East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan Annual Report 2012

June 2013

East Contra Costa County Habitat Conservancy

TABLE OF CONTENTS

Page

List of Tables iii
List of Figures v
Acronyms and Abbreviations vi
Executive Summary ES-1
Covered Activities ES-2
Land Acquisition and Stay-Ahead ES-2
Habitat Restoration and Creation ES-3
Coordinated Wetland Permitting ES-4
Funding ES-5
I. Introduction 1
East Contra Costa County HCP/NCCP Background 1
Annual Report 2
Covered Activities and Impacts 3
Land Acquisition 3
Habitat Restoration and Creation 3
Preserve Management 4
Monitoring, Research, and Adaptive Management 4
Stay-Ahead Provision 4
Changed Circumstances and Remedial Measures 4
Finances 4
Program Administration 4
II. Covered Activities and Impacts 5
Covered Activities Receiving Take Coverage 5
Conditions on Covered Activities 6
Impacts on Land Cover Types and Covered Plants 6
III. Land Acquisition 7
Preserve System 7
Acquisition Analysis Zones 7
Land Acquisition 8
New Preserve System Acquisitions 9
A Note on Property Acreages 10
Pre-Existing Conservation Easements 10

IV. Habitat Restoration and Creation 15
Wetlands and Streams 15
Alkali Wetlands 15
Mitigation and Contribution to Recovery 15
Souza II Corral Vernal Pool Restoration 16
Project Overview 16
Performance Criteria and Monitoring 16
Vaquero Farms South Vernal Pool Creation Project 17
Project Overview 17
Performance Criteria and Monitoring 17
Upper Hess Creek Watershed Habitat Restoration Project 17
Project Overview 17
Performance Criteria and Monitoring 18
Irish Canyon Riparian Restoration Project 20
Project Overview 20
Performance Criteria and Monitoring 20
Lentzner Springs Wetland Restoration Project 21
Project Overview 21
Performance Criteria and Monitoring 21
Vasco Caves Souza I Pond Creation Project 22
Project Overview 22
Performance Criteria and Monitoring 23
Souza II Wetland Restoration Project 24
Project Overview 24
Performance Criteria and Monitoring 24
V. Preserve Management 27
Natural Community Enhancement 27
Land Management 30
Conceptual Ecological Models 31
VI. Monitoring, Research, and Adaptive Management 32
Monitoring 32
Directed Research 34
Adaptive Management 35
VII. Stay-Ahead Provision 37
Stay-Ahead Provision 37
Stay-Ahead Assessment 37

VIII. Changed Circumstances and Remedial Measures 38
IX. Finances 39
Budget 39
Revenue Sources 39
Funding in Perpetuity 40
X. Program Administration 41
Minor and Major Amendments 41
Coordinated Wetland Permitting 41
Background and 2012 Achievements 41
Summary of Regional General Permit and associated Biological Opinion 41
Proposed In Lieu Fee Instrument/Program 42
Interim Strategy 42
Mitigation Fee Audit and Update 43
XI. References 44
XII. List of Preparers 46
East Contra Costa County Habitat Conservancy 46
ICF International 46

Appendix A: Glossary A-1
Definitions of Key Terms and Concepts A-1

List of Tables

Follows Page

1. Reporting Summary of Covered Activities for 2012 5
2. Reporting Period Summary of Natural Community and Landscape-level Conditions on Covered Activities by Project 6
3. Reporting Period Summary of Species-Level Conditions on Covered Activities by Project 6
4. Reporting Period and Cumulative Impacts on Land Cover Types from Covered Activities and Conservation Measure Implementation (includes projected impacts from activities not yet performed 6
5. Reporting Period and Cumulative Impacts to Covered Plants 6
6. Impacts to Aquatic and Stream Land Cover Types by Watershed: Reporting Period and Cumulative 6

7. Cumulative Summary of Acquired Properties and their Funding Sources. Calculation of Non-Federal match for Section 6 Grants 8

8a. Summary of Natural Community Protection, Restoration, and Creation by Land-Cover Type 8

8b. Reporting Period Summary of Natural Community Protection, Restoration, and Creation by Land Acquisition 8

9. Cumulative Summary of Progress towards Fulfilling Preservation Requirements for Jurisdictional Wetland and Waters Requirements 8

10. Reporting Period and Cumulative Conservation of Covered Plants 8

11. Achievement of Zone-Specific Land Acquisition Requirements: Reporting Period and Cumulative Summary 9

12. Aquatic and Stream Land Cover Restoration and Creation by Watershed 16

13a. Souza II Corral Vernal Pool Restoration Specific Objectives and Performance Criteria ... 24

13b. Vaquero Farms South Vernal Pool creation Specific Objectives and Performance Criteria 24

13c. Upper Hess Habitat Restoration Project: Site-specific Restoration Objectives 24

13d. Upper Hess Habitat Restoration Project Performance Standards 24

13e. Lentzner Springs Wetland Restoration Project Performance Standards for Restoration Plantings 24

13f. Vasco Caves Souza I Pond Project Performance Standards 24

13g. Souza II Wetland Restoration Project (Phase I) Performance Standards for Restoration Plantings 24

14. Stay-Ahead Assessment: Land Cover 37

15. Stay-Ahead Assessment: Plants 37

16. Conservancy Budget: Expenditures and Comparison to Budget Projections 39

17. Summary of All Revenues Received/Approved 39

18. Summary Accounting of Fee and Grant Revenues Received in Reporting Period (includes grant funds approved but not received) 39

19. Grants Awarded to Conservancy for Implementation of East Contra Costra County HCP/NCCP 40

List of Figures

Follows Page

ES-1. Stay Ahead Compliance ES-5

ES-2. Detailed Comparison of Conservation Required and Achieved to Impact Limit and Incurred for Terrestrial Land Cover Types ES-5

ES-3. Detailed Comparison of Conservation Required and Achieved to Impact Limit and Incurred for Aquatic Land Cover Types ES-5

ES-4. Progress Toward Assembling the Preserve System ES-5

1. East Contra Costa County Habitat Conservation Plan Inventory Area 1

2. Initial Urban Development Area and Specific Rural Infrastructure Projects that may be Covered 5

3a. Location and impact acreage for Projects that Received Coverage in 2012 5

3b. Location of Covered Projects to-date (20082012) 5

4. Acquisition Analysis Zones and Sub-Zones 7

5. Acquisition Priorities with Initial Urban Development Area 7

6. Acquisition Priorities with Maximum Urban Development Area 7

7. EBRPD Acquisitions Completed and in Progress under HCP as of December 31, 2012 8

8. Affinito Property – Landcover Map 10

9. Affinito: Representative Photographs 10

10. Vaquero Farms Central Property – Landcover Map 11

11. Vaquero Farms Central: Representative Photographs 11

12. Galvin Property – Landcover Map 12

13. Galvin: Representative Photographs 12

14. Moss Rock Property – Landcover Map 12

15. Moss Rock: Representative Photographs 12

16. Fan Property – Landcover Map 13

17. Fan: Representative Photographs 13

18. Thomas North Property – Landcover Map 13

19. Thomas North: Representative Photographs 13

20. Location of Habitat Restoration and Creation Projects Constructed in 2012 16

21. Souza II Corral Vernal Pool Restoration: Site Plan 16
22. Souza II Corral Vernal Pool Restoration: Representative Photographs..... 16
23. Vaquero Farms South Vernal Pool Creation Project: Site Plan 17
24. Vaquero Farms South Vernal Pool Creation Project: Representative Photographs 17

Acronyms and Abbreviations

APWRA	Altamont Pass Wind Resource Area
BMP	best management practice
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
Conservancy	East Contra Costa County Habitat Conservancy
Corps	U.S. Army Corps of Engineers
CWA	Clean Water Act
DEM	Digital Evaluation Model
EBRPD	East Bay Regional Park District
EPA	U.S. Environmental Protection Agency
ESA	Federal Endangered Species Act
FAC	Facultative
FACW	facultative wetland
GIS	geographic information system
gps	global positioning system
HCP/NCCP	Habitat Conservation Plan/Natural Community Conservation Plan
HCPA	Habitat Conservation Plan Association
ILF	In Lieu Fee

kV	Kilovolt
NCCPA	Natural Community Conservation Planning Act
OBL	obligate wetland
OHWM	ordinary high water mark
Permittees	Contra Costa County, Contra Costa County Flood Control and Water Conservation District, City of Brentwood, City of Clayton, City of Oakley, City of Pittsburg, East Bay Regional Park District, and East Contra Costa County Habitat Conservancy
Plan	East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan
RGP	Regional General Permit
RWQCB	Regional Water Quality Control Board
State Board	State Water Resources Control Board
USFWS	U.S. Fish and Wildlife Service
WCB	Wildlife Conservation Board

EXECUTIVE SUMMARY

This is the third Annual Report for the East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP; or Plan) prepared by the East Contra Costa County Habitat Conservancy (Conservancy). This Annual Report summarizes implementation activities undertaken between January 1, 2012, and December 31, 2012, per the conditions of the Plan and Implementing Agreement.

The HCP/NCCP proactively addresses the long-term conservation needs in the region by strengthening local control over land use and providing greater flexibility in meeting other needs such as housing, transportation, and economic growth. It provides a regional conservation and development framework that protects natural resources while improving and streamlining the permit process for state- and federally listed species and impacts on their habitats. Permits issued by the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW) in 2007 allow the Permittees[1] to comply with the federal Endangered Species Act (ESA) and California's Natural Community Conservation Planning Act (NCCPA). Over the 30-year permit term, impacts from urban development and rural infrastructure projects will be offset by the creation of a Preserve System managed for the benefit of 28 covered species, as well as the natural communities that they, and hundreds of other species, depend on for habitat.

[1] The Permittees are Contra Costa County; the cities of Brentwood, Clayton, Oakley, and Pittsburg; the East Contra Costa County Habitat Conservancy; the Contra Costa County Flood Control and Water Conservation District; and the East Bay Regional Park District.

Covered Activities

Projects approved as covered activities under the Plan provide a number of benefits to the communities in eastern Contra Costa County. For example, one significant project covered under the Plan in 2012 was the Upper Sand Creek Detention Basin Project, which was a covered activity by the Contra Costa County Flood Control and Water Conservation District. In addition to incidental take coverage, this project received coverage under the new Regional General Permit 1 (RGP1) with the U.S. Army Corps of Engineers (Corps), which streamlines the Section 404 permitting process. The project will expand an existing 49-acre basin to 61.5 acres, a capacity increase from approximately 123-acre feet to 900-acre feet, to better attenuate flows from the upper Marsh Creek watershed and provide improved flood protection for the downstream communities. The City of Pittsburg was also able to take advantage of the RGP1 and the new streamlined Section 404 permit process. The City is constructing a trash capture system at the outfall of an existing residential storm drain system in central Pittsburg. Once installed, the full trash capture device will be used to treat runoff from an area equivalent to 30 percent of the City's retail/wholesale land that drains into its municipal separate stormwater sewer systems. The eBART project, a 10-mile extension of the BART system, underwent the permitting process in 2011 and received its permit in January 2012. This $462 million project will generate over 600 construction jobs and 40 to 80 permanent jobs.

Altogether, 14 projects received take coverage under the Plan in 2012, including 3 urban development projects and 11 rural infrastructure projects, totaling approximately 60.6 acres of permanent impacts and 94.9 acres of temporary impacts on terrestrial land cover types. In addition, there were 324 linear feet of permanent and 3,663 linear feet of temporary impacts on streams.

As required by the HCP/NCCP, impacts resulting from covered activities were tracked by land cover type and covered plant occurrences. Impacts on aquatic and stream land cover types were tracked by watershed. Impacts on aquatic land cover types during the reporting period were limited to the Kellogg watershed, Lower Marsh watershed, Sand watershed, and the Upper Marsh watershed.

Land Acquisition and Stay-Ahead

The first 5 years of Plan implementation resulted in significant progress toward acquisition goals (see Figures ES-1 through ES-4). As of December 31, 2012, 23 properties were acquired for the Preserve System totaling over 9,097 acres. This includes 6 properties acquired in 2012. All acquisitions to date have been completed in partnership with the East Bay Regional Park District (EBRPD) (i.e. EBRPD will own and manage Preserve System lands). Highlights of the acquisitions include the following achievements.

- More than 400 acres of annual grassland acquired, and more than 6,800 acres acquired to date (33% of the annual grassland preservation requirement achieved).
- More than 60 acres of alkali grassland acquired, and more than 180 acres acquired to date (13% of the alkali grassland requirement achieved).
- More than 30 acres of oak savanna acquired, and more than 330 acres acquired to date (62% of the oak savanna preservation requirement achieved).
- More than 95 acres of oak woodland acquired, and nearly 1,300 acres acquired to date (292% of the oak woodland preservation requirement achieved).

The Conservancy is in compliance with the Plan's Stay-Ahead Provision. As displayed in Figure ES-1, the Conservancy has made substantial progress in the first 3 years of implementation toward many of the Plan's Year-30 conservation requirements. For example, all of the oak woodland required to be conserved during the Plan has already been conserved. There have been no impacts on several land cover types, including chaparral scrub, oak savannah, and oak woodland, so each acre conserved to date is in excess of the Stay-Ahead requirement. Conservation of other land cover types is also ahead of impacts incurred (see Figures ES-1, ES-2, ES-3, and ES-4 for details). Likewise, the Stay-Ahead Provision only reflects land cover requirements and does not reflect geographical requirements intended to ensure Preserve System connectivity. As shown in Figure ES-4, the Conservancy is ahead of the average pace necessary to assemble the 30,300-acre Preserve System estimated to be required by Year 30, but it still has a long way to go.

Habitat Restoration and Creation

The Plan requires stream and wetland restoration and pond creation to compensate for impacts on streams, wetlands, and ponds covered by the Plan. Over the 30-year life of the Plan, the Conservancy anticipates restoring or creating as much as 500 acres of wetlands and ponds, and 6 miles of streams (this figure assumes maximum impacts occur; the ultimate requirement

may be much less). The Conservancy has been aggressively pursuing these restoration requirements. During the reporting period, the Conservancy constructed two restoration projects. To date, seven restoration projects have been constructed, and each is now being monitored and adaptively managed. These seven restoration projects were designed to restore or create the following.

- 0.02 acre of alkali grassland.
- 0.04 acre of native grassland.
- 2.5 acre of alkali wetlands.
- 8.3 acres of seasonal wetland.
- 0.2 acre of perennial wetlands.
- 0.9 acre of riparian woodland.
- 0.4 acre of ponds.
- 5,100 feet of intermittent stream.

The seven restoration projects constructed to date provide a range of benefits to covered species. Each of the seven projects benefit covered amphibian species (California red-legged frog and California tiger salamander). Wetland restoration in 2009 and 2012 at Souza II and in 2012 at Vaquero Farms South increases habitat for covered vernal pool crustaceans. Restoration on Lentzner and Souza II also increases rare alkali grassland and supports habitat for alkali wetland plant species.

Coordinated Wetland Permitting

The HCP/NCCP was designed to conserve not only endangered species, but wetlands and waters that provide habitat for these species and support other natural resource functions and values. This approach was intended, in part, to enable permit streamlining to extend beyond endangered species and to include regional permitting under state and federal laws for impacts on jurisdictional wetlands and waters. The interest in integrating federal and state wetland permitting into the HCP/NCCP process is the same as the articulated purpose of the Plan—to benefit stream and wetland resources by conserving these resources in a more coordinated and comprehensive fashion on a regional scale and to provide an integrated, coordinated approach to permitting in lieu of the often inefficient and costly project-by-project approach.

Discussion with Corps, U.S. Environmental Protection Agency, State Water Resources Control Board, the Regional Water Quality Control Boards, CDFW, and USFWS regarding this parallel approach to compliance with wetlands regulations started in 2002 during the early stages of developing the HCP/NCCP. Coordinating wetlands regulation with HCPs is difficult in part because there is no precedent.

Important milestones reached in 2012 are as follows.

- On May 4, 2012, the Corps issued an RGP related to the HCP/NCCP. The RGP is designed to streamline wetland permitting in the HCP/NCCP Plan Area by coordinating the avoidance, minimization, and mitigation measures in the Plan with the Corps' wetland permitting requirements. Currently, the RGP only relates to the Clean Water Act Section 404 permits, but discussions are ongoing with the State

Board and Regional Water Quality Control Boards to coordinate their requirements with the RGP and HCP/NCCP.

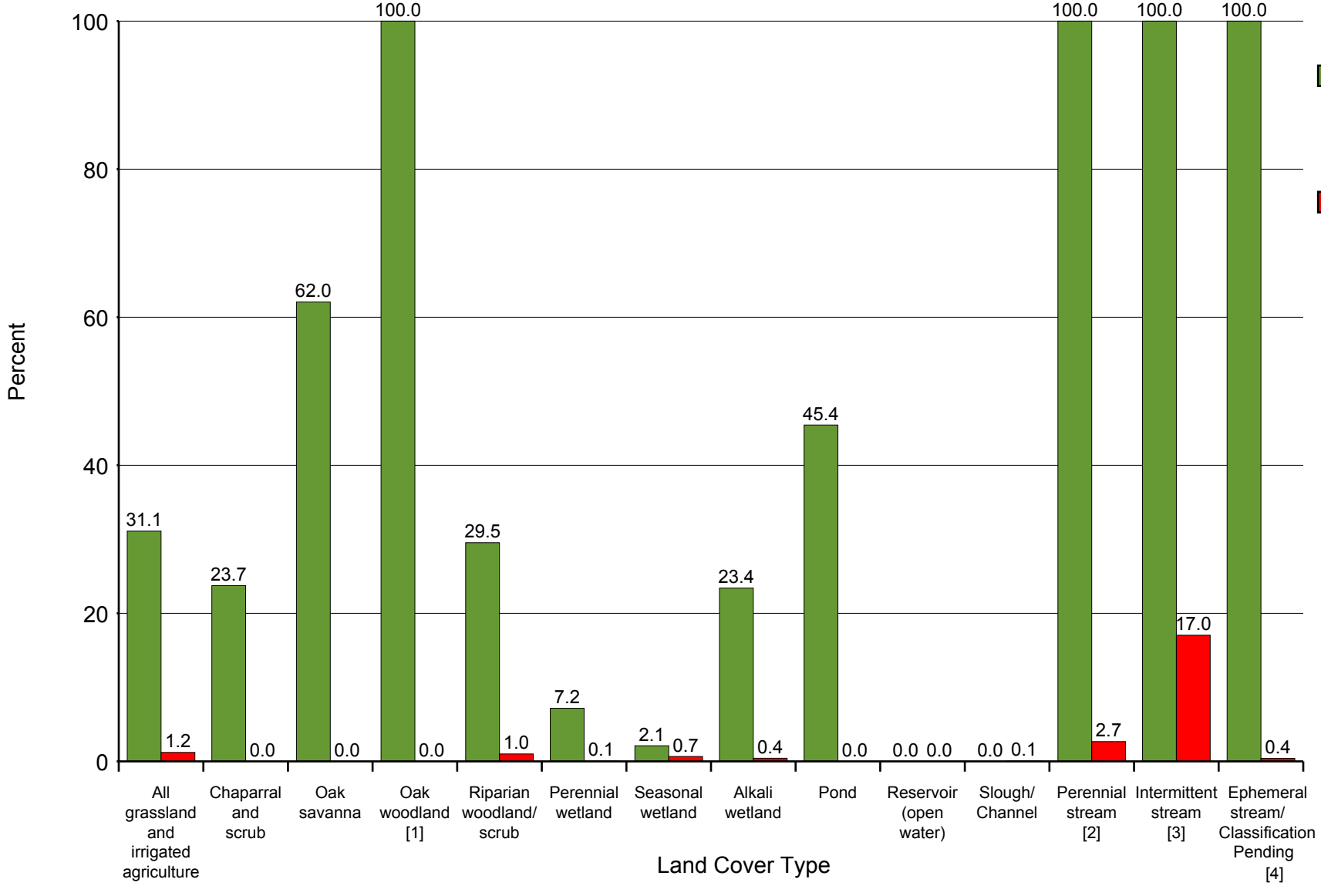
- On April 30, 2012, the USFWS issued a Biological Opinion on the RGP. The Biological Opinion for the RGP relies on the HCP/NCCP for mitigation measures and eliminates the need for the Corps to consult individually with the USFWS for each project covered by the RGP. The term of the Biological Opinion corresponds with the 30-year term of the HCP/NCCP.
- The Conservancy is seeking to establish an In-Lieu Free (ILF) program to comply with the recent federal "Mitigation Rule" (Code of Federal Regulations [CFR], Title 33, Part 332). The proposed ILF program would be implemented in conjunction with the RGP and HCP/NCCP. The program would sanction payment of HCP/NCCP fees as suitable mitigation under Corps permits. The Conservancy is working with the Corps to develop the ILF program agreement.
- As an interim strategy until the ILF program is in place, the approach is "permittee-responsible compensatory mitigation," an option defined in federal Mitigation Rule 33 CFR Part 332. Under this approach, until the ILF is approved, the Conservancy will represent for the Corps that applicants receiving authorization under the RGP would fulfill compensatory Section 404 mitigation requirements by designating a portion of one or more of the Conservancy's existing wetland restoration sites as the compensatory mitigation for an applicant's project. The Corps has approved using this interim strategy for up to 1 year, at which time the interim strategy would be replaced by the ILF program.

Funding

The Conservancy has successfully pursued grants. Various federal, state, and private funding sources generously awarded $6,288,144 during the reporting period to Conservancy activities. Fees received totaled $1,275,057. EBRPD acquisitions funding and local contributions to recovery totaled $368,518. Local matching funds, which include grants awarded to local partners, is estimated at $1,327,890.

Figure ES-1. Stay Ahead Compliance

This is a graphical representation of data in Table 14.
The chart compares conservation achieved to impacts incurred according to the specific guidelines set forth in the Stay Ahead Provision.
The green bars display the percent of the land cover acquired as a percent of the conservation required.
The red bars display the percent of land cover impact incurred as a percent of the impact limits.
To comply with the Stay Ahead Provision, for terrestrial land covers the green bars need to be not more that 5% below the red bars.
With the extensive conservation effort to date, progress toward conservation goals have met, exceeded or vastly exceeded Stay Ahead Provision requirements.



[1] Oak woodland has exceeded the conservation requirement: it is 292% of the total.

[2] Perennial stream has exceeded the conservation requirement: it is 253% of the total.

[3] Intermittent stream has exceeded the conservation requirement: it is 3238% of the total.

[4] Ephemeral stream/ class. pending has exceeded the conservation requirement: it is 342% of the total.

Figure ES-2a. Detailed Comparison of Conservation Required and Achieved to Impact Limit and Incurred for Terrestrial Land Cover Types

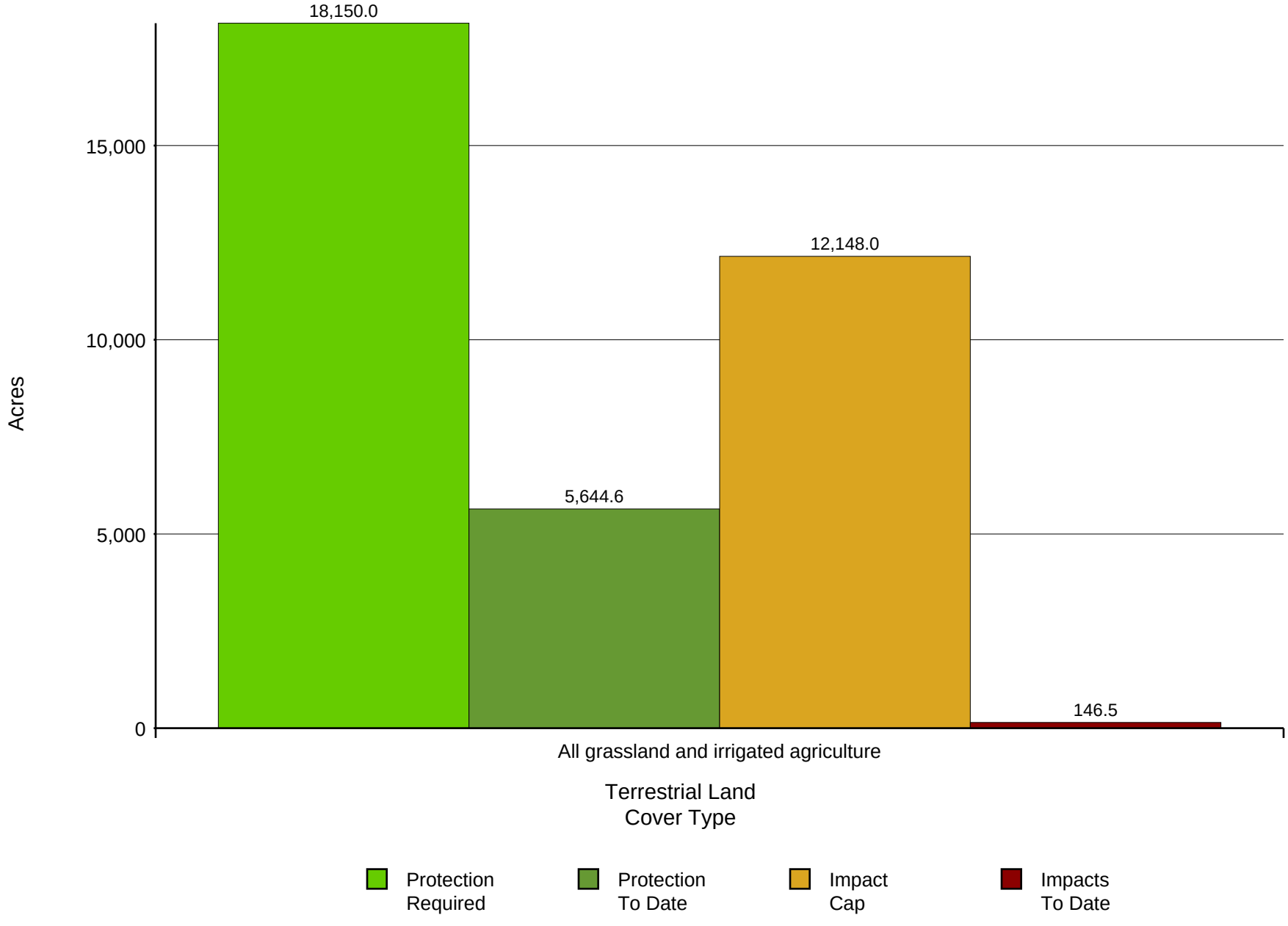


Figure ES-2b. Detailed Comparison of Conservation Required and Achieved to Impact Limit and Incurred for Terrestrial Land Cover Types

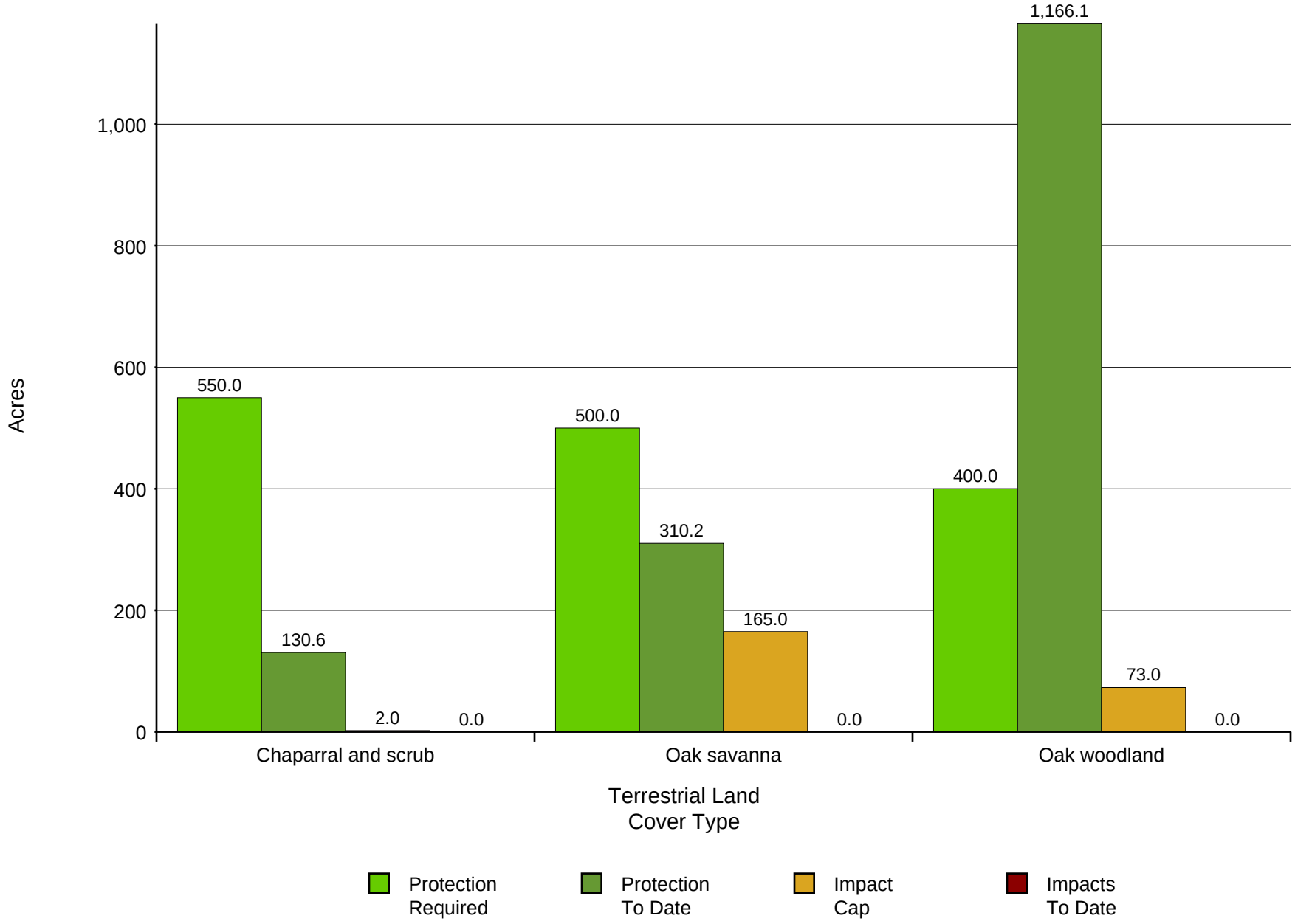


Figure ES-3a. Detailed Comparison of Conservation Required and Achieved to Impact Limit and Incurred for Aquatic Land Cover Types

Note: Aquatic land cover requirements are linked to mitigation ratios rather than absolute acreage figures.
The caps and requirements shown here are based on the maximum estimated impacts.

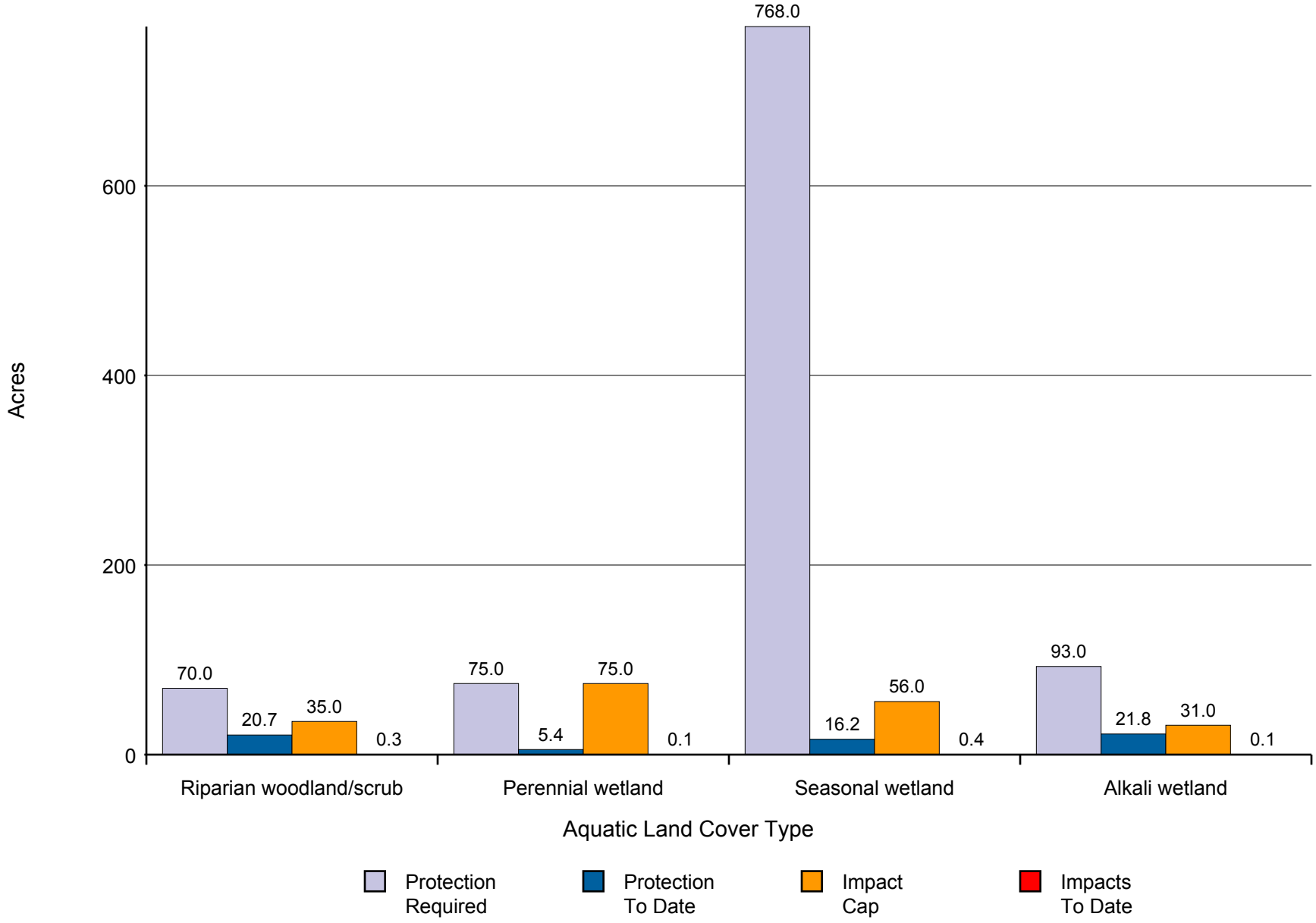


Figure ES-3b. Detailed Comparison of Conservation Required and Achieved to Impact Limit and Incurred for Aquatic Land Cover Types

Note: Aquatic land cover requirements are linked to mitigation ratios rather than absolute acreage figures.
The caps and requirements shown here are based on the maximum estimated impacts.

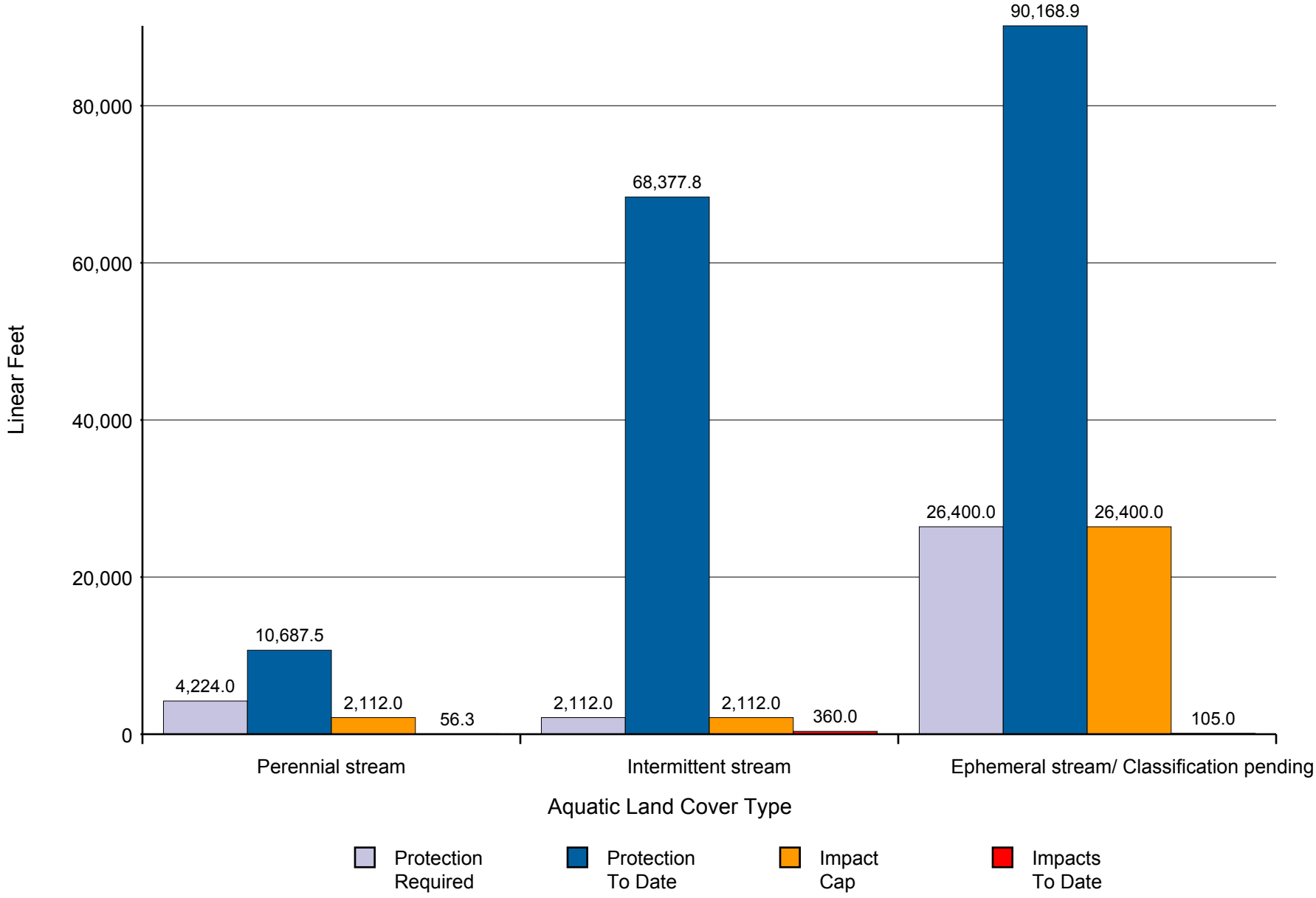
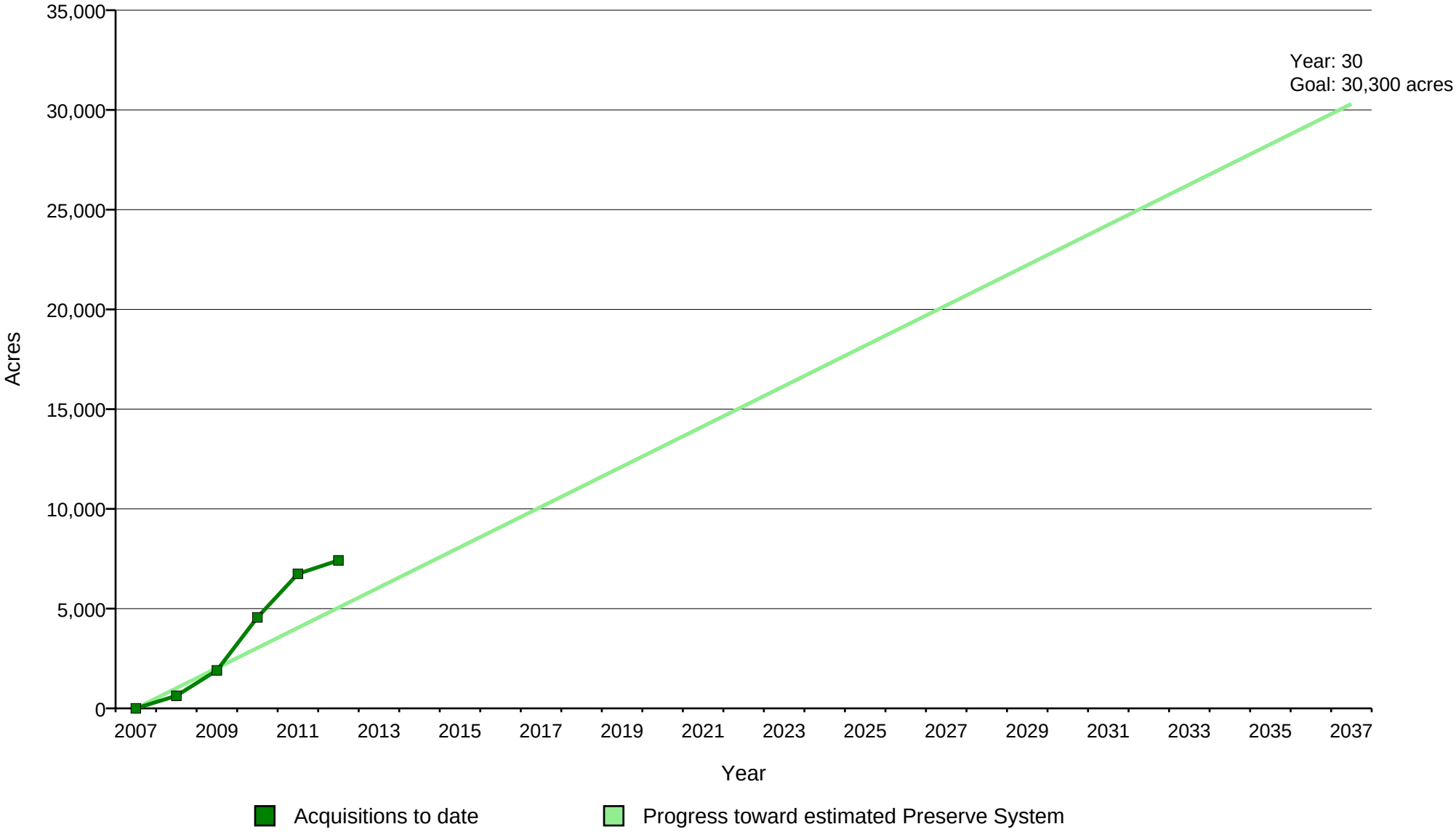


Figure ES-4. Progress Toward Assembling the Preserve System

Note: The HCP/NCCP estimates a maximum of approximately 30,300 acres will be necessary by 2037 (Year 30) to achieve all conservation requirements.



I. INTRODUCTION

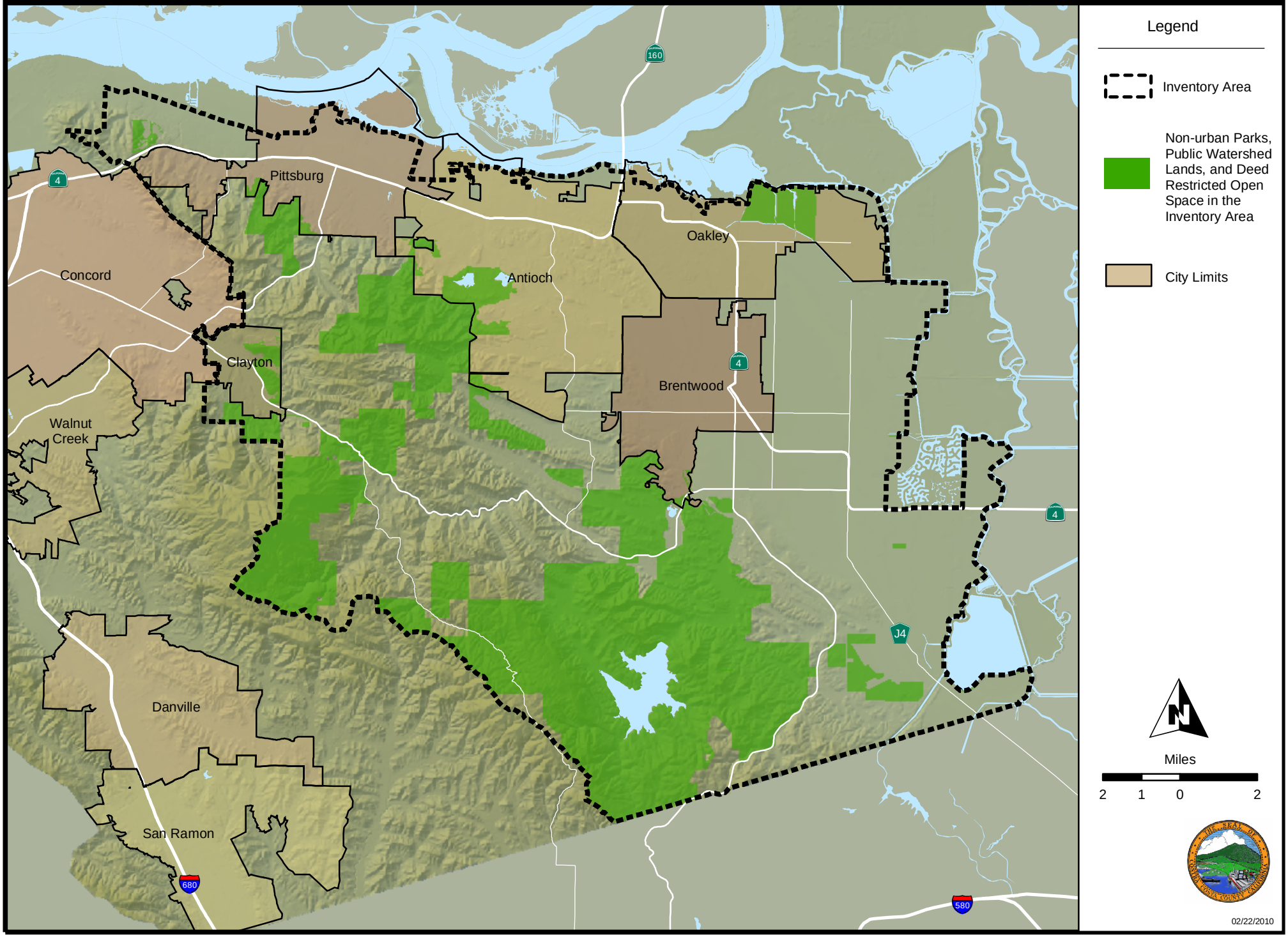
East Contra Costa County HCP/NCCP Background

Eastern Contra Costa County is a unique region where the San Francisco Bay Area, Sacramento–San Joaquin River Delta, and Central Valley meet (Figure 1). Much of the area retains a rural lifestyle supporting housing, farms, and ranches. It features a rich landscape that is home to a number of rare plants and animals. More than 150 rare species occur in the East County area, including the San Joaquin kit fox (*Vulpes macrotus mutica*), California red-legged frog (*Rana draytonii*), California tiger salamander (*Ambystoma californiense*), Alameda whipsnake (*Masticophis lateralis euryxanthus*), western burrowing owl (*Athene cunicularia hypugea*), vernal pool fairy shrimp (*Brachinecta lynchi*), and Diablo helianthella (*Helianthella castanea*). Located east of San Francisco, the area's convenient location, natural beauty, and mild climate have led to rapid population growth. Contra Costa County's population is predicted to grow by 127,000 people between 2007 and 2025, providing important new housing for the San Francisco Bay Area's growing workforce. A significant portion of this growth will occur in East County in habitat that supports state and federally listed species, resulting in a conflict between conservation and development.

Between 2001 and 2006, the East Contra Costa County Habitat Conservation Plan Association (HCPA) developed the East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP; or Plan) that provides regional conservation and development guidelines to protect natural resources while improving and streamlining the permit process for state and federally listed species and wetland regulations. The Plan was approved at the local level in 2006 and 2007 and permits were issued by the California Department of Fish and Wildlife (formally California Department of Fish and Game [CDFW]) and the U.S. Fish and Wildlife Service (USFWS) in 2007. The Plan will allow Contra Costa County (County), the Contra Costa County Flood Control and Water Conservation District (County Flood Control District), the East Bay Regional Park District (EBRPD), the cities of Brentwood, Clayton, Oakley, and Pittsburg, and the East Contra Costa County Habitat Conservancy (Conservancy) (collectively, the Permittees) to control endangered species permitting for activities and projects in the region, performed or approved by the Permittees, while providing comprehensive species, wetlands, and ecosystem conservation and contributing to the recovery of endangered species in northern California. The Plan will help to avoid project-by-project permitting, which is generally costly and time consuming for applicants and often results in uncoordinated and biologically ineffective mitigation.

The Plan was developed by a team of scientists and planners led by the HCPA with input from independent science reviewers, stakeholders, and regulators. Within the 174,018-acre inventory area, the permits issued provide take authorization under the state and federal Endangered Species Acts (ESAs) for between 8,670 and 11,853 acres of urban development and 1,126 acres of rural infrastructure projects. The primary means to offset these impacts is to conserve and restore lands in a Preserve System. The Preserve System will encompass 23,800

Figure 1. East Contra Costa County Habitat Conservation Plan Inventory Area



acres to 30,300 acres of land that will be managed to benefit the 28 species covered by the Plan as well as the natural communities that they, and hundreds of other species, depend on for habitat.

The East Contra Costa County Habitat Conservancy (Conservancy) is the Implementing Entity tasked with implementation of the HCP/NCCP. The Conservancy is a joint exercise of powers authority formed by the participating cities and the County. The Conservancy Governing Board consists of elected officials from participating city councils and the County Board of Supervisors. The Executive Director manages day to day activities of the Conservancy under the direction of the Governing Board. The Executive Director, in partnership with two dedicated staff members, performs a wide range of tasks necessary to implement the Plan. Responsibilities include coordinating real estate activities, reviewing and tracking applications for take authorization, coordinating habitat restoration, overseeing monitoring, and adaptive management, maintaining the budget, managing consultants, applying for outside funding and administering approved grants, coordinating with external agencies, compiling annual reports to the CDFW and the USFWS and supporting the Governing Board and advisory committees.

The EBRPD is expected to be a primary landowner and land manager for the Preserve System, and so far all land acquisitions have been performed by the EBRPD. The EBRPD has more than 75 years of experience managing public open space lands and now owns more than 110,000 acres. HCP/NCCP Preserve System lands acquired by EBRPD will ultimately be available for public access.

Annual Report

The primary purpose of this Annual Report is to provide the Governing Board, the USFWS, the CDFW, and the general public the opportunity to review the Conservancy's actions and progress made toward implementing the Plan. These entities will use the Annual Report to assess the success of the Plan and provide recommendations to the Plan's Governing Board and the Conservancy staff for Plan implementation in subsequent years. The goals of the Annual Report are as follows.

- Providing the information and data necessary for the Permittees to demonstrate to the CDFW and the USFWS that the Plan is being implemented according to the Plan, the Implementing Agreement, and the permits.
- Disclosing and documenting issues with Plan implementation that require consultation and resolution with the CDFW, the USFWS, and/or the Permittees.
- Identifying administrative or minor changes to Plan components implemented in the last calendar year that were adopted to increase the success of the Plan.

This is the fourth Annual Report prepared by the Conservancy to document the progress of the Plan. This Annual Report summarizes the Plan implementation activities undertaken from the full start of Plan Implementation on January 18, 2008 (when the last set of local ordinances

took effect[2]) to December 31, 2012. The required elements of the Annual Report as defined by the Plan are listed below.

- Covered Activities and Impacts
- Land Acquisition
- Habitat Restoration and Creation
- Preserve Management
- Monitoring, Research, and Adaptive Management
- Stay-Ahead Provision
- Changed Circumstances and Remedial Measures
- Finances
- Program Administration

Except where noted, data is provided only for the current reporting period of January 1, 2012 through December 31, 2012.

Covered Activities and Impacts

Section II describes all projects and activities for which incidental take authorization was approved (covered activities) during the reporting period, including an accounting of the acreage of impact by project, activity type, and land cover type. Conditions on covered activities applied to each project are identified, and impacts on riparian and wetland land cover types are reported by watershed.

Land Acquisition

Section III describes the land acquisitions that occurred during the reporting period, including a summary of land acquisition funding from local, state, and federal sources. Each land acquisition conservation measure implemented is identified and a summary of natural community protection during the reporting period and permit term is provided. In addition, progress toward all acquisition requirements, including land cover types, habitat connectivity, covered plant populations, and wetland protection is assessed.

Habitat Restoration and Creation

Section IV describes natural community creation and restoration conservation measures implemented during the reporting period and permit term, including riparian and wetland restoration by watershed. Each restoration and creation conservation measure implemented is also identified.

[2] The HCP/NCCP implementing ordinances for the cities of Brentwood and Clayton and Contra Costa County took effect on January 15, 2008. The ordinances for the cities of Oakley and Pittsburg took effect on January 18, 2008.

Preserve Management

Section V describes all land management activities undertaken on Plan preserves and discusses the management issues facing the Conservancy at each preserve unit. Habitat enhancement measures implemented are identified.

Monitoring, Research, and Adaptive Management

Section VI summarizes the monitoring, research, and adaptive management that were conducted by the Conservancy and partners during the reporting period. These actions are summarized at the landscape level, natural community level, and species level.

Stay-Ahead Provision

Section VII assesses compliance with the stay-ahead provision, a set of requirements to ensure that progress toward acquisition of Preserve System lands precedes impacts associated with covered activities. This assessment includes a cumulative summary of impacts and conservation for all land cover types.

Changed Circumstances and Remedial Measures

Section VIII describes actions taken or anticipated regarding changed circumstances, including remedial actions.

Finances

Section IX includes accounting of all revenues received by type (e.g., development fees, wetland fees, grants) and an overview of the Conservancy's budget and expenditures during the reporting period.

Program Administration

Section X summarizes administrative changes, minor modifications, or major amendments proposed or approved during the reporting year. Policy clarifications and early implementation tasks that occurred during the reporting period are described in subsections.

II. COVERED ACTIVITIES AND IMPACTS

This section describes the activities and projects within the inventory area that were approved for take authorization pursuant to the Plan (covered activities) during the reporting period. The Plan requires covered activities to compensate, avoid, and minimize impacts on covered species through a variety of conservation measures. The Plan allows incidental take coverage for the following four activities (Figure 2).

- **Urban Development Area Projects.** All activities and projects associated with urban growth within the urban development area as defined by the Plan.
- **Rural Infrastructure Projects.** Transportation projects, flood protection projects, and utility projects occurring outside the urban limit line that support urban development.
- **Rural Infrastructure Operation and Maintenance Activities.** Road, flood protection facility, and utility line or facility operation and maintenance projects that occur outside the urban development area and urban limit line.
- **Preserve System Activities.** Management and recreational facilities; habitat enhancement, restoration, and creation; species surveys, monitoring, and research; emergency activities; utility construction and maintenance; and neighboring landowner activities that occur within the Preserve System.

Covered Activities Receiving Take Coverage

A total of 14 projects received take coverage under the Plan during the reporting period (Table 1 and Figure 3a and Figure 3b). Covered activities include the following.

- 3 Urban Development Area Projects
- 11 Rural Infrastructure Projects

Of the 14 covered activities, 2 received coverage from the City of Oakley, 1 received coverage from the City of Pittsburg, 2 received coverage from Contra Costa County, 2 received coverage from Contra Costa County—Public Works, 1 received coverage from Contra Costa County—Flood Control and Conservation District, 1 received coverage from the East Bay Regional Park District,—and 5 received coverage from the Conservancy. All covered activities mitigated for impacts through the payment of HCP/NCCP fees. These covered projects paid a total of $1,575,029 in HCP/NCCP fees and contributions to recovery in 2012[3]. See Section IX for more details.

[3] Fees paid by City of Pittsburg's Trash Capture Demonstration Project and City of Oakley's Marsh Creek Restoration at Creekside Park are not included in this total. City of Pittsburg's fees were paid in 2011 and City of Oakley's project did not require payment of fees.

Table 1. Reporting Summary of Covered Activities for 2012

Activity Type	Covered By	Project Name	Location	Description
Activities within Urban Development Area				
Commercial	City of Oakley	iPark Oakley Project	259 Sandy Lane, Oakley, CA	The project proponent proposes to construct a solar covered recreational vehicle and boat storage facility and small office building on eight acres of the site and at a future date is planning on building offices on the balance. The Project will be developed in two phases. Of the 11.61 acres parcel, the Phase I Development will be 9.14 acres with the Future Phase II Development of the remaining 2.47 acres.
Other	City of Oakley	Marsh Creek Restoration at Creekside Park	Laurel Road at Marsh Creek, City of Oakley	The City of Oakley is proposing to restore approximately three acres of riparian habitat on both banks of Marsh Creek at the City owned Creekside Park. In addition to the restoration of riparian habitat, the project would develop over 2,400 linear feet of a creekside loop trail and nature trail, and install a pedestrian bridge, benches, picnic tables and other park amenities.
Other	City of Pittsburg	Trash Capture Demonstration Project	Dover Way at Frontage Road	The City of Pittsburg is proposing to construct a trash capture system at the outfall of an existing residential storm drain system in central Pittsburg. Storm water collected from a 300-acre urbanized watershed is conveyed via a culvert through a 63 foot-long ditch. The project will require moderate grading of the side slope and bottom of an open ditch and construction of a 12 ft. x 50 ft. concrete pad, onto which trash capture screens will be mounted.
Rural Infrastructure Projects				
Flood Control	Contra Conta County - Flood Control District	Upper Sand Creek Detention Basin Expansion Project	East of Deer Valley Road, south of Lone Tree Way (just south of Kaiser Hospital), Antioch.	The USCB project will expand the existing 49-acre basin to approximately 61.5 acres, a capacity increase from approximately 123-acre feet to 900-acre feet. The project will consist of excavating soil from the existing basin floor and expanding the area to create a deeper basin where water will be held and slowly released downstream during major storm events. The purpose of the basin expansion is to attenuate flows from the upper Marsh Creek watershed to provide improved flood protection for the downstream communities.
Transportation	Contra Costa County - Public Works	Deer Valley Road Safety Improvement Project	Along Deer Valley Road from approximately 1700' to 3200' south of the intersection with Chadbourne Road	This project will improve Deer Valley Road in order to bring the existing curved section of pavement in this segment to current County standards and provide vehicles a wider recovery area. The improvements will bring this section of Deer Valley Road to current Caltrans Highway Design Manual minimum curve requirement standards, smoothing an angle in the road. This project will also provide the pavement width needed to make this segment of Deer Valley Road part of a Class II bikeway per the Contra Costa Countywide Bicycle and Pedestrian Plan.
Transportation	Contra Costa County - Public Works	Marsh Creek Shoulder Widening near Round Valley Regional Preserve	Along Marsh Creek Road near Round Valley Regional Preserve	The Marsh Creek Road Shoulder Widening Project consists of roadway safety improvements between the entrance to Round Valley Regional Preserve and Lydia Lane (a roughly 2900 foot segment of Marsh Creek Road). The roadway currently has two 10 foot lanes with little to no road shoulders. The project proposes to widen the existing travel lanes to 12 feet and provide 6 foot wide shoulders and 2 feet of associated shoulder backing. The project will realign the two existing horizontal curve alignments to increase curve radii to improve sight distance.
Transportation	ECCC Habitat Conservancy	Contra Costa 4 Median Buffer and Shoulder Widening Project- Second Amendment	State Route 4 from Marsh Creek Road to San Joaquin county line.	A Second Amendment to the Participating Special Entity Agreement with Caltrans to include an additional 0.51 acres of temporary impact on the east and west of Kellogg Creek to be utilized for bridge construction.

Activity Type	Covered By	Project Name	Location	Description
Transportation	ECCC Habitat Conservancy	East Contra Costa eBART Phase II Extension Project- First/Second Amendment	North of SR 4 right-of-way, south of UPRR tracks, east of Hillcrest	The First and Second Amendments to the eBART Phase II Project were conveyed in order to process Addendum 1.0 to the existing Pariticpating Special Entity Agreement. Addendum 1.0 added 2.56 acres on the periphery of the site to the project area.
Transportation	ECCC Habitat Conservancy	East Contra Costa eBART Phase II Extension Project	North of SR 4 right-of-way, south of UPRR tracks, east of Hillcrest Avenue, east to terminus of Willow Avenue.	The project consists of ground-disturbing activities associated with the construction and operation of the Hillcrest Avenue Station and Diesel Multiple Unit ("DMU") Maintenance Facility including the associated parking facilities and new and re-aligned roads.
Utility	Contra Costa County	Los Vaqueros Communications Facility Project	At Los Vaqueros Reservoir on property owned by the Contra Costa Water District.	The project includes the co-location of emergency communication equipment on an existing Contra Costa County Water District communication site. Improvements include adding antennas on an existing Water District lattice tower and installing a 200 square foot unmanned equipment shed and an emergency/standby generator at the base of the existing tower.
Utility	Contra Costa County	Clayton Regency Mobile Home Park Emergency Water Pipeline Extension Project	The water pipeline extension will be constructed within the east- bound lane of Marsh Creek Road. The pipeline will stretch approximately 2.8 miles from the intersection of Royal Oaks Drive to the mobile home park at 16711 Marsh Creek Road.	The project consists of three elements: the 2.8-mile pipeline extension to provide interim and long-term domestic water service to the Clayton Regency Mobile Home Park; a chlorine booster (disinfection) station, and a temporary fill station and construction staging area.
Utility	ECCC Habitat Conservancy	Vasco Road Line 200 Pipeline Emergency Release	Southeast of Vasco Road, near Livermore, CA	On August 27, 2011, ConocoPhillips Pipeline Company's 24-inch crude oil Line 200 Pipeline was punctured due to unauthorized trackhoe excavation by an unknown party. This unauthorized damage resulted in the release of pressurized crude oil into an undeveloped area southeast of Vasco Road, in east Contra Costa County. Working in coordination with multiple resource agencies, ConocoPhillips Pipeline Company conducted an emergency remediation action within the HCP/NCCP jurisdictional area. Early in the spill response process, the U.S. Fish and Wildlife Service (USFWS), the California Department of Fish and Game (CDFG), and the East Bay Regional Park District also arrived on scene to evaluate the impact of the spill. These agencies, determined that coverage under the East Contra Costa County HCP/NCCP was the best method of mitigating the impacts for the emergency oil release.
Utility	ECCC Habitat Conservancy	Coalinga-Avon Pipeline Repair Project- Second Amendment	At Los Vaqueros Reservior	The Second Amendment to the Coalinga-Avon Pipeline Repair Extensiom Project to conduct repairs to an existing Shell Oil Products pipeline known as the Coalinga-Avon Pipeline, at Station 7675.
Other	East Bay Regional Park District	Round Valley Pedestrian Bridge Project	Witin Round Valley Preserve located six miles west of Brentwood along Marsh Creek Road.	The East Bay Regional Park District plans to install a new 60-foot clear span prefabricated steel bridge over Round Valley Creek. Project includes installation of abutments and a minor realignment of the existing permeable, natural surface trails to conform to the bridge approaches.

Figure 2. Initial Urban Development Area and Specific Rural Infrastructure Projects that may be Covered

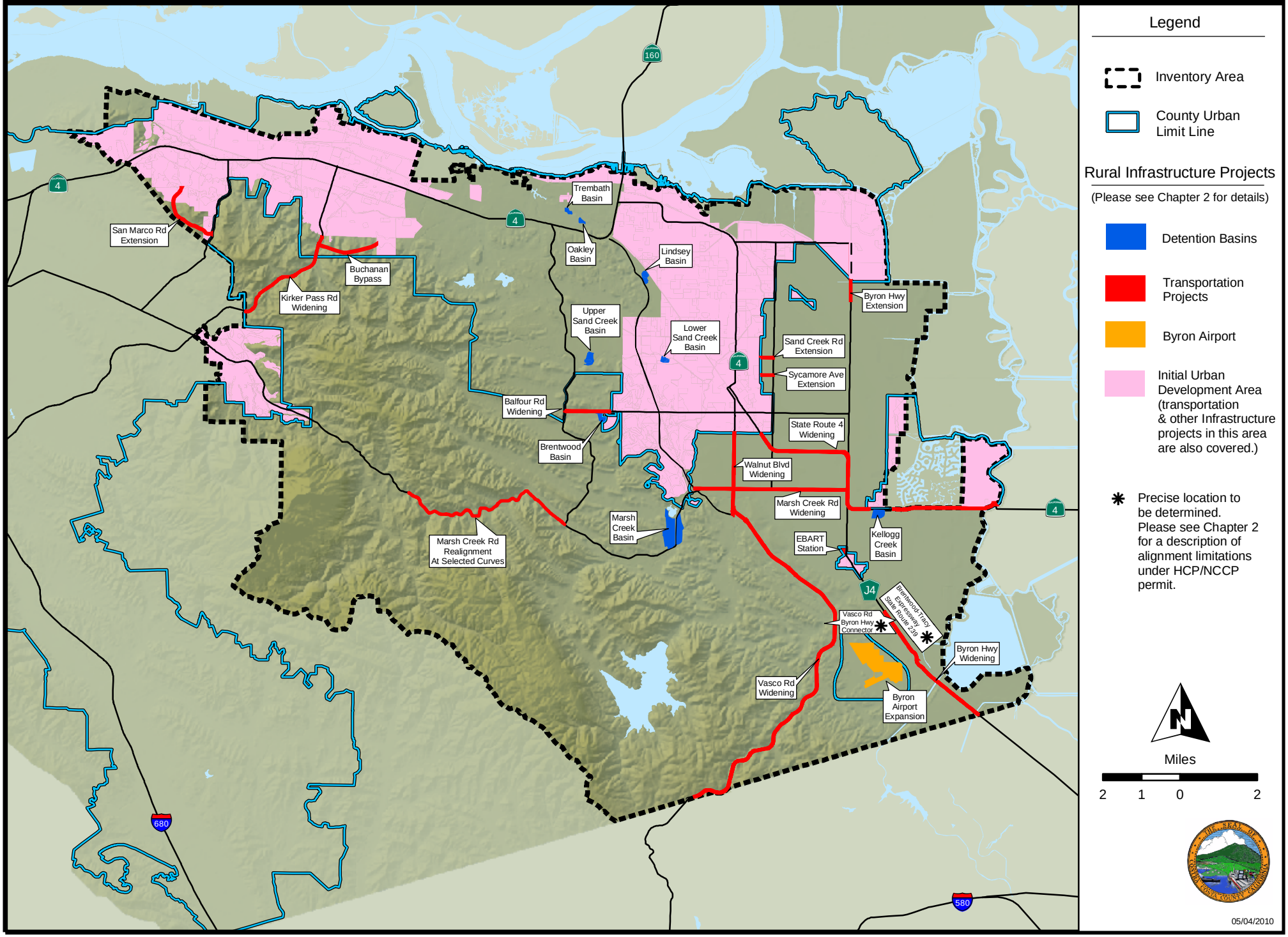


Figure 3a. Location and impact acreage for Projects that Received Coverage in 2012

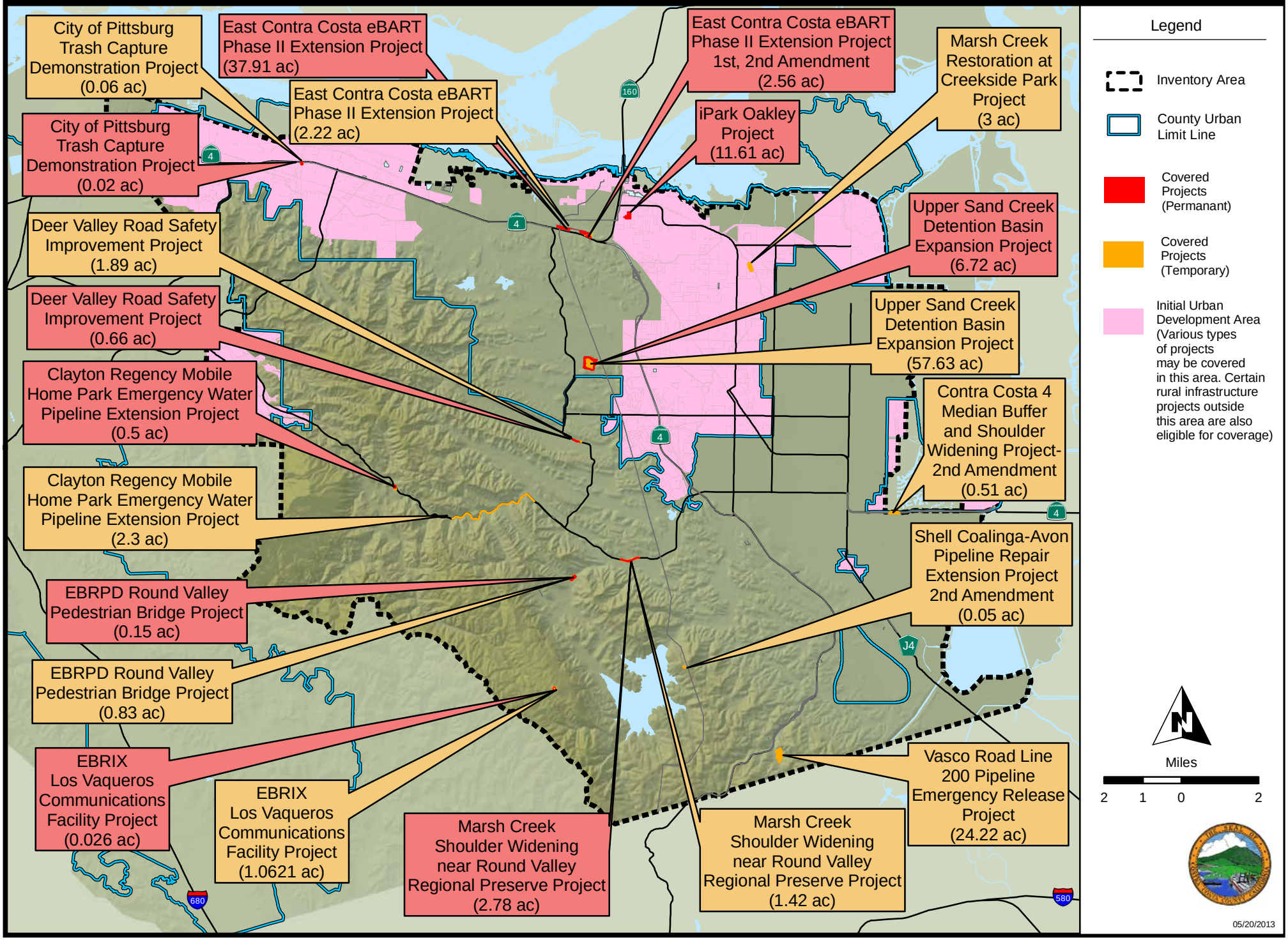
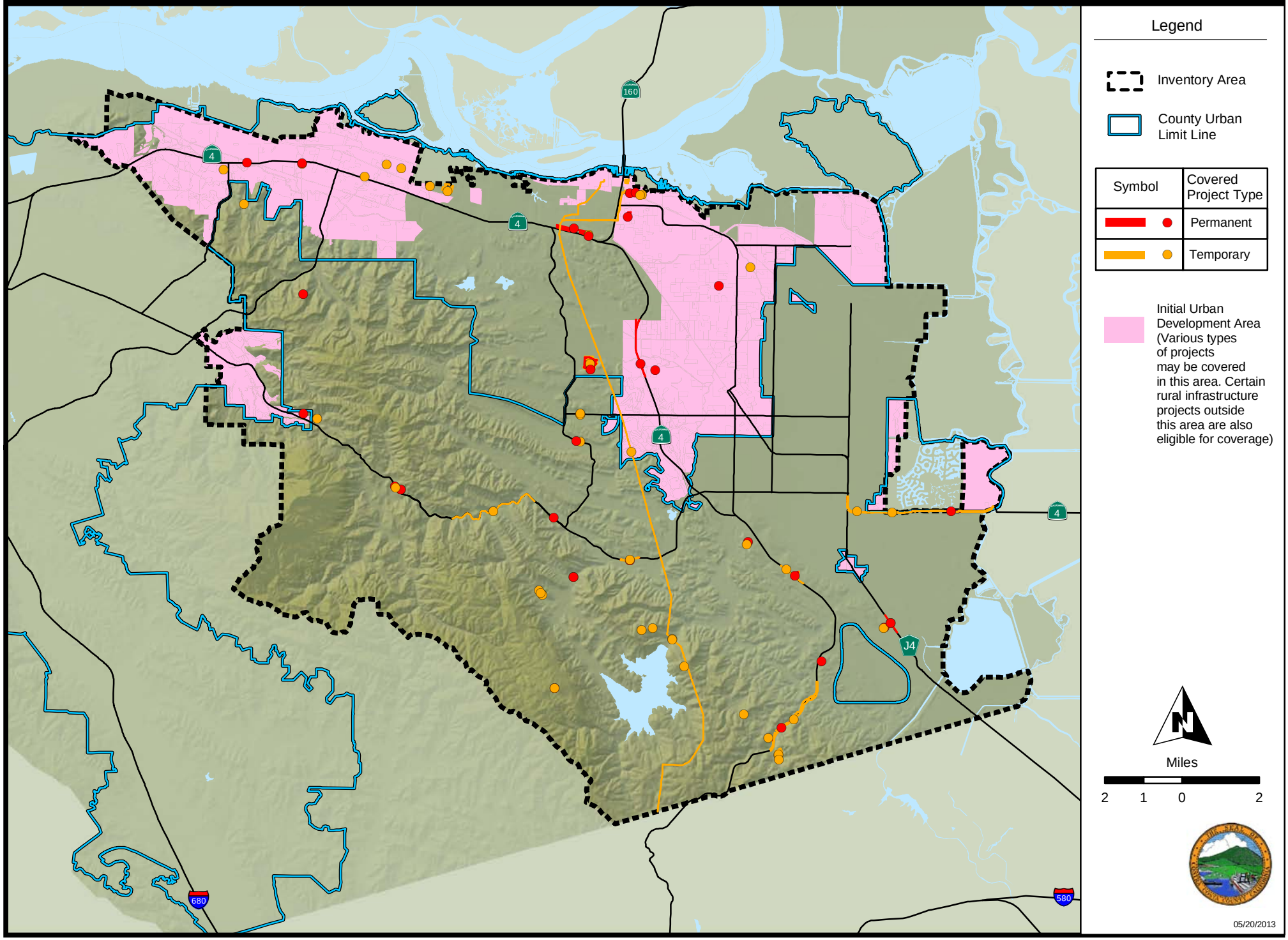


Figure 3b. Location of Covered Projects to-date (2008-2012)



Conditions on Covered Activities

The purpose of conditions on covered activities is to meet regulatory standards to avoid and minimize potential impacts on the covered species (payment of fees or provision of land in lieu of fees satisfies mitigation requirements). Conditions also reduce and minimize impacts on important natural communities. Conditions on covered activities include preconstruction surveys, minimization of development footprints that are adjacent to preserves, establishment of stream setbacks and fuel management buffers, management of the urban-wildland interface, maintenance of hydrologic conditions, avoidance of direct impacts on extremely rare plants, best management practices for flood control, and design requirements for roads outside the urban development area. Each condition is described in detail in Chapter 6 of the Plan under Section 6.4, *Specific Conditions on Covered Activities*.

Specific project circumstances determine which conditions apply to each project. For example, Condition 1.12 *Implement Best Management Practices for Rural Road Maintenance* only applies to rural road maintenance projects. Compliance with the conditions on covered activities is an important part of the conservation strategy.

Numerous landscape-, natural community-, and species-level conditions on covered activities were applied during the reporting period as shown in Tables 2 and 3. Of the 14 covered activities implemented during the reporting period, landscape-level conditions on covered activities were applied 25 times (1 to 4 conditions applied per covered activity). Natural community–level conditions on covered activities were applied 7 times (0 conditions to 1 condition applied per covered activity). Species-level conditions on covered activities were applied 226 times (6 conditions to 36 conditions applied per covered activity).

Impacts on Land Cover Types and Covered Plants

Impacts of covered activities were tracked by land cover type (Table 4), covered plant occurrences (Table 5), and aquatic and stream by watershed (Table 6). During the reporting period there were a total of 60.6 acres of permanent impact and 94.9 acres of temporary impact (Table 4). There was 1 acre of permanent and temporary impacts on uncommon vegetation[4], uncommon features, or habitat elements.[5] No covered plant occurrences were removed by covered activities (Table 5).

Impacts on aquatic land cover types during the reporting period were limited to 5 watersheds (Table 6). In the Sand watershed there were 295.0 feet of permanent impacts and 3,639.0 feet of temporary impacts on intermittent streams. In the Upper Marsh watershed, there were 29.0 feet of permanent impacts and 24.0 feet of temporary impacts on ephemeral streams.

[4] Uncommon vegetation types are subtypes of land cover types. They include specific native grasses, alkali grasses, and other uncommon vegetation types.

[5] Uncommon features or habitat elements include rock outcrops, caves, springs/seeps, sand deposits, mines, buildings (bat roosts), and potential nest sites (trees or cliffs).

Table 2. Reporting Period Summary of Natural Community and Landscape-level Conditions on Covered Activities by Project

	Natural Community	Landscape									
Project Name	2.12 Wetland, Pond, and Stream Avoidance and Minimization Measures	1.6 Minimize Development Footprint Adjacent to Open Space	1.7 Establish Stream Setbacks	1.8 Establish Fuel Management Buffer to Protect Preserves and Property	1.9 Urban-Wildland Interface Design Elements	1.10 Maintain and Improve Hydrologic Conditions and Minimize Erosion	1.11 Avoid Direct Impacts on Extremely Rare Plants or Fully Protected Wildlife Species	1.12 Implement Best Management Practices for Rural Road Maintenance	1.13 Implement Best Management Practices for Flood Control Facility Operations and Maintenance	1.14 Design Requirements for Covered Roads outside UDA
iPark Oakley Project						✓	✓			
Marsh Creek Restoration at Creekside Park	✓					✓	✓			
Trash Capture Demonstration Project	✓					✓	✓			
Upper Sand Creek Detention Basin Expansion Project	✓					✓	✓			
Deer Valley Road Safety Improvement Project	✓					✓	✓			
Marsh Creek Shoulder Widening near Round Valley Regional Preserve	✓					✓	✓			
Round Valley Pedestrian Bridge Project	✓	✓		✓		✓	✓			
Contra Costa 4 Median Buffer and Shoulder Widening Project-Second Amendment	✓					✓	✓			
East Contra Costa eBART Phase II Extension Project						✓	✓			
East Contra Costa eBART Phase II Extension Project-First/Second Amendment							✓			
Los Vaqueros Communications Facility Project							✓			
Clayton Regency Mobile Home Park Emergency Water Pipeline Extension Project						✓	✓			
Coalinga-Avon Pipeline Repair Project- Second Amendment							✓			

Table 3. Reporting Period Summary of Species-Level Conditions on Covered Activities by Project

	Species-Level Measures[1]																							
	San Joaquin Kit Fox				Golden Eagle				Western Burrowing Owl				Swainson's Hawk				Giant Garter Snake				CA Tiger Salamander		CA Red-Legged Frog	
Project Name	Planning Surveys	Preconstruction Surveys	AMM	Construction Monitoring	Planning Surveys	Preconstruction Surveys	AMM	Construction Monitoring	Planning Surveys	Preconstruction Surveys	AMM	Construction Monitoring	Planning Surveys	Preconstruction Surveys	AMM	Construction Monitoring	Planning Surveys	Preconstruction Surveys	AMM	Construction Monitoring	Planning Surveys	Minimization	Planning Surveys	Minimization
iPark Oakley Project										X	X	X		X	X	X								
Marsh Creek Restoration at Creekside Park		X				X				X	X	X		X	X			X	X	X			X	
Trash Capture Demonstration Project										X	X	X									X	X	X	X
Upper Sand Creek Detention Basin Expansion Project		X	X	X		X				X	X	X	X	X							X	X	X	X
Deer Valley Road Safety Improvement Project		X	X	X		X	X	X		X	X	X		X	X	X					X	X	X	X
Marsh Creek Shoulder Widening near Round Valley Regional Preserve		X	X	X						X	X	X									X	X	X	X
Round Valley Pedestrian Bridge Project		X	X	X		X	X	X		X	X	X									X	X		
Contra Costa 4 Median Buffer and Shoulder Widening Project- Second Amendment										X	X			X	X	X	X	X						
East Contra Costa eBART Phase II Extension Project		X	X	X						X	X	X	X	X	X	X								
East Contra Costa eBART Phase II Extension Project- First/Second Amendment		X	X	X						X	X	X	X	X	X	X	X							
Los Vaqueros Communications Facility Project		X				X	X	X		X														
Clayton Regency Mobile Home Park Emergency Water Pipeline Extension Project		X	X	X		X	X	X		X	X	X		X	X	X								
Coalinga-Avon Pipeline Repair Project- Second Amendment		X	X	X		X	X	X		X	X	X												

[1] The implementation of these conditions and their results can be found in the planning survey reports and are available upon request from the Conservancy.

Table 3. Continued

	Species-Level Measures[1]																							
	Covered Shrimp				Alkali milkvetch				Big Tarplant				Brewers dwarf flax				Contra Costa goldfields				Diamond-petaled poppy			
Project Name	Planning Surveys	Preconstruction Surveys	AMM	Construction Monitoring	Planning Surveys	Preconstruction Surveys	AMM	Construction Monitoring	Planning Surveys	Preconstruction Surveys	AMM	Construction Monitoring	Planning Surveys	Preconstruction Surveys	AMM	Construction Monitoring	Planning Surveys	Preconstruction Surveys	AMM	Construction Monitoring	Planning Surveys	Preconstruction Surveys	AMM	Construction Monitoring
iPark Oakley Project																								
Marsh Creek Restoration at Creekside Park																								
Trash Capture Demonstration Project	X																							
Upper Sand Creek Detention Basin Expansion Project	X		X			X				X				X				X				X		
Deer Valley Road Safety Improvement Project	X		X	X	X	X				X				X				X				X		
Marsh Creek Shoulder Widening near Round Valley Regional Preserve	X		X	X														X				X		
Round Valley Pedestrian Bridge Project						X				X				X				X				X		
Contra Costa 4 Median Buffer and Shoulder Widening Project- Second Amendment																								
East Contra Costa eBART Phase II Extension Project						X				X				X				X				X		
East Contra Costa eBART Phase II Extension Project- First/Second Amendment																								
Los Vaqueros Communications Facility Project						X				X				X	X	X	X	X				X		
Clayton Regency Mobile Home Park Emergency Water Pipeline Extension Project						X				X				X				X				X		
Coalinga-Avon Pipeline Repair Project- Second Amendment						X				X				X				X				X		

Table 3. Continued

	Species-Level Measures[1]																							
	Large-flowered fiddleneck				Mount Diablo buckwheat				Mount Diablo fairy-lantern				Round-leaved filaree				Showy madia				Adobe navarretia			
Project Name	Planning Surveys	Preconstruction Surveys	AMM	Construction Monitoring	Planning Surveys	Preconstruction Surveys	AMM	Construction Monitoring	Planning Surveys	Preconstruction Surveys	AMM	Construction Monitoring	Planning Surveys	Preconstruction Surveys	AMM	Construction Monitoring	Planning Surveys	Preconstruction Surveys	AMM	Construction Monitoring	Planning Surveys	Preconstruction Surveys	AMM	Construction Monitoring
iPark Oakley Project																								
Marsh Creek Restoration at Creekside Park																								
Trash Capture Demonstration Project																								
Upper Sand Creek Detention Basin Expansion Project		X				X				X				X				X				X		
Deer Valley Road Safety Improvement Project		X				X				X				X				X				X	X	X
Marsh Creek Shoulder Widening near Round Valley Regional Preserve		X								X				X				X				X		
Round Valley Pedestrian Bridge Project		X				X				X				X				X						
Contra Costa 4 Median Buffer and Shoulder Widening Project- Second Amendment																								
East Contra Costa eBART Phase II Extension Project		X				X				X				X				X						
East Contra Costa eBART Phase II Extension Project- First/Second Amendment																								
Los Vaqueros Communications Facility Project		X				X				X				X				X						
Clayton Regency Mobile Home Park Emergency Water Pipeline Extension Project		X				X				X				X				X						
Coalinga-Avon Pipeline Repair Project- Second Amendment		X				X				X				X				X						

Table 3. Continued

	Species-Level Measures[1]											
	Brittlescale				San Joaquin Spearscale				Diablo Helianthella			
Project Name	Planning Surveys	Preconstruction Surveys	AMM	Construction Monitoring	Planning Surveys	Preconstruction Surveys	AMM	Construction Monitoring	Planning Surveys	Preconstruction Surveys	AMM	Construction Monitoring
iPark Oakley Project												
Marsh Creek Restoration at Creekside Park												
Trash Capture Demonstration Project												
Upper Sand Creek Detention Basin Expansion Project												
Deer Valley Road Safety Improvement Project	X	X				X						
Marsh Creek Shoulder Widening near Round Valley Regional Preserve												
Round Valley Pedestrian Bridge Project												
Contra Costa 4 Median Buffer and Shoulder Widening Project- Second Amendment												
East Contra Costa eBART Phase II Extension Project												
East Contra Costa eBART Phase II Extension Project- First/Second Amendment												
Los Vaqueros Communications Facility Project										X		
Clayton Regency Mobile Home Park Emergency Water Pipeline Extension Project												
Coalinga-Avon Pipeline Repair Project- Second Amendment												

Table 4. Reporting Period Cumulative Impacts on Land Cover Types from Covered Activities and Conservation Measure Implementation (includes projected impacts from activities not yet performed)

	Reporting Period Impacts (acres, unless otherwise noted)		Cumulative Impacts (acres, unless otherwise noted)	
Land Cover Type	**Permanent**	**Temporary**	**Permanent**	**Temporary**
Terrestrial				
Annual grassland	39.3	64.2	66.7	93.6
Alkali grassland	0.2	0.2	0.8	1.4
Ruderal	11.5	26.8	43.0	122.8
Chaparral and scrub	0.0	0.0	0.0	0.0
Oak savanna	0.0	0.0	0.0	0.6
Oak woodland	0.0	0.0	0.0	0.0
Subtotal terrestrial	*51.1*	*91.2*	*110.4*	*218.5*
Aquatic				
Riparian woodland/scrub	0.1	0.8	0.4	1.1
Perennial wetland[1]	0.1	0.5	0.1	0.6
Seasonal wetland	0.1	2.2	0.4	2.2
Alkali wetland	0.1	0.2	0.1	0.2
Pond	0.0	0.0	0.0	0.0
Reservoir (open water)[2]	0.0	0.0	0.0	0.0
Slough/Channel (includes stream)	0.0	0.0	0.1	0.1
Subtotal aquatic	*0.4*	*3.7*	*1.0*	*4.3*
Stream (length in linear feet)				
Total stream length	324.0	3663.0	521.3	4205.2
Stream length by width category				
≤ 25 feet wide	324.0	3663.0	434.0	4020.5
> 25 feet wide	0.0	0.0	87.3	184.7
Stream length by type and order				
Perennial	0.0	0.0	56.3	321.2
Intermittent	295.0	3639.0	360.0	3794.0
Ephemeral, 3rd or higher order	0.0	0.0	0.0	0.0
Ephemeral, 1st or 2nd order	29.0	24.0	105.0	90.0
Subtotal stream length	*324.0*	*3663.0*	*521.3*	*4205.2*
Irrigated agriculture				
Cropland	0.0	0.0	11.3	6.6
Pasture	0.0	0.0	0.0	0.0
Orchard	0.0	0.0	1.7	0.0
Vineyard	9.1	0.0	23.1	5.6
Subtotal irrigated agricultural	*9.1*	*0.0*	*36.1*	*12.2*
Other				
Nonnative woodland	0.0	0.0	0.1	1.4
Wind turbines	0.0	0.0	0.0	0.6
Subtotal other	*0.0*	*0.0*	*0.1*	*1.9*

Land Cover Type	Reporting Period Impacts (acres, unless otherwise noted) Permanent	Reporting Period Impacts (acres, unless otherwise noted) Temporary	Cumulative Impacts (acres, unless otherwise noted) Permanent	Cumulative Impacts (acres, unless otherwise noted) Temporary
Uncommon Vegetation Types (subtypes of above land cover types)				
Purple needlegrass grassland	0.0	0.0	0.0	0.0
Wildrye grassland	0.0	0.0	0.0	0.0
Wildflower fields	0.0	0.0	0.0	0.0
Squirreltail grassland	0.0	0.0	0.0	0.0
One-sided bluegrass grassland	0.0	0.0	0.0	0.0
Serpentine grassland	0.0	0.0	0.0	0.0
Saltgrass grassland (alkali grassland)	0.2	0.2	0.2	0.2
Alkali sacaton bunchgrass grassland	0.0	0.0	0.0	0.0
Other uncommon vegetation types	0.1	0.0	0.1	0.0
Subtotal uncommon vegetation types	*0.3*	*0.2*	*0.3*	*0.2*
Uncommon Landscape Features or Habitat Elements				
Rock outcrop	0.0	0.0	0.2	0.1
Cave	0.0	0.0	0.0	0.0
Springs/seeps	0.0	0.0	0.0	0.0
Scalds	0.0	0.0	0.0	0.0
Sand deposits	0.0	0.0	0.0	0.0
Mines (number)	0.0	0.0	0.0	0.0
Buildings (number)	0.0	0.0	0.0	0.0
Potential nest sites (number)	0.0	0.0	0.0	0.0
Subtotal uncommon landscape features (acres)	*0.0*	*0.0*	*0.2*	*0.1*
Subtotal uncommon landscape features (number)	*0.0*	*0.0*	*0.0*	*0.0*
Totals (excludes subtypes)				
Acres	60.6	94.9	147.7	237.0
Linear feet	324.0	3663.0	521.3	4205.2

[1]Perrienal wetlands are equivalent permanent wetlands

[2] Reservoir (open water) is equivalent to aquatic

Table 5. Reporting Period and Cumulative Impacts to Covered Plants

Common Name	Scientific Name	Known Occurrences that May Be Removed by Covered Activities[1]	Impacts (occurrences)	
			Reporting Period	Cumulative
Mount Diablo manzanita	*Arctostaphylos auriculata*	0	--	--
Brittlescale	*Atriplex depressa*	1	--	--
San Joaquin spearscale	*Atriplex joanquiniana*	0	--	[see note[2]]
Big tarplant	*Blepharizonia plumosa*	1	--	--
Mount Diablo fairy lantern	*Calochortus pulchellus*	0	--	--
Recurved larkspur	*Delphinium recurvatum*	1	--	--
Round-leaved filaree	*Erodium macrophyllum*	2	--	[see note[3]]
Diablo helianthella	*Helianthella castanea*	0	--	--
Brewer's dwarf flax	*Hesperolinon breweri*	0	--	--
Showy madia	*Madia radiata*	0	--	--
Adobe navarretia	*Navarretia nigelliformis* ssp. *nigelliformis*	1	--	--
Total		**6**	**0**	**0**

[1] This column provides the limit of impacts, by number of occurrences, on plant species allowable under the HCP/NCCP per HCP/NCCP Table 5-5.

[2] Vasco Project population translocated and impact avoided (2011).

[3] Temporary impacts occurred to round-leaved filaree as part of the PG&E Contra Costa Las Positas Project (2009). The soil was protected from disturbance, the site was returned to pre-project connections, seeds collected on site were propagated, and monitoring reports document that round-leaved filaree persists on site and is as abundant as before the project.

Table 6. Impacts to Aquatic and Stream Land Cover Types by Watershed: Reporting Period and Cumulative

Watershed/ Basin	Land Cover Type	Impacts			
		Reporting Period		Cumulative	
		Permanent	Temporary	Permanent	Temporary
Brushy	**Aquatic (acres)**				
	Riparian woodland/scrub	--	--	--	--
	Perennial wetland[1]	--	--	0.01	0.12
	Seasonal wetland	--	--	--	--
	Alkali wetland	--	--	--	--
	Pond	--	--	--	--
	Reservoir (open water)[2]	--	--	--	--
	Slough/Channel[3] (includes stream)	--	--	--	--
	Subtotal aquatic	*0.00*	*0.00*	*0.01*	*0.12*
	Stream (linear feet)				
	Total stream length	--	--	132.00	348.50
	Stream length by width category				
	≤ 25 feet wide	--	--	110.00	230.50
	> 25 feet wide	--	--	22.00	118.00
	Stream length by type and order				
	Perennial	--	--	56.00	282.50
	Intermittent	--	--	--	--
	Ephemeral, 3rd or higher order	--	--	--	--
	Ephemeral, 1st or 2nd order	--	--	76.00	66.00
	Subtotal stream length	*0.00*	*0.00*	*132.00*	*348.50*
Clifton Court Forebay	**Aquatic (acres)**				
	Riparian woodland/scrub	--	--	--	--
	Perennial wetland[1]	--	--	--	--
	Seasonal wetland	--	--	--	--
	Alkali wetland	--	--	--	--
	Pond	--	--	--	--
	Reservoir (open water)[2]	--	--	--	--
	Slough/Channel[3] (includes stream)	--	--	--	--
	Subtotal aquatic	*0.00*	*0.00*	*0.00*	*0.00*
	Stream (linear feet)				
	Total stream length	0.00	0.00	47.00	112.00
	Stream length by width category				
	≤ 25 feet wide	--	--	--	112.00
	> 25 feet wide	0.00	--	47.00	--
	Stream length by type and order				
	Perennial	--	--	--	--
	Intermittent	0.00	0.00	47.00	112.00
	Ephemeral, 3rd or higher order	--	--	--	--
	Ephemeral, 1st or 2nd order	--	--	--	--
	Subtotal stream length	*0.00*	*0.00*	*47.00*	*112.00*

Watershed/ Basin	Land Cover Type	Impacts			
		Reporting Period		Cumulative	
		Permanent	Temporary	Permanent	Temporary
Deer	**Aquatic (acres)**				
	Riparian woodland/scrub	--	--	--	--
	Perennial wetland[1]	--	--	--	--
	Seasonal wetland	--	--	--	--
	Alkali wetland	--	--	--	--
	Pond	--	--	--	--
	Reservoir (open water)[2]	--	--	--	--
	Slough/Channel[3] (includes stream)	--	--	--	--
	Subtotal aquatic	*0.00*	*0.00*	*0.00*	*0.00*
	Stream (linear feet)				
	Total stream length	0.00	0.00	12.00	43.00
	Stream length by width category				
	≤ 25 feet wide	--	0.00	--	15.00
	> 25 feet wide	0.00	0.00	12.00	28.00
	Stream length by type and order				
	Perennial	--	--	--	--
	Intermittent	0.00	0.00	12.00	43.00
	Ephemeral, 3rd or higher order	--	--	--	--
	Ephemeral, 1st or 2nd order	--	--	--	--
	Subtotal stream length	*0.00*	*0.00*	*12.00*	*43.00*
Kellogg	**Aquatic (acres)**				
	Riparian woodland/scrub	--	0.06	0.05	0.31
	Perennial wetland[1]	--	--	--	--
	Seasonal wetland	--	--	0.29	0.01
	Alkali wetland	--	--	--	--
	Pond	--	--	--	--
	Reservoir (open water)[2]	--	--	--	--
	Slough/Channel[3] (includes stream)	--	--	0.07	0.14
	Subtotal aquatic	*0.00*	*0.06*	*0.41*	*0.46*
	Stream (linear feet)				
	Total stream length	--	--	6.00	0.00
	Stream length by width category				
	≤ 25 feet wide	--	--	--	--
	> 25 feet wide	--	--	6.00	--
	Stream length by type and order				
	Perennial	--	--	--	--
	Intermittent	--	--	6.00	--
	Ephemeral, 3rd or higher order	--	--	--	--
	Ephemeral, 1st or 2nd order	--	--	--	--
	Subtotal stream length	*0.00*	*0.00*	*6.00*	*0.00*

Watershed/ Basin	Land Cover Type	Impacts			
		Reporting Period		Cumulative	
		Permanent	Temporary	Permanent	Temporary
Lower Marsh	**Aquatic (acres)**				
	Riparian woodland/scrub	--	--	--	0.04
	Perennial wetland[1]	--	--	--	--
	Seasonal wetland	--	--	--	--
	Alkali wetland	0.13	0.23	0.13	0.23
	Pond	--	--	--	--
	Reservoir (open water)[2]	--	--	--	--
	Slough/Channel[3] (includes stream)	--	--	--	--
	Subtotal aquatic	*0.13*	*0.23*	*0.13*	*0.27*
	Stream (linear feet)				
	Total stream length	--	--	0.31	38.70
	Stream length by width category				
	≤ 25 feet wide	--	--	--	--
	> 25 feet wide	--	--	0.31	38.70
	Stream length by type and order				
	Perennial	--	--	0.31	38.70
	Intermittent	--	--	--	--
	Ephemeral, 3rd or higher order	--	--	--	--
	Ephemeral, 1st or 2nd order	--	--	--	--
	Subtotal stream length	*0.00*	*0.00*	*0.31*	*38.70*
Sand	**Aquatic (acres)**				
	Riparian woodland/scrub	0.11	0.73	0.30	0.73
	Perennial wetland[1]	0.04	0.47	0.04	0.47
	Seasonal wetland	0.02	2.18	0.02	2.18
	Alkali wetland	--	--	--	--
	Pond	--	--	--	--
	Reservoir (open water)[2]	--	--	--	--
	Slough/Channel[3] (includes stream)	--	--	--	--
	Subtotal aquatic	*0.17*	*3.38*	*0.36*	*3.38*
	Stream (linear feet)				
	Total stream length	295.00	3639.00	295.00	3639.00
	Stream length by width category				
	≤ 25 feet wide	295.00	3639.00	295.00	3639.00
	> 25 feet wide	--	--	--	--
	Stream length by type and order				
	Perennial	--	--	--	--
	Intermittent	295.00	3639.00	295.00	3639.00
	Ephemeral, 3rd or higher order	--	--	--	--
	Ephemeral, 1st or 2nd order	--	--	--	--
	Subtotal stream length	*295.00*	*3639.00*	*295.00*	*3639.00*

Watershed/ Basin	Land Cover Type	Impacts			
		Reporting Period		Cumulative	
		Permanent	Temporary	Permanent	Temporary
Upper Marsh	**Aquatic (acres)**				
	Riparian woodland/scrub	--	--	--	--
	Perennial wetland[1]	--	--	--	--
	Seasonal wetland	0.06	0.03	0.06	0.03
	Alkali wetland	--	--	--	--
	Pond	--	--	--	--
	Reservoir (open water)[2]	--	--	--	--
	Slough/Channel[3] (includes stream)	--	--	--	--
	Subtotal aquatic	*0.06*	*0.03*	*0.06*	*0.03*
	Stream (linear feet)				
	Total stream length	29.00	24.00	29.00	24.00
	Stream length by width category				
	≤ 25 feet wide	29.00	24.00	29.00	24.00
	> 25 feet wide	--	--	--	--
	Stream length by type and order				
	Perennial	--	--	--	--
	Intermittent	--	--	--	--
	Ephemeral, 3rd or higher order	--	--	--	--
	Ephemeral, 1st or 2nd order	29.00	24.00	29.00	24.00
	Subtotal stream length	*29.00*	*24.00*	*29.00*	*24.00*
Willow	**Aquatic (acres)**				
	Riparian woodland/scrub	--	--	--	--
	Perennial wetland[1]	0.02	--	0.02	--
	Seasonal wetland	--	--	--	--
	Alkali wetland	--	--	--	--
	Pond	--	--	--	--
	Reservoir (open water)[2]	--	--	--	--
	Slough/Channel[3] (includes stream)	--	--	--	--
	Subtotal aquatic	*0.02*	*0.00*	*0.02*	*0.00*
	Stream (linear feet)				
	Total stream length	--	--	--	--
	Stream length by width category				
	≤ 25 feet wide	--	--	--	--
	> 25 feet wide	--	--	--	--
	Stream length by type and order				
	Perennial	--	--	--	--
	Intermittent	--	--	--	--
	Ephemeral, 3rd or higher order	--	--	--	--
	Ephemeral, 1st or 2nd order	--	--	--	--
	Subtotal stream length	--	--	--	--

Table 6. Continued

Watershed/ Basin	Land Cover Type	Impacts			
		Reporting Period		Cumulative	
		Permanent	Temporary	Permanent	Temporary
Total	**Aquatic (acres)**				
	Riparian woodland/scrub	0.11	0.79	0.35	1.08
	Perennial wetland[1]	0.06	0.47	0.07	0.59
	Seasonal wetland	0.08	2.21	0.37	2.22
	Alkali wetland	0.13	0.23	0.13	0.23
	Pond	0.00	0.00	0.00	0.00
	Reservoir (open water)[2]	0.00	0.00	0.00	0.00
	Slough/Channel[3] (includes stream)	0.00	0.00	0.07	0.14
	Total aquatic	***0.38***	***3.70***	***0.99***	***4.26***
	Stream (linear feet)				
	Total stream length	324.00	3663.00	521.31	4205.20
	Stream length by width category				
	≤ 25 feet wide	324.00	3663.00	434.00	4020.50
	> 25 feet wide	0.00	0.00	87.31	184.70
	Stream length by type and order				
	Perennial	0.00	0.00	56.31	321.20
	Intermittent	295.00	3639.00	360.00	3794.00
	Ephemeral, 3rd or higher order	0.00	0.00	--	--
	Ephemeral, 1st or 2nd order	29.00	24.00	105.00	90.00
	Total stream length	***324.00***	***3663.00***	***521.31***	***4205.20***

III. LAND ACQUISITION

Preserve System

The Conservancy is required to establish a Preserve System through acquisition of land in fee title, conservation easement, mitigation banking, or land dedication. Land acquired as part of the Preserve System will be for the benefit of covered species, natural communities, biological diversity, and contribute to the overall ecosystem function. The following principles guide the development of the Preserve System.

- Maximize Size
- Preserve the Highest-Quality Communities
- Link Acquisitions
- Buffer Urban Impacts
- Minimize Edge
- Fully Represent Environmental Gradients
- Consider Watersheds
- Consider Full Ecological Diversity within Communities
- Consider Management Needs

Reporting year and cumulative Preserve System acquisitions demonstrate implementation of Conservation Measure 1.1 *Acquire Lands for Preserve System.*

Acquisition Analysis Zones

To develop priorities and identify potential locations for acquisition, the inventory area was subdivided geographically into six Acquisition Analysis Zones (Zones; Figure 4). These Zones were further divided into Subzones to distinguish between important landscape features. Acquisition priorities for each Zone were developed primarily on the basis of the ecological opportunities and constraints for collectively achieving the biological goals and objectives for covered species, natural communities, and landscapes.

Land Acquisition Requirements by Acquisition Zone

To ensure that acquisition occurs in locations that will maximize the benefits to natural communities and covered species, acquisition requirements are defined by Zone and, in some cases, by Subzone. The priorities for land acquisition within the Zones under the Initial Urban Development area are shown in Figure 5. Land acquisition priorities under the Maximum Urban Development Area are shown in Figure 6. The differences between the acquisition priorities for the two urban development areas are in Zones 4, 5, and 6. There are no differences between the acquisition priorities for the two urban development areas in Zones 1, 2, and 3.

Figure 4. Acquisition Analysis Zones and Sub-Zones

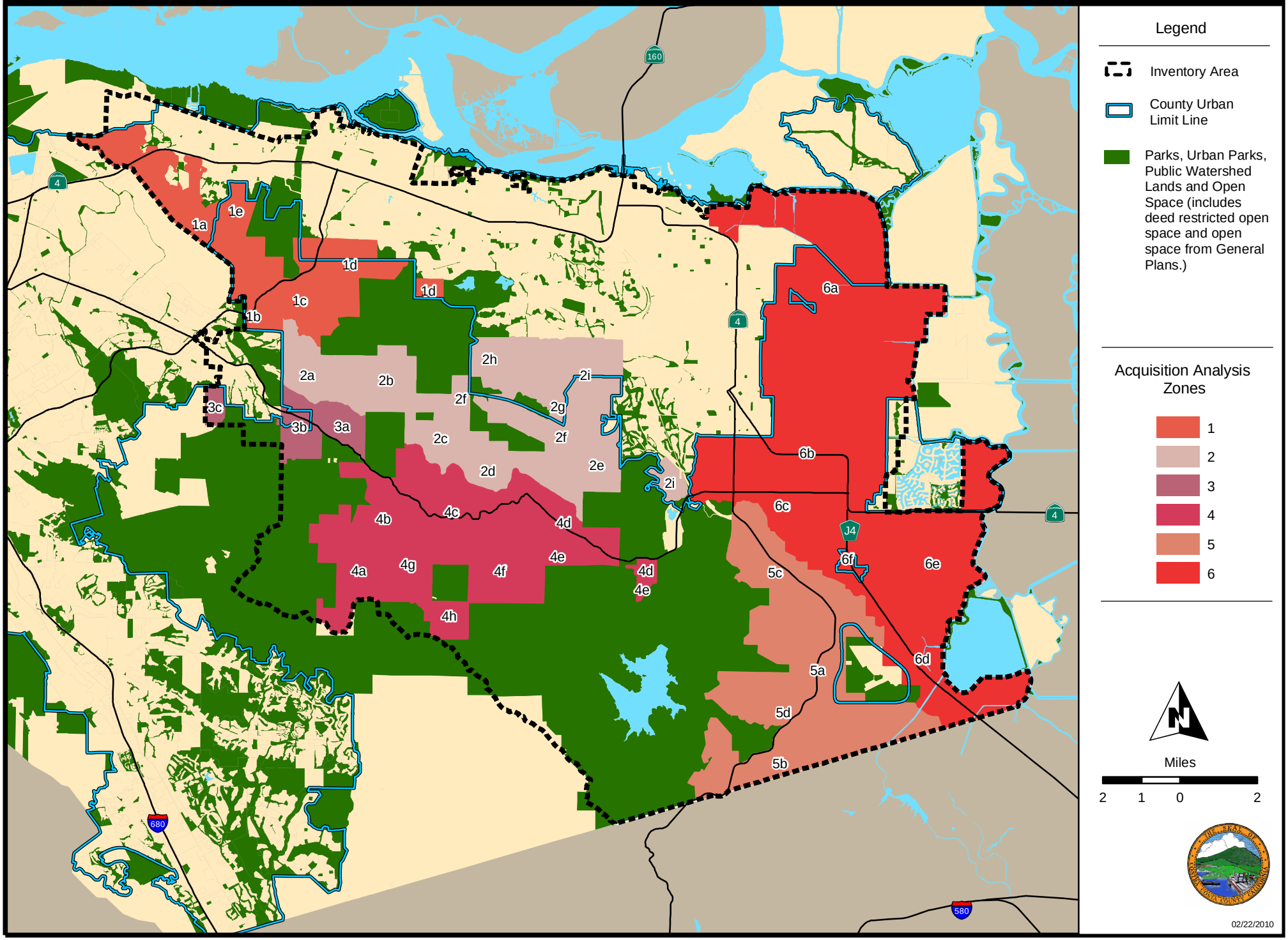


Figure 5. Acquisition Priorities with Initial Urban Development Area

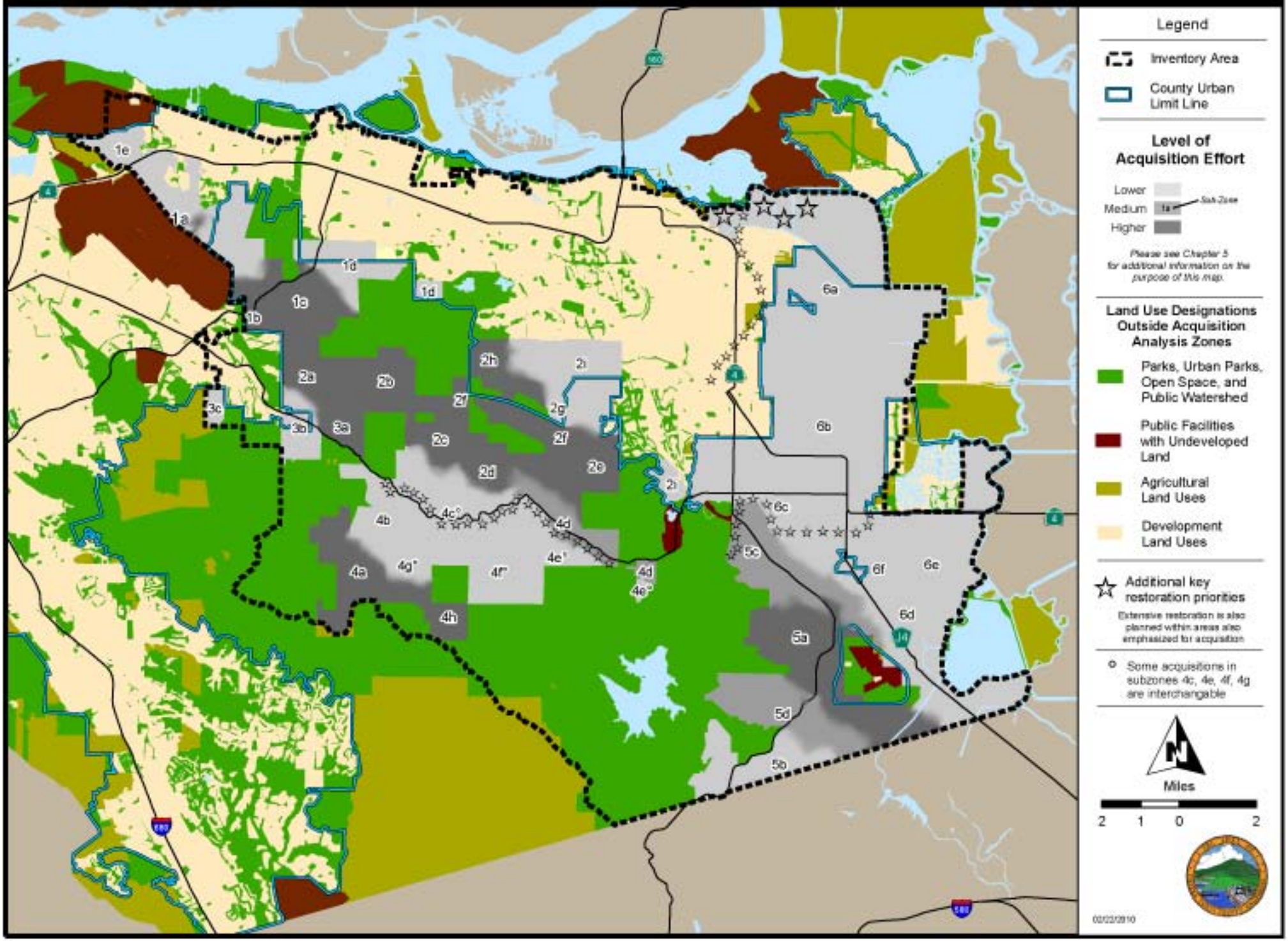


Figure 6. Acquisition Priorities with Maximum Urban Development Area

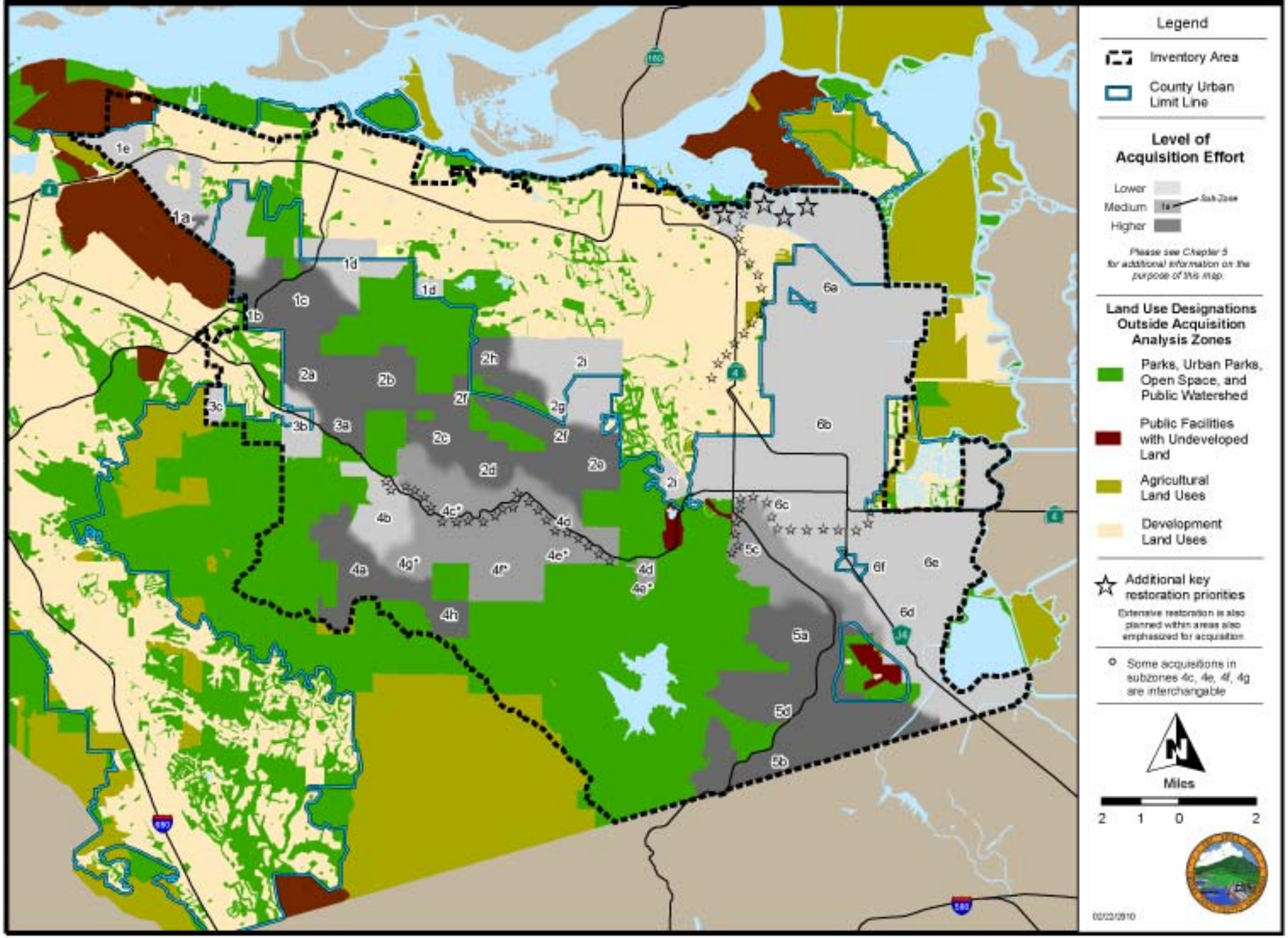
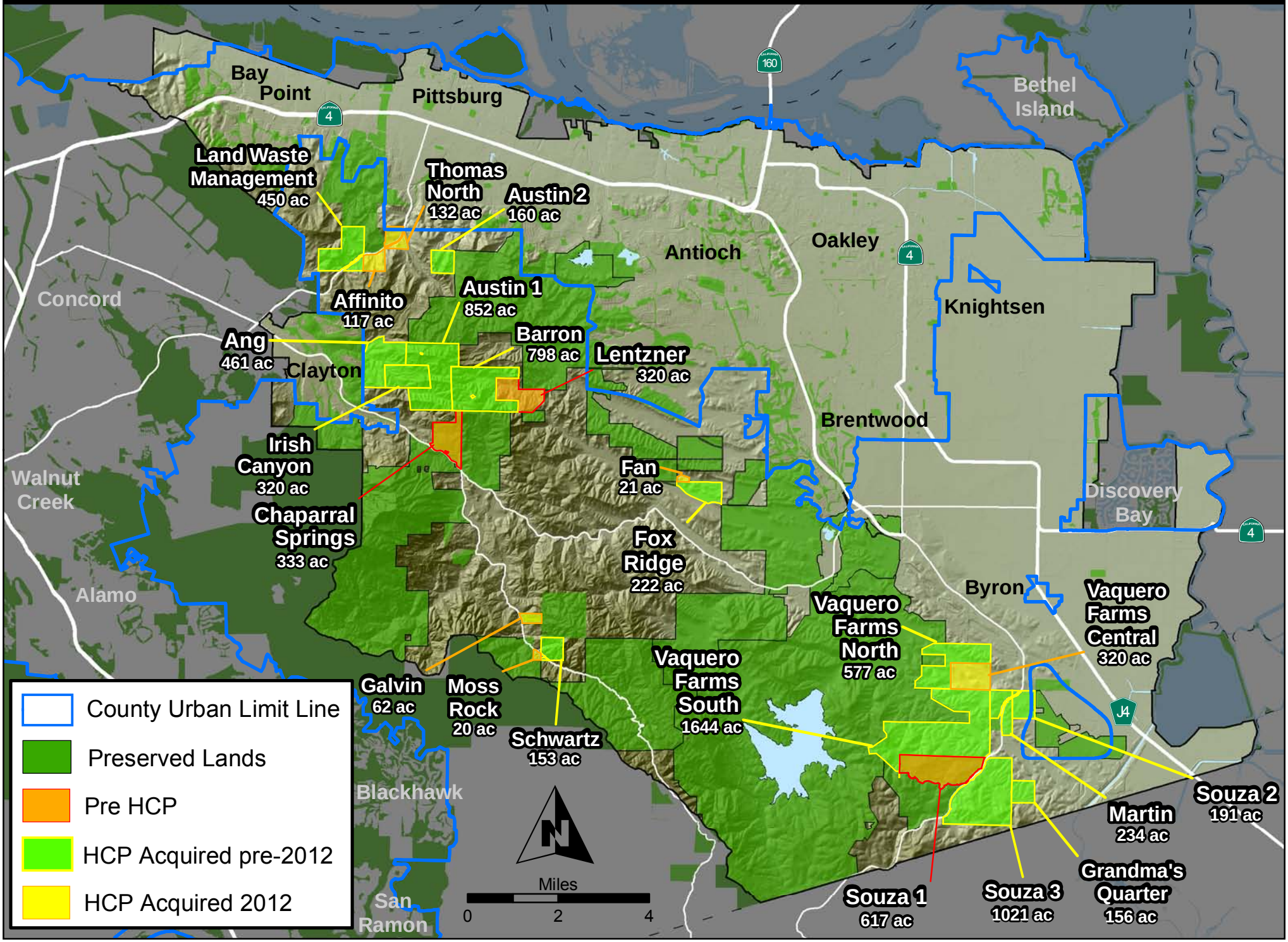


Figure 7. EBRPD Acquisitions Completed and in Progress under HCP as of December 31, 2012



In addition to numeric land acquisition requirements by land cover type and Zone, qualitative land acquisition requirements are also provided for some Zones. For instance, connection to existing public lands or preservation of a certain number of ponds or covered plant populations could be required.

Land Acquisition

This section summarizes the progress toward land acquisition requirements during this reporting period (Table 8a). Working with EBRPD, the Conservancy acquired six properties for the Preserve System totaling 672 acres: Affinito (117 acres), Vaquero Farms Central (320 acres), Galvin (62 acres), Moss Rock (20 acres), Fan (21 acres), and Thomas North (132 acres) (Table 7 and Table 8b). Enrollment of these properties into Preserve System is pending recording of deed restrictions (see Plan Section 8.6 *Land Acquisition*). All acquisitions during the reporting period are shown in Figure 7 and summarized in the following section.

Tables 8a, 8b, and 9 show the land cover types protected by the four acquisitions. Key highlights from the tables are listed below.

- More than 400 acres of annual grassland acquired during reporting period with more than 6,800 acres acquired to date (33% of the annual grassland preservation requirement achieved).
- More than 60 acres of alkali grassland acquired during the reporting period with more than 180 acres acquired to date (13% of the alkali grassland requirement achieved).
- More than 30 acres of oak savanna acquired during the reporting period with more than 330 acres acquired to date (62% of the oak savanna preservation requirement achieved).
- More than 95 acres of oak woodland acquired during the reporting period with nearly 1,300 acres acquired to date (292% of the oak woodland preservation requirement achieved).

Table 10 summarizes progress toward preservation requirements of covered plant populations[6]. During the reporting period, pre-2012 acquisitions were surveyed for covered plants. One occurrence each of San Joaquin spearscale (*Atriplex joaquiniana*), big tarplant (*Blepharizonia plumosa*) and Mount Diablo fairy lantern (*Calochortus pulchellus*), and five occurrences of Diablo helianthella (*Helianthella castanea*) were recorded. To date, 19 known occurrences of covered plant populations have been preserved: one occurrence each round-leaved filaree (*Erodium macrophyllum*), brittlescale (*Atriplex depressa*), and Mount Diablo fairy lantern (*Calochortus pulchellus*), three occurrences of big tarplant, six occurrences of Diablo helianthella, and seven occurrences of San Joaquin spearscale.

[6] In previous years, both plant occurrences assumed present during the pre-acquisition assessment and those verified by surveys were reported. For this annual report and moving forward, only the sightings confirmed in 2011 and 2012 are reported. Surveys will continue as part of the inventory phase.

Table 7. Cumulative Summary of Acquired Properties and their Funding Sources. Calculation of Non-Federal match for Section 6 Grants

Souza 1

Acquired by: EBRPD in partnership with Conservancy
Date Acquired: 12/23/2004
Acres: 615.28
Key land cover: annual grassland, alkali grassland, seasonal wetland, alkali wetland, pond
Land Cost[1]: $2,961,600
Eligible for the following Section 6 grants: FY06 and FY07

Funding Source	Funding amount	Current Fair Market Value[4]	Source of non-federal match?
Moore Foundation grant	$1,500,000	$1,408,023	yes
EBRPD REP Program[3]	$1,461,600	$1,371,977	no
TOTAL	$2,961,600	$2,780,000	

Lentzner

Acquired by: EBRPD in partnership with Conservancy
Date Acquired: 3/4/2005
Key land cover: annual grassland, oak savanna, oak woodland, chaparral, alkali grassland, seasonal wetland, alkali wetland, pond
Acres: 317.05
Land Cost[1]: $960,000
Eligible for the following Section 6 grants: FY07 (it is also in the eligible area for FY08 and FY09 but was omitted from the parcel list because of its acquired status)

Funding Source	Funding amount	Current Fair Market Value[4]	Source of non-federal match?
EBRPD (tax revenues)	$270,402	$377,436	yes
Prop 40 Per capita	$273,000	$381,063	yes
EBRPD REP Program[3]	$416,598	$581,501	no
TOTAL	$960,000	$1,340,000	

Chaparral Spring

Acquired by: EBRPD in partnership with Conservancy
Date Acquired: 12/23/2008
Key land cover: annual grassland, oak savanna, oak woodland, chaparral, seasonal wetland, pond
Acres: 329
Land Cost[1]: $1,400,000
Eligible for the following Section 6 grants: FY07 (one of the parcels), FY08 and FY09

Funding Source	Funding amount	Current Fair Market Value[4]	Source of non-federal match?
California Coastal Conservancy[2]	$1,400,000	$1,400,000	yes
TOTAL	$1,400,000	$1,400,000	

Schwartz

Acquired by: EBRPD in partnership with Conservancy
Date Acquired: 6/9/2009
Acres: 152.24
Key land cover: oak woodland, chaparral, annual grassland, streams and oak savanna.
Appraised Value: $803,880
Purchase Price: $803,880
Difference: $0

Funding Source	Funding amount	Percent
EBRPD (tax revenues)	$127,249	16%
US Bur Rec CVPCP Grant	$676,631	84%
TOTAL	$803,880	100%

Souza 2

Acquired by:	EBRPD in partnership with Conservancy
Date Acquired:	7/30/2009
Acres (deed):	191.49
Key land cover:	annual grassland, alkali grassland, seasonal wetland
Land Cost:	$1,692,000
Eligible for the following Section 6 grants:	FY06 and FY07

Funding Source	Funding amount	Percent	Source of non-federal match?
EBRPD (tax revenues)	$200,000	12%	yes
ECCC Habitat Conservancy (fees)	$342,000	20%	no
US Bur Rec CVPCP Grant	$550,000	33%	no
SWRCB Grant[5]	$600,000	35%	yes
TOTAL	$1,692,000	100%	

Vaquero Farms South

To be Acquired by:	EBRPD in partnership with Conservancy
Date Acquired:	12/31/2009
Acres:	1,648
Key land cover:	annual grassland, alkali grassland, seasonal wetland, alkali wetland, pond
Appraised value:	$3,160,000
Purchase price:	$2,924,000
Difference:	$236,000
Eligible for the following Section 6 grants:	FY06 and FY07

Funding Source	Funding amount	Percent	Source of non-federal match?
EBRPD (tax revenues)	$500,000	17%	yes
ECCC Habitat Conservancy(fees)	$250,000	9%	no
Section 6 Grant	$2,174,000	74%	no
TOTAL	$2,924,000	100%	

Non-Federal Match Needed: **$2,657,111.11** (amount necessary to achieve 55:45 ratio of match to Section 6)

Source	Amount	
EBRPD (tax revenues)	$500,000	
Bargain sale (seller donation)	$236,000	
Match from prior acquisitions*	$1,921,111	(*Souza 1 and Lenztner)
TOTAL	$2,657,111	

Fox Ridge

To be Acquired by: EBRPD in partnership with Conservancy
Date Acquired: 12/30/2009
Acres: 221.13
Key land cover: annual grassland, seasonal wetland, oak savanna
Appraised Value: $1,960,000
Purchase Price: $1,760,000
Difference: $200,000
Eligible for the following Section 6 grants: FY07, FY08 and FY09

Funding Source	Funding amount	Percent	Source of non-federal match?
EBRPD (tax revenues)	$250,000	14%	yes
ECCC Habitat Conservancy(fees)	$75,000	4%	no
Moore Foundation	$880,000	50%	yes
Section 6 Grant	$555,000	32%	no
TOTAL	$1,760,000	100%	

Non-Federal Match Needed: **$678,333** (amount necessary to achieve 55:45 ratio of match to Section 6)

Match available:

Source	Amount
Moore Foundation	$880,000
Bargain sale (seller donation)	$200,000
EBRPD (tax revenues)	$250,000
TOTAL	$1,330,000

Excess match: $651,667

Vaquero Farms North

Acquired by: EBRPD in partners EBRPD in partnership with Conservancy
Date acquired: 6/29/2010
Acres: 574.86
Key land cover: annual grassland, alkali grassland, seasonal wetland, alkali wetland, pond
Land Cost: $2,770,000
Eligible for the following Section 6 grants: FY06 and FY07

Proposed Funding Source	Funding amount	Percent	Source of non-federal match?
Section 6 Grant	$2,770,000	100%	no
TOTAL	$2,770,000	100%	

Non-Federal Match Needed: **$3,385,556** (amount necessary to achieve 55:45 ratio of match to Section 6)

Match available:

Source	Amount
Bargain sale (seller donation)	$16,000
SWRCB grant for restoration	$150,000
DFG Grants for restoration	$150,000
Match from prior acquisitions*	$3,097,077
TOTAL	$3,413,077
Excess match:	$27,521

Grandma's Quarter

Acquired by:	EBRPD in partnership with Conservancy
Date aquired:	7/16/2010
Acres:	156.96
Key land cover:	annual grassland, alkali grassland, pond, seasonal wetland, creek
Appraised Value:	$1,036,200
Purchase Price:	$1,036,200
Difference:	$0
Eligible for the following Section 6 grants:	FY06, FY07

Funding Source	Funding amount	Percent	Source of non-federal match?
EBRPD (tax revenues)	$564,725	54%	yes
Section 6 Grant (FY06)	$471,475	46%	no
TOTAL	$1,036,200	100%	

Non-Federal Match Needed: **$576,247** (amount necessary to achieve 55:45 ratio of match to Section 6)

Match available:

Source	Amount	
Match from prior acquisitions*	$11,522	*Match is remainder of Souza 2
EBRPD (tax revenues)	$564,725	
TOTAL	$576,247	
Excess match:	$0	

Martin

Acquired by:	EBRPD in partnership with Conservancy
Date aquired:	7/16/2010
Acres:	234.35
Key land cover:	annual grassland, seasonal wetland, permanent wetland, creek
Appraised Value:	$ 2,745,395
Purchase Price:	$ 2,745,395
Difference:	$ 2,745,395
Eligible for the following Section 6 grants:	FY06, FY07

Funding Source	Funding amount	Percent	Source of non-federal match?
EBRPD (tax revenues)	$1,629,816	59%	yes
Section 6 Grant (FY06)	$1,115,579	41%	no
TOTAL	$2,745,395	100%	

Non-Federal Match Needed: **$1,363,485** (amount necessary to achieve 55:45 ratio of match to Section 6)

Match available:

Source	Amount
EBRPD (tax revenues)	$1,629,816
TOTAL	$1,629,816
Excess match:	$266,331

Souza 3

Acquired by:	EBRPD in partnership with Conservancy
Date aquired:	10/22/2010
Acres:	1,025.87
Acres not in CE:	915.37
Key land cover:	annual grassland, seasonal wetland, permanent wetland, creek
Appraised Value:	$5,300,400
Value of CE area:	$75,975
Value of non CE	$5,224,425
Purchase Price:	$5,300,400
Difference:	$0
Eligible for the following Section 6 grants:	FY06, FY07

Funding Source	Funding amount	Percent	Source of non-federal match?
EBRPD (tax revenues)	$915,220	18%	yes
Moore Foundation	$2,000,000	38%	yes
Section 6 Grant (FY07)	$2,385,180	46%	no
TOTAL	$5,300,400	101%	

Non-Federal Match Needed: **$2,915,220.00** (amount necessary to achieve 55:45 ratio of match to Section 6)

Match available:

Source	Amount
Match from prior acquisitions*	$282,330
Moore Foundation	$2,000,000
EBRPD (tax revenues)	$915,220
TOTAL	$3,197,550
Excess match:	$206,355

Non-Easement

Funding Source	Funding amount	Percent	Source of non-federal match?
EBRPD (tax revenues)	$839,245	16%	yes
Moore Foundation	$2,000,000	38%	yes
Section 6 Grant (FY07)	$2,385,180	46%	no
TOTAL	$5,224,425	100%	

Non-Federal Match Needed: **$2,915,220.00** (amount necessary to achieve 55:45 ratio of match to Section 6)

Match available:

Source	Amount
Match from prior acquisitions*	$282,330
Moore Foundation	$2,000,000
EBRPD (tax revenues)	$839,245
TOTAL	$3,121,575

Excess match: $206,355

Easement

Funding Plan for EBRPD's Purchase of Conservation Easement Area of Souza 3 (no relation to WCB or Section 6 Grant)

To be Acquired by:	EBRPD
Escrow proposed to close on:	9/30/2010
Acres:	110.50
Appraised Value:	$75,975
Purchase Price:	$75,975
Difference:	$0

Funding Source	Funding amount
EBRPD (tax revenues)	$75,975.00

Ang

Acquired by:	EBRPD in partnership with Conservancy
Date Acquired:	8/9/2010
Acres (deed):	461.9
Key land cover:	annual grassland, oak savanna, oak woodland, pond, riparian, creek
Appraised Value:	$2,856,000
Purchase Price:	$2,763,840
Difference:	$92,160
Eligible for the following Section 6 grants:	FY07, FY08

Proposed Funding Source	Funding amount	Percent	Source of non-federal match?
EBRPD (tax revenues)	$1,520,115	55%	yes
Section 6 Grant	$1,243,725	45%	no
TOTAL	$2,763,840	100%	

Non-Federal Match Needed: **$1,520,108** (amount necessary to achieve 55:45 ratio of match to Section 6)

Match available:

Source	Amount
Bargain sale (seller donation)	$92,160
EBRPD (tax revenues)	$1,520,115
TOTAL	$1,612,275
Excess match:	$92,167

Irish Canyon - Chopra

Acquired by:	EBRPD in partnership with Conservancy
Date aquired:	11/24/2010
Acres:	313.04
Key land cover:	annual grassland, oak savanna, oak woodland, pond, riparian, creek
Appraised Value:	$1,760,000
Purchase Price:	$842,000
Difference:	$918,000
Eligible for the following Section 6 grants:	FY07, FY08

Funding Source	Funding amount	Percent	Source of non-federal match?
EBRPD (tax revenues)	$50,000	3%	yes
Section 6 Grant[6]	$792,000	45%	no
TOTAL	$842,000	100%	

Non-Federal Match Needed: **$968,000.00** (amount necessary to achieve 55:45 ratio of match to Section 6)

Match available:

Source	Amount
Bargain sale (seller donation)[8]	$918,000.00
EBRPD (tax revenues)	$50,000.00
TOTAL	$968,000.00
Excess match:	$0.00

Land Waste Management

Acquired by:	EBRPD in partnership with Conservancy
Date aquired:	4/26/2011
Acres (deed):	448.64
Key land cover:	annual grassland, alkali grassland, oak savanna, oak woodland, alkali wetlands, permanent and seasonal wetlands, ponds,
Appraised Value:	$3,050,000
Purchase Price:	$3,050,000
Difference:	$0

Eligible for the following Section 6 grants: FY07, FY08

Proposed Funding Source		Funding amount	Percent	Source of non-federal match?
EBRPD (tax revenues)		$1,177,500	39%	yes
IRWMP Grant from SWRCB		$500,000	16%	yes
Section 6 Grant	(FY08)	$1,372,500	45%	no
TOTAL		$3,050,000	110%	

Non-Federal Match Needed: **$1,677,500** (amount necessary to achieve 55:45 ratio of match to Section 6)

Match available:

Source	Amount
EBRPD (tax revenues)	$1,177,500
IRWMP Grant from SWRCB	$500,000
TOTAL	$1,677,500
Excess match:	$0

Barron

Acquired by:	EBRPD in partnership with Conservancy
Date acquired:	3/30/2011
Acres:	763.49
Key land cover:	annual grassland, oak woodlands, oak savanna, chaparral/scrub, ponds, seasonal wetlands and streams
Appraised Value:	$2,952,600
Purchase Price:	$2,952,600
Difference:	$0

Eligible for the following Section 6 grants: FY07, FY08

Proposed Funding Source		Funding amount	Percent	Source of non-federal match?
EBRPD (tax revenues)		$650,000	22%	yes
WCB Proposition 84		$973,930	33%	yes
Section 6 Grant	(FY08)	$1,328,670	45%	no
TOTAL		$2,952,600	100%	

Non-Federal Match Needed: **$1,623,930** (amount necessary to achieve 55:45 ratio of match to Section 6)

Match available:

Source	Amount
WCB Proposition 848	$973,930
EBRPD (tax revenues)	$650,000
TOTAL	$1,623,930
Excess match:	$0

Thomas Southern/Austin 1

Acquired by:	EBRPD in partnership with Conservancy
Date acquired:	9/27/2011
Acres (deed):	813.87
Key land cover:	annual grasslands, oak woodlands, chaparral, oak savanna, ponds, and streams
Appraised Value:	$3,770,000
Purchase Price:	$3,770,000
Difference:	$0

Eligible for the following Section 6 grants: FY07, FY08

Proposed Funding Source		Funding amount	Percent	Source of non-federal match?
EBRPD (tax revenues)		$377,000	10%	yes
WCB Proposition 84		$1,562,166	41%	yes
Section 6 Grant	(FY07)	$695,425	18%	no
Section 6 Grant	(FY08)	$1,135,409	30%	no
TOTAL		$3,770,000	100%	

Non-Federal Match Needed: **$2,073,500** (amount necessary to achieve 55:45 ratio of match to Section 6)

Proposed Funding Source		Funding amount		Source of non-federal match?
EBRPD (tax revenues)		$324,000	10%	yes
WCB Proposition 84		$1,562,166	48%	yes
Section 6 Grant	(FY07)	$695,425	21%	no
Section 6 Grant	(FY08)	$658,409	20%	no
TOTAL		$3,240,000	100%	

Non-Federal Match Needed: **$1,782,000** (amount necessary to achieve 55:45 ratio of match to Section 6)

PG&E lease revenue

Appraised Value:	$530,000
Purchase Price:	$530,000
Difference:	$0

Eligible for the following Section 6 grants: FY07, FY08

Proposed Funding Source		Funding amount		Source of non-federal match?
EBRPD (tax revenues)		$53,000	10%	yes
Section 6 Grant	(FY08)	$477,000	90%	no
TOTAL		$530,000	100%	

Non-Federal Match Needed: **$291,500** (amount necessary to achieve 55:45 ratio of match to Section 6)

Match available:

Source	
WCB Proposition 848	$1,562,166
EBRPD (tax revenues)	$377,000
In-kind match (prior acquisitions)	$134,334
TOTAL	$2,073,500
Excess match:	$0.00

Thomas Central/Austin 2

Acquired by:	EBRPD in partnership with Conservancy
Date acquired:	9/27/2011
Acres:	159.91
Key land cover:	annual grassland, ponds, wetlands, and streams
Appraised Value:	$624,000
Purchase Price:	$624,000
Difference:	$0
Eligible for the following Section 6 grants:	FY07, FY08

Proposed Funding Source	Funding amount	Percent	Source of non-federal match?
EBRPD (tax revenues)	$62,400	10%	yes
WCB Proposition 84	$280,800	45%	yes
Section 6 Grant[6]	$280,800	45%	no
TOTAL	$624,000	100%	

Non-Federal Match Needed: **$343,200** (amount necessary to achieve 55:45 ratio of match to Section 6)

Match available:

Source	Amount
WCB Proposition 84	$280,800.00
EBRPD (tax revenues)	$62,400.00
In-kind match	$0.00
TOTAL	$343,200.00
Excess match:	$0.00

Affinito

Acquired by:	EBRPD in partnership with Conservancy
Date acquired:	2/24/2012
Acres:	117.38
Key land cover:	annual grassland, oak savanna, oak woodland, chaparral, pond, creek
Appraised Value:	$2,235,000
Purchase Price:	$2,235,000
Difference:	$0
Eligible for the following Section 6 grants:	FY08

Proposed Funding Source	Funding amount	Percent	Source of non-federal match?
EBRPD (tax revenues)	$223,500	10%	yes
WCB Proposition 84	$1,005,750	45%	yes
Section 6 Grant[6]	$1,005,750	45%	no
TOTAL	$2,235,000	100%	

Non-Federal Match Needed: **$1,229,250** (amount necessary to achieve 55:45 ratio of match to Section 6)

Match available:

Source	Amount
WCB Proposition 84	$1,005,750.00
EBRPD (tax revenues)	$223,500.00
In-kind match	$0.00
TOTAL	$1,229,250.00
Excess match:	$0.00

Vaquero Farms Central

Acquired by:	EBRPD in partnership with Conservancy
Date acquired:	3/5/2012
Acres:	319.95
Key land cover:	annual grassland, alkali grasslad, alkali wetland, pond
Appraised Value:	$2,464,000
Purchase Price:	$2,400,000
Difference:	$64,000

Eligible for the following Section 6 grants: FY07

Proposed Funding Source	Funding amount	Percent	Source of non-federal match?
EBRPD (tax revenues)	$240,000	10%	yes
G&B Moore Foundation	$850,000	35%	yes
WCB Proposition 84	$230,000	9%	yes
Section 6 Grant[6]	$1,080,000	45%	no
TOTAL	$2,400,000	100%	

Non-Federal Match Needed: **$1,320,000** (amount necessary to achieve 55:45 ratio of match to Section 6)

Match available:

Source	Amount
WCB Proposition 84	$230,000.00
EBRPD (tax revenues)	$240,000.00
G&B Moore Foundation	$850,000.00
In-kind match	$0.00
TOTAL	$1,320,000.00
Excess match:	$0.00

Galvin

Acquired by:	EBRPD in partnership with Conservancy
Date acquired:	1/30/2012
Acres:	61.95
Key land cover:	annual grassland, chaparral/scrub, oak savanna, oak woodland, creek
Appraised Value:	$370,000
Purchase Price:	$370,000
Difference:	$0

Eligible for the following Section 6 grants: FY08

Proposed Funding Source	Funding amount	Percent	Source of non-federal match?
EBRPD (tax revenues)	$37,000	10%	yes
G&B Moore Foundation	$166,500	45%	yes
WCB Proposition 84	$0	0%	yes
Section 6 Grant[6]	$166,500	45%	no
TOTAL	$370,000	100%	

Non-Federal Match Needed: **$203,500** (amount necessary to achieve 55:45 ratio of match to Section 6)

Match available:

Source	Amount
WCB Proposition 84	$0.00
EBRPD (tax revenues)	$37,000.00
G&B Moore Foundation	$166,500.00
In-kind match	$0.00
TOTAL	$203,500.00
Excess match:	$0.00

Moss Rock

Acquired by:	EBRPD in partnership with Conservancy
Date acquired:	1/30/2012
Acres:	20.47
Key land cover:	oak woodland, creek
Appraised Value:	$410,000
Purchase Price:	$410,000
Difference:	$0
Eligible for the following Section 6 grants:	FY08

Proposed Funding Source	Funding amount	Percent	Source of non-federal match?
EBRPD (tax revenues)	$41,000	10%	yes
G&B Moore Foundation	$184,500	45%	yes
WCB Proposition 84	$0	0%	yes
Section 6 Grant[6]	$184,500	45%	no
TOTAL	$410,000	100%	

Non-Federal Match Needed: **$225,500** (amount necessary to achieve 55:45 ratio of match to Section 6)

Match available:

Source	Amount
WCB Proposition 84	$0.00
EBRPD (tax revenues)	$41,000.00
G&B Moore Foundation	$184,500.00
In-kind match	$0.00
TOTAL	$225,500.00
Excess match:	$0.00

Fan

Acquired by:	EBRPD in partnership with Conservancy
Date acquired:	1/31/2012
Acres:	21.04
Key land cover:	oak woodland, creek
Appraised Value:	$220,000
Purchase Price:	$220,000
Difference:	$0
Eligible for the following Section 6 grants:	FY08

Proposed Funding Source	Funding amount	Percent	Source of non-federal match?
EBRPD (tax revenues)	$22,000	10%	yes
G&B Moore Foundation	$99,000	45%	yes
WCB Proposition 84	$0	0%	yes
Section 6 Grant[6]	$99,000	45%	no
TOTAL	$220,000	100%	

Non-Federal Match Needed: **$121,000** (amount necessary to achieve 55:45 ratio of match to Section 6)

Match available:

Source	Amount
WCB Proposition 84	$0.00
EBRPD (tax revenues)	$22,000.00
G&B Moore Foundation	$99,000.00
In-kind match	$0.00
TOTAL	$121,000.00
Excess match:	$0.00

Thomas North

Acquired by:	EBRPD in partnership with Conservancy
Date acquired:	11/2/2012
Acres:	131.52
Key land cover:	grassland, stream, wetland
Appraised Value:	$863,900
Purchase Price:	$863,900
Difference:	$0

Eligible for the following Section 6 grants: FY08

Proposed Funding Source	Funding amount	Percent	Source of non-federal match?
EBRPD (tax revenues)	$86,390	10%	yes
G&B Moore Foundation	$0	0%	yes
WCB Proposition 84	$388,755	45%	yes
Section 6 Grant[6]	$388,755	45%	no
TOTAL	$863,900	100%	

Non-Federal Match Needed: **$475,145** (amount necessary to achieve 55:45 ratio of match to Section 6)

Match available:

Source	Amount
WCB Proposition 84	$388,755.00
EBRPD (tax revenues)	$86,390.00
G&B Moore Foundation	$0.00
In-kind match	$0.00
TOTAL	$475,145.00
Excess match:	$0.00

Table 8a. Summary of Natural Community Protection, Restoration, and Creation by Land-Cover Type

	Land Cover Requirements[3] (acres)			Reporting Period (acres)				Cumulative (acres)				Percent Complete (%)		
Land Cover Type	Protection	Creation	Restoration	Protection	Existing Easement (no credit)	Creation	Restoration	Protection	Existing Easement (no credit)	Creation	Restoration	Protection	Creation	Restoration
Terrestrial														
Annual grassland	16,500	--	--	438.6	-	-	-	5,439.1	1,441.6	-	0.04	33%	--	--
Alkali grassland	1,250	--	--	61.0	-	-	-	165.3	17.5	-	0.02	13%	--	--
Ruderal	-	--	--	3.3	-	-	-	52.5	22.5	-	-	-	--	--
Chaparral and scrub	550	--	--	15.2	-	-	-	130.6	-	-	-	24%	--	--
Oak savanna	500	--	165	30.7	-	-	-	310.2	23.9	-	-	62%	--	0%
Oak woodland	400	--	--	95.3	-	-	-	1,166.1	130.8	-	-	292%	--	--
Subtotal terrestrial	*19,200*	--	*165*	*644.1*	-	-	-	*7,263.8*	*1,636.3*	-	*0.06*	38%	--	0%
Aquatic														
Riparian woodland/scrub	70	--	55	3.0	-	-	-	19.8	0.2	-	0.9	28%	--	2%
Perennial wetland[1]	75	--	85	-	-	-	-	5.2	5.8	-	0.2	7%	--	0%
Seasonal wetland	168	--	163	0.1	-	-	0.6	7.9	1.4	-	8.3	5%	--	5%
Alkali wetland	93	--	67	7.7	-	-	-	19.3	4.3	-	2.5	21%	--	4%
Pond	16	16	--	0.7	-	-	-	6.9	2.7	0.4	-	43%	3%	-
Reservoir (open water)[2]	12	6	--	-	-	-	-	-	-	-	-	0%	0%	-
Slough/Channel	36	--	72	-	-	-	-	-	-	-	-	0%	--	0%
Subtotal aquatic	*470*	--	*442*	*11.4*	-	-	*0.6*	*59.0*	*14.4*	*0.4*	*11.9*	*13%*	--	*3%*
Stream (length in linear feet)														
Perennial	4,224	--	2,112	2,032.0	-	-	-	10,687.5	889.1	-	-	253%	--	0%
Intermittent	2,112	--	2,112	5,319.0	-	-	-	68,377.8	24,724.0	-	2,983.4	3238%	--	141%
Ephemeral[4]	26,400	--	26,400	-	-	-	-	4,781.0	877.8	-	-	18%	--	0%
Classification pending[4]	--	--	--	15,921.1	-	-	-	85,387.9	16,873.4	-	683.2	--	--	--
Subtotal stream length	*32,736*	--	*30,624*	*23,272.1*	-	-	-	*169,234.2*	*43,364.3*	-	*3,666.6*	517%	--	*12%*
Irrigated agriculture														
Cropland	400	--	--	-	-	-	-	-	-	-	-	0%	--	--
Pasture	--	--	--	-	-	-	-	-	-	-	-	--	--	--
Orchard	--	--	--	-	-	-	-	-	-	-	-	--	--	--
Vineyard	--	--	--	-	-	-	-	-	-	-	-	--	--	--
Subtotal irrigated agricultural	*400*	--	--	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	--	--	--
Other				--										
Nonnative woodland	--		--	-	-	-	-	0.7	-	-	-	--	--	--
Wind turbines	--	--	--	-	-	-	-	64.0	25.1	-	-	--	--	--
Subtotal other	--	--	--	*0*	*0*	*0*	*0*	*64.8*	*25.1*	*0*	*0*	--	--	--
Developed														
Urban	--	--	--	14	-	-	-	16	1	-	-	--	--	--
Subtotal developed	--	--	--	*14*	*0*	*0*	*0*	*16*	*1*	*0*	*0*	--	--	--
Uncommon Landscape Features or Habitat														
Rock outcrop	--	--	--	3	-	-	-	13	5	-	-	--	--	--
Subtotal uncommon landscape	--	--	--	3	-	-	-	13	5	-	-	--	--	--
Totals (excludes subtypes)														
Acres	--	--	--	672.5	-	-	0.6	7,416.8	1,681.1	0.4	11.9	--	--	--
Linear feet	--	--	--	23,272.1	-	-	-	169,234.2	43,364.3	-	3,666.6	--	--	--

[1] *Perennial wetlands* are equivalent *permanent wetlands.*

[2] *Reservoir (open water)* is equivalent to *aquatic.*

[3] *All land cover requirements assume the Maximum Urban Development Area scenario. The requirements for restoration and creation are dependent upon amount of impact. The requirements provided are based on the conservative estimates of wetland impacts provided in the Plan.*

[4] *Many of the streams identified as "classification pending" will ultimatley be classified as ephemeral.*

Table 8b. Reporting Period Summary of Natural Community Protection, Restoration, and Creation by Land Acquisition

	Reporting Period Land Acqusitions (acres)							
	Affinito				Austin - Thomas North			
Land Cover Type	Protection	Existing Easement (No credit)	Creation	Restoration	Protection	Existing Easement (No credit)	Creation	Restoration
Terrestrial								
Annual grassland	48.2	-	-	-	111.1	-	-	-
Alkali grassland	1.8	-	-	-	18.4	-	-	-
Ruderal	-	-	-	-	-	-	-	-
Chaparral and scrub	-	-	-	-	-	-	-	-
Oak savanna	25.1	-	-	-	-	-	-	-
Oak woodland	35.1	-	-	-	-	-	-	-
Subtotal terrestrial	*110.2*	*0.0*	*0.0*	*0.0*	*129.5*	*0.0*	*0.0*	*0.0*
Aquatic								
Riparian woodland/scrub	3.0	-	-	-	-	-	-	-
Perennial wetland[1]	-	-	-	-	-	-	-	-
Seasonal wetland	0.1	-	-	-	-	-	-	-
Alkali wetland	-	-	-	-	0.8	-	-	-
Pond	-	-	-	-	-	-	-	-
Reservoir (open water)[2]	-	-	-	-	-	-	-	-
Slough/Channel	-	-	-	-	-	-	-	-
Subtotal aquatic	*3.0*	*0.0*	*0.0*	*0.0*	*0.8*	*0.0*	*0.0*	*0.0*
Stream (length in linear feet)								
Perennial	-	-	-	-	-	-	-	-
Intermittent	4,144.1	-	-	-	-	-	-	-
Ephemeral	-	-	-	-	-	-	-	-
Classification pending	-	-	-	-	3,701.3	-	-	-
Subtotal stream length	*4,144.1*	*0.0*	*0.0*	*0.0*	*3,701.3*	*0.0*	*0.0*	*0.0*
Irrigated agriculture								
Cropland	-	-	-	-	-	-	-	-
Pasture	-	-	-	-	-	-	-	-
Orchard	-	-	-	-	-	-	-	-
Vineyard	-	-	-	-	-	-	-	-
Subtotal irrigated agricultural	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Other								
Nonnative woodland	-	-	-	-	-	-	-	-
Wind turbines	-	-	-	-	-	-	-	-
Subtotal other	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Developed								
Urban	2.9	-	-	-	1.2	-	-	-
Aqueduct	-	-	-	-	-	-	-	-
Turf	-	-	-	-	-	-	-	-
Landfill	-	-	-	-	-	-	-	-
Subtotal developed	*2.9*	*0.0*	*0.0*	*0.0*	*1.2*	*0.0*	*0.0*	*0.0*
Uncommon Landscape								
Rock outcrop	1.3	-	-	-	-	-	-	-
Subtotal uncommon landscape	*1.3*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Totals (excludes subtypes)								
Acres	116.1	0.0	0.0	0.0	131.5	0.0	0.0	0.0
Linear feet	4,144.1	0.0	0.0	0.0	3,701.3	0.0	0.0	0.0

[1] *Perennial wetlands* are equivalent *permanent wetlands*.

[2] *Reservoir (open water)* is equivalent to *aquatic*.

[3] *All land cover requirements assume the Maximum Urban Development Area scenario. The requirements for restoration and creation are dependent upon amount of impact. The requirements provided are based on the maximum estimates of wetland impacts provided in the Plan.*

	Reporting Period Land Acqusitions (acres)							
	Fan				Galvin			
Land Cover Type	Protection	Existing Easement (No credit)	Creation	Restoration	Protection	Existing Easement (No credit)	Creation	Restoration
Terrestrial								
Annual grassland	18.1	-	-	-	3.3	-	-	-
Alkali grassland	-	-	-	-	-	-	-	-
Ruderal	-	-	-	-	-	-	-	-
Chaparral and scrub	-	-	-	-	15.2	-	-	-
Oak savanna	2.9	-	-	-	2.6	-	-	-
Oak woodland	-	-	-	-	40.5	-	-	-
Subtotal terrestrial	*21.0*	*0.00*	*0.0*	*0.0*	*61.6*	*0.0*	*0.0*	*0.00*
Aquatic								
Riparian woodland/scrub	-	-	-	-	-	-	-	-
Perennial wetland[1]	-	-	-	-	-	-	-	-
Seasonal wetland	-	-	-	-	-	-	-	-
Alkali wetland	-	-	-	-	-	-	-	-
Pond	-	-	-	-	-	-	-	-
Reservoir (open water)[2]	-	-	-	-	-	-	-	-
Slough/Channel	-	-	-	-	-	-	-	-
Subtotal aquatic	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Stream (length in linear feet)								
Perennial	-	-	-	-	1,009.0	-	-	-
Intermittent	-	-	-	-	-	-	-	-
Ephemeral	-	-	-	-	-	-	-	-
Classification pending	-	-	-	-	360.6	-	-	-
Subtotal stream length	*0.0*	*0.0*	*0.0*	*0.0*	*1,369.5*	*0.0*	*0.0*	*0.0*
Irrigated agriculture								
Cropland	-	-	-	-	-	-	-	-
Pasture	-	-	-	-	-	-	-	-
Orchard	-	-	-	-	-	-	-	-
Vineyard	-	-	-	-	-	-	-	-
Subtotal irrigated agricultural	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Other								
Nonnative woodland	-	-	-	-	-	-	-	-
Wind turbines	-	-	-	-	-	-	-	-
Subtotal other	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Developed								
Urban	-	-	-	-	-	-	-	-
Aqueduct	-	-	-	-	-	-	-	-
Turf	-	-	-	-	-	-	-	-
Landfill	-	-	-	-	-	-	-	-
Subtotal developed	*0.0*	*0.0*	*0.0*	*0.0*	*0.00*	*0.0*	*0.0*	*0.0*
Uncommon Landscape								
Rock outcrop	-	-	-	-	-	-	-	-
Subtotal uncommon landscape	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Totals (excludes subtypes)								
Acres	21.0	0.0	0.0	0.0	61.6	0.0	0.0	0.0
Linear feet	0.0	0.0	0.0	0.0	1,369.5	0.0	0.0	0.0

	Reporting Period Land Acqusitions (acres)							
	Moss Rock				Vaquero Farms Central			
Land Cover Type	Protection	Existing Easement (No credit)	Creation	Restoration	Protection	Existing Easement (No credit)	Creation	Restoration
Terrestrial								
Annual grassland	-	-	-	-	257.5	-	-	-
Alkali grassland	-	-	-	-	40.7	-	-	-
Ruderal	0.8	-	-	-	2.6	-	0.8	-
Chaparral and scrub	-	-	-	-	-	-	-	-
Oak savanna	-	-	-	-	-	-	-	-
Oak woodland	19.7	-	-	-	-	-	19.7	-
Subtotal terrestrial	*20.5*	*0.0*	*0.0*	*0.00*	*300.8*	*0.0*	*20.5*	*0.00*
Aquatic								
Riparian woodland/scrub	-	-	-	-	-	-	-	-
Perennial wetland[1]	-	-	-	-	-	-	-	-
Seasonal wetland	-	-	-	-	-	-	-	-
Alkali wetland	-	-	-	-	6.9	-	-	-
Pond	-	-	-	-	0.7	-	-	-
Reservoir (open water)[2]	-	-	-	-	-	-	-	-
Slough/Channel	-	-	-	-	-	-	-	-
Subtotal aquatic	*0.0*	*0.0*	*0.0*	*0.0*	*7.6*	*0.0*	*0.0*	*0.0*
Stream (length in linear feet)								
Perennial	1,023.1	-	-	-	-	-	-	-
Intermittent	1,174.9	-	-	-	-	-	-	-
Ephemeral	-	-	-	-	-	-	-	-
Classification pending	-	-	-	-	11,859.2	-	-	-
Subtotal stream length	*2,198.0*	*0.0*	*0.0*	*0.0*	*11,859.2*	*0.0*	*0.0*	*0.0*
Irrigated agriculture								
Cropland	-	-	-	-	-	-	-	-
Pasture	-	-	-	-	-	-	-	-
Orchard	-	-	-	-	-	-	-	-
Vineyard	-	-	-	-	-	-	-	-
Subtotal irrigated agricultural	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Other								
Nonnative woodland	-	-	-	-	-	-	-	-
Wind turbines	-	-	-	-	-	-	-	-
Subtotal other	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Developed								
Urban	-	-	-	-	9.6	-	-	-
Aqueduct	-	-	-	-	-	-	-	-
Turf	-	-	-	-	-	-	-	-
Landfill	-	-	-	-	-	-	-	-
Subtotal developed	*0.00*	*0.0*	*0.0*	*0.0*	*9.6*	*0.0*	*0.0*	*0.0*
Uncommon Landscape								
Rock outcrop	-	-	-	-	2.0	-	-	-
Subtotal uncommon landscape	*0.0*	*0.0*	*0.0*	*0.0*	*2.0*	*0.0*	*0.0*	*0.0*
Totals (excludes subtypes)								
Acres	20.5	0.0	0.0	0.0	318.0	0.0	20.5	0.0
Linear feet	2,198.0	0.0	0.0	0.0	11,859.2	0.0	0.0	0.0

Table 9. Cumulative Summary of Progress towards Fulfilling Preservation Requirements for Jurisdictional Wetland and Waters Requirements

Jurisdictional Wetlands and Waters Requirement	Total Requirement[1]	Reporting Period Area Acquired	Cumulative Area Acquired	Percentage of Requirement Met by Acquisition (%)
Preserve-wide Riparian woodland/scrub (acres)	70.0	3.0	19.8	28%
Preserve-wide Perennial wetland (acres)	75.0	0.0	5.2	7%
Preserve-wide Seasonal wetland (acres)	168.0	0.1	7.9	5%
Preserve-wide Alkali wetland (acres)	93.0	7.7	19.3	21%
Preserve-wide Pond (acres)	16.0	0.7	6.9	43%
Preserve-wide Reservoir (open water) (acres)	12.0	0.0	0.0	0%
Preserve-wide Slough/Channel (acres)	36.0	0.0	0.0	0%
Preserve-wide stream length (feet)	32,736.0	0.0	0.0	0%
Stream length by type and order				
Perennial (feet)	4,224.0	2,032.0	10,687.5	253%
Intermittent (feet)	2,112.0	5,319.0	68,377.8	3238%
Ephemeral[2] (feet)	26,400.0	0.0	4,781.0	18%
Classification Pending[2] (feet)	15,921.0		85,388.0	30%

[1] *Requirements are dependent on the amount of impacts. The requirements provided are based on the conservative estimates of wetland impacts provided in the Plan.*

[2] *Many of the streams identified as "classification pending" will ultimatley be classified as ephemeral.*

Table 10. Reporting Period and Cumulative Conservation of Covered Plants

		Number of Occurrences Protected by HCP/NCCP[1]			
Common Name	***Scientific Name***	**Required**	**Reporting Period**	**Cumulative**	**% Complete**
Mount Diablo manzanita	*Arctostaphylos auriculata*	2	0	0	0%
Brittlescale	*Atriplex depressa*	2 (4)[2]	0	1	50% (25%)
San Joaquin spearscale	*Atriplex joaquiniana*	0	1	7	--
Big tarplant	*Blepharizonia plumosa*	3	1	3	100%
Mount Diablo fairy lantern	*Calochortus pulchellus*	1	1	1	100%
Recurved larkspur	*Delphinium recurvatum*	2	0	0	0%
Round-leaved filaree	*Erodium macrophyllum*	2	0	1	50%
Diablo helianthella	*Helianthella castanea*	2	5	6	300%
Brewer's dwarf flax	*Hesperolinon breweri*	1	0	0	0%
Showy madia	*Madia radiata*	0	0	0	0%
Adobe navarretia	*Navarretia nigelliformis* ssp. *nigelliformis*	1	0	0	0%
Total		16 (18)	8	19	

[1]For the 2012 Annual Report, we are recording sightings confirmed in 2011 and 2012. Surveys will continue at part of the inventory phase.

[2]With the initial urban development area, at least two occurrences of brittlescale will be preserved. As soon as permitted urban development exceeds this, four occurrences of brittlescale must be preserved.

Table 11 describes land acquisition, species habitat, and covered plant preservation requirements by Zone and/or Subzone. The table demonstrates progress toward land acquisition requirements within all five Zones and their Subzones. Key highlights include the following acquisition achievements.

- 37% of Subzone 1b/c annual grassland requirements and 42% of 1d total area requirements were met.
- 17% of Subzone 2d and 10% of Subzone 2e requirements to protect 800 acres of annual grassland in each Subzone were met.
- 29% of Subzone 4h requirement to protect 75% of natural land cover types was met.
- 44% of Zone 5 requirement to protect 40 acres of alkali wetland was met.
- 28% of the estimated minimum overall land acquisition requirement and 22% of the estimated maximum requirement were met.

New Preserve System Acquisitions

The 2012 Preserve System acquisitions are all in high priority acquisition areas and span four of six Acquisition Zones. The size and extent of contiguous protected areas increased in the northeastern portion of the Inventory Area with the Affinito and Thomas North acquisitions. These acquisitions protect key natural communities in the Los Medanos Hills between Detachment Concord (aka Concord Naval Weapons Station) (outside the Inventory Area) and Black Diamond Mines Regional Preserve (Zone 1). The Fan acquisition provides a building block for a landscape link between Black Diamond Mines Regional Preserve and Marsh Creek State Park to protect a San Joaquin kit fox movement corridor (Zone 2). Protection of Marsh Creek headwaters, as well as expansion of the habitat linkage between Mount Diablo State Park and the conserved lands around Los Vaqueros Reservoir, occurred with the Galvin and Moss Ross acquisitions (Zone 4). The Vaquero Farms Central acquisition protects the gap between two previously purchased Vaquero Farms properties in Zone 5. Together these properties allowed continued progress toward the assembly of the Preserve System.

The 2012 acquisitions are known to support or have a strong potential to support several covered species, including the following.

- Alameda whipsnake
- California tiger salamander
- California red-legged frog
- western pond turtle (*Actinemys marmorata*)
- western burrowing owl
- golden eagle (*Aquila chrysaetos*)
- tri-colored black bird

Table 11. Achievement of Zone-Specific Land Acquisition Requirements: Reporting Period and Cumulative Summary

Zone/ Subzone	Requirements[1]	acres	Min. Acres Required (MUDA)	Aquired Reporting Period	Acquired Cumulative To date	Percent Achieved
Zone 1						
1a	Annual grassland	85	85	0.0	0.0	0%
1b	Annual grassland (1,450 acres combined w/ 1c)	TBD	1,450	0.0	49.5	37%
1c	Annual grassland (1,450 acres combined w/ 1b)	TBD		120.1	485.0	
1d	25% of total area	478	478	43.4	201.2	42%
1e	No specific requirements	0	0	0.0	0.0	--
All	Estimated minimum requirement	2,100	2,250	248.7	857.1	38%
All	Estimated maximum requirement	2,850	3,150	248.7	857.1	27%
Zone 2						
2a	At least 60% of subzone	1,104	1,104	0.0	1,402.5	127%
2a	Annual grassland (850 acres)	--	850	0.0	936.0	110%
2a	90% of chaparral in 2a, 2b, and 2c (122 acres total)	--	see below	0.0	0.5	--
2a	Land to protect Mount Diablo manzanita	--	--	0.0	0.0	--
2b	Annual grassland (450 acres)	450	450	0.0	392.8	87%
2b	Connection b/w Black Diamond R.P. and Clayton Ranch (w/ 2c)		see below	0.0	392.8	--
2b	90% of chaparral in 2a, 2b, and 2c (122 acres total)		see below	0.0	5.0	--
2c	Annual grassland (400 acres)	400	400	0.0	7.6	2%
2c	0.5-mile wide connect b/w Black Diamond and			0.0	183.8	--
2c	90% of chaparral in 2a, 2b, and 2c (122 acres total)		see below	0.0	0.0	--
2c	Seven (7) of thirteen (13) ponds for TCB, CTS, WPT, or CRLF		7	0.0	0.0	0%
2d	Annual grassland (800 acres)	800	800	15.5	138.0	17%
2d	Known occurrence of round-leaved filaree (number)	1	1	0.0	1.0	100%
2e	Annual grassland (800 acres)	800	800	2.6	79.5	10%
2e	See 2e/2f/2h below		see below	0.0	0.0	--
2f	Annual grassland (1000 acres)	1,000	1,000	0.0	0.0	0%
2f	San Joaquin kit fox movement corridor	--	--	0.0	0.0	--
2f	Land for SJKF Movement must include 2 occurrence of big tarplant	--	--	0.0	0.0	--
2f	Land for SJKF Movement must include 1 occurrence of of round-leaved filaree	--	--	0.0	0.0	--
2f	Where possible, land for SJKF and plants, should include alkali soils	--	--	0.0	0.0	--
2f	See 2e/2f/2h below	--	see below	0.0	0.0	--
2g	No specific requirements	--	--	0.0	0.0	--
2h	Annual grassland (600 acres)	600	600	0.0	0.0	0%
2h	Two occ. of big tarplant (number)	2	2	0.0	0.0	0%

Zone/ Subzone	Requirements[1]	acres	Min. Acres Required (MUDA)	Aquired Reporting Period	Acquired Cumulative To date	Percent Achieved
2h	Known occ. of Mt. Diablo manzanita and Brewer's dwarf flax (number)	2	2	0.0	0.0	0%
2h	San Joaquin kit fox (75%)			0.0	0.0	--
2h	Silvery legless habitat, if present			0.0	0.0	--
2h	See 2e/2f/2h below		see below	0.0	0.0	--
2i	No specific requirements	--	--	0.0	0.0	--
2a/2b/2c	Chaparral habitat (90%)	122	122	0.0	5.5	5%
2e/2f/2h	Annual grassland, combined	2,400	2,400	2.6	79.5	3%
All	Vernal pool invertebrate suitable habitat, wherever possible			Yes (not quantified)	Yes (not quantified)	--
All	Estimated minimum requirement	7,500	7,500	21.0	2,628.3	35%
All	Estimated maximum requirement	9,550	9,550	21.0	2,628.3	28%
All	Alternative Stay Ahead Measurement for Zone 2		4,900	21.0	2,628.3	54%
Zone 3						
3a	90% of modeled AWS suitable core habitat	159	159	0.0	94.9	60%
3a	Land to increase linkage from chaparral in zone to Mt. Diablo chaparral			0.0	94.9	
3b	No specific requirements	0	0	0.0	0.0	--
3c	No specific requirements	0	0	0.0	0.0	--
All	Estimated minimum requirement	400	400	0.0	292.7	73%
All	Estimated maximum requirement	750	750	0.0	292.7	39%
Zone 4						
4a	75% of natural land cover types	1,700	1,700	0.0	0.0	0%
4a	Known occ. of Diablo helianthella and Brewer's			0.0	0.0	
4a	See 4a/4h below		see below	0.0	0.0	--
4b	Known occ. for Mt. Diablo fairy lantern if extant.	0	0	0.0	0.0	
4c	See 4c/4e/4f/4g below	--	see below	0.0	0.0	--
4d	60% of natural land cover types	953	953	0.0	0.0	0%
4e	See 4c/4e/4f/4g below	--	see below	0.0	0.0	
4f	Known occ. for Brewer's dwarf flax (number)	TBD	TBD	0.0	0.0	
4f	See 4c/4e/4f/4g below	--	see below	0.0	0.0	
4g	See 4c/4e/4f/4g below	--	see below	0.0	0.0	
4h	75% of natural land cover types	791	791	80.8	233.0	29%
4h	Linkage between Morgan Territory Ranch, Morgan	--	--	152.2	152.2	
4h	See 4a/4h below	--	see below	0.0	0.0	
4a/4h	90% of modeled AWS suitable core habitat	200	200	15.2	30.7	15%
4c/4e/4f/4g	18%/IDA or 39%MDA of natural land cover types in 4c, 4e, 4f, 4g	1,400	3,000	0.0	0.0	0%

Zone/ Subzone	Requirements[1]	acres	Min. Acres Required (MUDA)	Aquired Reporting Period	Acquired Cumulative To date	Percent Achieved
All	Chaparral/Scrub	270	270	15.2	30.2	11%
All	Estimated minimum requirement	4,900	6,050	82.0	234.3	4%
All	Estimated maximum requirement	6,150	8,350	82.0	234.3	3%
Zone 5						
5a	See 5a/5d and 5a/5b/5d below	--	see below	--	--	--
5b	See 5a/5b/5d below	--	see below	--	--	--
5c	Annual Grassland/Suitable foraging habitat for Swainson's hawk/ SJKF core and movement habitat	1,000	1,000	0.0	0.0	0%
5c	Modeled silvery legless lizard habitat, if feasible (for MUDA)			0.0	0.0	
5d	See 5a/5d and 5a/5b/5d below	--	see below	0.0	0.0	--
5a/5d	2 (IUDA) or 4 (MUDA) of the occ. of brittlescale	4,300		0.0	2.0	
5a/5d	At least 2 occurrences of recurved larkspur		2	0.0	1.0	50%
5a/5d	170 acres connected to Byron Airport preserved areas		170	0.0	191.5	113%
5a/5b/5d	Annual grassland		7,100	257.5	3,051.6	43%
All	Grassland	5,300	8,100	257.5	3,052.6	38%
All	Alkali grassland	750	900	40.7	129.5	14%
All	Alkali wetland	40	40	6.9	17.5	44%
All	Vernal pool invertebrate suitable habitat, wherever possible			Yes (not quantified)	8.8	
All	Estimated minimum requirement	6,100	9,050	320.0	3,359.9	37%
All	Estimated maximum requirement	7,200	11,450	320.0	3,359.9	29%
Zone 6						
6a	See 6a/6b/6c/6f below	--	see below	0.0	0.0	--
6b	See 6a/6b/6c/6f below	--	see below	0.0	0.0	--
6c	See 6a/6b/6c/6f below	--	see below	0.0	0.0	--
6d	See 6d/6e below	--	see below	0.0	0.0	--
6e	See 6d/6e below	--	see below	0.0	0.0	--
6f	See 6a/6b/6c/6f below	--	see below	0.0	0.0	--
6d/6e	Alkali grassland	100	300	0.0	0.0	0%
6d/6e	Alkali wetland	20	40	0.0	0.0	0%
6a/6b/6c/6f	Cropland or Pasture	250	400	0.0	0.0	0%
All	Estimated minimum requirement	450	800	0.0	0.0	0%
All	Estimated maximum requirement	550	1,100	0.0	0.0	0%
All Zones						
All	Estimated minimum requirement	21,450	26,050	672.5	7,416.8	28%
All	Estimated maximum requirement	27,050	34,350	672.5	7,416.8	22%

[1] The requirements in this table are a summary of the land acquisition requirements in Chapter 5 of the HCP/NCCP; consult that chapter for a complete description of all land acquisition requirements

- yellow-legged frog
- San Joaquin kit fox
- vernal pool fairy shrimp
- big tar plant
- brittescale
- spearscale

Each property acquired during the reporting period is briefly described below.

A Note on Property Acreages

All acreage figures provided in this section were derived from the Conservancy's geographic information system (GIS). GIS measurements typically do not match the acreage reported in deeds and legal descriptions. Because the pre-existing parcel GIS is not necessarily accurate in rural areas, the Conservancy used a variety of techniques to better map the boundaries of the acquired properties. These techniques included aerial photography and descriptions of meets and bounds. Following these refinements, the GIS measure of acreage and the measure reported in deeds may still differ. Remaining discrepancies probably relate to discrepancies in GIS Township and range maps, inaccurate fence line placement, and errors made in original and sometimes very old surveys. GIS acreages are used in this section because the GIS is the only practical means for measuring the amount of certain land cover and the other features within each property.

Pre-Existing Conservation Easements

The Plan provides the Conservancy the choice of counting or not counting the areas within conservation easements toward conservation requirements. If they are counted, the impacts associated with the development projects mitigated by these conservation easements must be counted toward impact allocations. In this Annual Report they are not counted.

Affinito

Affinito is a 117-acre property bounded to the north by Kirker Pass Road and to the west by Land Waste Management (Figures 8 and 9). The remaining two sides (to the east and south) are privately held lands. EBRPD, in partnership with the Conservancy, purchased the property for $2,235,000 with funds from EBRPD, a federal Section 6 Grant, and a California Wildlife Conservation Board grant (Table 7).

The property is located in the Kirker Creek Watershed and consists almost entirely of moderately to steeply sloping terrain, characterized by portions of three major hills located in the southeasterly, central, and southwesterly areas of the site. Two first-order intermittent streams flow north across the property between these hills and exit the property at the north boundary. The terrain has been graded in the central area of the site between the two streams to create a number of pads for variety of buildings and associated driveway and parking areas.

Figure 8. Affinito Property - Landcover Map

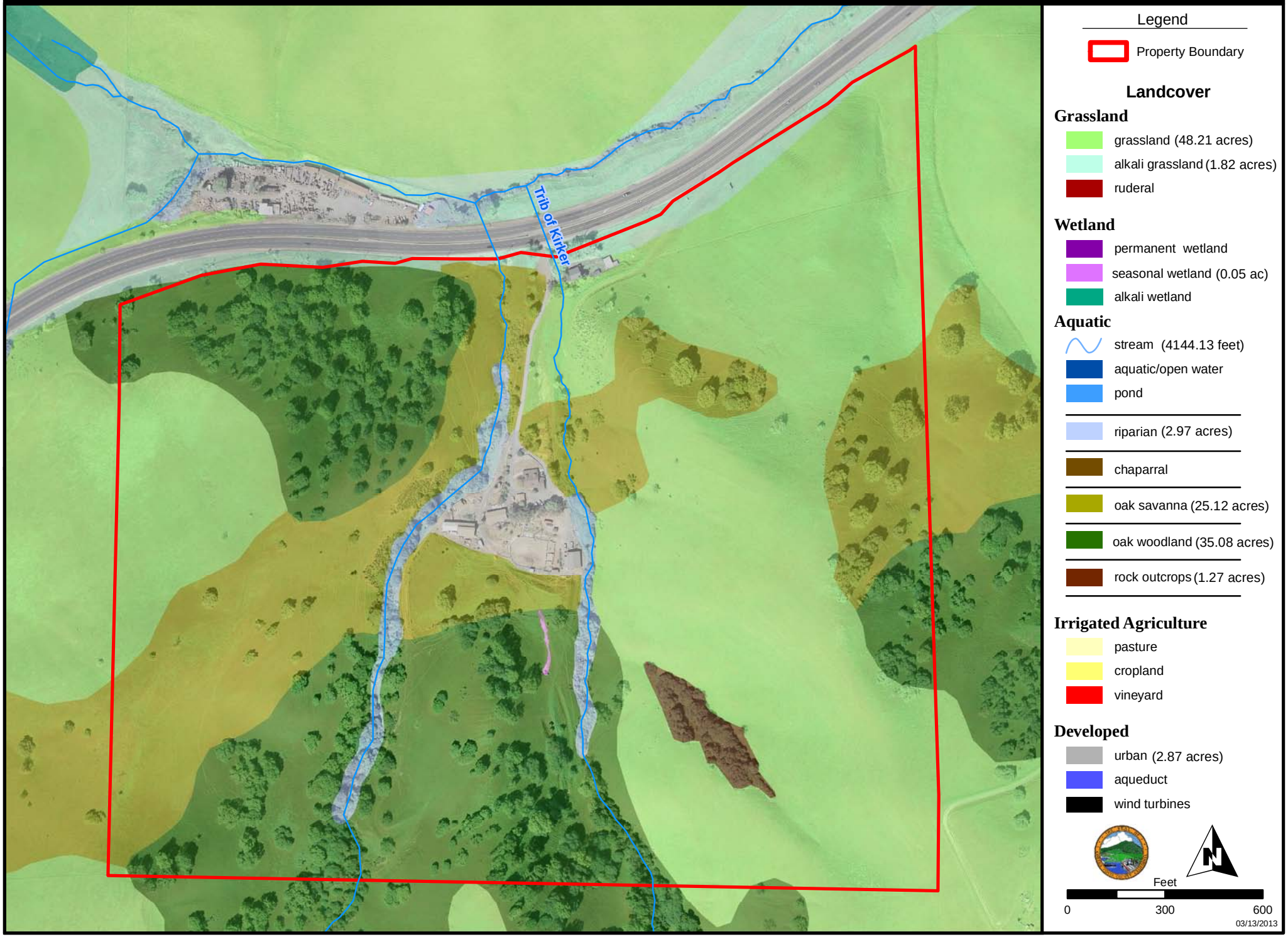


Figure 9. Affinito: Representative Photographs

Photo 1: View of eastern drainage looking south

Photo 2: View of box spring

Photo 3: View of trail

Photo 4: View of access road in western drainage looking north

Photo 5: View of developed area in 5-acre parcel looking northeast toward Pittsburg

Photo 6: View of western drainage looking south

This acquisition protects key natural communities, suitable covered species habitat, and habitat linkages. Annual grassland, oak savanna, and oak woodland are the dominant natural communities on site. Alkali grassland and riparian natural communities are also present. Covered species associated with annual grassland and oak savanna, such as California red-legged frog, California tiger salamander, and golden eagle, are likely to occur given the presence of suitable habitat. It contributes to the protection of key habitat linkages in Acquisition Zone 1, Subzone 1c (Tables 8 and 11). Affinito is a critical piece of the Preserve System because it expands the block of land protected by the Land Waste Management preserve acquisition and contributes to a key linkage between Detachment Concord (aka Concord Naval Weapons Station) and Black Diamond Mines Regional Preserve.

Vaquero Farms Central

Vaquero Farms Central is a 320-acre property bounded by two existing Preserve System properties—Vaquero Farms North and Vaquero Farms South (Figures 10 and 11). EBRPD, in partnership with the Conservancy, purchased the property for $2,400,000 using funds from EBRPD, a federal Section 6 grant, a Gordon and Betty Moore Foundation grant, and a California Wildlife Conservation Board grant (Table 7).

The property contains a broad valley and two minor valleys surrounded by moderately sloping hills, with elevations ranging from 100 to 380 feet. The site contains a residence, operations yard, and livestock/equestrian facility. Onsite development may be used, if needed, to support management of the Byron Hills Management Area Preserve System lands.

This acquisition protects key natural communities. The site mainly supports annual grassland. Alkali grassland is present in the valley bottoms where soil characteristics are predominantly alkaline. Freshwater marsh and seep vegetation is present in stock ponds and also in valley bottoms. The property includes the southern half of a large pond that is also partially on the Vaquero Farms North Property. There are five defined seasonal streams that run across the valley floor from west to east. These channels are part of the Frisk Creek watershed, including the mainstem of Frisk Creek. A band of rock outcrop formations are located along the northern edge of the site and provide raptor perching and foraging opportunities.

These natural communities and landscape features provide suitable covered species habitat. Golden eagle, western burrowing owl, and tri-colored blackbird are known to occur on site. California red-legged frog, California tiger salamander, vernal pool fairy shrimp, and covered plant species associated with grassland and alkali grassland are likely to occur given the presence of suitable habitat.

The property contributes to the protection of key habitat linkages in Acquisition Zone 5, Subzone 5a (Tables 8 and 11). The location of this acquisition protects the gap between the two previously purchased Vaquero Farms properties and contributes to the habitat connection linking the conservation areas surrounding the Byron Airport with the Los Vaqueros Watershed lands. This habitat connection conserves movement routes between suitable foraging and breeding habitat for San Joaquin kit fox.

Figure 10. Vaquero Farms Central Property - Landcover Map

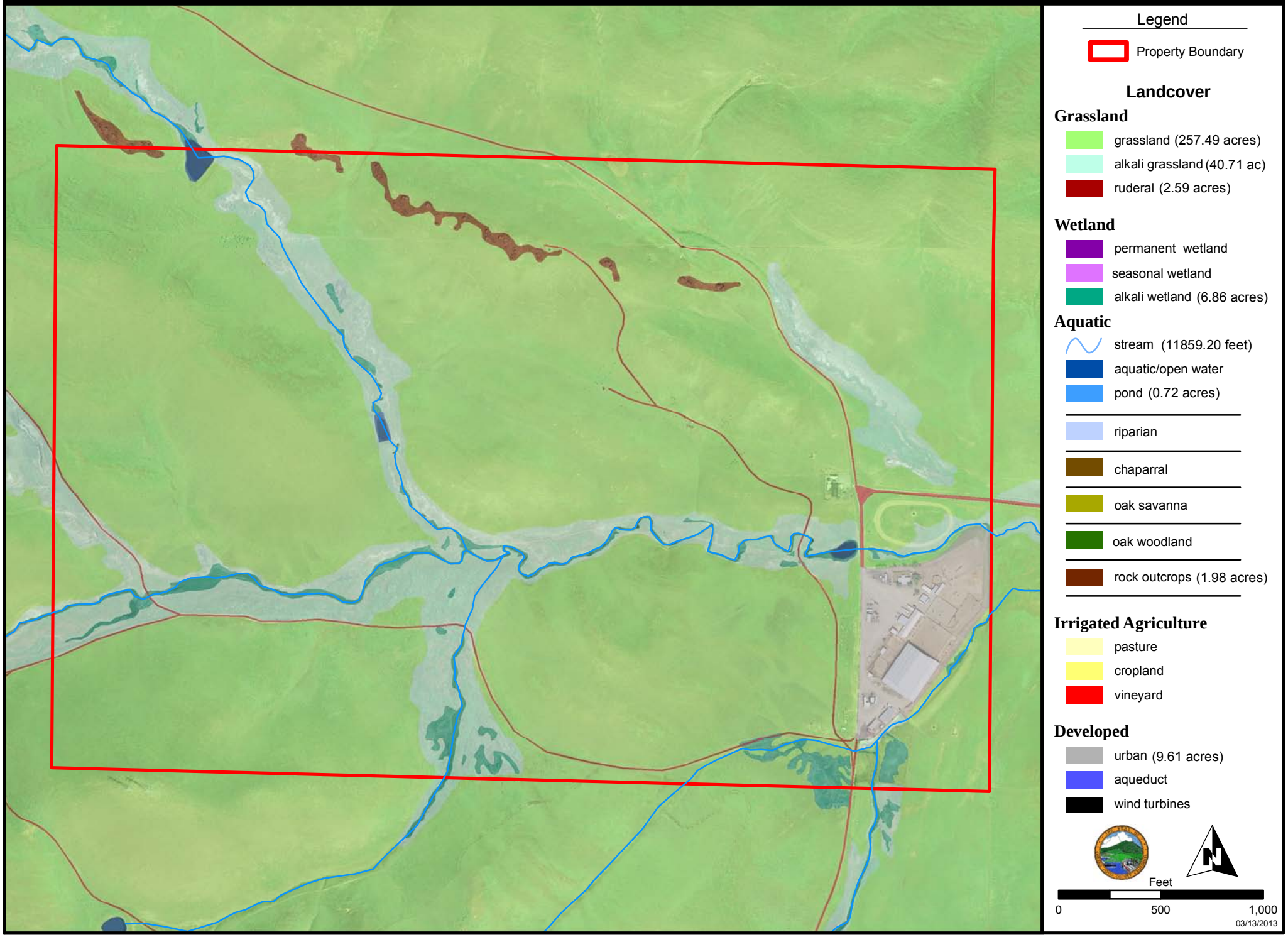


Figure 11. Vaquero Farms Central: Representative Photographs

Photo 1: View of Property (rock outcrop and beyond) from Vaquero Farms North

Photo 2: View of a pond in the interior of the Property

Photo 3: View of Frisk Creek near ranch headquarters

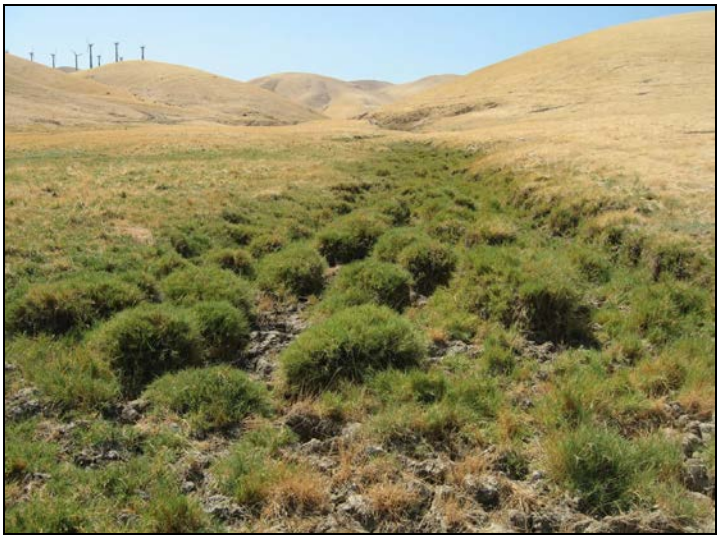


Photo 4: View of salt grass in an alkali drainage.

Photo 5: View of stream and alkali vegetation

Photo 6: View of stream meandering in valley.

Galvin

Galvin is a 62-acre property located southeast of the City of Clayton on the east side of Morgan Territory Road. It is bounded to the east by Morgan Territory Ranch (which is encumbered by a conservation easement), to the west by Morgan Territory Road, and to the north and south by other private property (Figures 12 and 13). The property was acquired for $370,000 (Table 7). EBRPD purchased the property in partnership with the Conservancy using EBRPD tax revenues, a Gordon and Betty Moore Foundation Grant, and a federal Section 6 Grant. The property was purchased from Save Mount Diablo.

The property is located in the Upper Marsh Creek watershed and has moderate to steep topography that slopes upward from Morgan Territory Road. From Morgan Territory Road, a valley extends to the east with peaks along the north and south property lines. The property is crossed by Marsh Creek, which parallels Morgan Territory Road. The site has been mostly left in its natural condition. The northern property line is a chaparral covered ridgeline, with a fire road that crosses the property. The southern property line is covered with oak woodlands and rock outcroppings. The property is wooded and has views of the area and of Mount Diablo.

This acquisition protects key natural communities, suitable covered species habitat, and habitat linkages. It contributes to fulfilling natural community, Acquisition Zone 4, and Subzone 4h requirements (Tables 8 and 11). Oak woodland is the dominant natural community, with chaparral/scrub, annual grassland, oak savanna, perennial stream, and ephemeral stream also present. The acquisition preserves core and movement habitat for Alameda whipsnake. Marsh Creek provides suitable habitat for foothill yellow-legged frog and California red-legged frog. This acquisition expands protection of the headwaters of Marsh Creek and widens the conservation linkage between Mount Diablo State Park and the block of conserved lands around Los Vaqueros Reservoir.

Moss Rock

Moss Rock is a 20-acre property located southeast of the city of Clayton along Morgan Territory Road (Figures 14 and 15). The property is bounded to the west and south by Mount Diablo State Park. A portion of the property on its eastern edge borders the Preserve System's Schwartz acquisition. The property was acquired for $410,000 (Table 7). EBRPD purchased the property in partnership with the Conservancy using EBRPD tax revenues, a Gordon and Betty Moore Foundation Grant, and a federal Section 6 Grant. The property was purchased from Save Mount Diablo.

The property is located in the Upper Marsh Creek watershed and slopes upward to the south from Morgan Territory Road. It is heavily wooded and contains a short reach of Marsh Creek. The creek banks are wooded with large bay trees and various native plants. The upper parts of the property are home to dense oak and bay trees that are common in this area. Several clearings provide views of the canyon, surrounding hills, and Mount Diablo.

This acquisition protects key natural communities, suitable covered species habitat, and habitat linkages. It contributes to fulfilling natural community, Acquisition Zone 4, and Subzone 4h requirements (Tables 8 and 11). Oak woodlands dominate the property with a perennial stream

Figure 12. Galvin Property - Landcover Map

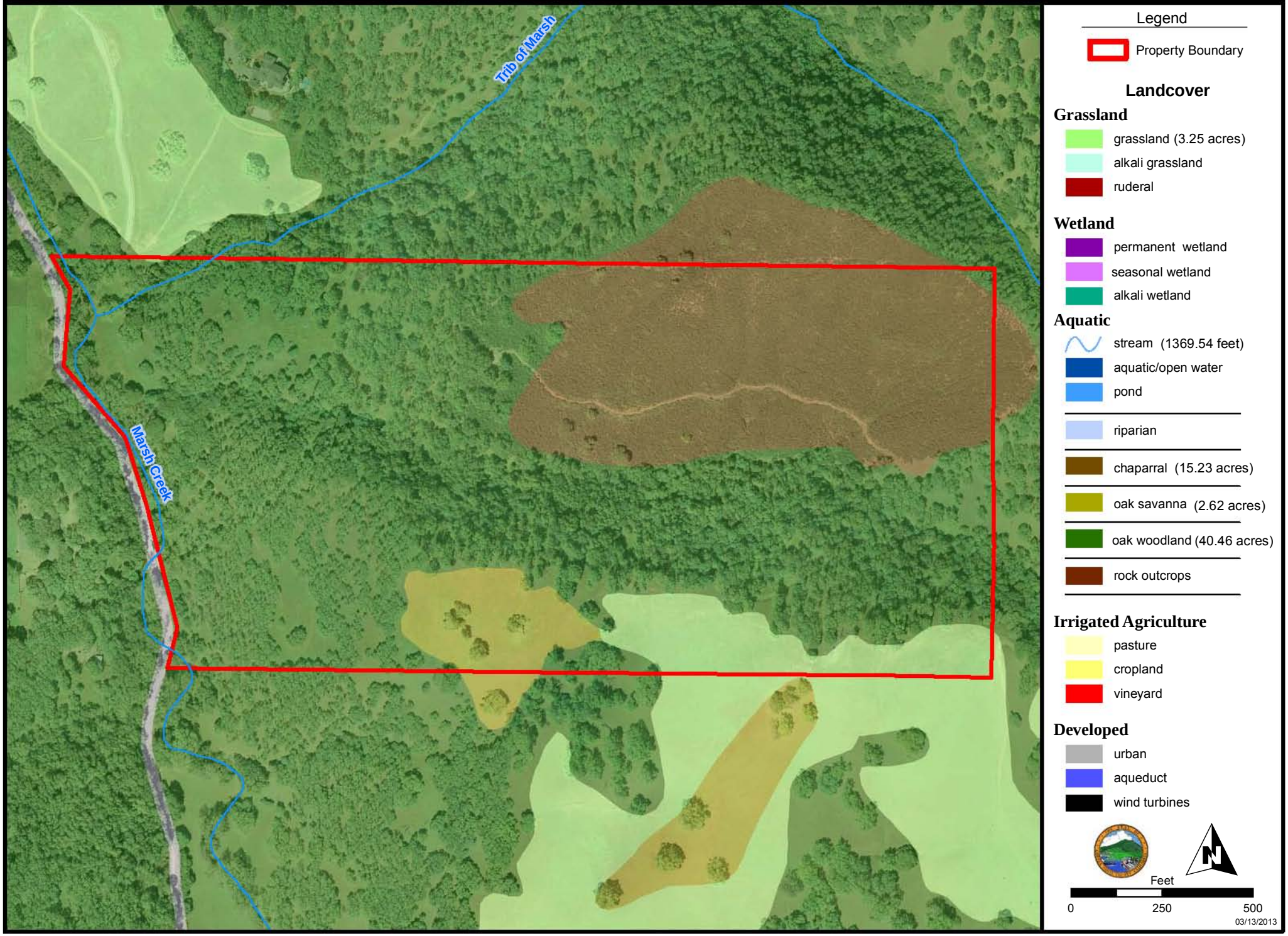


Figure 13. Galvin: Representative Photographs

Photo 1: View of Mount Diablo from Property in winter (photo by George Phillips)

Photo 2: View of Mount Diablo from Property in summer (photo by George Phillips)

Photo 3: Oblique view of Property looking east

Photo 4: View of chaparral/scrub land cover on Property (looking northeast; photo by Scott Hein)

Photo 5: View of Marsh Creek on Property (photo by George Phillips)

Photo 6: View of access gate to Property (photo by George Phillips)

Figure 14. Moss Rock Property - Landcover Map

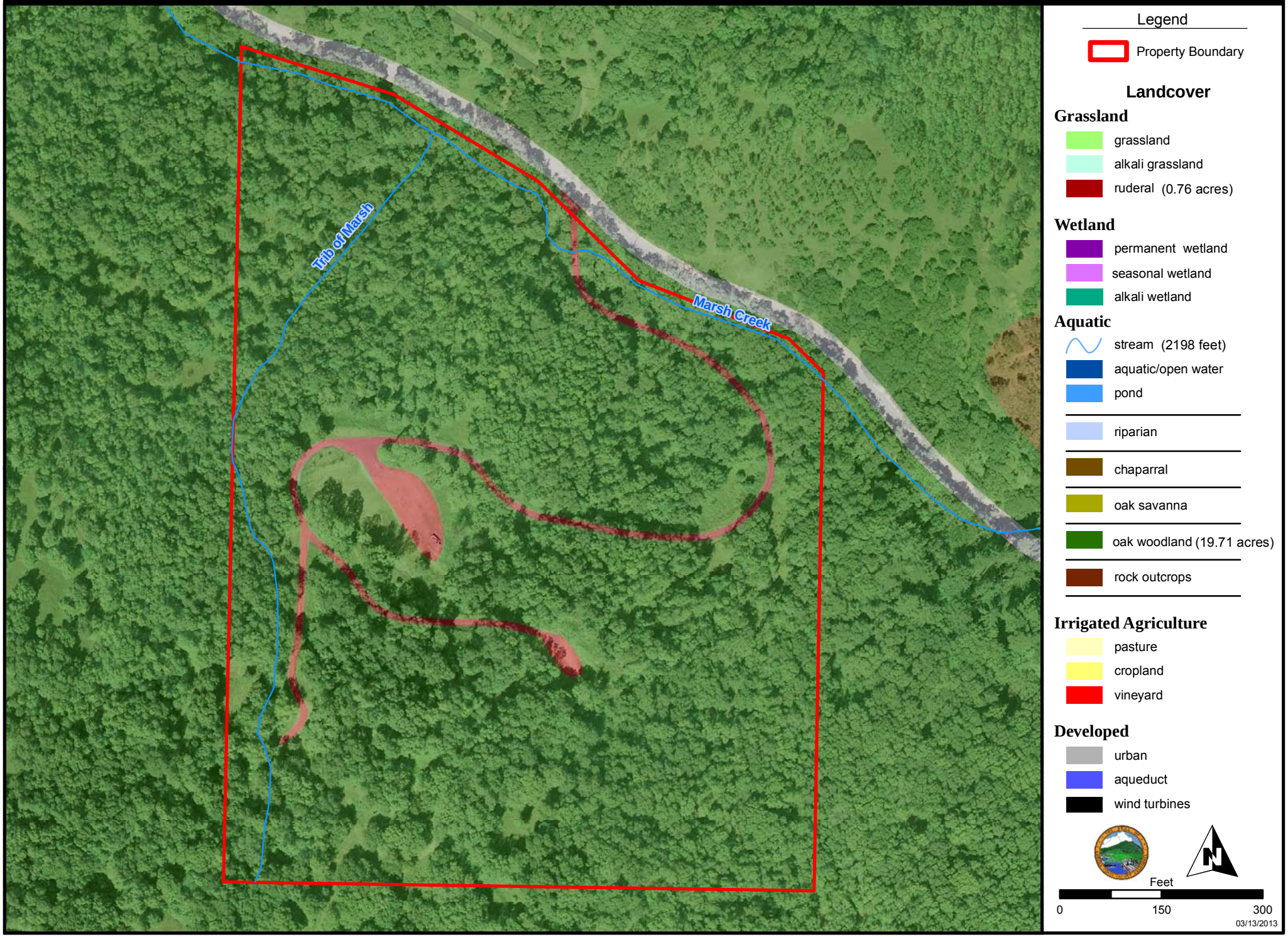


Figure 15. Moss Rock: Representative Photographs

Photo 1: View of access bridge to Property (photo by Scott Hein)

Photo 2: View of building pad looking east (photo by Scott Hein)

Photo 3: View of Property in spring looking east (photo by George Phillips)

Photo 4: View of Property looking northwest (photo by Scott Hein)

Photo 5: View of Marsh Creek on Property when flooding (photo by George Phillips)

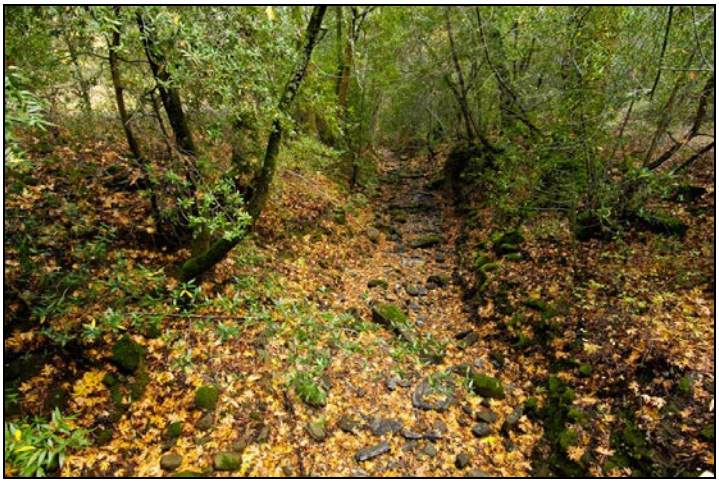


Photo 6: View of Marsh Creek on Property when dry (photo by Scott Hein)

and less than an acre of ruderal land cover also present. Like the Galvin property, Marsh Creek provides habitat for foothill yellow-legged frog and California red-legged frog, and expands protection of the headwaters of Marsh Creek. The property fills in a conservation gap between the Schwartz Preserve and Mount Diablo State Park within the habitat corridor linking Mount Diablo State Park and Los Vaqueros reservoir.

Fan

Fan is a 21-acre property located north of Briones Valley Road and west of Deer Valley Road. It is bounded to the south by the Fox Ridge Property, to the west by Contra Costa Water District's Evergreen mitigation property, and by private property in all other directions (Figures 16 and 17). The property was acquired for $220,000 (Table 7). EBRPD purchased the property in partnership with the Conservancy using EBRPD tax revenues, a Gordon and Betty Moore Foundation Grant, and a federal Section 6 Grant.

The property is located in Briones Creek watershed, and the site topography includes valley floor and ridge tops. Topographical features include knolls, creeks, swales, and steeply sloping hillsides. Views from the top of ridgelines and knolls are wide-open vistas of the Sacramento/San Joaquin Bay Delta, the surrounding hills, and Mount Diablo.

This acquisition protects key natural communities, suitable covered species habitat, and habitat linkages. It contributes to fulfilling natural community, Acquisition Zone 2, and Subzones 2e, 2f, and 2e requirements (Tables 8 and 11). Annual grasslands dominate the property with oak savanna also present. The property provides suitable habitat for California red-legged frog, California tiger salamander, western pond turtle, foothill yellow-legged frog, San Joaquin kit fox, and big tarplant. The property provides a building block for a landscape link between Black Diamond Mines Regional Preserve and Marsh Creek State Park to protect a San Joaquin kit fox movement corridor.

Thomas North

Thomas North is a 132-acre property located along Kirker Pass Road south of Pittsburg in the northwest portion of the inventory area (Figures 18 and 19). It is bounded to the west by the Keller Canyon Landfill open space buffer lands and land owned by PG&E for a transmission corridor. These lands are part of larger contiguous open space, including the EBRPD-owned Land Waste Management property acquired in 2011 for the HCP/NCCP Preserve System. To the north is the County Urban Limit Line and a private property proposed for development. There are privately owned parcels to the east and the south. Although not sharing any boundaries, kitty-corner to the southwest is the Affinito property described above. The property was acquired for $863,900 (Table 7). EBRPD purchased the property in partnership with the Conservancy using EBRPD tax revenues, a state grant from the Wildlife Conservation Board (Proposition 84), and a federal Section 6 Grant. The property was purchased from Save Mount Diablo.

The property is located in Kirker Creek watershed and is bisected by Kirker Pass Road. The site topography is moderately to steeply upsloping from Kirker Pass Road. The central portion of this parcel consists of a lesser sloped valley flanked by two hills. The topography south of Kirker

Figure 16. Fan Property - Landcover Map

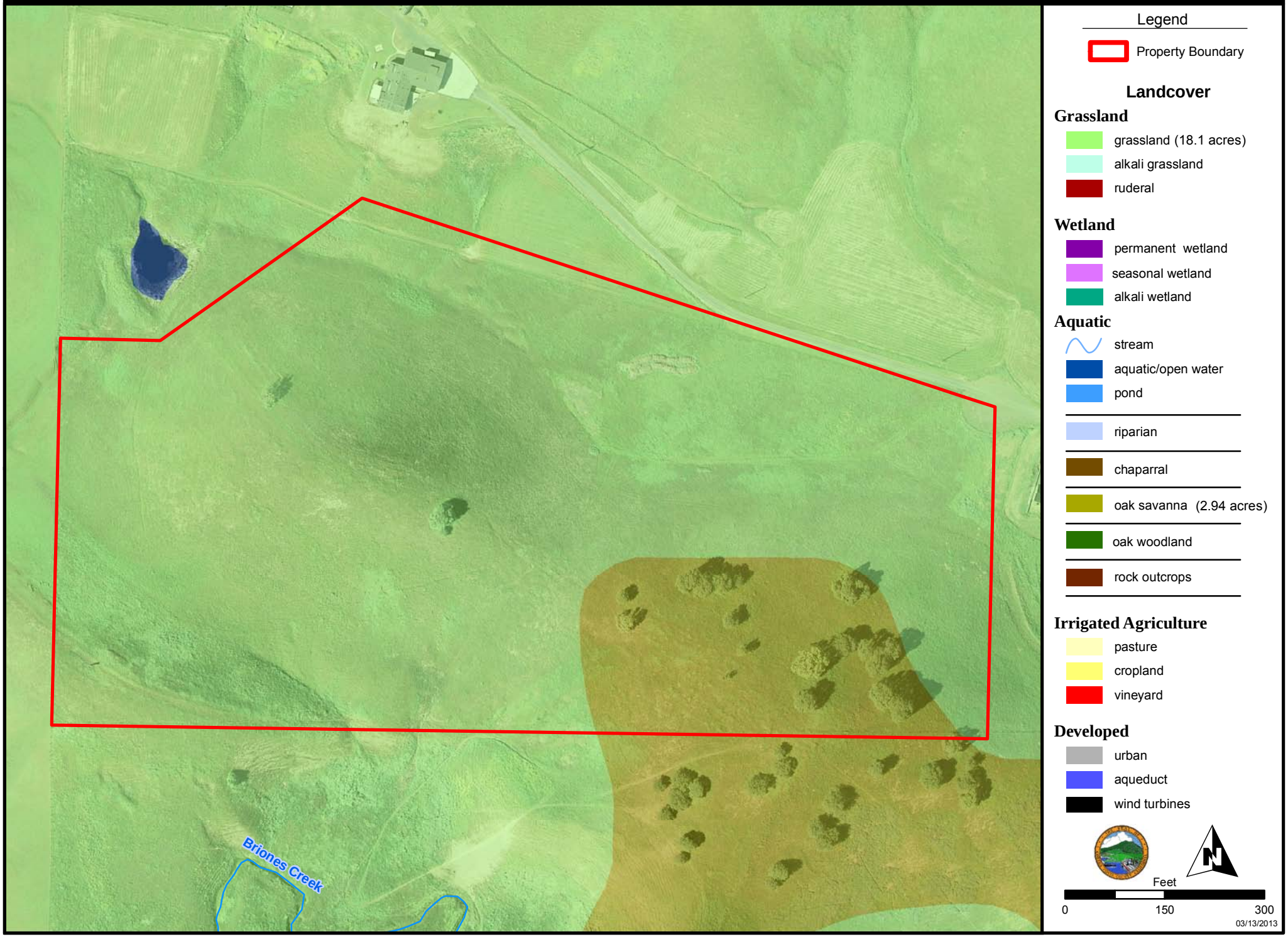


Figure 17. Fan: Representative Photographs

Photo 1: View east to the Briones Valley from the Property

Photo 2: View to the south.

Photo 3: View to the southeast

Photo 4: View to the north

Figure 18. Thomas North Property - Landcover Map

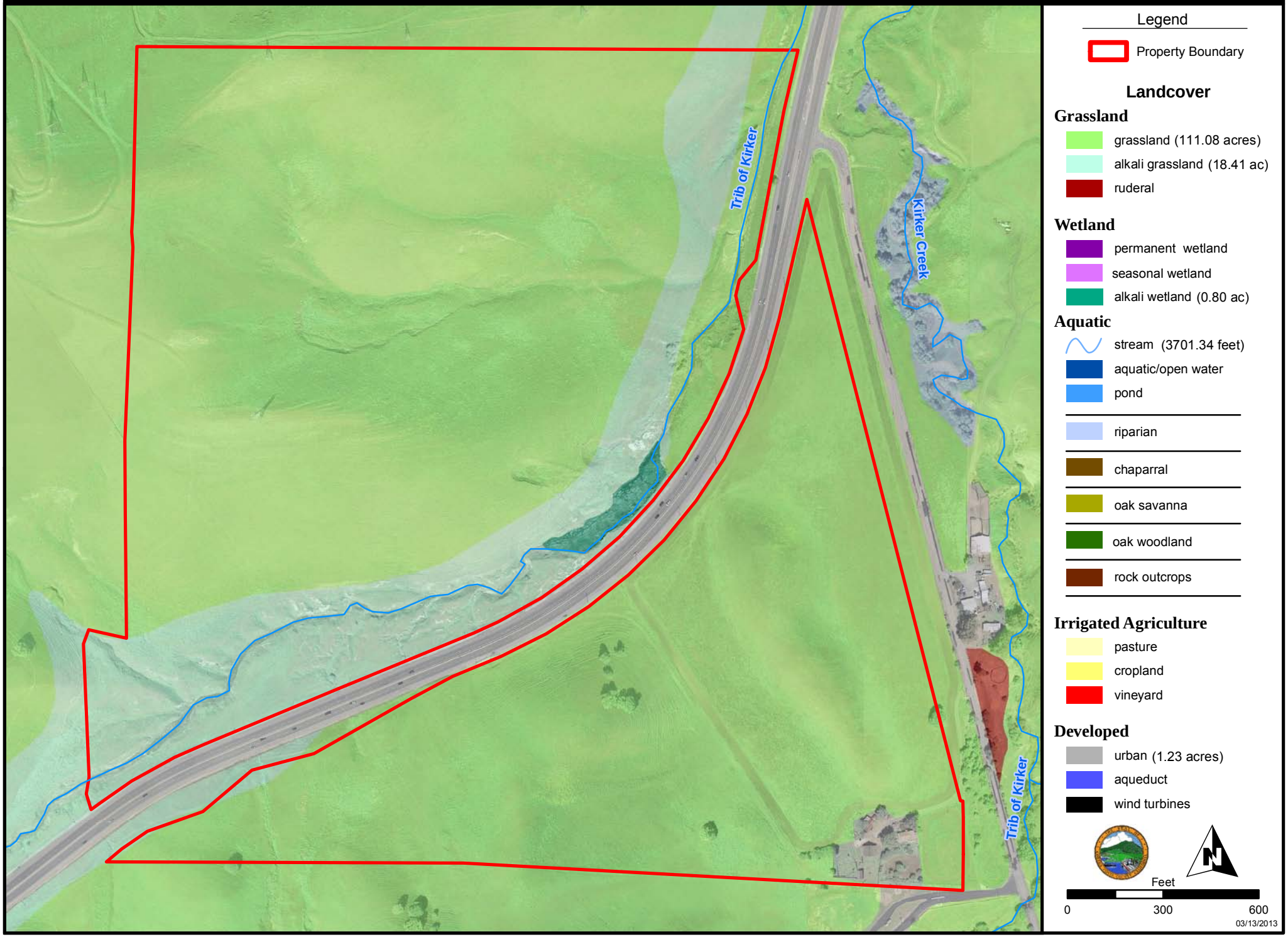


Figure 19. Thomas North: Representative Photographs

Photo 1: View of the southern portion of the Property (in the foreground) looking south from the northern portion of the Property

Photo 2: View of Kirker Pass Road where it bisects Property looking northeast

Photo 3: View of residence on Property

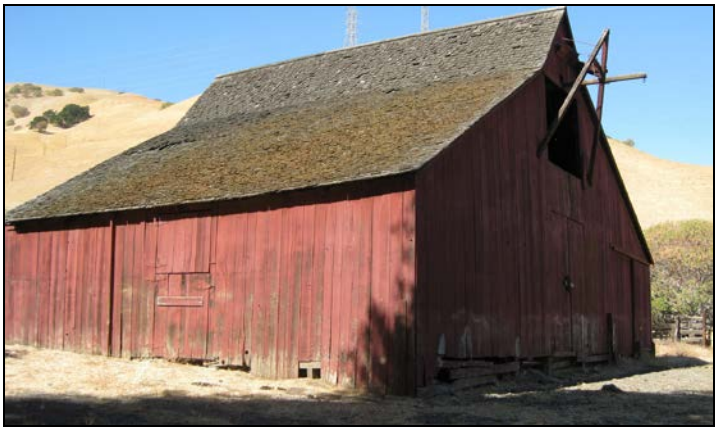


Photo 4: View of hay barn on Property

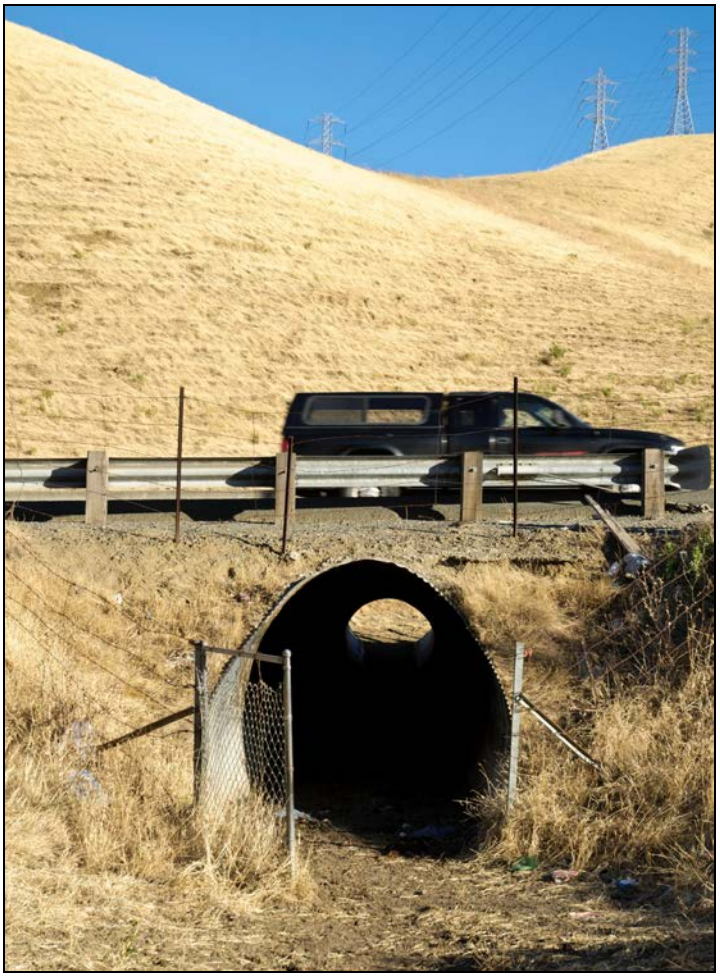


Photo 5: View of tunnel under Kirker Pass Road and transmission line over northern parcel

Pass Road varies from level in the north and east portions to steeply sloping in the western half of the parcel. A cattle tunnel under Kirker Pass Road connects the two portions of the property.

Hess Creek, a tributary to Kirker Creek, is an intermittent stream that flows north–northeast across the property, along the north side of Kirker Pass Road. The Conservancy's Upper Hess Creek Restoration Project is located upstream of this reach. The southeast corner of the site supports a rural residential home site with a home, and several accessory buildings including a barn. The site is also crossed by high voltage transmission lines; one transmission tower is sited on the property, close to the western edge and north of Kirker Pass Road.

This acquisition protects key natural communities, suitable covered species habitat, and habitat linkages. It contributes to fulfilling natural community, Acquisition Zone 1, and Subzones 1b and 1c requirements (Table 8 and 11). Annual grassland is the dominant land cover type, with alkali grassland, alkali wetland, and streams also present. The property provides suitable habitat for California tiger salamander and California red-legged frog. The property also provides an opportunity to enhance connectivity among preserved lands within and outside of the inventory area. It lies between planned open space on Detachment Concord (aka Concord Naval Weapons Station) and Black Diamond Mines Regional Preserve, and could be a link in protecting a corridor between the two.

IV. HABITAT RESTORATION AND CREATION

Habitat restoration and creation is a critical component of the Plan's conservation strategy. Restoration and creation of specific habitats and land cover types is required in addition to protection of land within the Preserve System. Together, land preservation and restoration/creation provide benefits to covered species, natural communities, biological diversity, hydrologic function, and ecosystem function to compensate for impacts and to contribute to recovery of covered species. Habitat restoration and creation includes several focus areas.

Wetlands and Streams

Wetlands and streams exhibit a high degree of biological, physical, and hydrologic diversity in the inventory area. Consequently, it is important to preserve, enhance, restore, or create the full diversity of these land cover types. Restoration of wetlands ensures no net loss of wetlands in the Plan inventory area and replaces the functions of land cover types lost to covered activities.

Alkali Wetlands

Alkali wetlands are particularly rare in the Plan inventory area, mainly occurring on a 380-acre wetland complex in the southeastern portion of the inventory area south and east of Byron. Land cover mapping indicates that less than 1% of the Plan inventory area contains alkali wetlands (see page 3-18 of the Plan).

Mitigation and Contribution to Recovery

Conservation Measure 2.1 in the Plan requires wetland restoration and pond creation to compensate for future impacts on these land cover types caused by development activities. Likewise, the Plan requires wetland restoration and creation actions over and above mitigation requirements to contribute to recovery of covered species. Restoration or creation activities must stay ahead of impacts, as required by the NCCPA.

Over the 30-year life of the Plan, the Conservancy may be required to restore or create a large number of acres of various types of wetlands and waters. If impacts on wetlands and waters are substantial during those 30 years, the cumulative total restoration/creation acreage could exceed 500 acres. A more likely but still-conservative projection is 300 acres, which amounts to 10 acres of restoration/creation per year.

During the reporting period, the Conservancy constructed two restoration projects and continues to monitor five restoration projects. The projects are as follows.

- Souza II Corral Vernal Pool Restoration (constructed in 2012)
- Vaquero Farms South Vernal Pool Restoration (constructed in 2012)
- Upper Hess Creek Watershed Habitat Restoration Project (constructed 2011).

- Irish Canyon Riparian Restoration Project (constructed 2010).
- Souza II Restoration Project (constructed 2009).
- Lentzner Springs Restoration Project (constructed 2008).
- Souza I Restoration Project (constructed 2008).

For each project, a discussion of goals and objectives, contribution to restoration and creation requirements, and performance criteria and monitoring is provided below. Table 8b provides natural community-level and property-specific restoration and creation summaries. Table 12 provides a summary of aquatic and stream land cover restoration and creation by watershed.[7] During the reporting period, the two restoration projects initiated (Vaquero Farms South and Souza II Corral Vernal Pool Restoration) resulted in the restoration of 0.56 acre of wetlands across three pools.

The seven restoration projects constructed to date provide a range of benefits to covered species. Each of the seven projects benefit covered amphibian species (California red-legged frog and California tiger salamander). Wetland restoration in 2009 and 2012 at Souza II and in 2012 at Vaquero Farms South increases habitat for covered vernal pool crustaceans. Restoration on Lentzner and Souza II also increases rare alkali grassland and supports habitat for alkali wetland plant species.

Overall, 2012 monitoring demonstrated advancement toward achievement of site-specific restoration objectives; however, low rainfall during the 2011–2012 rainy season influenced plant survival and wetland feature performance at most of the restoration project sites.

Souza II Corral Vernal Pool Restoration

Project Overview

The Souza II Corral Vernal Pool Restoration Project is located on the 191-acre Souza II property in the Brushy Creek Watershed (Figure 20). An existing corral was cleared of debris and excavated to restore a 0.3-acre wetland feature. The wetland feature is intended to function as a vernal pool and was inoculated with soil from a wetland with a vernal pool fairy shrimp population. The source wetland was impacted by the Deer Valley Road Widening Project. The new wetland is designed to have the appropriate inundation, water depth, and hydroperiod to provide habitat for vernal pool fairy shrimp and other vernal pool species. The restoration site plan and representative photographs are provided in Figures 21 and 22.

Performance Criteria and Monitoring

Site-specific restoration objectives and performance criteria were set for the project (Table 13a). Progress toward meeting the restoration objectives and achieving the performance criteria will be monitored annually using three monitoring elements: vegetation survey and

[7] The restoration summary provided in Table 12 is based on GIS data. It differs slightly from the numbers provided in the text of the Annual Report.

Table 12. Aquatic and Stream Land Cover Restoration and Creation by Watershed

	Aquatic Land Cover (acres)								Stream Land Cover (linear feet)				
Basin/Watershed	**Riparian woodland/ scrub**	**Perennial wetlands[1]**	**Seasonal wetlands**	**Alkali wetlands**	**Ponds**	**Reservoir (open water)[2]**	**Slough/ channel**	**Aquatic Land Cover Total**	**Perennial**	**Intermittent**	**Ephemeral**	**Classification Pending**	**Stream Land Cover Total**
Brushy Creek													
Restoration	--	0.2	8.3	--	--	--	--	8.4	--	2,074.6	--	334.8	2,409.4
Creation	--	--	--	--	0.3	--	--	0.3	--	--	--	--	0.0
subtotal	*0.0*	*0.2*	*8.3*	*0.0*	*0.3*	*0.0*	*0.0*	*8.7*	*0.0*	*2,074.6*	*0.0*	*334.8*	*2,409.4*
Kirker Creek													
Restoration	--	--	--	2.4	--	--	--	2.4	--	--	--	348.3	348.3
Creation	--	--	--	--	0.1	--	--	0.1	--	--	--	--	0.0
subtotal	*0.0*	*0.0*	*0.0*	*2.4*	*0.1*	*0.0*	*0.0*	*2.5*	*0.0*	*0.0*	*0.0*	*348.3*	*348.3*
Sand Creek Sub Basin													
Restoration	--	--	--	0.1	--	--	--	0.1	--	--	--	--	0.0
Creation	--	--	--	--	--	--	--	0.0	--	--	--	--	0.0
subtotal	*0.0*	*0.0*	*0.0*	*0.1*	*0.0*	*0.0*	*0.0*	*0.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Upper Mt. Diablo Creek													
Restoration	0.9	--	--	--	--	--	--	0.9	--	908.8	--	--	908.8
Creation	--	--	--	--	--	--	--	0.0	--	--	--	--	0.0
subtotal	*0.9*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.9*	*0.0*	*908.8*	*0.0*	*0.0*	*908.8*
Total for Inventory Area	**0.9**	**0.2**	**8.3**	**2.5**	**0.4**	**0.0**	**0.0**	**12.3**	**0.0**	**2,983.4**	**0.0**	**683.2**	**3,666.6**

[1]*Perennial wetlands* include wetlands of indeterminate hydrology. In Appendix J, perennial wetlands are classified as

[2]The term *aquatic* used in Appendix J refers to reservoirs and open water. *Reservoir (open water)* is used to in place of *aquatic* in this table to remain consistent with the other tables in this report.

Figure 20. Location of Habitat Restoration and Creation Projects Constructed in 2012

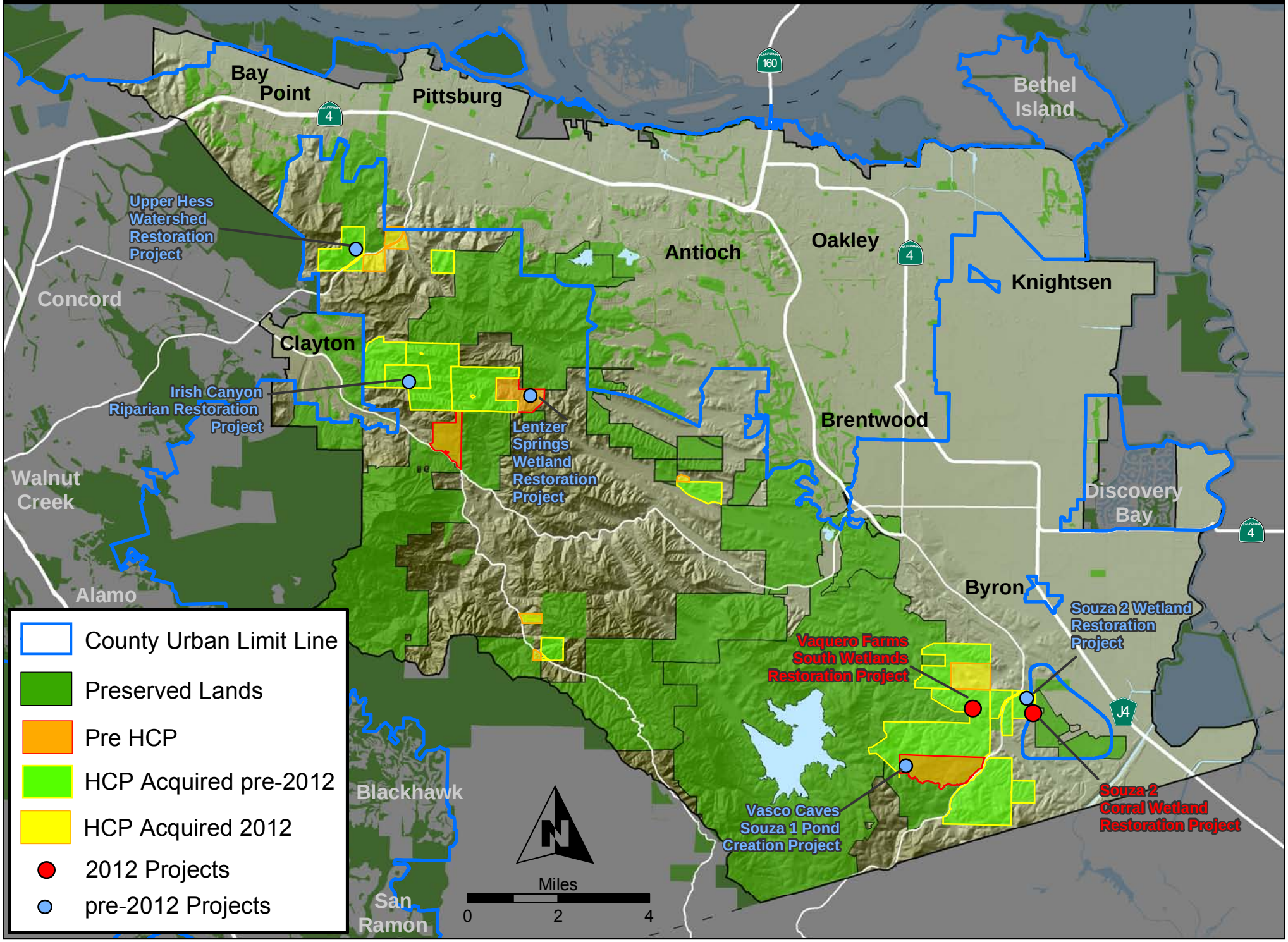
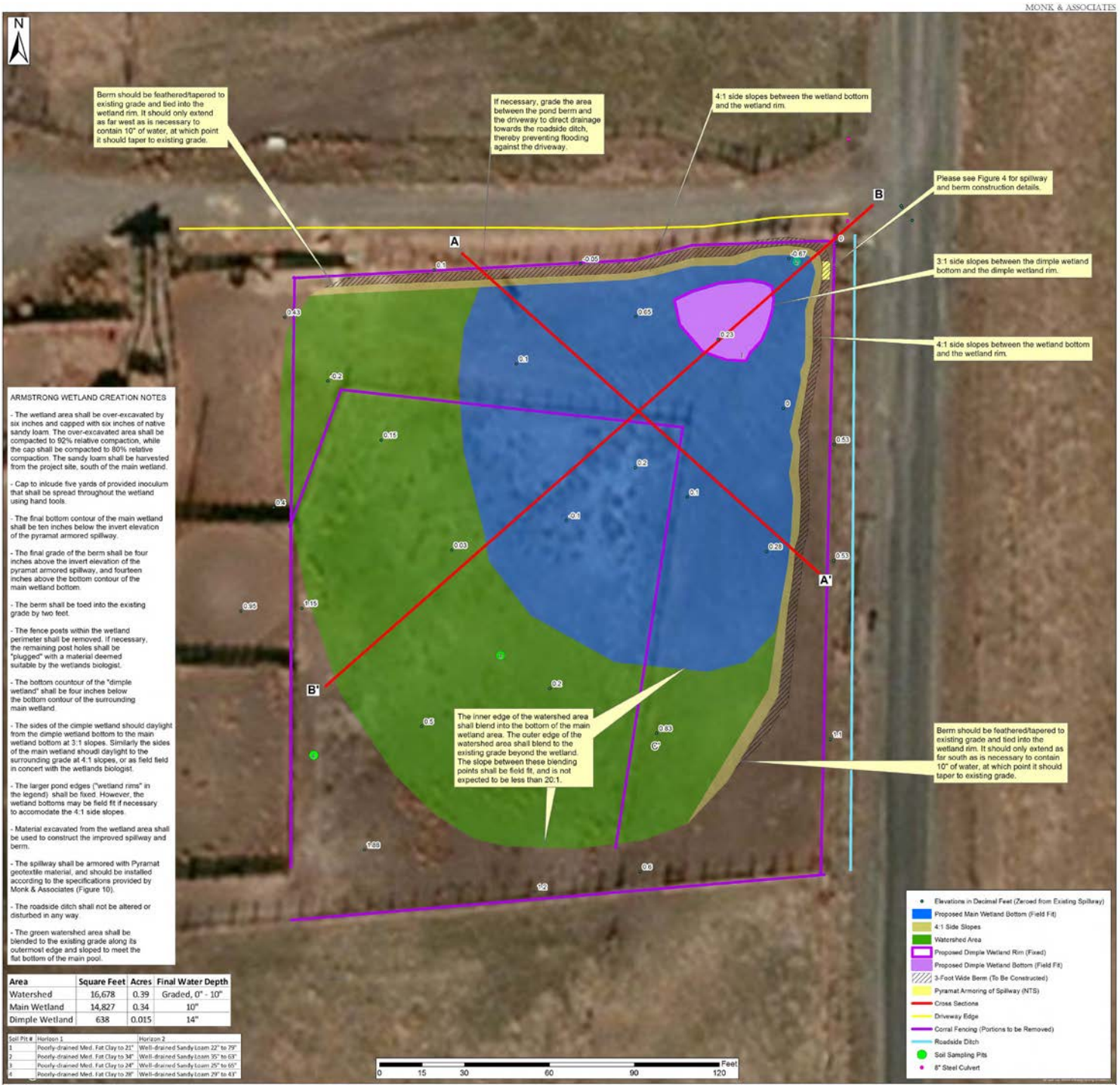


Figure 21. Souza II Corral Vernal Pool Restoration: Site Plan



Site Plan created by Monk & Associates

Figure 22. Souza II Corral Vernal Pool Restoration: Representative Photographs

Photo 1: Project site pre-construction.

Photo 2: Vernal pool fairy shrimp inoculant harvest.

Photo 3: Vernal pool fairy shrimp inoculant storage.

Photo 4: Vernal pool fairy shrimp inoculant placement on restoration site.

Photo 5: Project site post-construction.

Photo 6: Project site post-construction and filled.

general site assessment, wetland delineation, and vernal pool fairy shrimp surveys. Monitoring will occur once a month from October (or start of inundation) until the wetland feature is dry. Vernal pool fairy shrimp surveys will occur annually, and wetland delineation will occur in year 5. All monitoring components include photo-documentation. Photographs and written descriptions will be completed annually at the same time of year and measured against baseline assessments completed prior to project construction.

Vaquero Farms South Vernal Pool Creation Project

Project Overview

The Vaquero Farms South Vernal Pool Creation Project is located on the 1,644-acre Vaquero Farms South property in the Brushy Creek watershed (Figure 20). Two wetland features—0.07 acre and 0.15 acre—were created in what is suspected to be an abandoned road bed, down slope of an existing vernal pool occupied by vernal pool fairy shrimp. Similar to the Souza II Corral Vernal Pool Restoration Project, the wetland features are intended to function as vernal pools and provide habitat for vernal pool fairy shrimp and other vernal pool species. The restoration site plan and representative photographs are provided in Figures 23 and 24.

Performance Criteria and Monitoring

Site-specific restoration objectives and performance criteria were set for the project (Table 13b). Progress toward meeting the restoration objectives and achieving the performance criteria will be monitored annually using three monitoring elements: vegetation survey and general site assessment, wetland delineation, and vernal pool fairy shrimp surveys. Monitoring will occur once a month from October (or start of inundation) until the wetland features are dry. Vernal pool fairy shrimp surveys will occur annually, and wetland delineation will occur in year 5. All monitoring components include photo-documentation. Photographs and written descriptions will be completed annually at the same time of year and measured against baseline assessments completed prior to project construction.

Upper Hess Creek Watershed Habitat Restoration Project

Project Overview

The Upper Hess Restoration Project is located on the 450-acre Land Waste Management property in the Hess Creek subbasin of the Kirker Creek watershed (Figure 20). The project included a series of features all along the main stem of Upper Hess Creek. Within the project area, work occurred on approximately 7.4 acres across five restoration sites (H.T. Harvey & Associates 2011).

Four habitat types were restored or created across the five restoration sites using existing site features. The five restoration sites are identified as California tiger salamander breeding pond,

Figure 23. Vaquero Farms South Vernal Pool Creation Project: Site Plan

Wetland	Bottom Area		Rim Area	
	Sq. Ft.	Acres	Sq. Ft.	Acres
1	2,462	0.06	2,932	0.07
2	5,873	0.13	6,682	0.15

Soil Pit #	Horizon 1	Horizon 2	Notes
1	Expansive (Cracking) Fat Clay to 27"	Clay Loam 28" to 62"	Clay horizon with large cracks
2	Expansive (Cracking) Fat Clay to 30"	Clay Loam 31" to 60"	Clay horizon with large cracks

Source: Monk & Associates

Figure 24. Vaquero Farms South Vernal Pool Creation Project: Representative Photographs

Photo 1: Upper pool filled 12/2012

Photo 2: Upper pool filled 12/2012

Photo 3: Lower pool filled 12/2012

Photo 4: Lower pool filled 12/2012

upper stock pond, channel restoration, main stock ponds, and alluvial valley. All sites were seeded with a native seed mix. Ranch debris including tires, concrete rubble, and metal barrels was removed from the sites. A pond designed to support California tiger salamander breeding was created in the western portion of the project area in an upper reach of the central ephemeral drainage (0.06 acre). Wetland (0.005 acre) and channel (109 linear feet) restoration also occurred at this site. At the channel restoration site, a failing ranch road crossing was removed and the channel restored (117 linear feet). A small alkali wetland was also restored at this site (0.05 acre). Alkali wetlands (0.08 acre) and wetlands (0.002 acre) were restored at the main stock pond area. This included removal of debris and fill around the pond, creation of wetland terraces around the edges of the pond, placement of rock perches and coarse woody debris to improve habitat for California red-legged frog, and enhancement/stabilization of an existing outlet spillway at a slightly lower elevation than the existing outlet pipe. The largest restoration area was the alluvial valley where 2.16 acres of alkali wetlands were restored. A total of 2.29 acres of alkali wetlands, 0.007 acre of wetlands, 0.06 acre of California tiger salamander breeding pond, and 226 linear feet of channel were restored or created as part of this project.

Performance Criteria and Monitoring

Site-specific restoration objectives and performance criteria were set for the project (Tables 13c and 13d). Progress toward meeting the restoration objectives and achieving the performance criteria will be monitored annually using four monitoring elements: vegetation survey and general site assessment, invasive plant assessment, wetland delineation, and hydrologic assessment. All monitoring components include photo-documentation. Photo-documentation (includes photographs and written descriptions) will be taken from a number of fixed locations (photo-documentation points) established to measure specific success criteria. Photographs and written descriptions will be completed annually at the same time of year and measured against baseline assessments completed prior to project construction.

Monitoring and Adaptive Management to Date

Monk & Associates monitored the restoration site throughout 2012 to determine achievement of Year 1 restoration success criteria and site-specific restoration objectives (Table 13c and Table 13d, Monk & Associates 2013). Hydrologic monitoring was conducted monthly from January 2012 through August 2012, with an additional unscheduled visit in September 2012,[8] to determine achievement of SO-4 and SO-7 (see Table 13c for specific restoration objectives and performance criteria). Vegetation monitoring occurred at each restoration site using a point intercept method to determine achievement of objective SO-1, while general site assessments evaluated the achievement of objectives SO-2, -3, -5, -6, and -8. Wildlife observed within four restoration sites (alluvial valley wetlands, the California tiger salamander (CTS) pond, the channel restoration area, and the main stock pond) were recorded during each site visit.

[8] A second staff gauge was installed in the Main Stock Pond in September 2012. This was the first time the pond dried down enough to allow for installation to occur.

Significant progress was made toward the achievement of objective SO-1 (5% average relative percent cover of dominant wetland indicator species) at the alluvial valley wetlands, main stock pond, channel restoration area, and CTS pond. There were three native hydrophytic plant species, meadow barley (*Hordeum brachyantherum*), toad rush (*Juncus bufonius*), and umbrella sedge (*Cyperus eragrostis*), present along the alluvial valley wetland transects. The mean relative percent cover of these species was 3.0%, below the SO-1 goal of 5%. The dominance of nonnative hydrophytic vegetation may be attributed to the drought-like conditions during the winter of 2011–2012. Wetter conditions would result in prolonged saturation and/or inundation and favor a higher dominance of native hydrophytic plant species. The drought-like conditions favored the colonization of Italian rye grass (*Festuca perennis*), an upland species, and the dominant plant species present (87.78% mean relative cover). The main stock pond remained inundated during the monitoring period. It was observed holding greater than 48 inches of water in the deepest locations during the September site visit. Hydrophytic vegetation, both wetland obligate plants and facultative wetland plants, dominated the pond margin and colonized the dry down areas as the monitoring season progressed. Plants include Boccone's sand-spurrey (nonnative), rabbit's foot grass (*Polypogon monspeliensis*) (nonnative), and meadow barley (native). At the channel restoration area, a dense vegetative cover of hydrophytic vegetation (wetland obligate plants, facultative wetland plants, and facultative plants) dominated this feature throughout the spring and summer months. Plants present included rabbit's foot grass, meadow barley, salt grass (*Distichlis spicata*), narrow-leaved cattail (*Typha angustifolia*), and water cress (*Nasturtium officinale*). The mean relative cover of 5% was achieved at this site. Finally, no vegetation established within the inundation area within the CTS pond because it remained full during the growing season (March, April, and May).

SO-2 *Reduce Erosion along Upper Hess Creek,* SO-3 *Increase Wetland and Pond Capacity and Water Duration in the Project Area,* SO-4 *Hydrologically Reconnect the Upper Hess Creek from Lower Stock Pond [also referred to as the "Main Stock Pond"] to Channel at Property Boundary*, and S0-5 *Reduce Non-native Plant Species in Restored Wetlands* were all met in Year 1 of monitoring.

Significant progress was made toward the achievement of objectives SO-6, SO-7, SO-8, SO-9, and SO-10. For SO-6 and SO-8, 0.26-acre of the net goal of 2.32 acres of Alluvial Valley Wetlands met its hydrologic functions. It is anticipated that with normal to above normal rainfall, the full acreage will be met. For SO-7 and SO-9, the contractor only constructed a 0.06-acre CTS pond instead of 0.12-acre. The 0.06-acre pond functioned as intended. Remedial actions and modifications to the CTS pond could increase its size, but owing to steep topography it will be difficult to increase the footprint of this pond to the goal acreage of 0.12-acre. SO-10 was not met because the goal of restoring 489 linear feet of stream channel was not completed (Upper Stock Pond and restoration of the stream channel were not constructed). These objectives will be modified as they do not apply to the project as constructed. The 226 linear feet of stream channel that was restored functioned as intended.

Remedial measures were implemented to improve the function of the lower channel cascade structure. The upper-most boulder structure was reconstructed to meet the original design specification and to accommodate site changes since the original project completion. This

resulted in increasing the total height of the first boulder structure by approximately 3 feet. In addition, the sides, face, and toe of the structure were armored with the rock slope protection, and backfilled with Class 2 aggregate base and native soils. The structure was tied into the berm along the left bank and the slope along the right bank. The area behind the structure was backfilled. All disturbed areas were planted with native seed and covered with hay from existing hay bales and old wattles.

Recommendations/Future Actions

There are several recommendations for management and remedial measures in 2013. First, the temporary dirt construction road should be monitored during 2013 to ensure the establishment of natural vegetation. It should be reseeded if natural revegetation does not occur. Second, the two patches of perennial pepper grass within the restoration area should be selectively sprayed with an herbicide to control the spread of these invasive plants. Third, remedial measures to increase the acreage of the CTS pond should be analyzed and weighed. The slopes that the berm would have to be raised to are considerably higher to net any significant increase in pond area. If the decision is made to leave the pond as is, the objectives for the features should be adjusted.

It is also recommended that the goal of 2.47 acres of alkali wetlands be changed to seasonal wetlands due to the site characteristics.

Irish Canyon Riparian Restoration Project

Project Overview

The Irish Canyon Riparian Restoration Project is located on the 320-acre Irish Canyon property in the Mt. Diablo Creek watershed (Figure 20). The goal of the restoration project is to fill in gaps in riparian woodland habitat.

The restoration was initiated in late 2009 and completed in March 2010. This project was performed by Save Mount Diablo staff and volunteers. The project involved the planting of more than 400 locally collected valley oaks acorns and buckeye nuts in a denuded stream corridor. Planting sites were caged and watering took place every 3 weeks after the rains stopped at the end of May 2010. In the subsequent years, Save Mount Diablo staff and volunteers continued to water planted sites through the dry months.

The project is expected to result in the restoration of 0.91 acre of riparian habitat and 688.5 linear feet of stream.

Performance Criteria and Monitoring

The Irish Canyon Restoration Project will be monitored for 3 years, and all failed plantings will be replaced during this period. After 3 years, the site will be adaptively managed by EBRPD consistent with the long-term management plan for the site.

Monitoring and Adaptive Management to Date

The restoration project continues to demonstrate high seedling recruitment and sapling survival during Year 3. Healthy saplings occupied 106 of the 150 sites in November 2012 across the three channel enhancement areas. There were 50 oaks and 20 buckeyes in channel enhancement area 1, 12 oaks and 6 buckeyes in channel enhancement area 2, and 9 oaks and 9 buckeyes in channel enhancement area 3. All buckeyes planted in year 3 germinated; however, there was limited success with oaks planted in year 3. Oaks that survived year 1 and 2 showed signs of new growth in year 3 (Save Mount Diablo 2012).

The restoration site was managed to improve tree record keeping, growth, and survival. Tree tubes and rebar identifying tree sites were planted to improve record keeping (instead of replacement of irrigation flags). Mechanical and hand weed removal was used to reduce competition around each planting and within the tree cages or tubes. Invasive species were less prevalent in 2012 compared to previous years. In channel enhancement area 1, mustard and medusahead were mowed. Bull thistle was hand removed in channel enhancement area 2. In this area, both oaks and buckeyes showed rapid growth. Weeds are less of a problem in channel enhancement area 3; however, all but one site on the north side of the creek failed. No additional plantings will occur there.

Sites were watered every 3 weeks from May through October. Acorns and buckeye nuts were collected along Irish Creek in anticipation of replanting a number of seedlings that did not survive the past year. All management was completed by Save Mount Diablo staff and volunteers.

Recommendations/Future Actions

Weeding, watering, and replanting will continue in 2013.

Lentzner Springs Wetland Restoration Project

Project Overview

The Lentzner Springs Wetland Restoration Project, constructed in 2008, is located at the northeastern edge of the Lentzner property in the upper part of a valley that drains to Oil Canyon Creek within the Sand Creek subbasin of the Marsh Creek watershed (Figure 20).[9] The project was the first wetland restoration project implemented under the Plan. The restoration area was 0.5 acre and included restoration of a seasonal alkali wetland and native grassland (Table 8b).

Performance Criteria and Monitoring

The restored seasonal alkali wetlands are being monitored using a number of performance criteria (Table 13e). These criteria are based on survivorship and health of individual plants during the 3 years following construction. If performance criteria for survivorship are not met

[9] Project is located within the Oil Canyon Creek subbasin of the Sand Creek subbasin within the Marsh Creek watershed.

during this time, adaptive management actions will be triggered and annual monitoring of survivorship of planted plants will continue until performance criteria are met.

After survivorship performance criteria are met, absolute cover of native wetland vegetative cover will be monitored and evaluated annually for 2 additional years. After 2 years, if vegetative cover performance criteria have been met each year, monitoring will cease and the project will be considered successful. If performance criteria have not been met each year, adaptive management actions will be taken to supplement existing plantings and/or to modify the site grading. In this case, monitoring will continue until the criteria are met for 2 consecutive years.

Monitoring and Adaptive Management to Date

The restoration project is nearing its Year 4–5 performance criterion of 60% cover of native wetland vegetation. Year 4 monitoring for the Lentzner Springs restoration project was conducted on May 10, 2012 (Nomad Ecology 2012a). Monitoring results found that the restoration site as a whole has 93% survival of the planted species. Of the planted species there was an overall increase in Great Valley gumweed (*Grindelia camporum*) and an overall decrease in saltgrass[10] (*Distichlis spicata*) from 2011 counts. Alkali heath (*Frankenia salina*) and bulrush (*Scirpus* sp.) continue to be absent from the site. The health of the saltgrass and Great Valley gumweed was good with most plants showing vigorous growth. The presence of saltmarsh sand-spurrey (*Spergularia marina*) and the relatively high abundance of meadow barley recorded in transect 3 indicate that this area has alkali wetland characteristics. Transects 3 and 4 are showing characteristics of an alkali wetland. Transects 1 and 2 are supporting vegetation characteristic of alkali grasslands.

Recommendations/Future Actions

Recommendations include planting wetland species in the areas of transects 3 and 4, continued monitoring, and weed control. Alkali wetlands are establishing in the areas monitored along transects 3 and 4. The upland area should be line trimmed every July or August after seed set. The site should continue to be maintained during spring and summer months. Maintenance should include removal of non-native invasive species, including annual grasses, in the restoration area.

Vasco Caves Souza I Pond Creation Project

Project Overview

The Vasco Caves Souza I Pond Creation Project, constructed in 2008, is located in the northwestern corner of the Souza 1 property, about 1 mile north of the Alameda/Contra Costa County border (Figure 20). The project area totaled 2.6 acres and included creation of a 0.2-acre seasonal pond habitat and 0.99 acre of seasonal wetland (Table 8). The pond was designed to provide breeding habitat for California tiger salamander and to support seasonal wetland

[10] The number of saltgrass patches decreased but the size of the patches increased.

vegetation. The pond was designed to collect precipitation and storm water sheet flow from an approximately 15-acre sub-watershed of Brushy Creek. Pond design elements included an approximately 1-acre, 1-foot-deep portion (the seasonal wetland portion) and a smaller 2- to 3-foot-deep portion (the pond habitat portion). The pond was designed with three depths because the project area is subject to high evaporation rates and minimal rainfall. The 2- to 3-foot portion of the pond was created with the intent to hold water longer into spring. The 3-foot-deep area of the pond fills and spills into the 2- and 1-foot areas of the pond. The 2- to 3-foot area of the pond provides breeding habitat for the California tiger salamander. It is expected that the pond will dry annually by June and start retaining water with the first rain (usually late October). The pond and wetland were seeded with a wetland seed mix. The surrounding uplands were seeded with a native grassland mix.

Performance Criteria and Monitoring

The seasonal pond and native wetland plant species are being monitored using a number of performance criteria (Table 13f). The performance criteria for the created seasonal pond and wetland species are based on the number of days the pond is inundated and on survivorship of the hydrophytic species over the 5-year monitoring period. Progress of the restoration plantings will be considered satisfactory if the performance criteria are met or exceeded. After the performance criteria are met, the restoration project will be considered successful.

Monitoring and Adaptive Management to Date

The dry winter influenced the progress toward the achievement of the restoration project success criteria during Year 4 monitoring. Three general types of monitoring were conducted to determine if the restoration success criteria were met for Year 3: hydrologic, vegetation, and wildlife monitoring (Monk & Associates 2012). The 3-foot section of the created pond met the hydrology performance criterion by remaining inundated or saturated for a period longer than 60 days. One of two vegetation performance criteria was met. The relative percent cover of hydrophytic species with a wetland status of facultative, facultative wetland, or obligate wetland was 96.3% for the 1-foot section and 84.4% for the 2-foot section. The 3-foot section remained inundated throughout the monitoring season, which suppressed vegetative growth; therefore, relative percent cover in the 3-foot section was 0%. The other vegetation performance criterion was not met due to the presence of one plant in the pond on the California Exotic Pest Plant Council's list: Italian ryegrass (*Lolium multiflorum*). The pond has been successful in providing habitat for common wildlife, endangered wildlife (i.e., California tiger salamander and California red-legged frog), and migratory birds (e.g., long-billed curlew [*Numenius americanus*]). A total of 11 vertebrate species (6 birds, 4 mammals, and 1 reptile) were observed either at the mitigation pond or nearby in the uplands, at the control pond, or at the drainage that leads into the control pond. The pond creates habitat diversity in the landscape and will become increasingly attractive to a greater range of wildlife species over the years.

Invasive species were proactively controlled in 2012, resulting in a decrease in the number of species present on the California Exotic Pest Plant Council's list. European manna grass (*Glyceria declinata*), present in 2011, was not observed in 2012. The thistle (*Cirsium vulgare* and

Silybum marianum) population was very low, present only on the spillway and berm. Italian rye grass, although treated, reestablished in the pond. An adequate rainfall in 2012–2013 would likely decrease the proliferation of this species.

Recommendations/Future Actions

In 2012 the site will be spot treated with herbicide to control Italian ryegrass, and the site will continue to be weeded and monitored.

Souza II Wetland Restoration Project

Project Overview

The Souza II Wetland Restoration Project, constructed in fall/winter of 2009, is located within the Brushy Creek Watershed along the North Fork of Brushy Creek as it traverses the Souza II property (Figure 20). The entire project area was about 60 acres and included restoration of 3,508 feet of an intermittent stream tributary, creation of a 0.2 acre pond, and restoration of 8.9 acres of seasonal wetland.

The 2009 restoration project restored the natural hydraulic function of the eastern third of the North Fork of Brushy Creek on the Souza II property by reconnecting it to its floodplain. To do this, the project removed the berms north and south of the tributary and graded the flood plain to better retain water. Vernal pools were created south of the creek. Incised stream banks were laid back in some places, and a pond and swale were created. As a result, suitable in-stream and pond habitat was created for covered species such as the California red-legged frog and California tiger salamander, pools suitable for fairy shrimp species were restored, and degraded grassland areas of the site were restored with native grasses and rare plants. Restoration of the seasonal wetland included retiring a dirt road and a culvert installed on the tributary. More than 15,000 plant plugs were planted at the project, grown from locally collected seeds at the Watershed Nursery in Richmond. A native upland and wetland seed mix was also applied.

Performance Criteria and Monitoring

The restored wetlands and pond are being monitored using a number of performance criteria (Table 13g). Vegetation monitoring is occurring during the first 3 years early to mid-spring, after or during the end of the rainy season. During this time vegetation will be monitored for plant survival and health. Throughout the 5-year monitoring period, the percent cover of non-native invasive plant species will be considered satisfactory if less than 5% of the project site is covered with non-native invasive plants. Progress of the restoration plantings will be considered satisfactory if the criteria are met or exceeded.

Adaptive management measures will be implemented if the restoration project fails to meet the performance criteria. Measures that may be implemented include additional plantings or installation of erosion control structures/devices. Failure of the adaptive management measures to meet the performance criteria may result in the reduction of restoration acreages counted toward the Plan requirements.

Table 13a. Souza II Corral Vernal Pool Restoration Specific Objectives and Performance Criteria

Restoration Specific Objectives	Performance Criteria
SO-1. Establish vernal pool vegetation.	Vernal pool vegetation will be present within wetland feature
SO-2. Increase wetland capacity and water duration in the project area.	Wetland acreage onsite has increased and is in the range of the targeted 0.3 acres of restored wetlands within 5 years following restoration construction. Wetland acreage will be confirmed in Year 5 via wetland delineation.
SO-3. Establish a vernal pool fairy shrimp population within the wetland feature.	Vernal pool fairy shrimp will be present within wetland feature.

Table 13b. Vaquero Farms South Vernal Pool Creation Specific Objectives and Performance Criteria

Restoration Specific Objectives	Performance Criteria
SO-1. Establish vernal pool vegetation.	Vernal pool vegetation will be present within wetland features.
SO-2. Increase wetland capacity and water duration in the project area.	Wetland acreage onsite has increased and is in the range of the targeted 0.26 acres of restored wetlands within 5 years following restoration construction. Wetland acreage will be confirmed in Year 5 via wetland delineation.
SO-3. Establish a vernal pool fairy shrimp population within the wetland features.	Vernal pool fairy shrimp will be present within both wetland features.

Table 13c. Upper Hess Habitat Restoration Project: Site-specific Restoration Objectives

Wetlands (and other Aquatic)	Performance Criteria
SO-1. Increase the abundance and distribution of native emergent vegetation in the project area.	See annual performance criteria in Table 13d.
SO-2. Reduce erosion along Upper Hess Creek.	Qualitative assessment including photodocumentation before and annually for 5 years after restoration activity determines that erosion along the Upper Hess Creek onsite has been reduced.
SO-3. Increase wetland and pond capacity and water duration in the project area.	Wetland and pond acreage onsite has increased and is in the range of the targeted 2.47 acres of restored wetlands and 0.12 acre of restored pond within 5 years following restoration construction.
SO-4. Hydrologically reconnect the Upper Hess Creek from lower stock pond to channel at property boundary.	Qualitative assessment and hydrologic monitoring based on photo-documentation and seasonal shallow groundwater monitoring annually for 5 years after restoration activity shows that Upper Hess Creek is hydrologically connected between the lower stock pond and the restored channel at the property line.
SO-5. Reduce non-native plant species in restored wetlands.	Total absolute cover of non-native invasive plant species[a] no more than 10% relative cover.
SO-6. Restore approximately 2.32 acres of alkali wetlands in the project area.	Approximately 2.32 acres alkali wetlands have been restored and confirmed via wetland delineation.
SO-7. Create an approximately 0.12 acre California tiger salamander breeding pond.	An approximately 0.12 acre pond will have been restored and confirmed via wetland delineation.
SO-8. Restore approximately 2.32 acres of alkali wetlands.	Approximately 2.32 acres alkali wetlands have been restored and met the annual performance criteria in Table 7 and confirmed via wetland delineation.
SO-9. Create an approximately 0.12 acre California tiger salamander breeding pond in upper tributary.	Same as for SO-7
SO-10. Restore 489 linear feet of stream channel and hydrologically connect Upper Hess Creek from the main stock pond to channel at property boundary.	Same as for SO-4
SO-11. Create 0.12 acres California tiger salamander pond, enhance existing main pond, restore 489 linear feet of channel, restore approximately 2.32 acres of alkali wetlands.	Same as for SO-6, SO-7, and SO-8

[a]Non-native invasive plant species include those species with high impact rankings by the California Invasive Plant Council (Cal-IPC), and any other species determined to threaten successful restoration of the native plant communities onsite (California Invasive Plant Council 2006).

Table 13d. Upper Hess Habitat Restoration Project Performance standands

Year	Criterion	Satisfactory Progress Threshold
1	Average relative percent cover of dominant wetland indicator species	5% Cover
2		10% Cover
3		20% Cover
4		35% Cover
5		50% Cover

Table 13e. Lentzner Springs Wetland Restoration Project Performance Standards for Restoration Plantings

Year	Criterion	Satisfactory Progress Threshold
1	% of plants surviving	75% survival in Good or Fair condition
2		70% survival in Good or Fair condition
3 (and subsequent years if necessary)		65% survival in Good or Fair condition
4–5 (and subsequent years if necessary)	Absolute cover of native wetland vegetation	60% cover

Table 13f. Vasco Caves Souza I Pond Project Performance Standards

Year	Criterion	Satisfactory Progress Threshold
1	# of wetland species	3 wetland species established
3	Absolute cover of native vegetation	50-60% cover with dominance by hydrophytic plants
1 and 3	Duration of saturation	Saturation for 60 days annually (in addition to inundation)
1 and 3	Absence of plant species on the California Exotic Pest Plant Council's List A-1: Most Invasive and Damaging Wildland Pest Plants	Species absence
1, 3 and 5	Duration of inundation	Inundation for 30 days annually
5	Absolute cover of native vegetation	Pond edges and margin will be dominated by wetland vegetation (FAC, FACW and/or OBL species).

Table 13g. Souza II Wetland Restoration Project (Phase I) Performance Standards for Restoration Plantings

Year	Criterion	Satisfactory Progress Threshold
1	% of plants surviving	75% survival in Good or Fair condition
2		70% survival in Good or Fair condition
3-5	Cover of native wetland vegetation	60% native cover
1-5	Cover of non-native invasive species	Less than 5% non-native cover

Monitoring and Adaptive Management to Date

Nomad Ecology monitored the restoration site throughout 2012 to determine achievement of Year 3 restoration success criteria and project objectives (Nomad Ecology 2012b). Monitoring types included vegetative, erosion, wetland and pond acreage, hydrologic connectivity, depth and duration, milk thistle, atriplex, in-stream pool, and grazing monitoring. Monitoring was used to determine if project objectives and performance criteria were met and if adaptive management should be implemented.

Vegetative monitoring was used to evaluate the plant survival and health. Planting survival increased from 13% in 2011 to 22% in 2012; however performance standards were not met (75% survival performance standard). The most successful species were gumplant (*Grindelia camporum*), salt heliotrope (*Heliotropium curassavicum* var. *oculatum*), and saltgrass (*Distichlis spicata*). Gumplant had over 100% and salt heliotrope had 63% survival due to natural recruitment. Saltgrass had greater than 100% survival. This was due to additional plantings, the fact that it was seeded (which is not included in the total plantings number), and possibly natural recruitment. Alkali heath and Mexican rush had moderate survival (14% and 23%). This can be attributed to the dry year and the presence of alkaline soils.

The below normal rainy season, alkali soil characteristics, and the site hydrology contributed to the low plant survival. Several of the plant species, common rush (*Juncus effusus*), iris-leaved rush (*Juncus xiphioides*), narrowleaf milkweed (*Asclepias fascicularis*), and spikerush (*Eleocharis macrostachya*), require wetter conditions than were present in 2012. In the alkaline wetland areas, there are large areas of bare soil, typical of alkali wetlands in the region. These areas of alkaline scalds are not likely to grow dense vegetation. In addition, some of the wetland features did not hold water long enough for the establishment of wetland obligate plants. All of these factors contributed to low plant survival.

Bank erosion decreased and vegetation establishment increased in 2012 as a result of erosion reduction measures implemented along the Brushy Creek Tributary. Silt deposited behind the straw bales and wattles placed in the gully. Downstream of the sediment basin erosion continues, but was reduced compared to prior years. Saltgrass transplanted in 2011 successfully established on the banks.

The below normal rainy season influenced the achievement of the hydrologic success criteria. The seasonal wetlands and ponds did not fill, and hydrologic connectivity was not observed in 2012. As such, wetland acreage was not mapped, and water did not flow over the constructed overflow into the northern wetland complex at any time in winter 2011–2012. No in-stream ponding was observed behind the rock weirs; however, ponding was visible in the western-most portion of the tributary—the only feature to hold water during 2012 was the sediment basin, just upstream of the erosional feature.

Invasive plant species presence decreased in 2012. A few scattered milk thistle plants were present on site. Stinkwort (*Dittrichia graveolens*) was detected in the pond. Adaptive management was implemented in response to the presence of these invasive species. Crews controlled these weed infestations, bagged the plants, and removed them from the site.

Grazing continues to be an effective management technique to control invasive plant species. The electric fence excluded livestock from sensitive areas while the site was wettest to protect establishing vegetation. Site grazing resulted in a reduction in Italian ryegrass biomass and thatch. The cattle caused some erosion and vegetation damage on creek banks. Overall, the benefits of grazing (reducing Italian ryegrass thatch and biomass) outweighed the impacts of grazing (trampled vegetation of wetlands and some bank erosion).

Recommendations/Future Actions

There are criteria for which success has not been achieved or progress toward achieving success could be improved. Several areas that were intended to be wetland and wetland transition on the planting plan did not exhibit wetland hydrology. These areas will require further modifications to introduce wetland hydrology, such as lowering the elevation. If the features are not modified, it is recommended to adjust the project objectives to match the constructed project.

Vegetation planting and monitoring should continue in 2013. Hydrologic monitoring results should be used to inform small scale planting locations. Transection locations should be relocated accordingly as well. In addition, the performance standards for vegetation cover monitoring in the quadrats should be revised to use relative cover rather than absolute cover.

Saltgrass should continue to be planted on the banks where the bank is laid back, and straw wattles should be placed along the tops of the banks if overland flows start to concentrate and erode the features. The large erosional feature should be stabilized.[11] This may require the use of heavy equipment or reducing the intensity of flows through the area.

Grazing should continue similarly in 2013. More of the creek should be fenced to exclude cattle. If the wetlands are planted again in the future or desirable plant species spread or colonize, they should also be fenced to exclude cattle.

[11] The large erosion feature is scheduled for repair in 2013.

V. PRESERVE MANAGEMENT

The Plan requires that preserve management plans be developed for each preserve to identify management actions necessary for maintaining ecosystem characteristics and functions, and for maintaining or improving existing habitat conditions for covered species. Preserve management plans also describe allowed uses such as recreation. This approach ensures that preserve lands management is consistent with the Plan's goals and objectives.

Preserve management plans were expected prepared within 1 year of land acquisition however they have taken longer. This is due to the decisions to cover many adjacent properties under one coordinated management plan, the pace of acquisition, and the complexity of developing plans for larger areas. Preserve management plans are working documents and may be modified based on the evaluation of management methods in achieving objectives as well as on results of other outside research. The Conservancy will formally review and systematically revise preserve management plans at least every 10 years, but management measures may be modified prior to plan updates in cases where adaptive management or new research identifies more effective techniques.

The Vasco Hills/Bryon Vernal Pools Preserve Management Plan is under development. The Vasco Hills/Bryon Vernal Pools Preserve Management Area is the south-central portion of the inventory area, covering Acquisition Analysis Zone 5. The management area consists of eight properties that have been acquired for the Preserve System: Vaquero Farms North, Vaquero Farms Central, Vaquero Farms South, Souza I, Souza II, Souza III, Grandma's Quarter, and Martin.

The Conservancy and EBRPD staff collaborated closely on developing the Vasco Hills/Byron Vernal Pools Preserve Management Plan in 2012, assembling and reviewing numerous iterations of draft materials. A public draft is anticipated in 2013. This is the first preserve management plan prepared by the Conservancy and can be expanded to include neighboring properties. It will become a template for future preserve management plans prepared for other parts of the Preserve System.

While comprehensive management planning is underway, implementation of management activities have commenced throughout the Preserve System and are described below.

Natural Community Enhancement

This section describes the HCP/NCCP natural community enhancement conservation measures implemented during the 2012 reporting period, and provides an effort-to-date summary of the extent of land cover types enhanced. During the reporting period, several management techniques were applied to enhance natural communities within the Preserve System as part of implementation of Conservation Measure 2.2 *Manage Wetlands and Ponds,* Conservation Measure 2.4 *Manage Grassland,* and Conservation Measure 2.9 *Manage Streams and Riparian Woodland/Scrub*.

Efforts To-Date

Natural Community enhancement has been ongoing since permit issuance. Management techniques have been implemented in support of Conservation Measure 2.2 *Manage Wetlands and Ponds*, Conservation Measure 2.4 *Manage Grassland*, Conservation Measure 3.9 *Conduct Experimental Management to Enhance Covered Plant Populations*, and Conservation Measure 2.9 *Manage Streams and Riparian Woodland/Scrub*.

Natural Resource Maintenance and Enhancement Projects

In February 2011, topsoil was salvaged from an area that had recorded presence of San Joaquin spearscale (*Atriplex joaquiniana*). Under guidance from a biologist and Conservancy staff, maintenance crews removed topsoil from an area being impacted by a covered project and placed it on Souza II in two separate plots. The atriplex transplant project on Souza II continued to have some positive results in 2012, the second year since the transplant. In the west transplant site, one San Joaquin spearscale and one crownscale (*Atriplex coronata* var. *coronata*) were observed. In the east transplant site, no San Joaquin spearscale or crownscale were observed. Both sites were hand weeded on May 31, 2012 (Nomad Ecology 2012). The dry winter likely contributed to the decrease in plant survival.

In 2010, seeds of the small-flowered morning glory (*Convolvulus simulans*) were collected from an impact site near Deer Valley Road, and three plots were seeded on the Vaquero Farms North property in December 2010. Seed was planted in 1-meter by 0.5-meter plots, 1 inch deep, and approximately 5 inches apart. Monitoring in 2012 indicates that the transplant was successful and the plants continue to persist.

Vernal pool fairy shrimp inoculum salvaged from the Deer Valley Road Widening Project in 2010 and 2012. In 2010, inoculum was placed in a wetland created in 2009 as part of the Souza II Wetland Restoration project site. Conservancy biologists have not been able to confirm that the translocation was successful.

In 2012, prior to the construction of the Deer Valley Widening project, approximately five yards of topsoil/inoculum was salvaged and stored in the barn at the Souza II project site. In late October 2012, a new wetland was created at the Souza II corral, the topsoil/inoculum was placed in the deepest area of the new feature. There was additional inoculum that was not placed in the new pool but in previously inoculated wetland on the Souza II wetland restoration project.

Invasive Plant Control

There were several invasive plant species sites identified or controlled in 2012 by EBRPD and the Conservancy.

- The 40+-acre milk thistle infestation area on Souza II, treated since 2009, is now nearly devoid of milk thistle. Spot treatment of thistle with herbicide continues.

- *Dittrichia* sp. was hand pulled from wetland and pond areas, bagged, and removed from Souza II. Upstream on the Martin property, dittrichia was mowed on before it developed flowers.
- Artichoke thistles, 24 individuals, were hand removed from Grandma's Quarter in June.
- Yellow star thistle patches were hand removed from Souza I in May and from Souza III in August and November.
- *Glyceria Declinata* that was identified in 2011 in the Souza I pond did not return in 2012. The site will continue to be monitored.
- *Lolium* returned to the Souza I pond in 2012. Goats were used to flash graze the pond area prior to the grass going to seed in March.
- Russian thistle was hand removed from Souza I in September.
- Small patches of perennial pepperweed were spot treated at the Hess project site

Grazing Management

Livestock grazing and exclusion was used for general weed control and to reduce thatch growth to implement Conservation Measure 2.2 *Manage Wetlands and Ponds,* Conservation Measure 2.4 *Manage Grassland,* and Conservation Measure 2.9 *Manage Streams and Riparian Woodland/Scrub*.

All grazing units were monitored, stocking reports reviewed, and grazing tenants met with in 2012. The grazing leases are based on the EBRPD template and maximize natural resource management. Under this lease structure, rent is based on stocking rate rather than per acre. The goal is to encourage the use of more sustainable stocking rates rather than maximizing the number of livestock per acre.

Stocking reports were reviewed monthly. In September, residual dry matter samples were taken, grass species identified, and sites photographed. Grazing tenants met with EBRPD staff in October to discuss the past and future grazing season. No changes to animal unit months were proposed for 2013.

In some locations, such as the Upper Hess Habitat Restoration Project site, alternative water sources have been installed outside the restoration sites to prevent trampling of restoration plantings and erosion. A mobile electric fence was used on Souza II to exclude livestock from the creek channel portion of the restoration site.

Plans for stock pond restoration, and riparian plantings, riparian exclusion fencing and livestock water troughs were developed for the Ang property. An additional livestock water source was also planned for the Vaquero Farms North property. These plans were developed in response to grassland monitoring that indicated that parts of properties are under-used by livestock and

that the addition of water sources will encourage livestock to better distribute across the property. These new water sources are anticipated to be installed in 2013.

Land Management

This section summarizes all land management activities undertaken on the HCP/NCCP Preserves during the 2012 reporting period, and discusses management issues facing the Conservancy.

For the 2012 reporting period, management consisted of the enhancement actions described above, as well as ongoing maintenance and recreation planning. Currently the primary management issue facing the Conservancy is the pervasiveness of non-native invasive plants. The Conservancy and EBRPD will continue their aggressive approach to controlling invasive plants in the Preserve System. Land management activities conducted in 2012 are summarized below.

Ongoing Maintenance

General inspections and site maintenance by EBRPD was conducted on Preserve System properties. HCP/NCCP Preserve System properties were patrolled bi-weekly and wildlife sightings were documented.

Property specific activities included:

Fences and gates were removed, repaired, or replaced throughout the Preserve System properties. A gate numbering system was developed and implemented to identify gates on all properties. The Orinda Hiking Club volunteered to remove old fencing from Vaquero Farms North, Ang, Fan, and Fox Ridge. Fencing removed from Souza III during the Vasco Road widening project was replaced in February 2012. Locks had to be replaced or re-secured on numerous occasions (over 20) on Souza I and Vaquero Farms South. Fencing was repaired on Vaquero Farm South in July. On Land Waste Management, locks and chains were installed, missing locks replaced, and unauthorized locks removed. The gate at the Thomas South property boundary was replaced. A corral fencing and entry gate was installed at the Souza II property at the main entrance.

Road and trail maintenance occurred on some of the Preserve System properties. Access roads were mowed and graded through Souza II, Souza III, Vaquero Farms, Martin, and Grandma's Quarter. Other roads in the Vasco Hills/Byron Vernal Pools Management Area were hand maintained and culverts checked for erosion in December. Trails were mowed on Ang, Irish Canyon, and Thomas South in May, while overhead branches were pruned on Barron in July.

Structure, trash, and debris removal occurred on properties outside the Vasco Hills/Byron Vernal Pools Management Area. A pile of wood poles and metal was removed from Thomas South in February. At Ang, a well and structures were assessed in July, and a dilapidated staircase on a house, dilapidated water tower structure, and scrap metal were removed in August. Metal debris was removed from Affinito. Wood dumping was removed from the Land Waste Management southern triangle driveway.

Water control and management was conducted on select properties. Well depths and water columns were measured at Land Waste Management, Fan, and Fox Ridge in November. At Fan, survey markers for property boundaries were identified and weedeat was applied along the cul-de-sac edge. Wasps were controlled in the barns in Souza II in August. In September all debris in the barn was removed and disposed of. The area around the A-frame at Affinito was mowed and weedeat applied in May.

Recreation Planning and Management

Trails and watered features on Affinito, Ang, Barron, Fan, Fox Ridge, Irish Canyon, Land Waste Management, and Thomas North/ Central/ South were mapped.

Conceptual Ecological Models

The HCP/NCCP requires annual reports to describe any conceptual ecological models developed to date and any changes to them that have taken place. No conceptual ecological models have been developed or modified during the 2012 reporting period.

VI. MONITORING, RESEARCH, AND ADAPTIVE MANAGEMENT

The Plan provides a framework, guidelines, and specific suggestions to help the Conservancy develop a detailed monitoring program during the initial years of Plan implementation. The purpose of the monitoring and adaptive management program is to inform and improve conservation actions in the Preserve System and to ensure that the Plan achieves its biological goals and objectives. The scope of the monitoring and adaptive management program is limited to habitat restoration and creation, and the assembly, management, and monitoring of the Preserve System.

Monitoring

The Plan requires two broad types of monitoring: effectiveness monitoring and compliance monitoring.

Effectiveness Monitoring

Effectiveness monitoring is the measurement of variables that allow the Conservancy to assess the success of the Plan in meeting its stated biological objectives. The Plan divides the effectiveness monitoring program into three main phases: (1) the *initial monitoring design phase*, to lay the foundation of the overarching monitoring program; (2) the *inventory phase*, which focuses on the collection of basic information as the Preserve System is assembled; and (3) the *long-term monitoring phase*, which will use the framework developed during the planning and inventory phases to carry out effectiveness monitoring. Each of these three phases, and progress toward completing each phase, is discussed below.

Restoration monitoring is a type of effectiveness monitoring that is specific to restoration projects. Restoration monitoring is discussed above in Section IV, *Habitat Restoration and Creation*.

Monitoring Design Phase

The monitoring design phase occurs during the first 5 years of Plan implementation/Preserve Management. It involves the development of a comprehensive monitoring strategy that will provide a framework for the inventory and long-term monitoring. This phase includes the development of species conceptual models and monitoring protocols.

As of December 2012, the monitoring design is underway. Protocols are being developed for the Byron Hills Management area for monitoring the effectiveness of monitoring actions and the status and trends of focal species. Once these protocols are developed, they will be standardized for implementation throughout the Preserve System.

Inventory Phase

The inventory phase is intended to provide baseline data for monitoring the success of habitat restoration, creation, enhancement, and management actions to meet the Plan's biological goals and objectives. The inventory design will includes standardized protocols necessary for implementing the inventory phase so that meaningful and consistent baseline data are collected.

The inventory phase was initiated in early- to mid-2008 in the form of pre-acquisition surveys when the first lands were being considered for acquisition and incorporation into the Preserve System. Since 2010 Nomad Ecology has been inventorying new acquisitions for special status plant species and for wetland features. They produce an annual report and Conservancy records and GIS is updated accordingly.

HCP plant species (covered and no-take species) inventories and focused botanical surveys were conducted in April, May, June, August, and September 2012 (Nomad Ecology 2012c). Seven high-priority Preserve System properties—Chaparral Ridge, Fox Ridge, Souza I, Austin 1 (also known as Thomas South or Thomas Kreigor), Vaquero Farms Central, Vaquero Farms North, and Vaquero Farms South—were surveyed. Surveys were conducted in accordance with the survey requirements for covered and no-take plant species of the HCP/NCCP, as well as CEQA-related sensitive botanical resources. All plant species in bloom or otherwise recognizable were identified to a level necessary to determine their regulatory status. During these surveys an inventory of plant species observed was recorded. If encountered, other special-status species including state and federally listed species or species included in the California Native Plant Society rare plant inventory were recorded.

Data collected in the field conformed to reporting requirements appearing in Chapter 5 of the HCP/NCCP, *Incorporating Covered Plant Populations in the Preserve System.* Accordingly, five relevant characteristic were recorded (physical condition, age structure, reproductive success, availability of suitable habitat, and diversity of suitable habitat). GIS shapefiles of covered species were created using global positioning system (GPS) point data collected in the field.

The results of the inventory are incorporated in the annual report. New species occurrences are credited toward the current reporting year rather than the year of the acquisition. Four covered species were observed: San Joaquin spearscale (*Atriplex joaquinana*), big tarplant (*Blepharizonia plumosa*), Diablo helianthella (*Helianthella castanea*), and Mount Diablo fairy lantern (*Calochortus pulchellus*). Overall, a total of eight populations of covered plant species were recorded with an estimated 730 individuals represented. In addition to covered plant species, five rare plant species were observed: Contra Costa manzanita (*Arctostaphylos manzanita* subsp. *laevigata*), crownscale (*Atriplex coronata* var. *coronata*), small-flowered morning glory (*Convolvulus simulans*), serpentine bedstraw (*Galium andrewsii* subsp. *gatense*), and sylvan microseris (*Microseris sylvatica*).

A wetland assessment and mapping of Preserve System acquisitions was also conducted (Nomad Ecology 2012d). The assessment's primary objective was to groundtruth land cover mapping for wetland features and streams present in the Preserve System. In addition, alkali

grassland, uncommon vegetation types, and uncommon landscape features were groundtruthed or mapped. The results for the assessment were used to verify acreages of wetlands and landscape feature preserved and identify restoration and enhancement opportunities. The land cover acreages presented in this annual report include groundtruthed acreages for alkali wetland, permanent wetland, pond, seasonal wetland, riparian, alkali grassland, rock outcrops, native grassland, and seeps/springs for Affinito, Ang, Chaparral Springs, Fox Ridge, Fan, Irish Canyon, Lentzner, Moss Rock, Souza 1 (portion), Thomas Central, Thomas South (also known as Austin 1 or Thomas Kreigor), and Vaquero Farms Central.

Long-Term Monitoring Phase

As of December 2012, long-term monitoring has not yet commenced. The long-term monitoring phase will commence once a comprehensive strategy has been developed (monitoring design phase) and baseline studies are complete (inventory phase), or before then, if appropriate. Long-term monitoring will use the framework developed during the planning and inventory phases to carry out effectiveness monitoring and to implement adaptive management.

Compliance Monitoring

Compliance monitoring is the process of evaluating Plan implementation and documenting that all requirements of the Plan are being met (i.e., permit compliance). This Annual Report, which describes progress toward Plan implementation, is the documentation for Plan compliance.

To support the development of the Annual Report, the Conservancy developed a project tracking database. This database is capable of tracking covered activities, impacts on land cover types and species habitat, and conditions on covered activities. In addition, a python-based script was developed to search both the project tracking database and HCP/NCCP GIS database (includes land cover mapping, acquisitions, etc.) and generate information required for the annual report.

Directed Research

Directed research is research that provides new information or direction regarding management actions. The purpose of directed research is to inform management in cases where species and natural community response to management is uncertain. The Plan's Table 7-2 contains a list of potential directed research projects. This list is unchanged from the Plan.

A contract with EBRPD was approved to research golden eagle behavior in the Altamont Pass Wind Resource Area (APWRA) and map collision hazards. The research proposal, *Using Satellite Telemetry to Improve and Expand Golden Eagle Hazard Collision Mapping to Lessen Impacts of Wind Turbine Repowering in the Altamont Pass Wind Resource Area, California* includes five main tasks (East Bay Regional Parks District 2010).

- Trap and attach transmitters on up to six golden eagles.
- Track eagles, including mapping using a GIS.

- Validate current collision hazard maps (based on only observational data) by comparing newly collected transmitter data against existing collision hazard maps to determine whether eagles use the landscape as modeled.
- Revise collision hazard maps for Tres Vaqueros using new data and developing new golden eagle collision hazard maps for the remainder of the APWRA.
- Develop one or more peer-reviewed, publication-ready papers discussing the outcomes of this research.

Other minor tasks would include development of collision hazard maps for red-tailed hawk and American kestrel at Buena Vista wind farm and processing of data and samples collected from eagles during trapping (e.g., vital statistics, blood samples) for submittal to the Molecular Ecology Laboratory at the Alaska Science Center. Collision hazard maps for Buena Vista would be developed using observational data collected by biologists performing post-construction monitoring at Buena Vista.

The research project will continue in 2013. The researchers were unable to trap and tag any golden eagles in 2012. They will continue planned Year 1 efforts (trapping, tagging, and data collection) in 2013. Planned Year 2 activities (additional data collection, data analysis, and development of maps and papers) will be postponed to 2014. A GIS Digital Evaluation Model (DEM) for Buena Vista Wind Farm is 100% complete, while expanding the DEM out to Los Vaqueros Reservoir and the remainder of the APWRA is 15% complete. Creating a DEM is necessary prior to developing the collision hazard (risk) maps. New collision hazard maps for American kestrel, red-tailed hawk, and golden eagle using existing observational data at Buena Vista is 80% complete. The latter effort is needed to compare observational data with GPS data. The research outcomes would be ready for application as early as 2014. It is anticipated that the project results would be used to reduce raptor mortality and inform repowering in the APWRA and in other areas of California with similar species composition and topography.

Adaptive Management

Based on the best scientific information currently available, it is expected that the Plan's conservation measures will effectively achieve the biological goals and objectives. However, there is uncertainty associated with management techniques, conditions within the inventory area and region, and the status of covered species and natural communities. It is also possible that new and different management measures not identified in the Plan will be identified and proven to be more effective in achieving biological goals and objectives than those currently proposed. Finally, results of effectiveness monitoring may indicate that some management measures are less effective than anticipated.

Adaptive management is a method for examining current or alternative strategies for meeting measurable biological goals and objectives and, if necessary, adjusting future management actions according to what is learned. Adaptive management follows initial implementation of effectiveness monitoring and research, but is an ongoing process utilized throughout Plan implementation.

In 2012, implementation of adaptive management was limited to restoration sites. As discussed in Section IV, *Habitat Restoration and Creation*, each site was monitored to measure progress toward achieving success criteria. Management was adjusted based on monitoring results.

VII. STAY-AHEAD PROVISION

Stay-Ahead Provision

The Plan's Stay-Ahead provision requires that the Conservancy "stay ahead" by acquiring land for the Preserve System in advance of impacts. The Plan defines two compliance methods: Stay-Ahead Measurement Method 1 and Stay-Ahead Measurement Method 2. Stay-Ahead Measurement Method 1 states that the amount of each land cover type conserved to date as a proportion of the total requirement for each land cover type must be equal to or greater than the impact to date on the land cover type as a proportion of the total anticipated impact under the Maximum Urban Development Area scenario by all covered activities. This option aggregates the following land cover types: cultivated agriculture, annual grassland, alkali grassland, and ruderal. The sum of the acres of these land cover types actually acquired is measured against the sum of the respective acquisition requirements. Other terrestrial land cover types are not aggregated.

Under Stay-Ahead Measurement Method 2, the amount of annual grassland conserved by the Conservancy in Zone 2 as a proportion of the total requirement for annual grassland acquisition in Zone 2 must be equal to or greater than the impact on annual grassland and all cultivated agriculture land cover types (cropland, irrigated pasture, vineyard, orchard) as a proportion of the total impact expected under the Maximum Urban Development Area scenario on these land cover types by all covered activities. This option provides an incentive for the Conservancy to acquire land in Zone 2 early in Plan implementation because land in this zone is likely to be more expensive and at higher risk than land in other zones. The Conservancy must comply with at least one of these methods during the first 10 years. After Year 10, the Conservancy may use only Measurement Method 1.

Stay-Ahead Assessment

Using Stay-Ahead Measurement Method 1, the Conservancy is currently in compliance with the Stay-Ahead provision (Table 14). For all land cover types, the percent ahead ranges from 0% to over 100%. Overall, the conservancy is 7,200 acres ahead across all land cover types and 83,289 linear feet ahead in stream land cover. The Conservancy is 5,498 acres ahead of the stay-ahead requirement for grassland and irrigated agriculture land cover types (the requirement is 129 acres), and 7,135 acres ahead for all terrestrial land cover types. For plant occurrences, the Conservancy is at least 100% ahead of all impacts (Table 15).

Table 14. Stay-Ahead Assessment: Land Cover

Land Cover Type	Conservation: Protection Required (acres)	Conservation: Protection to date (acres)	Conservation: % of Required	Impact: Estimated Impacts (acres)	Impact: Impacts to date (acres)	Impact: % of Impacts	Acres Required to be Ahead	Acres Ahead	% Ahead[3] (Conservation % - Impacts %)
Terrestrial									
All grassland & irrigated agriculture	18,150	5,644.6	31.1%	12,148	146.5	1.2%	218.9	5,498.1	30%
Chaparral and scrub	550	130.6	24%	2	0.0	0.0%	0.0	130.6	24%
Oak savanna	500	310.2	62%	165	0.0	0.0%	0.0	310.2	62%
Oak woodland	400	1,166.1	292%	73	0.0	0.0%	0.0	1,166.1	292%
Subtotal terrestrial	*19,600*	*7,251.5*	37%	24,536	*146.5*	1%	117.0	7,134.5	36%
Aquatic									
Riparian woodland/scrub	70	20.7	30%	35	0.4	1%	0.7	20.0	29%
Perennial wetland[1]	75	5.4	7%	75	0.1	0%	0.1	5.3	7%
Seasonal wetland	768	16.2	2%	56	0.4	1%	5.1	11.1	1%
Alkali wetland	93	21.8	23%	31	0.1	0%	0.0	21.8	23%
Pond	16	7.3	45%	8	0.0	0%	0.0	7.3	45%
Reservoir (open water)[2]	12	0.0	0%	12	0.0	0%	0.0	-	0%
Slough/Channel	36	0.0	0%	72	0.1	0%	0.0	(0.0)	0%
Subtotal aquatic	*1070*	*71.3*	*7%*	289	1.0	0%	3.7	67.6	6%
Stream (length in linear feet)									
Perennial stream	4,224	10,687.5	253%	2,112	56.3	3%	112.6	10,574.9	250%
Intermittent stream	2,112	68,377.8	3238%	2,112	360.0	17%	360.0	68,017.8	3221%
Ephemeral stream[4]	26,400	4,781.0	18%	26,400	105.0	0%	105.0	4,676.0	18%
Subtotal stream length	*32,736*	*83,846.3*	256%	30,624	521.3	2%	557.3	83,289.0	254%
Totals									
Acres	20,670	7,322.8	35%	24,825	147.5	1%	122.8	7,200.0	35%
Linear feet	32,736	83,846.3	256%	30,624	521.3	2%	557.3	83,289.0	254%

[1] *Perennial wetlands* are equivalent *permanent wetlands.*

[2] *Reservoir (open water)* is equivalent to *aquatic.*

[3] *The Plan allows a 5% deviation from Stay Ahead requirements. For terrestrial land cover, the Plan provides that Stay Ahead be measured against the following categories: chaparral, oak savanna, oak woodland and the sum of all grassland and irrigigated agricultural land cover types*

[4] *Many of the streams identified as "classification pending" will ultimatley be classified as ephemeral. As such, they are tracked as ephemeral streams for the purposes of the Stay-Ahead provision.*

Table 15. Stay-Ahead Assessment: Plants

Common Name	*Scientific Name*	Conservation	Impacts	Difference	% Ahead
Mount Diablo manzanita	*Arctostaphylos auriculata*	*0*	*0*	*0*	*100%*
Brittlescale	*Atriplex depressa*	*1*	--	*1*	*100%*
San Joaquin spearscale	*Atriplex joanquiniana*	*7*	*[see note [1]]*	*7*	*100%*
Big tarplant	*Blepharizonia plumosa*	*3*	*0*	*3*	*100%*
Mount Diablo fairy lantern	*Calochortus pulchellus*	*1*	*0*	*1*	*100%*
Recurved larkspur	*Delphinium recurvatum*	*0*	*0*	*0*	--
Round-leaved filaree	*Erodium macrophyllum*	*1*	*[see note [2]]*	*1*	--
Diablo helianthella	*Helianthella castanea*	*6*	*0*	*6*	*100%*
Brewer's dwarf flax	*Hesperolinon breweri*	*0*	*0*	*0*	--
Showy madia	*Madia radiata*	*0*	*0*	*0*	--
Adobe navarretia	*Navarretia nigelliformis* ssp. *nigelliformis*	*0*	*0*	*0*	--
Total		**19**	**0**	**19**	**--**

[1] Vasco Project population translocated and impact avoided (2011).

[2] Temporary impacts occurred to round-leaved filaree as part of the PG&E Contra Costa Las Positas Project. The soil was protected from disturbance, the site was returned to pre-project connections, seeds collected on site were propagated, and monitoring reports document that round-leaved filaree persists on site and is as abundant as before the project.

VIII. CHANGED CIRCUMSTANCES AND REMEDIAL MEASURES

The No Surprises Regulation established by the USFWS defines changed circumstances as those circumstances affecting a species or geographic area covered by an HCP that can be reasonably anticipated by the applicant or the USFWS and to which the parties preparing the HCP can plan a response. The changed circumstances identified by the Plan include non-covered species in the inventory area becoming listed, wildfires that result in the large-scale loss of natural communities, pond or wetland control structure failure, or destruction of riparian plantings from flooding, prolonged drought, and vandalism of preserves. Occurrence of a changed circumstance requires the Conservancy to notify the USFWS and the CDFW to determine the necessity for additional conservation or mitigation measures. If the mitigation or conservation measure has already been identified in the Plan, the Conservancy must comply with the measure. However, if the measure is not currently included in the Plan, the USFWS and the CDFW will not require additional mitigation or conservation measures.

In the event that an anticipated changed circumstance prohibits or damages a conservation action that meets the goals of the HCP, a remedial measure must be undertaken. Remedial measures are funded by the Plan and must be undertaken by the Conservancy.

No changed circumstance occurred in 2012.

IX. FINANCES

Budget

The Conservancy analyzed cost projections from the HCP, the previous years' actual costs and the anticipated 2012 work plan to develop the 2012 budget (Table 16). Based on the accounting for the reporting period, the Conservancy stayed within each cost category budget as well as the total 2012 budget, except for a small potential exceedance in one category. Preliminary expenditure totals for the Management, Restoration, and Recreation Planning and Design exceeded the $271,029 budget level by about $13,000. This is well within the contingency budget of $92,601. Overall, expenditures were more than $6 million under the $13 million budget.

During the reporting period, the largest budgeted item was land acquisition followed by program administration, planning and design for restoration/management/recreation, monitoring/research/ adaptive management, and restoration/creation. This focus reflects the Conservancy's continued efforts to maintain stay-ahead compliance. In addition, the Conservancy continues to make progress toward restoration requirements. Monitoring, research, and adaptive management budget and expenditures demonstrate the Conservancy's efforts to establish baseline inventories for new and existing properties.

Revenue Sources

Three main revenue sources are anticipated in the Plan.

- Fee collection: Development, wetland, rural road, and temporary impact fees are utilized to mitigate impacts on special-status species, natural communities, and open space.
- Local public funding and foundation grants: Acquisition and management of land by local agencies, primarily EBRPD, but could include partnerships with other local agencies. Voters approved several revenue measures for EBRPD in the prior decade, including Measure WW, which provide funding EBRPD may use to partner with the Conservancy, In addition, Foundation grants (e.g., Gordon and Betty Moore Foundation) are anticipated to help the Conservancy fund acquisition, management, restoration, and monitoring.
- State and federal: Funding from the state and federal government to assemble, manage, and monitor Preserve System lands.

Revenue sources also include lease income from Preserve System properties and *Contributions to Recovery* charges on certain covered activities. Contribution to Recovery payments are imposed on Participating Special Entities to contribute funds over and above fee requirements in order to contribute to the recovery of species in the inventory area.

Table 16. 2012 Conservancy Budget: Expenditures and Comparison to Budget Projections

	HCP/NCCP Projected Cost Estimate Information			2012 Budget by Revenue Source					Expenditures
Cost Category	Years 1-5	Average Cost Per Year (Years 1-5)[1]	% of Total	Development Fee Account	Wetland Mitigation Fee Account	Grant Funding	TOTAL	% of Total	Total expenditures for 2012
Program Administration and Permitting Program	$ 3,065,485	$ 613,097	5.8%	$ 609,696	$ -	$ -	$ 609,696	4%	$ 587,760
Land Acquisition	$ 37,337,984	$ 7,467,600	71.2%	$ 100,000	$ -	$ 11,168,217	$ 11,268,217	84%	$ 5,909,868
Management, Restoration and Recreation Planning and Design	$ 1,861,131	$ 372,226	3.5%	$ 71,029	$ -	$ 200,000	$ 271,029	2%	$ 284,511
Habitat Restoration/ Creation	$ 3,625,657	$ 725,131	6.9%	$ -	$ 50,000	$ 281,069	$ 331,069	5%	$ 98,599
Environmental Compliance	$ 459,000	$ 91,800	0.9%	$ 115,921	$ 20,000	$ 20,000	$ 155,921	1%	$ 77,395
HCP/NCCP Preserve Management and Maintenance	$ 3,191,980	$ 638,396	6.1%	$ 159,202	$ -	$ 50,000	$ 209,202	2%	$ 17,918
Monitoring, Research, and Adaptive Management	$ 2,159,819	$ 431,964	4.1%	$ 55,202	$ 20,000	$ 200,000	$ 275,202	2%	$ 149,714
Remedial Measures	$ 30,000	$ 6,000	0.1%	$ 6,000	$ -	$ -	$ 6,000	0%	$ -
Contingency Fund (5% of non-land acquisition costs)	$ 719,654	$ 143,931	1.4%	$ 92,601	$ -	$ -	$ 92,601	1%	$ -
TOTAL	$ 52,450,710	$ 10,490,145	100.0%	$ 1,209,552	$ 90,000	$ 11,919,286	$ 13,218,938	100%	$ 7,125,765

[1] The annual average of the initial five year cost estimate may provide an unrealistic estimate of early annual costs because the level of effort on some categories ramps up from zero over the five year period.

Table 17. Summary of All Revenues Received/Approved

Type	Reporting Period Total	Cumulative Total
Mitigation for Terrestrial Impacts (development fees, rural infrastructure fees, and temporary impact fees)	$ 1,020,368	$ 3,190,000
Contributions to Recovery	$ 368,518	$ 890,000
Wetland Mitigation Fees (includes fees on streams, as well as, fees for temporary impacts to wetlands)	$ 186,143	$ 430,000
Other Fees and Charges for Staff Time[1]	$ 68,546	$ 3,580,000
Grants	$ 6,288,144	$ 28,970,000
Local Matching Funds[2]	$ 1,327,890	$ 18,340,000
Total	*$ 9,259,609*	*$ 55,400,000*

[1] Includes pre-HCP payments, administrative fees and other changes

[2] *Local Matching Funds* includes grants awarded to local partners. Grants awaredd to the Conservancy are shown in the *Grants* row. Estimates of EBRPD land acquisition due diligence costs and preserve management expenditures are also included.

Table 18. Summary Accounting of Fee and Grant Revenues Received in Reporting Period (includes grant funds approved but not received)

Type[1]	Source	Date[2]	Amount
Mitigation for Terrestrial Impacts (development fees, rural infrastructure fees, and temporary impact fees)			
East Contra Costa eBART Phase II Extension Project		2/6/2012	$ 601,159
Coalinga-Avon Pipeline Repair Project- Second Amendment		3/12/2012	$ 1,066
Clayton Regency Mobile Home Park Emergency Water Pipeline Extension Project		4/25/2012	$ 13,830
Upper Sand Creek Detension Basin Excavation Phase I Project		5/17/2012	$ 7,550
Deer Valley Road Safety Improvement Project		5/18/2012	$ 13,562
Los Vacqueros Communications Facility Project		7/10/2012	$ 11,792
Round Valley Pedestrian Bridge Project		7/13/2012	$ 4,347
Marsh Creek Shoulder Widening near Round Valley Regional Preserve		7/13/2012	$ 59,540
Contra Costa 4 Median Buffer and Shoulder Widening Project- Second Amendment		8/8/2012	$ 1,176
East Contra Costa eBART Phase II Extension Project- First/Second Amendment		9/5/2012	$ 40,644
Vasco Road Line 200 Pipeline Emergency Release		10/1/2012	$ 26,383
iPark Oakley aka Park and Play Project		11/15/2012	$ 96,741
Upper Sand Creek Detention Basin Project		11/30/2012	$ 142,578
Development fees subtotal			*$ 1,020,368*
Contributions to Recovery			
East Contra Costa eBART Phase II Extension Project		2/6/2012	$ 303,152
Coalinga-Avon Pipeline Repair Project- Second Amendment		3/12/2012	$ 1,066
PG&E Line 131 Natural Gas Pipeline Replacement Project[3]		5/24/2012	$ 22,809
PG&E L-57A Dig Site 1 PG&E Project[3]		8/24/2012	$ 21,169
East Contra Costa eBART Phase II Extension Project - First/Second Amendment		9/5/2012	$ 20,322
Contribution to Recovery subtotal			*$ 368,518*
Wetland Mitigation Fees (includes fees on streams, as well as, fees for temporary impacts to wetlands)			
Deer Valley Road Safety Improvement Project		5/18/2012	$ 34,106
Marsh Creek Shoulder Widening near Round Valley Regional Preserve		7/13/2012	$ 28,454
Upper Sand Creek Detension Basin Excavation Project		11/30/2012	$ 123,583
Stream fees subtotal			*$ 186,143*
Other Fees and Charges for Staff Time			
East Contra Costa eBART Phase II Extension Project (Swainson's hawk mitigation)		2/16/2012	$ 30,000
Coalinga-Avon Pipeline Repair Project- Second Amendment		6/29/2012	$ 3,500
Los Vacqueros Communications Facility Project		7/10/2012	$ 2,741
Contra Costa 4 Median Buffer and Shoulder Widening Project- Second Amendment		8/8/2012	$ 1,176
Vasco Road Line 200 Pipeline Emergency Release		10/1/2012	$ 5,000
East Contra Costa eBART Phase II Extension Project (staff time)		10/24/2012	$ 26,129
Other fees subtotal			*$ 68,546*
Grants			
CDFW LAG Grant (Hess)	State	1/23/2012	$ 122,130
IRWMP via CCWD for wetland creation (Souza II)	State	2/22/2012	$ 75,000
IRWMP via CCWD for land purchase (Hess)	State	2/22/2012	$ 500,000
IRWMP via CCWD for wetland creation (Hess)	State	2/22/2012	$ 330,000
IRWMP via CCWD for staff time (Hess)	State	2/22/2012	$ 25,000
CDFW LAG Grant (Baseline Plant and Wetland Invetory)	State	2/24/2012	$ 24,300
CDFW LAG Grant (Hess)	State	4/18/2012	$ 27,870

Table 18. Summary Accounting of Fee and Grant Revenues Received in Reporting Period (includes grant funds approved but not received)

Type[1]	Source	Date[2]	Amount
IRWMP Grant Prop 50 via CCWD (Hess)	State	4/18/2012	$ 330,000
IRWMP Grant via CCWD (Hess)	State	6/13/2012	$ 75,000
IRWMP Grant via CCWD (Hess Restoration)	State	6/13/2012	$ 140,000
CDFW LAG Grant for maintenance and monitoring	State	6/21/2012	$ 67,000
CDFW LAG Grant (Baseline Plant and Wetland Invetory)	State	5/16/2012	$ 2,700
CDFW LAG Grant (Preserve Management Plan for Byron Hills)	State	5/16/2012	$ 10,634
CDFW LAG Grant for maintenance and monitoring	State	6/21/2012	$ 9,500
WCB Prop 84 (Affinito purchase)	State	2/24/2102	$ 1,005,750
WCB Prop 84 (Thomas North purchase)	State	11/2/2012	$ 388,755
WCB Prop 84 (Vaquero Farms Central purchase)	State	3/2/2012	$ 230,000
Section 6 (Affinito purchase)	Federal	2/24/2012	$ 1,005,750
Section 6 (Vaquero Farms Central purchase)	Federal	3/2/2012	$ 1,080,000
Section 6 (Galvin purchase)	Federal	1/30/3102	$ 166,500
Section 6 (Moss Rock purchase)	Federal	1/30/2012	$ 184,500
Section 6 (Fan purchase)	Federal	1/27/2012	$ 99,000
Section 6 (Thomas North purchase)	Federal	11/2/2012	$ 388,755
Grants subtotal			*$ 6,288,144*
Local Matching Funds			
EBRPD (Affinito purchase)		2/24/2012	$ 223,500
EBRPD (Vaquero Farms Central purchase)		3/2/2012	$ 240,000
EBRPD (Galvin purchase)		1/30/2012	$ 37,000
EBRPD (Moss Rock purchase)		1/30/2012	$ 41,000
EBRPD (Fan purchase)		1/27/2012	$ 22,000
EBPRD (Thomas North purchase)		11/2/2012	$ 86,390
EBRPD Land Acquisition Due Diligence cost/funding (estimated)		2012	$ 150,000
EBRPD Land Management cost/funding (estimated)		2012	$ 528,000
Local funding subtotal			*$ 1,327,890*
Total			**$ 9,259,609**

[1] Local matching funds includes grants awarded to local partners. Grants are grants awarded to the Conservancy for Conservation Plan implementation. For some of the land acquistions (Table 7), the lands were acquired for less than the appraised value. This is

[2] Revenues received in 2012 are included. Some of these revenues were reimbursement for work performed prior to 2012

[3] These projects made a contribution to recovery but did not receive take coverage through the Plan.

Table 19. Grants Awared to Conservancy for Implementation of East Contra Costa County HCP/NCCP[a]

Funding Source	*Agency*	*Purpose*	*Amount*	*Required Match*	*Amount Expended (12/31/12)* [b]	*Remain (12/31/12)*	*Needs to be used by…*	*Complete?*	*Notes*
Section 6 (2006)	USFWS admin by WCB	Acquisition	$6,531,054	$7,982,399	$6,531,054	$0	June 2010	√	
Section 6 (2007)		Acquisition	$7,000,000	$8,555,600	$7,000,000	$0	June 2011	√	
Section 6 (2008)		Acquisition	$6,000,000	$7,333,333	$4,633,214	$1,366,786	2-14-13		$1,300,900 proposed, leaving $65,886 unspent
Section 6 (2009)		Acquisition	$2,500,000	$3,055,556	$0	$2,500,000	8-1-13		extended once
Section 6 (2010)		Acquisition	$6,000,000	$7,333,333	$1,080,000	$4,920,000	7-31-13		
Section 6 (2011)		Acquisition	$4,463,936	$5,455,922	$0	$4,463,936	10-31-14		
Section 6 (2012)		Acquisition	$1,000,000	$1,222,222	$0	$1,000,000	9-30-15		
CVPIA - HRP	USBR	Acquisition	$1,241,631	$500,000	$1,241,631	$0	Sep 2010	√	
IRWMP - Prop 50	SWRCB	Acquisition or restoration	$750,000	$500,000	$750,000	$0	June 2012	√	
IRWMP - Prop 50 (reprogrammed)	SWRCB	Acquisition or restoration	$1,400,000	$500,000	$1,400,000	$0	Mar 2012		
IRWMP - Prop 84	DWR	Acquisition or restoration	$650,000	25% match required	$0	$650,000	12/31/2014		must be used within SF Regional Board area
NCCP Local Assistance (2006)	CDFW	Start-up staffing	$40,000	'====	$40,000	$0	June 2008	√	
NCCP Local Assistance (2007)	CDFW	Start-up wetlands restoration	$60,000	$120,000	$60,000	$0	Dec 2008	√	
NCCP Local Assistance (2008)	CDFW	Wetlands restoration at Souza 2	$150,000	====	$125,100	$0	April 2011	√	
NCCP Local Assistance (2009)	CDFW	Hess Construction	$150,000	$111,000	$150,000	$0	Mar 2012	√	
NCCP Local Assistance (2010)	CDFW	Wetland and rare plant inventory	$27,000	$0	$27,000	$0	April 2013		
NCCP Local Assistance (2010)	CDFW	Restoration project monitoring/maint.	$85,000	$0	$85,000	$0	April 2013		
NCCP Local Assistance (2010)	CDFW	Preserve monitoring plan development	$50,000	$0	$50,000	$0	April 2013		
NCCP Local Assistance (2011)	CDFW	Wetland and rare plant inventory (phase 2)	$40,000	$0	$40,000	$0	April 2014		
NCCP Local Assistance (2011)	CDFW	Restoration project monitoring/mintenance	$50,000	$0	$50,000	$0	April 2014		
NCCP Local Assistance (2011)	CDFW	Preserve management plan development	$75,000	$0	$65,000	$10,000	April 2014		

Table 19. (Continued)

Funding Source	*Agency*	*Purpose*	*Amount*	*Required Match*	*Amount Expended (12/31/12)* [b]	*Remain (12/31/12)*	*Needs to be used by…*	*Complete?*	*Notes*
Gordon and Betty Moore Foundation		Acquisition Fox Ridge	$880,000	50% match desired	$880,000	$0	12/31/09	√	
Gordon and Betty Moore Foundation		Acquisition and research Souza 3	$2,250,000	50% match desired	$2,000,000	$250,000			avian research portion on-going
Gordon and Betty Moore Foundation		Acquisition Fan, Galvin, Moss Rock&VF Central	$1,300,000	50% match desired	$1,300,000	$0		√	
Prop 84 NCCP account	WCB	Acquisition of Barron	$973,930	$0	$973,930	$0	Feb 2012	√	
Prop 84 NCCP account	WCB	Acquisition of Thomas	$1,842,966	$0	$1,842,966	$0	June 2012	√	
Prop 84 NCCP account	WCB	Acquisition of Affinito	$1,005,750	$0	$1,005,750	$0	Dec 2012	√	
Prop 84 NCCP account	WCB	Acquisition of Vaquero Farms Central	$230,000	$0	$230,000	$0	Dec 2012	√	
Prop 84 NCCP account	WCB	Acquisition of Thomas North	$388,755	$0	$388,755	$0	Aug 2013	√	
		TOTAL	**$47,135,022**	**$42,669,365**	**$31,949,400**	**$15,160,722**			

Notes: a) Funding from partners not included. EBRPD an estimated $18 million of its own funds or its grants funds to joint land acquisitions and preserve managemnet.

b) Includes expenditures made by the Conservancy for which reimbursement from the grant source has not yet occurred.

Explanation of Acronyms:
CDFW: California Department of Fish and Wildlife
CVPIA HRP: Central Valley Project Improvement Act Habitat Restoration Program
DWR: Department of Water Resources
EBRPD: East Bay Regional Park District
IRWMP: Integrated Regional Water Management Plan
NCCP: Natural Community Conservation Plan
Section 6: Cooperative Endangered Species Conservation Fund, HCP Land Acqusition subaccount (authorized in Section 6 of federal ESA)
SWRCB: State Water Resources Control Board
USBR: United States Bureau of Reclamation
USFWS: United States Fish and Wildlife Service
WCB: California Wildlife Conservation Board (affiliated with CDFW)

An estimated total of $9,259,609 was received, approved, or provided as match in the reporting period (Tables 17 and 18). This amount includes development fees from 14 covered activities ($1,020,368), contribution to recovery payments from five covered activities ($368,518), wetland and stream fees from three covered activities ($186,143), other fees from six covered activities and other revenue ($68,546), and grants ($6,288,144), and local match funding ($1,327,890).

All grants awarded to date are summarized in Table 19. Since it began implementing the HCP/NCCP through the end of 2012, the Conservancy has been awarded $47,135,022 in grants. Of this amount, $31,949,400 has been spent and $15,160,722 remains. These amounts do not include match funding provided by partners. EBRPD has contributed an estimated $18 million of its own funds or its grant funds.

Funding in Perpetuity

In the HCP/NCCP, annual costs to operate and maintain the Preserve System in perpetuity are estimated to be slightly less than the annual cost for program administration, preserve management, and monitoring estimated during the final funding period of the Plan, or approximately $3.0 million or $3.3 million[12] annually under the initial or Maximum Urban Development Area, respectively. Actual long-term costs may be lower if the Conservancy can develop streamlined procedures for management and monitoring during the permit term, secure partners, or if the Conservancy can reduce administrative costs. Responsibility for funding long-term management and monitoring rests solely with the Permittees.

The Conservancy is required to develop a detailed plan for the long-term funding of operation and maintenance and to secure all necessary commitments to implement this Plan before using 50% of all authorized take under the Maximum Urban Development Area (= 50% of 12,704 acres, or 6,352 acres) or at the end of year 15 of implementation, whichever occurs first. The Conservancy has initiated planning for this requirement. In addition, the Conservancy has begun to secure potential sources for long-term funding. Properties acquired through 2012 will provide lease revenue from existing PG&E facilities, cellular communications facilities, and wind turbines with long-term leases to EBPRD. The Conservancy and EBRPD have agreed to dedicate a portion of the revenue from the existing leases to long term management of the Preserve System.

[12] This is equivalent to approximately $125 per acre per year or $110 per acre per year in operational and capital costs for Preserve System operation under the initial or Maximum Urban Development Areas, respectively.

X. PROGRAM ADMINISTRATION

Minor and Major Amendments

The Conservancy made no minor or major amendments to the Plan during the reporting period.

Coordinated Wetland Permitting

Background and 2012 Achievements

The HCP/NCCP was designed to conserve not only endangered species, but wetlands and waters that provide habitat for these species and support other natural resource functions and values. This approach was intended, in part, to enable permit streamlining to extend beyond endangered species and to include regional permitting under state and federal laws for impacts on jurisdictional wetlands and waters. The interest in integrating federal and state wetland permitting into the HCP/NCCP process is the same as the articulated purpose of the Plan—to benefit stream and wetland resources by conserving these resources in a more coordinated and comprehensive fashion on a regional scale and to provide an integrated, coordinated approach to permitting in lieu of the often inefficient and costly project-by-project approach.

Discussion with U.S. Army Corps of Engineers (Corps), U.S. Environmental Protection Agency (EPA), State Water Resources Control Board (State Board), the Regional Water Quality Control Boards (RWQCBs), CDFW, and USFWS regarding this parallel approach to compliance with wetlands regulations date started in 2002 during the early stages of developing the HCP/NCCP. Coordinating wetlands regulation with HCPs is difficult in part because there is no precedent.

On May 4, 2012, the Corps issued a Regional General Permit (RGP) related to the HCP/NCCP. On April 30, 2012, USFWS issued a Biological Opinion on the RGP. The issuance of the RGP and Biological Opinion are important milestones for the overall goals of the HCP/NCCP.

Summary of Regional General Permit and associated Biological Opinion

The RGP is designed to streamline wetland permitting in the HCP/NCCP Plan Area by coordinating the avoidance, minimization, and mitigation measures in the Plan with the Corps' wetland permitting requirements. Projects eligible to apply for the RGP are those covered by the HCP/NCCP that meet specified wetland impact limitations (i.e., wetland impacts are less than 1.5 acres). The RGP has a greater impact threshold than the Corps' existing Nationwide permit program, which limits wetland impacts to 0.5 acre.

The USFWS Biological Opinion for the RGP relies on the HCP/NCCP for mitigation measures and eliminates the need for the Corps to consult individually with USFWS for each project covered by the RGP. The term of the Biological Opinion corresponds with the 30-year term of the

HCP/NCCP. By regulation, RGPs must be renewed every 5 years, but in this case a new Biological Opinion would not be needed.

With the RGP in place, project proponents will still apply directly to the wetland agencies for their wetland permits. However, due to the close match between HCP/NCCP and RGP permit conditions, the process will be expedited and improved. Key improvements include the following.

- Consistent mitigation ratios and offsite mitigation requirements, which makes it possible to satisfy Corps requirements with HCP/NCCP fees (see *Proposed In Lieu Fee Instrument/Program* below).
- Consistent emphasis on regional avoidance to avoid "postage-stamp" conservation on project sites that can hinder projects and compromise the functions and values of conserved resources.
- Consistent, regional, watershed approach to conserving wetlands, waters, and species, which will maximize the value and sustainability of conservation actions.

Currently, the RGP only relates to Clean Water Act (CWA) Section 404 permits, those issued by the Corps, but discussions are ongoing with the State Board and RWQCBs to coordinate their requirements with the RGP and HCP/NCCP. This coordination would lead to further permitting assurances and streamlining.

Proposed In Lieu Fee Instrument/Program

The In Lieu Fee (ILF) Instrument is the agreement with the Corps and EPA (and possibly other agencies such as the State Board and RWQCBs) that will sanction payment of HCP/NCCP fees as eligible mitigation under the RGP. The ILF Instrument will also provide the Corps and other signatories with oversight of the Conservancy's use of the fees. The resulting ILF program would comply with the recent federal "Mitigation Rule" (33 CFR Part 332). The proposed ILF program would be implemented in conjunction with the RGP and HCP/NCCP. Until the ILF program is in place, an interim mitigation strategy is needed to enable payment of HCP/NCCP fees to satisfy RGP requirements.

Interim Strategy

With the RGP issued, but the In Lieu Fee Program not yet in place, an interim strategy is needed to coordinate mitigation required under the RGP with HCP/NCCP mitigation fees. The Corps' proposed approach is "permittee-responsible compensatory mitigation," an option defined in federal Mitigation Rule 33 CFR Part 332. Under this approach, until the ILF is approved, the Conservancy will represent for the Corps that applicants receiving authorization under the RGP would fulfill compensatory Section 404 mitigation requirements by designating a portion of one or more of the Conservancy's existing wetland restoration sites as the compensatory mitigation for an applicant's project. The Corps has approved using this interim strategy for up to 1 year, at which time the interim strategy would be replaced by the ILF program. Before one or more of the Conservancy's existing wetland restoration sites is deemed eligible by the Corps for permittee-responsible mitigation purposes, the Conservancy must submit detailed information

to the Corps on the site. This information includes point by point documentation of how the site complies with each requirement of the mitigation rule for a final mitigation plan (33 CFR 332.4[c] 2-14). For the Conservancy's existing wetland restoration projects, the required documentation already exists in the form of construction plans and Mitigation and Monitoring Plans for each project. The Corps will, however, require detailed quarterly and annual monitoring reports on the performance of the restoration projects used by the interim strategy.

Mitigation Fee Audit and Update

The HCP/NCCP requires automatic annual adjustments to HCP/NCCP Mitigation Fees based on economic indices as well as periodic audits in years 3, 6, 10, 15, 20, and 25 of Plan implementation. These periodic audits assess whether changes in HCP/NCCP implementation costs over time require additional fee adjustment. This audit was completed in 2011 to assess HCP/NCCP costs through Year 3 of Plan implementation.

The Conservancy Board originally approved the changes to HCP/NCCP mitigation fees on July 22, 2011, after first considering the item on March 21, 2011; however a series of meetings suggested that additional analysis was required. On May 10, 2012, after Pittsburg City Council consideration of the Conservancy's 2011 fee recommendations generated concern and comment, the Conservancy Board considered detailed, critical comment on fee changes and response from staff and the original economic team. On July 26, 2012, the Conservancy Board commissioned a new Periodic Fee Audit and directed staff to solicit proposals. On August 20, 2012, the Board approved the selection of a team assembled by Willdan Financial services to perform the Periodic Fee Audit, including the information necessary to support the nexus findings the participating cities and the County may make under the Mitigation Fee Act and a fee burden analysis. At the October 22, 2012 Board meeting the Board received an update from Robert Spencer of Urban Economics, who is leading the Willdan team. The Willdan team completed the East Contra Costa County HCP/NCCP Mitigation Fee Audit (Willdan 2012a) and HCP Fee Burden Analysis (Willdan 2012b). Staff posted these materials on the Conservancy website and notified the Conservancy mailing list on December 22, 2012. Action on the audit will be considered in 2013.

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XII. LIST OF PREPARERS

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APPENDIX A: GLOSSARY

Definitions of Key Terms and Concepts

Adaptive management. A method for examining alternative strategies for meeting measurable biological goals and objectives and, if necessary, adjusting future conservation management actions according to what is learned (*65 Federal Register 106*; June 1, 2000). (See also Chapter 7 for alternative but similar definitions of adaptive management.)

Anthropogenic. Caused or produced through human agency.

Baseline. The existing environmental state, which includes past and present impacts as well as the anticipated impacts of all permitted projects in the inventory area.

Biological opinion. The document stating the opinion of the U.S. Fish and Wildlife Service and/or the National Oceanic and Atmospheric Administration's National Marine Fisheries Service regarding whether a federal action is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat (*50 Code of Federal Regulations* [CFR] *402.02*). A biological opinion is one of the decision documents of a consultation under Section 7 of the federal Endangered Species Act (ESA).

Biodiversity. The variety of organisms considered at all levels, from genetic variants of a single species through arrays of species to arrays of genera, families, and higher taxonomic levels; includes the variety of ecosystems.

Buffer areas. Designated zones of agricultural lands, grassland, or other habitat types adjacent to preserves that are intended to prevent or reduce the undesired intrusion of biota, harmful materials, or disturbances into the preserve, as well as the movement of covered wildlife species from preserve areas into adjoining areas.

Conservation. According to the federal ESA (Section 3[3]), the terms *conserve*, *conserving*, and *conservation* are defined as the methods and procedures necessary to bring any endangered or threatened species to the point at which the measures provided under the Act are no longer necessary. Such methods and procedures include, but are not limited to, activities associated with resource management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transportation. The Natural Community Conservation Planning Act defines *conserve*, *conserving*, and *conservation* as the use of methods and procedures within the plan area that are necessary to bring any covered species to the point at which the measures provided pursuant to Chapter 1.5 are not necessary, and for covered species that are not listed pursuant to Chapter 1.5 to maintain or enhance the condition of a species so that listing pursuant to Chapter 1.5 will not become necessary.

Conservation measure. A management action that, when implemented, will partially or wholly achieve Plan objectives for covered species, natural communities, biodiversity, or ecosystem function.

Conserved habitat. Species habitat that is protected, enhanced, and/or restored under the Plan.

Construction monitoring. Monitoring by biologists of construction activities to ensure that conservation measures are implemented and impacts on biological resources are avoided or minimized in accordance with Plan requirements.

Contribute to recovery. Actions that measurably increase the baseline conditions necessary to support covered species and contribute to the eventual de-listing of a listed species or prevention of listing of an unlisted species. A contribution to recovery does not include actions necessary to avoid, minimize, or mitigate impacts of covered activities.

Cover (e.g., canopy cover, areal cover). The area of ground covered by vegetation of particular species or vegetation type, generally expressed as a percentage.

Covered species. Those species addressed in the Plan for which conservation measures will be implemented and for which the permittee seeks authorization for take under Section 10 of the federal Endangered Species Act and Section 2081 of the California Endangered Species Act.

Critical habitat. An area designated as critical habitat by the U.S. Fish and Wildlife Service pursuant to the federal Endangered Species Act. Critical habitat areas are specific geographic areas, whether occupied by listed species or not, that are determined to be essential for the conservation and management of listed species, and that have been formally described and designated in the Federal Register.

Dominance. The extent to which a given species predominates a community by virtue of its size, abundance, or coverage.

Ecosystem. A community of organisms and their physical environment interacting as an ecological unit.

Ecosystem function. The sum total of processes operating at the ecosystem level, such as the cycling of matter, energy, and nutrients.

Ecosystem restoration. The reestablishment of ecological functions within an area that historically supported those functions.

Environmental gradient. A shift in physical and ecological parameters, as characterized by transition zones between land cover types and natural communities or topographic gradients across a landscape.

Ephemeral stream. A stream that flows only in response to rain events and receives no groundwater input.

Executive Director. The Executive Director leads the Implementing Entity, and is responsible for Plan implementation, staff management, funding acquisition, and other managerial duties.

Extinct species. A species no longer in existence.

Extirpated species. A species no longer surviving in regions that were once part of its range.

Fossorial. Adapted for digging or burrowing into the ground.

Geographic Information System (GIS). Computer-based mapping technology that manipulates geographic data in digital layers and enables one to conduct a wide array of environmental analyses.

Goal. A broad, guiding principle that identifies an expected outcome of the Plan. Conservation strategy goals describe the desired future condition for each covered species with full implementation of the Plan.

Habitat. The environmental conditions that support occupancy of a given organism in a specified area (Hall et al. 1997). In scientific and lay publications, habitat is defined in many different ways and for many different purposes. For the purpose of the Plan, habitat is defined as the specific places where the environmental conditions (i.e., physical and biological conditions) required to support occupancy by individuals or populations of a given species are present. Habitat may be occupied (individuals or population of the species are, or have recently been, present) or unoccupied (see *unoccupied habitat* below).

Habitat creation. The establishment of a vegetation community in an area that did not previously support it. For example, stock ponds can be created in areas that previously did not support them by grading and installing a check dam.

Habitat enhancement. The improvement of an existing degraded vegetation community. Enhancement involves improving one or more ecological factors, such as species richness, species diversity, overall vegetative cover, or wildlife value. Enhancement activities typically occur on substrates that are largely intact.

Habitat-limited. A habitat-limited species is one whose abundance, distribution, or reproduction is limited by the availability or quality of suitable habitat. See *suitable habitat*.

Habitat quality. The ability of the environment to provide conditions that support the persistence of individuals and populations. The precise meaning of quality varies by species and depends on the subject species' specific needs in the context of a particular area. High-quality habitat for some species comprises only foraging and resting elements; for others it comprises foraging, resting, and nesting elements; for still others it may encompass all elements needed for the species to complete its lifecycle. Low-quality habitat would include only the minimal elements that support occurrence of the species. High-quality habitat tends to support larger numbers of species than low-quality habitat.

Habitat quantity. The area of the environment that supports or could support occupancy of a given organism.

Habitat replacement. To replace habitat is to mitigate habitat loss by enhancing or restoring habitat equivalent to or greater than the habitat lost.

Habitat restoration. The establishment of a vegetation community in an area that historically supported it, but no longer supports it because of the loss of one or more required ecological factors. Restoration may involve altering the substrate to improve a site's ability to support the historic vegetation community.

Harass. An intentional or negligent act or omission that creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering (*50 CFR 17.3*).

Harm. An act that actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering (*50 CFR 17.3*).

Hydrology. The movement of surface and subsurface water flows in a given area. The hydrology of an area is intimately connected with its precipitation, soils, and topography.

Incidental take. Any taking otherwise prohibited, if such taking is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity (*50 CFR 17.3*).

In-kind/like-value creation. Establishing the same vegetative community that would provide the same ecological values over time as the vegetation community affected. For example, creating an artificial vernal pool that supports species similar to those found in an affected vernal pool would be in-kind/like-value creation.

Intermittent stream. A stream that is supplied by both rainfall runoff and groundwater. Intermittent streams tend to be seasonal, flowing during the rainy season and into the late spring or early summer.

Jurisdictional wetlands and waters. State and federally regulated wetlands and other water bodies that cannot be filled or altered without permits from either the Corps under Section 404 of the Clean Water Act, the State Water Resources Board, or the Regional Water Quality Control Boards under either Section 401 of the CWA or the Porter-Cologne Water Quality Control Act, or the CDFW under Fish and Game Code Section 1602, as of the date the Plan takes effect.

Land cover type. The dominant feature of the land surface discernible from aerial photographs and defined by vegetation, water, or human uses.

Land-use designation. The designation, by parcel, in an adopted city or county General Plan of the allowable uses.

Loss of habitat. A reduction in habitat quality or quantity that results from an adverse change in an environmental condition. Environmental conditions may include cover, substrate, channel type, interacting species, river area, reservoir area, water quality, and groundwater depth.

Metapopulation. A group of partially isolated populations belonging to the same species that are connected by pathways of immigration and emigration. Exchange of individuals occurs between such populations, enabling recolonization of sites from which the species has recently become extirpated.

No-take species. Species for which take is not authorized under this Plan. In order to comply with the terms of the Plan, applicants for coverage under the Plan must avoid all direct and indirect impacts on no-take species. See Table 5-3 of the HCP/NCCP for a list of no-take species.

Out-of-kind/like-value. Establishing a similar, but not identical, vegetative community with some of the same ecological functions and values as the affected vegetative community over time.

Ordinary high water mark (OHWM). A line on the shore established by the fluctuations of water and indicated by physical characteristics, such as a clear, natural line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation; or the presence of litter and debris.

Perennial stream. A year-round stream that is supplied by both rainfall runoff and groundwater, as well as by substantial dry-season inputs.

Performance indicator. The environmental variables that are quantitatively measured over time to determine if enhanced/created/restored natural communities have successfully met Plan biological goals and objectives.

Performance objective. In monitoring, the optimal desired value for each performance indicator. Performance objectives establish a higher threshold for each indicator than that established for performance standards. Funding, design, and management objectives for enhanced/created/restored natural communities are established at levels that are designed to ensure that the performance objectives are achieved. Failure to meet a performance objective would not constitute a changed circumstance or require remedial measures.

Performance period. In monitoring, the time over which performance standards must be met.

Performance standard. In monitoring, a minimum requirement necessary to achieve biological goals and objectives. Failure to achieve a performance standard could constitute a changed circumstance and require that remedial measures be implemented.

Permittees. Those entities requesting a Section 10(a)(1)(B) incidental take permit from the USFWS and a take permit under the NCCPA from the CDFW for the species and activities covered in the accompanying HCP/NCCP.

Planning surveys. Surveys conducted by applicants for Plan coverage and used in the project-planning process to identify constraints and determine which Plan conservation measures are applicable. Planning surveys also include surveys conducted by the Implementing Entity on potential preserve lands to evaluate whether these lands will meet Plan requirements.

Population. A group of individuals of the same species inhabiting a given geographic area, among which mature individuals reproduce or are likely to reproduce. Ecological interactions and genetic exchange are more likely among individuals within a population than among individuals of separate populations of the same species.

Range. The geographic area a species is known to occupy or believed to occupy.

Practicable. Practicable means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purpose (45 FR 85344, December 24, 1980: U.S. Environmental Protection Agency, *40 CFR 230.3,* Definitions).

Preconstruction surveys. Surveys conducted by applicants for Plan coverage for certain biological resources immediately prior to construction to ensure that species and habitat avoidance and minimization measures can be effectively implemented during construction of covered projects or implementation of covered activities.

Preserves. Discrete areas of conserved habitats managed as single units under the Plan.

Preserve System. All Plan preserves considered collectively.

Protect habitat. To maintain the existing or enhanced extent of species habitat through acquisition, easements, or other practicable processes for bringing unprotected sites under protected status.

Recovery. The process by which the decline of an endangered or threatened species is arrested or reversed or threats to its survival neutralized so that its long-term survival in nature can be ensured. Recovery entails actions to achieve the conservation and survival of a species (U.S. Fish and Wildlife Service and National Marine Fisheries Service 1998), including actions to prevent any further erosion of a population's viability and genetic integrity, as well as actions to restore or establish environmental conditions that enable a species to persist (i.e., the long-term occurrence of a species through the full range of environmental variation).

Recovery Plan. A document published by the USFWS that lists the status of a listed species and the actions necessary to remove the species from the endangered species list.

Riparian habitat. Vegetation associated with rivers, streams, lake banks, and floodplains.

Ruderal. A species or plant community that occurs on a highly disturbed site.

Signature. Characteristic value, color, or texture on an aerial photograph that correlates to a particular land cover type.

Stream, perennial. A stream that flows throughout the year.

Stream, intermittent. A stream that flows only at certain times of the year, generally in response to precipitation runoff or groundwater input.

Stream, ephemeral. A stream that flows only briefly in direct response to precipitation in the immediate vicinity, and that does not receive groundwater input.

Succession. The change in the composition and structure of a biological community over time. Successional patterns often shift dramatically following a major disturbance (e.g., fire, flood, anthropogenic clearing of land).

Suitable habitat. Habitat that exhibits the characteristics necessary to support a given species.

Take. According to the federal Endangered Species Act (Section 3[18]), to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. According to the California Endangered Species Act (Section 86 of the California Fish and Game Code), *take* means to hunt, pursue, catch, capture, or kill.

Take Coverage. Is defined in the HCP/NCCP in terms of land cover types lost as a result of covered activities. See HCP/NCCP Chapter 3 of for definition of land cover types and Chapter 4 for an estimate of loss of these land cover types.

Umbrella species. A species whose range and habitat requirements are large and broad enough to encompass the range and habitat requirements of other species.

Unoccupied habitat. Habitat that exhibits all the constituent elements necessary for a species, but where surveys have determined that the species is not currently present. The lack of individuals or populations in the habitat is assumed to be the result of reduced numbers or distribution of the species such that some habitat areas are unused. It is expected that these areas would be used if species numbers or distribution were greater. See also definition of *suitable habitat*.

Urban-wildland interface. The narrow zone (<100 feet) between dense urban development and natural land cover in which structures can be built to minimize the damaging indirect effects on covered species or habitats of activities within urban areas.

Vegetation community. A natural or artificial terrestrial community defined by the dominant vegetation and the vegetation structure. This term is used synonymously with the regulatory term *natural community* under the Natural Community Conservation Planning Act of 2002.