PAJARO RIVER WATERSHED
FLOOD PREVENTION AUTHORITY
Phase 4b: Implementation Plan for Soap Lake Floodplain Preservation Project and Watershed Flood Protection Actions

Technical Memorandum No. 4.2.5

Task:	**Agricultural Mitigation Bank for the Soap Lake Floodplain Preservation Project**
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Introduction

This technical memorandum (TM) presents the work completed as part of Task 4.2.5: Agricultural Mitigation Bank for the Soap Lake Floodplain Preservation Project as part of the Pajaro River Watershed Study. RMC was tasked with developing a guide to create an agricultural mitigation banking program including management options, criteria for mitigation lands, potential partners, and financial strategies for the program. This TM discusses an approach to creating an agricultural mitigation bank within the Soap Lake floodplain. It outlines an implementation plan for the program, establishes criteria for mitigation lands, and provides further details on bank operations.

Background

The Pajaro River Watershed Study is a multiphase project addressing flooding in the Pajaro River Watershed. The objectives of the study are to "identify, evaluate, fund, and implement flood prevention and control strategies"[1] in the watershed. Table 1 summarizes the work completed during the first three phases of the study and the work being conducted in Phase 4.

Table 1: Pajaro River Watershed Study Summary Table

Phase 1 Stream Flow Modeling Modeled the hydrologic and sediment regimes of the watershed. Provided a better understanding of the affects that land use changes over time have on flooding frequency and magnitude.
Phase 2 Development of Flood Protection Alternatives Identified project alternatives that would provide flood protection for the Pajaro River from the 100-year flood flows identified in Phase 1.
Phase 3 Selection of Projects and CEQA Analysis Soap Lake Floodplain Preservation Project was identified as critical to success of the Corps of Engineers downstream flood prevention projects. Prepared CEQA document and other supporting studies.
Phase 4 Implementation Plan for Soap Lake Floodplain Preservation Project Develop an implementation plan to preserve Soap Lake's natural ability to maintain flows in the lower reaches of the Pajaro River.

Soap Lake, not a typical lake but actually a floodplain, acts as a natural detention basin in the upper Pajaro River during flooding conditions. The Soap Lake Floodplain Preservation Project seeks to preserve the approximately 9,000 acre floodplain by maintaining the current agricultural practices of the region and limiting development in the floodplain. Figure 1 shows the location of the Soap Lake Floodplain.

[1] California State Assembly Bill 807, July 2000

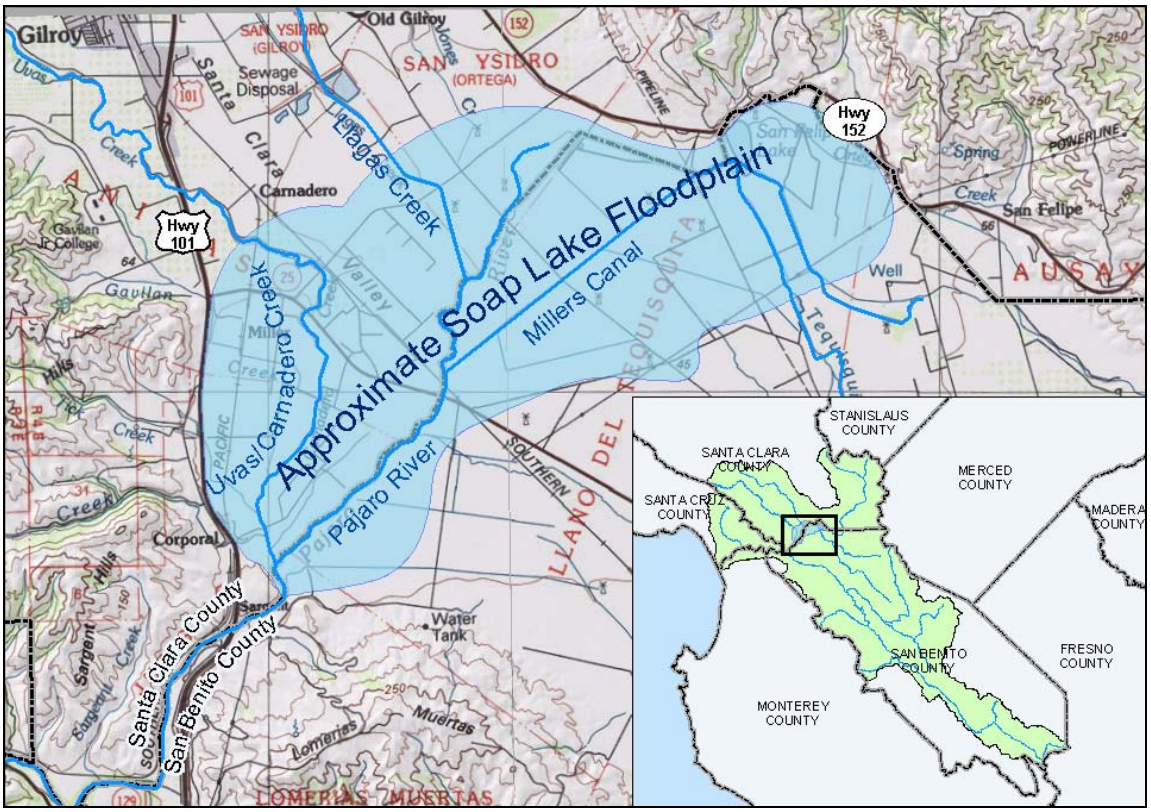

Figure 1: Soap Lake and Surrounding Area

Residential development and other urban land uses result in the permanent loss of agricultural lands. This loss of agricultural land in the Soap Lake floodplain severely reduces its natural flood attenuation capacity. An agricultural mitigation banking program can partially compensate for this loss in farmland. The following sections present an introduction to agricultural mitigation banking and the benefits associated with the program. An approach to establishing an agricultural mitigation bank as part of the Soap Lake Preservation Project follows.

Mitigation Bank Background

Agricultural mitigation banking is a concept similar to wetland mitigation banking, which is an established and accepted practice to offset the loss of natural lands due to development. The fundamental principle of an agricultural mitigation bank is that a party responsible for changing farmland to non-agricultural usage may mitigate the loss by purchasing credits from a mitigation bank. The credits represent acres of protected agricultural land, either in direct proportion to the number of acres lost or at a ratio dependent on the agricultural value of the land involved. The credit payment is used to maintain the farmland or secure more agricultural lands for the mitigation bank. A model of agricultural mitigation bank functions is shown in Figure 2.

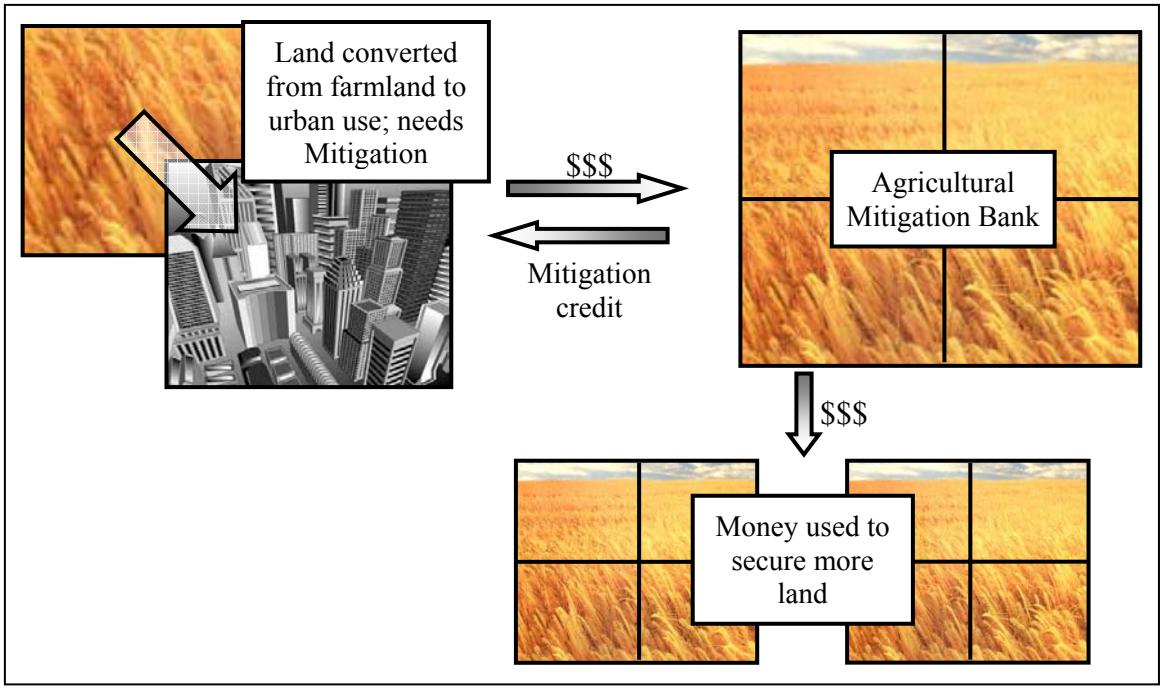

Figure 2: Agricultural Mitigation Bank Model

Riverside County in Southern California attempted to create an agricultural mitigation bank as part of the Riverside County Integrated Project (RCIP) General Plan. The mitigation bank, however, was excluded from the final plan because of a 2003 CEQA decision by the California Court of Appeals[2]. The Court initially ruled that a mitigation measure of this nature does not actually avoid or reduce the loss of farmland subject to development, and as such, an agricultural mitigation bank is not a valid form of mitigation for farmland conversion projects. However, the Court decision was recently de-published and cannot be cited as legal precedent, leaving the value of an agricultural mitigation bank unsettled in the legal arena.

To fully mitigate for the loss of agricultural land it would be necessary to bring non-farmed land into agricultural production. This option is usually not economically feasible nor is it the most viable for a variety of reasons. Practical mitigation policy will offset the loss of farmland due to development. The fundamental principle of mitigation policy requires that an equal acreage of farmland is protected for every acre developed to ensure the *preservation* of farmland. There is a *net loss of farmland* for a transaction such as the mitigation bank proposes. However, this is true of other agricultural mitigation measures currently used throughout California[3], measures that are accepted as valid mitigation throughout the US. They do not establish new agricultural lands from previously unfarmed property, but they do preserve farmland for the future. An agricultural

[2] Friends of the Kangaroo Rat v. California Department of Corrections, August 18, 2003, Fifth Appellate District Number F040956

[3] Other methods of mitigation include: 1) Fee Simple Land Purchase- purchase of farmland equal in acreage and agricultural value to the developed land; 2) Conservation Easement- purchase of development rights over land to protect natural resources and prevent development; 3) In-Lieu Fee Payment- payment of cash value equal to or greater than cost of easement for same size land.

mitigation bank located in the Soap Lake Floodplain would achieve that preservation objective.

Agricultural Mitigation Bank Benefits

In addition to preserving the agricultural land, mitigation banks offer other benefits that make them attractive alternatives. One of the main benefits a mitigation bank offers is the potential for large, contiguous parcels of land to be preserved rather than small, unconnected parcels. Development projects that call for mitigation will often preserve the minimum required acreage of land, and over the course of many projects, numerous unconnected parcels of land may be protected. A mitigation bank, however, offers small portions of a single large parcel of land for mitigation, preserving the entire acreage of farmland. For the Soap Lake project, this would provide contiguous protection of the floodplain and better habitat for flora and fauna.

Mitigation banks are attractive to developers because they offer an expedient and economically competitive alternative to other mitigation measures. Currently the City of Gilroy's agricultural mitigation policy, adopted May 2004, lists three qualified mitigation measures: 1) purchase of farmland equal in acreage and agricultural value as the converted land; 2) purchase of an agricultural conservation easement of equal acreage as the land developed; or 3) payment of an in-lieu fee equal or greater in value than an agricultural conservation easement (see Appendix A for complete Gilroy policy). These measures each have drawbacks. The purchase of farmland or acquisition of an easement can be a time consuming process that involves locating appropriate lands and then closing a real estate deal to purchase the land or an easement. This process has the potential to delay development projects. Economically, purchasing farmland of appropriate agricultural value is likely the most expensive option. In-lieu fees may be a less time consuming method of mitigation, however, they have the potential to be more expensive than acquiring easements. Mitigation banks may offer developers more attractive alternatives to meet their mitigation requirements. They are designed to quickly facilitate the mitigation process at competitive prices.

Approach

To facilitate an agricultural mitigation bank in the Soap Lake floodplain, it is recommended that the program provide mitigation for development projects in other parts of the Pajaro River Watershed. Specifically, the bank could serve the needs of developers in the cities of Gilroy, Hollister, Morgan Hill, and San Juan Bautista and the counties of San Benito and Santa Clara for development within the watershed.

The cities of Gilroy, Hollister, Morgan Hill, San Juan Bautista are increasingly challenged with a lack of available mitigation farmland within city limits to offset developed lands. In particular, Gilroy is a growing city with a sustainable development policy that requires mitigation for development. This issue will inevitably grow worse as development continues in the region.

The Soap Lake floodplain, situated less than 5 miles southeast of Gilroy and less than 10 miles northwest of Hollister, presents viable offsetting mitigation lands. Figure 3 shows the location of the Soap Lake floodplain in relation to the surrounding cities. Note that Gilroy, Hollister, Morgan Hill, and San Juan Bautista are located in the same valley as the floodplain. The proximity of the locations within the same valley indicates similar agricultural qualities, climatic characteristics, and habitat features on undeveloped land.

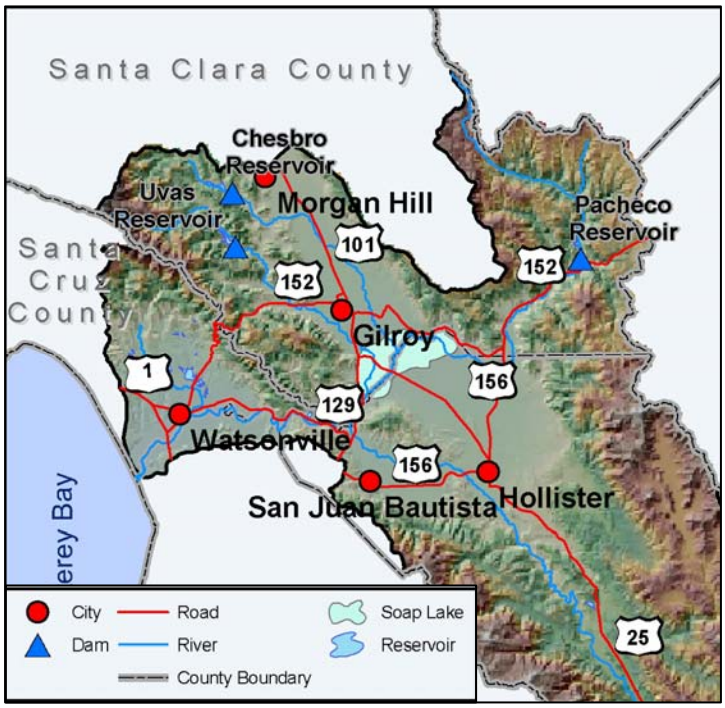

Figure 3: Cities surrounding Soap Lake

Program Implementation

The following are recommended, concurrent steps to implement an agricultural mitigation bank in the Soap Lake project area.

Local government agencies incorporate agricultural mitigation banking policy. The approval of an agricultural bank as an accepted mitigation measure falls within the domain of the government agency requiring mitigation for lost agricultural land. It is recommended that the city of Gilroy amend its agricultural mitigation policy to include mitigation banking as an accepted mitigation measure. It is also recommended that the cities of Hollister, Morgan Hill, and San Juan Bautista and the counties of San Benito and Santa Clara adopt an agricultural mitigation policy. This policy may be modeled after Gilroy's current policy included in the Appendix, incorporating multiple mitigation options including an agricultural bank.

Acceptable mitigation land is obtained by bank operator. The mitigation bank will be owned and operated by a non-profit land trust or other private organization. Several non-profit land groups exist in the area, including the Land Trust of Santa Clara County and the San Benito Agricultural Land Trust. Private, for profit groups such as Wildlands, Inc. may also be interested in operating a bank. The non-profit land trust or private organization will purchase land for mitigation and be responsible for bank management. The agricultural use of the land is preserved through a deed restriction. The bank operator may choose to lease out the land for agricultural use. Criteria will be necessary to define acceptable mitigation land. This mitigation criteria is discussed later in this TM.

Local government agencies establish a working relationship with the mitigation bank operator. A working relationship is necessary between the local government and the bank operator to facilitate the program. Bank operators need the assurance that their land venture will be an accepted form of mitigation to potential land developers within the local agency's jurisdiction. This relationship may include a Memorandum of Understanding, or other written agreement, acknowledging the agency's commitment to the policy and the bank operator's commitment to the program.

At the time of this document's submittal, the Land Trust of Santa Clara County is in discussion with the city of Gilroy. The city of Gilroy is considering amending its mitigation policy to include an agricultural bank as acceptable mitigation. The Land Trust of Santa Clara County is interested in obtaining land for the mitigation bank. Other land trusts and organizations are encouraged to research and potentially establish mitigation banks as well.

The mitigation bank program must establish criteria for mitigation land requirements. Land suitable for offsetting mitigation will be determined by the agricultural value of the land, as described below.

Agricultural Mitigation Land Requirements

The Division of Land Resource Protection (DLRP) in the California Department of Conservation has characterized and mapped farmland within California. As part of its Farmland Mapping and Monitoring Program (FMMP) the DLRP has several farmland categories based on specific agricultural characteristics. These designations will determine which lands are acceptable for offsetting mitigation. A map of the farmland categories within the Soap Lake 100-year floodplain is shown in Figure 4. The farmland categories are listed and described in Table 2.

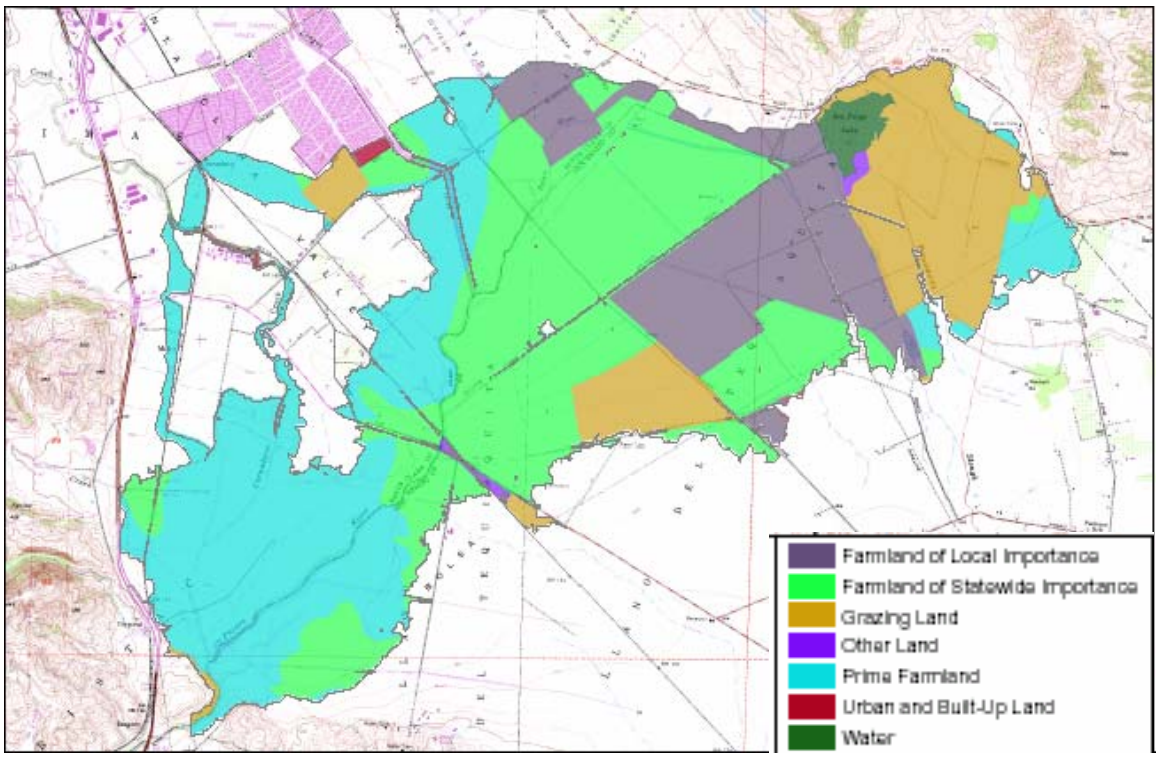

Figure 4: Land Classifications in 100-Year Floodplain

Figure 5 presents the farmland category maps within the city boundaries of Gilroy and Hollister. The greater part of both locations is defined as Urban or Built Up Land. The majority of the remaining land is Prime Farmland or Grazing Land. Note the matching land categories in the Soap Lake project area from Figure 4.

The City of Gilroy, which maintains an agricultural mitigation policy, uses these farmland designations as criteria for determining acceptable mitigation lands. The policy requires mitigation for any land designated as prime farmland or farmland of statewide importance that is converted to urban use. An agricultural mitigation bank in Soap Lake would need to be of similar farmland designation to serve as acceptable mitigation for the city of Gilroy. Figure 6 shows the city of Gilroy and its sphere of influence[4]. The figure also offers a detailed view of the project area. The intersection of Gilroy's sphere of influence with farmland designated prime or of statewide importance within the 100-year Soap Lake floodplain delineates potential locations for an agricultural mitigation bank.

[4] First figure taken from city of Gilroy's agricultural mitigation policy, see Appendix A

Table 2: Important Farmland Categories in 100-Year Floodplain

Farmland of Local Importance (L)
Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.

Farmland of Statewide Importance (S)
Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

Grazing Land (G)
Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum mapping unit for Grazing Land is 40 acres.

Prime Farmland (P)
Farmland with the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

Unique Farmland (U)
Farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include nonirrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.

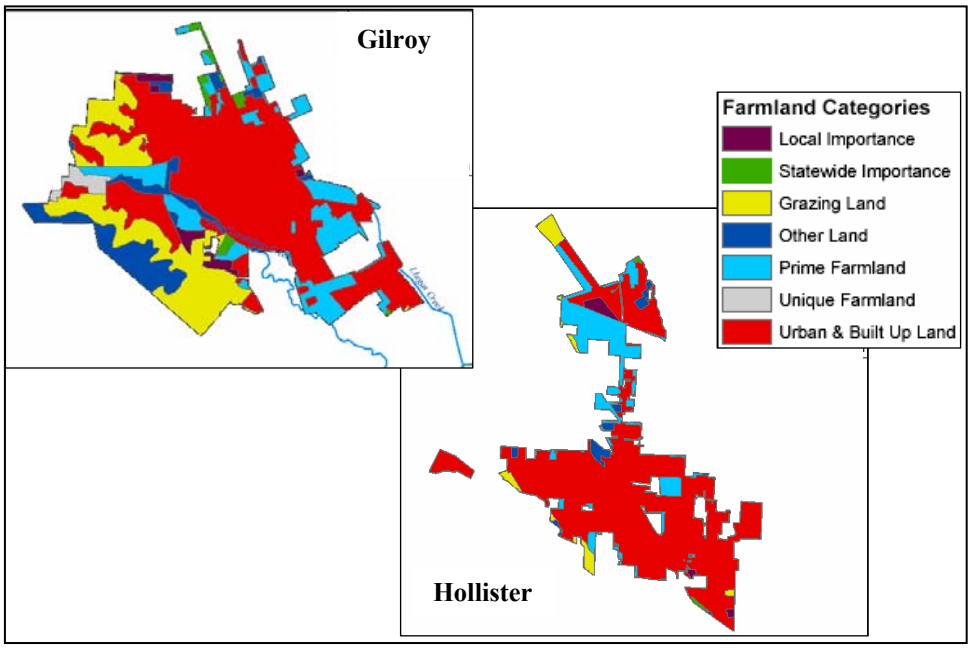

Figure 5: Cities surrounding Soap Lake

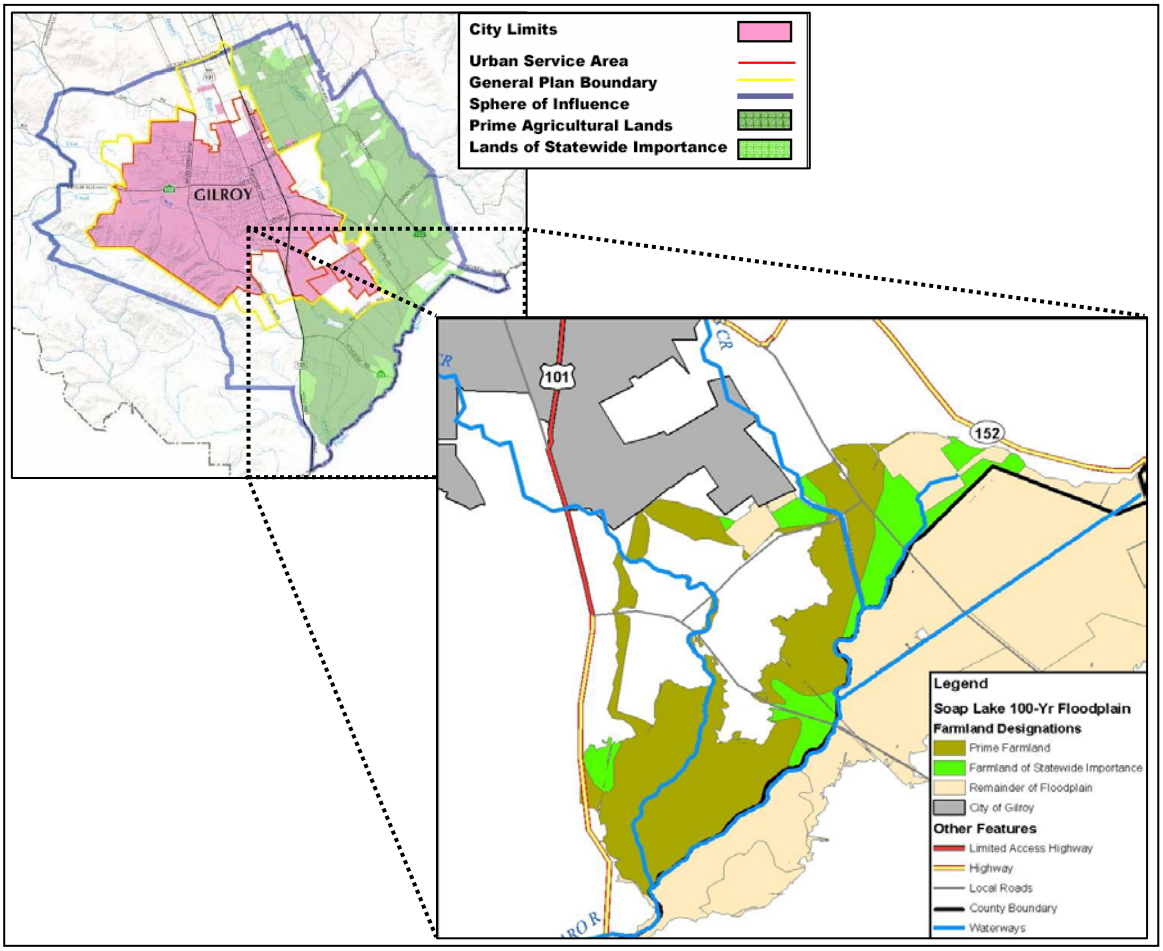

Figure 6: Prime Farmland in City of Gilroy and Soap Lake

Potential Partners

The cities of Gilroy and Hollister currently present the most viable alternatives for potential agency participants. Other cities within the watershed should be approached regarding the use of a Soap Lake mitigation bank to offset development projects. Additionally the counties of Santa Clara and San Benito, as member agencies in the Joint Powers Authority, should investigate adopting practical mitigation policies, using Gilroy's policy as a template.

The Land Trust of Santa Clara County has taken the lead in approaching the city of Gilroy to amend it's policy to include mitigation banking. One of the Land Trust of Santa Clara County's primary missions is in the acquisition of conservation easements on agricultural lands, and they have the ability to pursue projects in both Santa Clara County and San Benito County.

Wildlands Inc. is a private habitat development and land management company involved in mitigation and conservation banking. They recently purchased property in the Soap Lake area as a wetland mitigation bank where half of the land will be converted to

wetlands. Wildlands Inc. has indicated they may be interested in future land acquisition in the Soap Lake area. Other mitigation potential bank operators may include The Nature Conservancy, the American Farmland Trust, and the San Benito Agricultural Land Trust.

Funding

Land trusts or other private organizations would purchase land for the mitigation bank. Developers requiring mitigation would make payments for credits directly to the bank operator. The local agency requiring the mitigation would approve the transaction as viable mitigation. Local government agencies would not be financially involved in the land purchase or mitigation credit purchase. Funding opportunities for an agricultural mitigation bank would be similar to the funding opportunities open to other agricultural conservation pursuits in the region. This topic is covered in TM 4.2.7: Identification of Funding Opportunities.

Recommendations

- The city of Gilroy should amend its current (5/04) mitigation policy to include agricultural banking as an acceptable form of mitigation. The city should work with the Land Trust of Santa Clara County to develop a practical banking program that will provide convenient mitigation for potential developers.
- The city of Hollister, city of Morgan Hill, and the city of San Juan Bautista should adopt an agricultural mitigation policy similar to Gilroy's current (5/04) policy, including agricultural banking as an acceptable mitigation measure. The city should work with the Land Trust of Santa Clara County or another local land trusts to determine the interest in developing a land banking program.
- The Authority should encourage Santa Clara County and San Benito County to adopt a regional agricultural mitigation policy to preserve the agricultural character of the region. The policy should identify multiple mitigation strategies, similar to Gilroy's current (5/04) policy, and incorporate agricultural mitigation banking as a potential mitigation measure.
- The criteria for acceptable mitigation lands should be defined by California Department of Conservation farmland categories. These designations ensure that a mitigation bank program will sell credits for lands of similar agricultural value as the farmland being converted.
- The Authority should provide a letter of support to organizations pursuing the implementation of an agricultural mitigation bank in accordance with the conservation easement provisions established by the Authority
- Priority for credits should be given to local projects within the watershed boundaries. Applications from projects outside of the watershed should be evaluated so long as they don't compete with projects within the watershed.

Resources

Agricultural mitigation policies have been adopted by many agencies in California that recognize the loss of farmland as detrimental to the environment. The city of Gilroy's agricultural mitigation policy is found in Appendix A. Mitigation policies from other agencies in California are listed below:

- City of Gilroy - http://www.ci.gilroy.ca.us/ - Agricultural Mitigation Policy, adopted May 3, 2004
- Monterey County - http://www.co.monterey.ca.us/gpu/reports/eir_0204/ - 21st Century Monterey County General Plan, Monterey County Draft Environmental Impact Report, Section 5.1.2.3, February 2004
- City of Davis - http://www.city.davis.ca.us/ - City of Davis Municipal Code
- City of Brentwood - http://www.ci.brentwood.ca.us/start.htm - Agricultural Enterprise Program, Agricultural Advisory Committee, Final Report, August 2001

Farmland category information can be found through the California Department of Conservation, Department of Land Resource Protection. http://www.consrv.ca.gov/index/

Information on conservation easements and other matters of conservation can be found through local land trusts. These non-profit organizations can assist in the acquisition of property or easements for conservation purposes. Below is a list of several land trusts in the region and Wildlands, Inc. a private, for profit conservation organization:

- The Land Trust of Santa Clara County- http://www.landtrustscc.org/index.html
- The Nature Conservancy- http://nature.org/
- American Farmland Trust- http://www.farmland.org/
- San Benito Agricultural Land Trust- http://sanbenitoaglandtrust.org/
- Wildlands, Inc.- http://www.wildlandsinc.com/

Appendix

Gilroy Agricultural Mitigation Policy