Plant habitat
Fish and Wildlife Habitat
Short-term water storage
Maintenance of high-water table

Functions Created at the Bank Site

N/A***

Total Wetland Acres Established: 92 (created/restored/enhanced)

Overall Wetland Habitat Success

Progress toward meeting success criteria:

Habitat establishment work completed (date): Not yet completed

Annual monitoring requirement: 5 years

Annual monitoring completed: N/A***

Success criteria met (date): N/A***

Current status of established wetland habitat: Habitat establishment work has not yet been completed.

Operational Information:

Impacts Mitigated by Bank:

Wetland Functions Lost:

Data Not Reported²

Wetland Acres Lost:

Data Not Reported²

Credit Sales Summary:

Credits Sold To: # Credits Sold:

Credits are not yet available for sale.**

Total Credits Sold: 0.0

** No credits have been released for sale. Credits will be released for sale when habitat construction is completed.

*** Habitat establishment work not yet complete.

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Kimball Island Mitigation Bank

Contact Information:

Bank Owner: Wildlands, Inc.
Address: 5910 Auburn Blvd.
City, State, Zip: Citrus Heights, CA 95621
Phone Number: (916) 331-8810

Bank Operator: Same as Owner
Address:
City, State, Zip:
Phone Number:
Website: <http://www.wildlandsinc.com>

Bank Information:

Bank Creation Date: 3/31/1998
Total Bank Acreage: 109

Total Credits Established: (as of 9/4/2003)
76.55 acres Emergent Marsh
11.06 acres Riverine Aquatic Bed
34,895 linear feet Shaded Riverine Aquatic
57,009 linear feet Riparian Willow Scrub

Total Credits Sold: (as of 9/4/2003)
35.859 acres Emergent Marsh
5,000 linear feet Emergent Marsh
0.921 acres Shaded Riverine Aquatic
29,855 linear feet Shaded Riverine Aquatic
3.310 acres Riparian Willow Scrub
38,986 linear feet Riparian Willow Scrub
0.165 acres Riverine Aquatic Bed

Total Credits Remaining For Sale: Varies,
depending on permit type.

General location of the bank: Sacramento County, on Kimball Island which is located at the Sacramento-San Joaquin River confluence, along the south side of the Lower Sherman Island Wildlife Area and north of the City of Antioch

Service Area Description: The bank has four service areas:

- Service Area 1: the legal Delta within the boundary of the Sacramento District of the U.S. Army Corps of Engineers
- Service Area 2: the area bounded by the Sacramento River on the northwest, State Route 12 on the north, State Route 99 on the east, and the legal Delta boundary within the boundary of the Sacramento District of the U.S. Army Corps of Engineers
- Service Area 3: an area generally centered on the Delta
- Service Area 4: the Sacramento River to River Mile 200

Service Area Counties: portions of Sacramento, Alameda, Contra Costa, San Joaquin, Solano, Yolo, depending on the service area

Financial Assurance Type:

Financial Assurances for Wetlands Establishment: Performance Bond
Financial Assurances for Maintenance Period: Combination Performance Bond and Letter of Credit
Financial Assurances for Long-term management: Endowment

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Kimball Island Mitigation Bank (continued)

Bank Information: (continued)

Signatory Agencies: US Army Corps of Engineers, US Fish & Wildlife Service, National Marine Fisheries Service, CA Department of Fish and Game

Biological Information:

Bank Site Goals

Restore fish and wildlife habitat, provide and enhance habitat connectivity, diversity, and structure

Percentage of Goals Achieved

Habitat development is progressing as expected.

Wetland Habitat Functions:

Functions Before Bank Creation

Little or No Habitat Function
Short-term water storage

Functions Created at the Bank Site

Plant habitat
Fish and Wildlife Habitat
Short-term water storage

Total Wetland Acres Established (restored):

80.7 acres emergent marsh
10.64 acres riparian willow scrub
35,706 linear feet shaded riverine aquatic
11.67 acres riverine aquatic bed

Overall Wetland Habitat Success

Progress toward meeting success criteria:

Habitat establishment work completed (date): 2000

Annual monitoring requirement: 5 years

Annual monitoring completed: 2 years (2001, 2002)

Success criteria fully met (date): N/A - monitoring still in progress (Second year monitoring indicates that final target success criteria have been met.)

Current status of established wetland habitat: Additional habitat work completed. Replanting and beaver and water hyacinth control conducted. Habitat development is progressing as expected.

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Kimball Island Mitigation Bank (continued)

Operational Information:

Impacts Mitigated by Bank:

Wetland Functions Lost:

Data Not Reported²

Wetland Acres Lost:

Data Not Reported²

Credit Sales Summary:

Credits Sold To:

Credits Sold:

Private Party	5,000 linear feet Emergent Marsh
Private Party	10.280 acres Emergent Marsh
Private Party	0.921 acres Shaded Riverine Aquatic
Private Party	0.548 acres Riparian Willow Scrub
Private Party	0.165 acres Riverine Aquatic Bed
Government	25.579 acres Emergent Marsh
Government	29,855 linear feet Shaded Riverine Aquatic
Government	38,986 linear feet Riparian Willow Scrub
Government	2.762 acres Riparian Willow Scrub

Total Credits Sold: (as of 9/4/2003)

35.859 acres Emergent Marsh
5,000 linear feet Emergent Marsh
0.921 acres Shaded Riverine Aquatic
29,855 linear feet Shaded Riverine Aquatic
3.310 acres Riparian Willow Scrub
38,986 linear feet Riparian Willow Scrub
0.165 acres Riverine Aquatic Bed

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Laguna (Carinalli) Mitigation Bank

Contact Information:

Bank Owner: Domenico and Lynda Carinalli
Address: 4905 Gravenstein Highway South
City, State, Zip: Sebastopol, CA 95472
Phone Number: (707) 795-7052

Bank Operator: Vernal Pool Technologies
Nathan Botwinik
Address: 475 Noonan Ranch Lane
City, State, Zip: Santa Rosa, CA 95403
Phone Number: (707) 569-9404
Website: www.wetlandservices.com/bank/html

Bank Information:

Bank Creation Date: 5/20/2001
Total Bank Acreage: 28

Total Credits Established: 55.0
Total Credits Sold: 55.0
Total Credits Remaining For Sale: 0.0 (as of 11/12/02)

General location of the bank: Sonoma County, at 2800 Llano Road; two miles southwest of the City of Santa Rosa and adjacent to Laguna de Santa Rosa

Service Area Description: the Santa Rosa Plain
Service Area Counties: portions of Sonoma, Napa, Marin

Financial Assurance Type:

Financial Assurances for Wetlands Establishment: Other Security Interest*
Financial Assurances for Maintenance Period: Other Security Interest*
Financial Assurances for Long-term management: Endowment Fund

Signatory Agencies: US Army Corps of Engineers, US Environmental Protection Agency, US Fish & Wildlife Service, CA Department of Fish and Game

Biological Information:

Bank Site Goals

Restore/enhance vernal pools, valley oak savannah, and native grassland

Percentage of Goals Achieved

The condition of one year's hydrological performance has been met. Habitat development is progressing as expected for all the vernal pools, except two, which may need additional work to improve performance.

Wetland Habitat Functions:

Functions Before Bank Creation

Plant habitat
Fish and Wildlife Habitat
Short-term water storage
Maintenance of high-water table

Functions Created at the Bank Site

Plant habitat
Fish and Wildlife Habitat
Short-term water storage
Maintenance of high-water table

* The term "other security interest" as used here, encompasses various assurance options, but is typically some form of a security interest in property such as a certificate of deposit or other cash equivalent, government or corporate bonds, a mortgage, etc. Some of these types of assurance options may have been accepted in the past, but are not currently accepted by the agencies.

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Laguna (Carinalli) Mitigation Bank (continued)

Biological Information: (continued)

Total Wetland Acres Established: 5.5 (restored)

Overall Wetland Habitat Success

Progress toward meeting success criteria:

Habitat establishment work completed (date): October 2000

Annual monitoring requirement: 5 years

Annual monitoring completed: 3 years (2000-01, 2001-02, 2002-03)

Success criteria fully met (date): N/A - monitoring still in progress

Current status of established wetland habitat: Succeeding. Hydrological conditions in the established vernal pool habitat is generally comparable to reference vernal pools, except for two pools which may need additional work. Vegetation in the established vernal pool habitat is comparable to that in reference vernal pools.

Operational Information:

Impacts Mitigated by Bank:

Wetland Functions Lost:

Data Not Reported²

Wetland Acres Lost:

1.9

Credit Sales Summary:

Credits Sold To:	# Credits Sold:	Credits Sold To:	# Credits Sold:
Private Party	10.0	Private Party	4.0
Private Party	8.5	Private Party	16.0
Private Party	1.0	Private Party	5.5
Private Party	6.0	Private Party	4.0
Total Credits Sold:	55.0		

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Laguna Creek Mitigation Bank

Contact Information:

Bank Owner: Conservation Resources, LLC
Address: 3600 American River Dr.
City, State, Zip: Sacramento, CA 95864
Phone Number: (916) 974-3383

Bank Operator: Same as Owner
Address:
City, State, Zip:
Phone Number:
Website: <http://www.conservation-resources.com>

Bank Information:

Bank Creation Date: 12/31/1998
Total Bank Acreage: 780

Total Credits Established: Data Not Available¹
Total Credits Sold: Data Not Available¹
Total Credits Remaining For Sale: Data Not Available¹
(as of 8/03)

General location of the bank: Sacramento County, at the eastern edge of the county at the intersection of lone and Meiss Roads

Service Area Description: The bank has two service areas

- Vernal Pool Creation Service Area: No Description Available*
- Vernal Pool Preservation Service Area: No Description Available*

Service Area Counties:

- Vernal Pool Creation Service Area: all of Sacramento; portions of Yuba, Sutter, Butte, Glenn, Colusa, Yolo, Solano, Contra Costa, San Joaquin, Stanislaus, Tuolumne, Calaveras, Amador, El Dorado, Placer, Nevada
- Vernal Pool Preservation Service Area: portions of Sacramento, El Dorado, Amador, Calaveras, San Joaquin

Financial Assurance Type:

Financial Assurances for Wetlands Establishment: Not Specified in the Agreement
Financial Assurances for Maintenance Period: Not Specified in the Agreement
Financial Assurances for Long-term management: Endowment for maintenance and monitoring of the Conservation Easement

Signatory Agencies: US Army Corps of Engineers, US Fish & Wildlife Service

Biological Information:

Bank Site Goals

Create and restore riparian corridors, seasonal wetlands, and vernal pools.

Percentage of Goals Achieved

Data Not Available**

* A written description of the service area is not provided in the bank agreement.

** Information not available at the time this report was produced.

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Laguna Creek Mitigation Bank (continued)

Biological Information: (continued)

Wetland Habitat Functions:

Functions Before Bank Creation

Plant habitat
Short-term water storage

Functions Created at the Bank Site

Plant habitat
Fish and Wildlife Habitat
Short-term water storage
Energy dissipation

Total Wetland Acres Established (restored and created): 170 (restored); 25 (created)

Overall Wetland Habitat Success

Progress toward meeting success criteria:

Habitat establishment work completed (date): Fall 1997

Annual monitoring requirement: Vernal pools - 10 years; VELB habitat - 10 consecutive years or 7 years over a 15-year period

Annual monitoring completed: Vernal pools - 2+ years (1998, 1999, . . .); VELB - 1+ years;
Additional data not available¹

Success criteria fully met (date): N/A - monitoring still in progress. Additional data not available¹

Current status of established wetland habitat: Data Not Available¹

Operational Information:

Impacts Mitigated by Bank:

Wetland Functions Lost:

Data Not Reported²

Wetland Acres Lost:

Data Not Reported²

Credit Sales Summary:

Credits Sold To:

Data Not Available**

Credits Sold:

Data Not Available**

Total Credits Sold:

Data Not Available**

** Information not available at the time this report was produced.

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Pilgrim Creek Mitigation Bank

Contact Information:

Bank Owner: CA Department of Fish and Game South Coast Region	Bank Operator: Caltrans, District 11
Address: 4949 Viewridge Ave	Address: 2829 Juan Street P.O. Box 85406
City, State, Zip: San Diego, CA 92123	City, State, Zip: San Diego, CA 92186-5406
Phone Number: (858) 467-4201	Phone Number: (858) 616-6614
	Website: http://www.dot.ca.gov/dist11

Bank Credits are managed by SANDAG, 401 B Street, San Diego, CA 92101-4231, (619) 595-9404, <http://www.sandag.org>

Bank Information:

Bank Creation Date: 3/16/2000	Total Credits Established: 49.8
Total Bank Acreage: 121	Total Credits Sold: 37.93
	Total Credits Remaining For Sale: 6.11 (as of 2/03)

General location of the bank: San Diego County, in Oceanside at the intersection of Douglas Drive and Via Cibola and east of Camp Pendleton

Service Area Description: the northern half of coastal San Diego County

Service Area Counties: a portion of San Diego County

Financial Assurance Type:

Financial Assurances for Wetlands Establishment: No formal financial assurances. Caltrans funded habitat establishment activities

Financial Assurances for Maintenance Period: No formal financial assurances. Caltrans funded habitat establishment activities

Financial Assurances for Long-term management: Endowment

Signatory Agencies: US Army Corps of Engineers, CA Department of Fish and Game, CA Department of Transportation (Caltrans), San Diego Association of Governments

Biological Information:

Bank Site Goals

Restore freshwater marsh and willow
Scrub

Percentage of Goals Achieved

Habitat is developing as intended. Vegetation increased from Year 1 to Year 2 despite drought conditions. Target species are present.

Wetland Habitat Functions:

Functions Before Bank Creation

Plant habitat
Short-term water storage
Nutrient cycling
Retention of inorganic sediments

Functions Created at the Bank Site

Plant habitat
Fish and Wildlife Habitat
Short-term water storage
Retention of inorganic sediments

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Pilgrim Creek Mitigation Bank (continued)

Biological Information: (continued)

Total Wetland Acres Established: 49.8 (created/enhanced)

Overall Wetland Habitat Success

Progress toward meeting success criteria:

Habitat establishment work completed (date): 1996

Annual monitoring requirement: 5 years

Annual monitoring completed: 5 years (1997-2002); a sixth year of monitoring is in progress

Success criteria fully met (date): N/A - final year of monitoring

Current status of established wetland habitat: Additional habitat work completed/Succeeding. Target vegetation types and amounts are becoming established, desired animal species have been observed, and overall the habitat is developing as intended.

Operational Information:

Impacts Mitigated by Bank:

Wetland Functions Lost:

Data Not Reported²

Wetland Acres Lost:

13

Credit Sales Summary:

Credits Sold To: **# Credits Sold:**

Government 33.91

Private Party 4.02

Total Credits Sold: 37.93

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Rancho Jamul Mitigation Bank

Contact Information:

Bank Owner: Wildlands, Inc.
Address: 5910 Auburn Blvd., Ste. 17
City, State, Zip: Citrus Heights, CA 95621
Phone Number: (916) 331-8810

Bank Operator: Same

Website: www.wildlandsinc.com

Bank Information:

Bank Creation Date: 11/29/2000
Total Bank Acreage: 109

Total Credits Established: Phase 1A - 44.85
Total Credits Sold: Phase 1A -19.532
Total Credits Remaining For Sale: Phase 1A -25.318
(as of 1/31/03)

General location of the bank: San Diego County, along Dulzura and Jamul Creeks on the Rancho Jamul Property bordering and south of Highway 94 and its junction with Otay Lakes Road

Service Area Description: Drainage area into San Diego Bay including Otay River, Sweetwater River, and Chollas Creek watersheds for all in-kind mitigation impacts to wetlands/waters. Also, the area draining into Mission Bay including the San Diego River, Rose Creek, San Clemente Creek, and Tecolote Creek for all in-kind mitigation in excess of 1:1 for freshwater wetland, intermittent waters, and temporary impacts, or 2:1 replacement for jurisdictional riparian habitat

Service Area Counties: a portion of San Diego County

Financial Assurance Type:

Financial Assurances for Wetlands Establishment ("Constuction"): Performance Bond
Financial Assurances for Maintenance Period ("Habitat Establishment"): Contingency Security
Financial Assurances for Long-term management: Endowment

Signatory Agencies: US Army Corps of Engineers, US Environmental Protection Agency, US Fish & Wildlife Service, CA Department of Fish and Game

Biological Information:

Bank Site Goals

Restore/enhance floodplain, riparian habitat connectivity; increase species diversity; assist in Least Bell's vireo recovery

Percentage of Goals Achieved

Meeting success criteria for years 1 and 2

Wetland Habitat Functions:

Functions Before Bank Creation

Little to no wildlife habitat function
Diverted and incised channel

Functions Created at the Bank Site

Plant habitat and diversity
Wildlife Habitat
Short-term water storage
Maintenance of high-water table

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Rancho Jamul Mitigation Bank (continued)

Biological Information: (continued)

Total Wetland Acres Established (enhanced/restored): Phase 1A - 46.47
Phase 1A: freshwater wetland 4.70
riparian wetland: 25.70
ephemeral wetland/intermittent stream 0.85
exotic woody vegetation removed 8.02
oak/riparian habitat 7.20

Overall Wetland Habitat Success

Progress toward meeting success criteria:

Habitat establishment work completed (date): Phase 1A - Feb. 2001
Phase 1B - Jan. 2003

Annual monitoring requirement: Years 1-5

Annual monitoring completed: Year 1 and 2 for Phase 1A

Success criteria fully met (date): N/A - monitoring in progress. Structural diversity for riparian habitat met for 2001 and 2002, cover and species diversity for riparian habitat met for 2001 and 2002, cover and species diversity for freshwater wetland habitat met for 2001 and 2002, riparian habitat establishment 71.9% survival reported for 2002. Monitoring results for 2001 and 2002 show Phase 1A meeting success criteria.

Current status of established wetland habitat: succeeding for vegetation and habitat criteria although hydrology is uncertain due to low rainfall.

Operational Information:

Impacts Mitigated by Bank:

Wetland Functions Lost:

Data Not Reported²

Wetland Acres Lost:

Data Not Reported²

Credit Sales Summary:

Credits Sold To:	# Credits Sold:
Phase 1A:	
Government	18.15
Private Party	1.1382

Total Credits Sold: 19.532

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Santa Ana River Mitigation Bank

Contact Information:

Bank Owner: Riverside County Park and
Open Space District
Ron Baxter

Bank Operator: Same as Owner

Address: P.O. Box 3507
City, State, Zip: Riverside, CA 92519
Phone Number: (909) 955-5117

Bank Information:

Bank Creation Date: 2/11/1997

Total Credits Established: 173.97

Total Bank Acreage: 174

Total Credits Sold: Data Not Available*

Total Credits Remaining For Sale: Data Not Available*
(as of 8/03)

General location of the bank: Riverside County, along the Santa Ana River between the Van Buren Bridge and the Union Pacific railroad bridge in the City of Riverside.

Service Area Description: the Riverside County portion of the Santa Ana River watershed

Service Area Counties: a portion of Riverside

Financial Assurance Type:

Financial Assurances for Wetlands Establishment: Not Specified in the Agreement

Financial Assurances for Maintenance Period: Contingency Fund consisting of some of the funds generated by credit sales

Financial Assurances for Long-term management: Endowment

Signatory Agencies: US Army Corps of Engineers, US Fish & Wildlife Service, County of Riverside, Riverside County Park & Open-space District

Biological Information:

Bank Site Goals

Restore/enhance riparian areas by eliminating/controlling giant reed (*Arundo donax*), maintain the site reed-free for twenty years, and recover/maintain the native cottonwood-willow forest.**

Percentage of Goals Achieved

At least 62% of the total acreage has been restored and is progressing toward meeting success criteria.

Wetland Habitat Functions:

Functions Before Bank Creation

Fish and Wildlife Habitat
Short-term water storage
Nutrient cycling

Functions Created at the Bank Site

Plant habitat
Fish and Wildlife Habitat

* Information request to the bank owner was still pending at the time this report was produced.

** The bank is related to Project Arundo, a project of the Santa Ana Watershed Project Authority (<http://www.sawpa.org/Arundo>).

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Santa Ana River Mitigation Bank (continued)

Biological Information: (continued)

Total Wetland Acres Established: 173.9 (restored)

Overall Wetland Habitat Success

Progress toward meeting success criteria:

Habitat establishment work completed (date): Work began in different years (1996, 1997, 1999, 2001) on 21 separate units on the bank site. Restoration work is complete on 115 acres (as of Aug 2001).

Annual monitoring requirement: 20 years

Annual monitoring completed: First to fifth year, depending on the unit

Success criteria met (date): N/A - monitoring still in progress. Many of the units are meeting target first-third year success criteria; some are meeting fourth-fifth year success criteria.

Current status of established wetland habitat: On units which have had the habitat establishment work done, target vegetation types and amounts are becoming established, desired animal species have been observed, and overall the habitat is developing as intended.

Operational Information:

Impacts Mitigated by Bank:

Wetland Functions Lost:

Data Not Reported²

Wetland Acres Lost:

Data Not Reported²

Credit Sales Summary:

Credits Sold To:

Credits Sold:

Data Not Available*

Total Credits Sold:

Data Not Available*

* Information request to the bank owner was still pending at the time this report was produced.

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Southwest Santa Rosa Vernal Pool Preservation Bank

Contact Information:

Bank Owner: Sonoma Vernal Pool, Inc.
Address: 3397 St. Helena Highway
City, State, Zip: St. Helena, CA 94574
Phone Number: (707) 963-5377

Bank Operator: Vernal Pool Technologies
Nathan Botwinik
Address: 475 Noonan Ranch Lane
City, State, Zip: Santa Rosa, CA 95403
Phone Number: (707) 569-9404
Website: www.wetlandservices.com/bank/html

Bank Information:

Bank Creation Date: 6/2/1997
Total Bank Acreage: 39.4

Total Credits Established: 251.24
Total Credits Sold: 251.24
Total Credits Remaining For Sale: 0.0 (as of 12/01)

General location of the bank: Sonoma County, at 1187 Todd Road, Santa Rosa; southwest of the City of Santa Rosa, approximately 2 miles from existing city limits

Service Area Description: Sonoma County
Service Area Counties: Sonoma

Financial Assurance Type:

Financial Assurances for Wetlands Establishment: Not specified in the Agreement
Financial Assurances for Maintenance Period: Not Specified in the Agreement
Financial Assurances for Long-term management: Endowment

Signatory Agencies: US Army Corps of Engineers, US Environmental Protection Agency, US Fish & Wildlife Service, CA Department of Fish and Game

Biological Information:

Bank Site Goals

Preserve vernal pools and endangered species populations

Percentage of Goals Achieved

Data Not Available*

Wetland Habitat Functions:

Functions Before Bank Creation

Plant habitat
Fish and Wildlife Habitat
Short-term water storage

Functions Created at the Bank Site

Plant habitat
Fish and Wildlife Habitat
Short-term water storage

* Preliminary Report (as-built) and first monitoring report due December 30, 2003.

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Southwest Santa Rosa Vernal Pool Preservation Bank (continued)

Biological Information: (continued)

Total Wetland Acres Established: 4.3 (restored)

Overall Wetland Habitat Success

Progress toward meeting success criteria:

Habitat establishment work completed (date): Data Not Available*

Annual monitoring requirement: 5 years

Annual monitoring completed: Data Not Available*

Success criteria fully met (date): N/A - monitoring still in progress

Current status of established wetland habitat: Data Not Available*

Operational Information:

Impacts Mitigated by Bank:

Wetland Functions Lost:

Data Not Reported²

Wetland Acres Lost:

Data Not Reported²

Credit Sales Summary:

Credits Sold To:	# Credits Sold:
Government	5.5
Private Party	245.74
Total Credits Sold:	251.24

* Preliminary Report (as-built) and first monitoring report due December 30, 2003.

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Springtown Natural Communities Reserve

Contact Information:

Bank Owner: Huffman & Associates, Inc*
Terry Huffman
Address: 700 Larkspur Landing Circle, Ste 100
City, State, Zip: Larkspur, CA 94939
Phone Number: (415) 925-2000

Bank Operator: Same as Owner
Address:
Phone Number:
City, State, Zip:

Bank Information:

Bank Creation Date: 1/17/1997
Total Bank Acreage: 51.74

Total Credits Established: 517.4
Total Credits Sold: 221.1
Total Credits Remaining For Sale: 296.3
(as of 12/30/98)

General location of the bank: Alameda County, north of the City of Livermore and approximately 40 miles southeast of the City of San Francisco

Service Area Description: 40 mile radius around the bank

Service Area Counties: portions of Alameda, Contra Costa, Santa Clara, Santa Cruz, San Mateo, San Francisco, Marin, Solano, Napa, Sacramento, San Joaquin, Stanislaus

Financial Assurance Type:

Financial Assurances for Wetlands Establishment: Escrow Account
Financial Assurances for Maintenance Period: Escrow Account
Financial Assurances for Long-term management: Endowment

Signatory Agencies: CA Department of Fish and Game

Biological Information:

Bank Site Goals

Preserve existing alkali meadow and provide habitat for the CA tiger salamander. Protect, preserve, and enhance populations of bird's beak

Percentage of Goals Achieved

Soils and hydrology criteria were met for Year 1

Wetland Habitat Functions:

Functions Before Bank Creation

Plant habitat
Fish and Wildlife Habitat
Short-term water storage

Functions Created at the Bank Site

Plant habitat
Fish and Wildlife Habitat
Short-term water storage

Total Wetland Acres Established: 34.33 (restored)

* Environmental Restoration Exchange Company created the bank. The company was later merged into Huffman & Associates, Inc.

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Springtown Natural Communities Reserve (continued)

Biological Information: (continued)

Overall Wetland Habitat Success

Progress toward meeting success criteria:

Habitat establishment work completed (date): Fall 2001

Annual monitoring requirement: 5 years

Annual monitoring completed: Year 1

Success criteria fully met (date): N/A - monitoring still in progress

Current status of established wetland habitat: Habitat development is progressing. Soils and hydrology criteria were met for Year 1.

Operational Information:

Impacts Mitigated by Bank:

Wetland Functions Lost:

Data Not Reported²

Wetland Acres Lost:

Data Not Reported²

Credit Sales Summary:

Credits Sold To:	# Credits Sold:	Credits Sold To:	# Credits Sold:
Government	1.0	Private Party	156.0
		Private Party	2.0
		Private Party	7.0
		Private Party	6.6
		Private Party	8.7
		Private Party	1.0
		Private Party	20.0
		Private Party	11.8
		Private Party	7.0
Total Credits Sold:	221.1		

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Stillwater Plains Mitigation Bank

Contact Information:

Bank Owner: Stillwater Plains Mitigation Bank, Inc. **Bank Operator:** Same as Owner
Address: 21923 Dersch Rd. P.O. Box 52
City, State, Zip: Anderson, CA 96007 Palo Cedro, CA 96073
Phone Number: (530) 365-4233

Bank Information:

Bank Creation Date: 5/8/2000	Total Credits Established: Phase I - 52.785
Total Bank Acreage: 834	Total Credits Sold: Phase I - 9.684
(Phase I - 260)	Total Credits Remaining For Sale: Phase I - 43.101 (as of 7/29/03)

General location of the bank: Shasta County, south of State Hwy 44 between Deschutes Road and Stillwater Creek, approximately 2 miles southeast of the City of Redding

Service Area Description: The bank has two service areas:

- The primary service area is bounded on the north by the southern edge of the Shasta-Trinity National Recreation Area (Shasta Reservoir), on the south by State Highway 36, on the east by Mineral Road and the western edge of Latour State Forest, and on the west by the eastern edge of the Shasta-Trinity National Recreation Area (Whiskeytown Reservoir), Mule Town Road, and Plantina Road.
- For special-status plant species known to occur on the Bank Site (*Orcuttia tenuis*, *Legenere limosa*, *Gratiola heterosepala*, and *Juncus leiospermus* var. *leiospermus*), those portions of Shasta, Tehama, Butte, Yuba, and Sutter counties within the Northeast Sacramento Valley Vernal Pool Region as identified in the CDFG Vernal Pool Assessment (Keeler-Wolf, et al, 1998*).

Service Area Counties: Primary service area: portions of Shasta and Tehama; Special-status plant species service area: portions of Shasta, Tehama, Butte, Yuba, Sutter

Financial Assurance Type:

Financial Assurances for Wetlands Establishment: Performance Bond
Financial Assurances for Maintenance Period: Performance Bond
Financial Assurances for Long-term management: Endowment

Signatory Agencies: US Army Corps of Engineers, US Environmental Protection Agency, US Fish & Wildlife Service, CA Department of Fish and Game

Biological Information:

Bank Site Goals

Preserve existing vernal pools

Percentage of Goals Achieved

No monitoring reports completed yet.

* Keeler-Wolf, Todd, D.R. Elam, K. Lewis, and S.A. Flint. 1998. California Vernal Pool Assessment Preliminary Report. California Department of Fish and Game. May 1998.

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Stillwater Plains Mitigation Bank (continued)

Biological Information: (continued)

Wetland Habitat Functions:

Functions Before Bank Creation

Plant habitat
Fish and Wildlife Habitat
Short-term water storage

Functions Created at the Bank Site

Plant habitat
Fish and Wildlife Habitat
Short-term water storage

Total Wetland Acres Established: Phase I (proposed** for creation/restoration/enhancement) - 5
(Wetland acres preserved : 28)

Overall Wetland Habitat Success

Progress toward meeting success criteria:

Habitat establishment work completed (date): Data Not Available**

Annual monitoring requirement: 5 years

Annual monitoring completed: N/A**

Success criteria fully met (date): N/A**

Current status of established wetland habitat: Data Not Available**

Operational Information:

Impacts Mitigated by Bank:

Wetland Functions Lost:

Data Not Reported²

Wetland Acres Lost:

Data Not Reported²

Credit Sales Summary:

Credits Sold To: **# Credits Sold:**

Various, Private 9.684

Total Credits Sold: 9.684

** Habitat establishment work not yet complete.

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Wikiup Mitigation Bank

Contact Information:

Bank Owner: California Department of
Fish & Game*

Central Coast Region

Address: P.O. Box 47

City, State, Zip: Yountville, CA 94599

Phone Number: (707) 944-5500

Website: <http://www.dfg.ca.gov/hcpb/conplan/mitbank/mitbank.shtml>

Bank Operator: Same as Owner

Bank Information:

Bank Creation Date: 7/28/1995

Total Bank Acreage: 12

Total Credits Established: 60.0

Total Credits Sold: 60.0

Total Credits Remaining For Sale: 0.0 (as of 10/14/99)

General location of the bank: Sonoma County, in the Larkfield-Wikiup area just east of U.S. Highway 101 between the Town of Windsor and the City of Santa Rosa

Service Area Description: the Santa Rosa Plain

Service Area Counties: portions of Sonoma, Napa, and Marin

Financial Assurance Type:

Financial Assurances for Wetlands Establishment: Cash

Financial Assurances for Maintenance Period: Trust Account

Financial Assurances for Long-term management: Endowment Fund

Signatory Agencies: US Army Corps of Engineers, US Environmental Protection Agency, US Fish & Wildlife Service, CA Department of Fish and Game

Biological Information:

Bank Site Goals

Provide a habitat that resembles the natural Santa Rosa Plain and provides habitat for native amphibians, water associated birds and aquatic invertebrates.

Percentage of Goals Achieved

100%. Success criteria met in fourth year after habitat establishment work was completed.

Wetland Habitat Functions:

Functions Before Bank Creation

Plant habitat
Fish and Wildlife Habitat

Functions Created at the Bank Site

Plant habitat
Fish and Wildlife Habitat
Short-term water storage
Nutrient cycling

* Wikiup Partners created and previously owned the bank. After all credits were sold, title to the bank property was transferred to the Department of Fish and Game (4/13/2000).

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Wikiup Mitigation Bank (continued)

Biological Information: (continued)

Total Wetland Acres Established: 6.0 (created)

Overall Wetland Habitat Success

Progress toward meeting success criteria:

Habitat establishment work completed (date): September 1995

Annual monitoring requirement: 5 years

Annual monitoring completed: 5 years

Current status of established wetland habitat: wetland performing/functioning like a regionally typical seasonal wetland

Success criteria met (date): approx. September 2000

Operational Information:

Impacts Mitigated by Bank:

Wetland Functions Lost:

Data Not Reported²

Wetland Acres Lost:

Data Not Reported²

Credit Sales Summary:

Credits Sold To:	# Credits Sold:	Credits Sold To:	# Credits Sold:
Private Party	3.0	Private Party	6.5
Private Party	1.0	Private Party	5.5
Private Party.	4.0	Private Party	3.5
Private Party	1.5	Private Party	1.0
Private Party	1.5	Private Party	2.0
Private Party	1.5	Private Party	1.5
Private Party	3.5	Private Party	1.0
Private Party	4.0	Private Party	2.5
Private Party	13.5	Private Party	0.5
Private Party	1.0	Private Party	1.0
Private Party	0.5		
Total Credits Sold:	60.0		

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Wildlands Mitigation Bank

Contact Information:

Bank Owner: Wildlands, Inc.
Address: 5910 Auburn Blvd.
City, State, Zip: Citrus Heights, CA 95621
Phone Number: (916) 331-8810

Bank Operator: Same as Owner
Address:
Phone Number:
City, State, Zip:
Phone Number:
Website: <http://www.wildlandsinc.com>

Bank Information:

Bank Creation Date: 10/14/1994
308.81 **Total Bank Acreage:** 615
Phase I 78
Phase II 119
Phase III 118
Phase IV 300

Total Bank Credits Established (for wetlands):
Phase I 59.67
Phase II 84.81
Phase III 51.32
Phase IV 113.01

Total Credits Sold: 205
Total Credits Remaining For Sale: 103.8 (as of 9/1/03)

General location of the bank: Placer County, west of State Route 65, approximately one mile northwest of the town of Sheridan

Service Area Description: basically a 40-mile radius around the bank site, with a few areas extending beyond the 40-mile radius: northward to five miles north of Chico, west to three miles west of Interstate 5, and east to approximately 1000-foot elevation and excluding Butte County meadowfoam vernal pool complexes; southward to south of State Route 12, west to Interstate 5, and east to the Amador County line; westward, three miles on each side of Interstate 80 to its junction with Interstate 680.

Service Area Counties: Sutter and portions of Glenn, Colusa, Butte, Yuba, Nevada, Placer, El Dorado, San Joaquin, Solano, Yolo, Sacramento

Financial Assurance Type:

Financial Assurances for Wetlands Establishment: Phase I-III - Performance Bond & Letter of Credit; Phase IV - Letter of Credit

Financial Assurances for Maintenance Period: Phase I-III - Not Specified in the Agreement, Phase IV - Letter of Credit

Financial Assurances for Long-term management: Phase I-IV - Endowment

Signatory Agencies: US Army Corps of Engineers, US Fish & Wildlife Service, CA Department of Fish and Game

Biological Information:

Bank Site Goals

Establish wetland and riparian habitat types in the area and restore native vegetation to the upland buffer areas.

Percentage of Goals Achieved

100% for Phase I
100% for Phase II
100% for Phase III

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Wildlands Mitigation Bank (continued)

Biological Information: (continued)

Wetland Habitat Functions:

Functions Before Bank Creation

Little or No Habitat Function

Functions Created at the Bank Site

Plant habitat
Fish and Wildlife Habitat
Short-term water storage

Total Wetland Acres Established: 308.81

Phase I	59.67
Phase II	84.81
Phase III	51.32
Phase IV	113.01

Overall Wetland Habitat Success

Progress toward meeting success criteria:

Habitat establishment work completed (date): Phase I - July 1995
Phase II - 1998
Phase III - 1998
Phase IV - 2002

Annual monitoring requirement: 5 years (all Phases)

Annual monitoring completed: Phase I - 5 years
Phase II - 5 years
Phase III - 5 years
Phase IV - 1 year

Success criteria fully met (date): Phase I - 2001
Phase II - 2002
Phase III - 2003
Phase IV - N/A, monitoring still in progress

Current status of established wetland habitat:

Phase I - Success criteria fully met in 2001.

Phase II - Success criteria fully met in 2002.

Phase III - Success criteria fully met in 2003.

Phase IV - Established vernal pool hydrology is comparable to that of reference vernal pools.

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

Wildlands Mitigation Bank (continued)

Operational Information:

Impacts Mitigated by Bank:

Wetland Functions Lost:

Data Not Reported²

Wetland Acres Lost:

Data Not Reported²

Credit Sales Summary:

Credits Sold To:

Private Party

Credits Sold:

166

Credits Sold To:

Government

#Credits Sold:

39

Total Credits Sold: 205

¹ Section 1851 requires this to be determined using information compiled by federal agencies. The information request to agencies was still pending at the time this report was produced.

² The 1995 banking policies do not require banks to collect and report this data to the agencies.

APPENDIX B. Official Policy on Conservation Banks, April 7, 1995

Douglas P. Wheeler
The Resources Agency

James M. Strock
California Environmental Protection Agency

The executive and legislative branches have endorsed the use of conservation banks as a means to accomplish important resource management goals. This document provides formal policy guidance on how to achieve this directive.

INTRODUCTION

A conservation bank is a single parcel, or a series of contiguous or non-contiguous parcels, of habitat which is managed for its natural resource values. The resource benefits derived from this management regime are sold as "credits" to project proponents who seek mitigation opportunities to compensate for resource impacts elsewhere. Credits may be generated to meet any number of resource conservation needs, including compensation for impacts to wetlands, threatened or endangered species, environmentally sensitive habitat areas, mudflats, sub-tidal areas, and less sensitive resources.

Conservation banks, if properly established and managed, serve several useful functions. First and foremost, banks provide for the conservation of important habitats and/or habitat linkages.

Second, they provide a viable alternative to the current practice of requiring piecemeal mitigation for individual project impacts. Individualized mitigation projects which have little connection with their surrounding ecosystem are often much more prone to failure than a mitigation project which is incorporated into a larger, ecosystem-based conservation bank or regional conservation plan.

Third, conservation banks can take advantage of economies of scale that are often not available to individualized mitigation projects.

Fourth, conservation banks provide significant incentives for private landowner participation and represent one of the best examples of private/public partnerships in an era of shrinking budget resources.

Fifth, conservation banks can be a major funding component for the creation of an ecosystem preserve under a regional conservation plan.

Sixth, and finally, conservation banks simplify the regulatory compliance process while achieving greater conservation goals.

CONSERVATION BANKING

For purposes of providing guidance on conservation banking, all departments shall designate and train personnel to actively work with potential bank developers in accordance with the following precepts:

- 1.** The priority for mitigation should be to accomplish it at a site which provides for the long-term conservation of habitat and species. As such, off-site mitigation is specifically sanctioned in the context of an otherwise permissible conservation bank.
- 2.** A bank may be established pursuant to regulatory permit or contract between the bank developer and the appropriate regulatory agency(s). Where a bank is established pursuant to contract, care must be taken to create a legally enforceable instrument.
- 3.** There is no minimum or maximum size of a conservation bank, and it may be divided into clearly defined subareas. However, the bank and each of its subareas (if any) should be large enough to be ecologically self-sustaining or part of a larger conservation strategy that has a reasonable expectation of being accomplished.
- 4.** Upon sale of the first credit in the bank or subarea, the land in the bank or subarea must be permanently protected through fee title or conservation easement. The land-use restrictions should run with the land and be recorded in the appropriate county(s) of jurisdiction.
- 5.** Before selling bank credits, a proposed conservation bank should be approved by the appropriate resource management agency(s). Basic elements in any approvable bank proposal should include, but are not limited to:
 - a. Identification of a bank manager;
 - b. Identification of the geographical boundaries of the bank and the service area of the bank;
 - c. Provision for fundamental property protection measures (e.g., fencing some or all of the bank property if deemed appropriate, control of off-road vehicle use, etc.);
 - d. Provisions for the resolution of current or prospective land use conflicts involving the bank lands (e.g., rights-of-way issues, existing use issues, adjacent land-use issues); and
 - e. Provisions requiring an annual report by the bank manager to be submitted to the appropriate regulatory agency(s).
- 6.** Prior to the sale of credits, a resource management plan should be approved by the appropriate regulatory agency(s). A sufficient level of funding with acceptable guarantees (e.g., cash, letters of credit, public charity, public funding mechanism) should be provided to fully ensure the operation and maintenance of the bank as may be required.
- 7.** Provision should be made for long-term management of bank lands after all mitigation

credits have been awarded. Generally, land management responsibilities should ultimately vest in a resource management agency or qualified non-profit organization, although a private entity may be an acceptable long-term manager.

8. Provision should be made for ensuring implementation of the resource management plan in event of non-performance by the bank owner and/or operator.

9. Provisions should be made in any bank establishment for the monitoring and reporting of identified species/habitat management objectives.

10. An easement or other agreement should be established at the bank in favor of appropriate resource management agency(s) guaranteeing the agency's right of entry onto bank lands for the following purposes:

- a. Inspections;
- b. Specified resource management responsibilities;
- c. Quality Assurance/Quality Control review with regard to bank management and operation; and
- d. Resource management should the bank operator fail to implement prescribed resource management responsibilities.

11. Bank credits should be established by reference to an environmental baseline which may, but need not be, assessed at the time of the bank creation. This baseline will be used to establish credits for a number of categories requiring resource management, including, but not limited to, the following:

- a. Resource Preservation (the preservation of specified resources through acquisition or other appropriate means);
- b. Resource Enhancement (the enhancement of a degraded resource);

- c. Resource Restoration (the restoration of a resource to its historical condition); and
- d. Resource Creation (the creation of a specified resource condition where none existed before).

12. The award of bank credits should be negotiated on a case-by-case basis between the project proponent in need of the subject credits, the regulatory agency(s) of jurisdiction, and the bank manager. Generally:

- a. Credits may be negotiated for available or prospective resource value establishment;
- b. Credits may be based on habitat acreage, habitat quality, contribution to a regional conservation strategy that has been approved by the appropriate regulatory agency(s), or any other basis acceptable to the regulatory agency(s);
- c. Actual awards of bank credits need not be withheld pending full realization of the targeted resource value at the bank. Credit availability may vary in accordance with agreed upon performance criteria for the development of the resource value in

question; and

d. Awarded bank credits, subject to the approval of the regulatory agency(s), should be made transferrable.

13. Whether out-of-kind mitigation credit will be allowed at a particular bank will require a fact-specific inquiry on a case-by-case basis for the project creating the impacts.

14. The creation of any conservation bank should be listed with the Resources Agency in accordance with forthcoming guidance for purposes of maintaining a statewide bank inventory.

CONCLUSION

Conservation bank agreements developed between the bank developer and the appropriate regulatory agency in accordance with the preceding precepts shall be considered consistent with State policy regarding conservation banks, assuming no violation of federal and State laws. Training manuals on this subject are forthcoming.