Lower San Luis Obispo Creek
Stewardship Plan

Included Sections: Devincenzo

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The Land Conservancy of San Luis Obispo County
547 Marsh Street
San Luis Obispo, Ca
93406
Table of Contents

LIST OF TABLES ......................................................................................................................... 3
LIST OF FIGURES ....................................................................................................................... 4
EXECUTIVE SUMMARY .............................................................................................................. 5
INTRODUCTION .......................................................................................................................... 5
OVERVIEW MAP ........................................................................................................................ 9

LOWER SAN LUIS OBISPO CREEK FLOODPLAIN PRESERVE (DEVINCENZO) .. 10
PROPERTY SUMMARY ................................................................................................................. 10
RESTRICTIONS ............................................................................................................................. 12
  Additional Restrictions .............................................................................................................. 14
REGULATIONS .............................................................................................................................. 15
INFRASTRUCTURE .................................................................................................................... 17
CULTURAL ..................................................................................................................................... 17
GEOLOGY ..................................................................................................................................... 17
SOILS .......................................................................................................................................... 18
HYDROLOGY ................................................................................................................................ 20
HYDROGEOLOGY ....................................................................................................................... 20
WATER QUALITY .......................................................................................................................... 21
BIOLOGICAL RESOURCES ....................................................................................................... 22
  Key to Sensitive Species Chart ............................................................................................... 24

MANAGEMENT .......................................................................................................................... 25
PROPERTY MONITORING .............................................................................................................. 25
INVASIVE SPECIES ..................................................................................................................... 25
  Early Detection and Rapid Response ......................................................................................... 26
  Introduction Pathways ............................................................................................................... 27
FUNDING & RESPONSIBILITIES .................................................................................................. 28
ANNUAL STEWARDSHIP ............................................................................................................ 29
  Funding Sources ......................................................................................................................... 29
  Responsibilities .......................................................................................................................... 29
  Contingency Backup Plan ........................................................................................................ 29
  Condemnation .......................................................................................................................... 30
ACCESSIBILITY, OUTREACH, & EDUCATION ........................................................................ 30
SIGNAGE PLAN ........................................................................................................................... 30
MANAGEMENT GOALS AND OBJECTIVES ............................................................................ 31
PROPERTY MANAGEMENT ........................................................................................................ 41

APPENDIX .................................................................................................................................. 42
  A. BIBLIOGRAPHY ..................................................................................................................... 42
  B. INFRASTRUCTURE MAP ....................................................................................................... 43
  C. SOIL SURVEY ........................................................................................................................ 44
  D. FEE-TITLE MONITORING POLICY ..................................................................................... 52
  E. FEE-TITLE MONITORING FORM ......................................................................................... 54
  F. BIOLOGICAL PLANNING EQUATIONS FOR GRAZING ..................................................... 57
  G. PLANT/ANIMAL IDENTIFICATION SURVEY ..................................................................... 58
  H. CCAMP WATER QUALITY REPORT (SAN LUIS BAY DRIVE STATION) ......................... 59

The Land Conservancy of San Luis Obispo County
List of Tables

TABLE 1. DEVINCENZO DEED RESTRICTIONS ................................................................. 12
TABLE 2. DEVINCENZO TITLE RESTRICTIONS ............................................................ 13
TABLE 3. REGULATORY AGENCY CHART ................................................................. 16
TABLE 4. DEVINCENZO PARCEL SOIL SERIES ......................................................... 18
TABLE 5. DEVINCENZO WATER QUALITY ................................................................. 21
# List of Figures

**FIGURE 1. STEWARDSHIP PLANNING PROCESS** ............................................................. 8  
**FIGURE 2. LOWER SAN LUIS OBISPO CREEK OVERVIEW MAP** ...................................... 9  
**FIGURE 3. OVERVIEW MAP DE VINCENO** ................................................................. 11  
**FIGURE 4. THE PROCESS OF AN INVASIVE SPECIES INVADING AN ECOSYSTEM** ............. 27  
**FIGURE 5. DE VINCENZO STRESSORS** ..................................................................... 33
Executive Summary

Beginning in the early 1990’s, The Land Conservancy of San Luis Obispo County (hereafter referred to as “The Land Conservancy” or “LCSLO”) undertook an effort to protect (either through fee-title acquisition or conservation easement) properties identified as being critical to protecting the unique and sensitive species and natural habitats of Lower San Luis Obispo Creek Flood Plain.

As of 2006, The Land Conservancy holds three properties in fee-simple encumbering 40 acres of Lower San Luis Obispo Creek floodplain. In addition, there are properties held in fee, which include two natural communities of concern (freshwater wetland and marsh, and agricultural land).

Lower San Luis Obispo Creek Stewardship Plan (hereafter referred to as “Stewardship Plan”) is intended to serve as a guidance document to assist with identifying current and future stewardship and/or management concerns across the suite of properties held in fee by The Land Conservancy within the Lower San Luis Obispo Creek Flood Plain, an overview map of these properties can be found at figure 2. Although, the preserve is made up of three properties, this Stewardship Plan is focused on the DeVincenzo Section, due to the immediate management needs of the two natural communities of concern found there (freshwater wetland and marsh, and agricultural land).

The content of the Stewardship Plan was principally determined by The Land Conservancy’s Stewardship Policy (introduced below). The Stewardship Policy considers four principle categories: Conservation, Funding & Responsibility, Accessibility, and Outreach & Education. Management guidelines for each of these categories are presented for the DeVincenzo stewardship unit.

Finally, the Stewardship Plan is envisioned as a living document, to be amended over time as stewardship concerns are addressed and/or as new stewardship and management concerns arise. Therefore, it is the intention of The Land Conservancy to revisit and update the stewardship plan every five years.

Introduction

In 2009, The Land Conservancy adopted a stewardship policy to help guide the stewardship and management needs of its fee-title land holdings. Implementation of this policy is clearly articulated as belonging to individual stewardship plans for each fee-title property. Therefore the purpose of the Lower San Luis Obispo Creek Floodplain Preserve Stewardship Plan is to satisfy the requirements of The Land Conservancy’s stewardship policy by prioritizing both short and long term stewardship and management concerns as outlined by the stewardship policy for Land Conservancy owned Olde Town Nipomo Creekside Preserve.

The Land Conservancy’s Stewardship Policy reads as follows:
It is the policy of The Land Conservancy to have a program of responsible stewardship for the land it holds in fee for conservation purposes. This policy prioritizes healthy natural communities through the protection and/or enhancement of our core conservation values. At the same time, The Land Conservancy recognizes the intrinsic values which natural areas provide to people, and seeks to promote and facilitate access to these natural areas so long as access does not compromise core conservation values.

This policy will be implemented through individual stewardship plans for every fee title property. Individual stewardship plans will consider four principal categories: Conservation, Funding & Responsibility, Accessibility, and Outreach & Education. These categories are developed below.

**Conservation**
- Create an inventory of all core conservation values, including scenic, agricultural, biological, and cultural values, and establish appropriate protection and maintenance needs.
- Identify ecosystem services/functions.
- Identify stressors.
- Protect and enhance biodiversity.
- Recognize that change is an important part of ecosystem development.
- Protect and enhance natural connections.
- Protect and enhance soil and soil building processes.
- Protect and enhance water quality and quantity.
- Restore and enhance ecological health and function as appropriate.
- Maintain agriculture where appropriate, with focus on production of healthy food for local consumers.
- Maintain and enhance scenic viewsheds, corridors, and overall aesthetic quality.
- Protect cultural and historical resources in a respectful manner.
- Deal immediately and forthrightly with encroachment of any kind.

**Funding & Responsibility**
- Determine funding required for liability insurance, property taxes, maintenance, improvements, monitoring, and enforcements.
- Have a plan to secure and manage required funding.
- Maintain any nonpermanent land we own in fee, that we hold with the intention to sell or transfer the land, in a manner that retains the land trust’s public credibility. Performs administrative duties in a timely and responsible manner. This includes establishing policies and procedures, keeping essential records, filing forms, paying insurance, paying any taxes and/or securing appropriate tax exemptions, budgeting, and maintaining files.
- Have a contingency backup plan for all of our fee lands in the event the land trust ceases to exist or can no longer manage the property. To ensure that a
contingency holder will accept the land, we need to have complete and accurate files and stewardship funds available for transfer.

- Be aware of the potential for condemnation; understand our rights and obligations under condemnation, and work diligently to prevent a net loss in conservation values.

### Accessibility

- Become familiar with, and clearly identify boundaries and regularly monitor our fee ownership property at least every year.
- Where appropriate develop public access systems that prioritize protection of resources and minimize impacts based on the principles carrying capacity and compatible use.
- Consider posting of signs or place barriers to alert visitors to natural or man-made hazards on the property.

### Outreach & Education

- Encourage community support for the stewardship of our property.
- Encourage visitors to become stewards.
- Cultivate an ongoing relationship with governmental agencies whose actions might affect our property.
- Support the development of volunteer programs that create direct links between the community and our properties.
- Provide opportunities for interpretation and experiential learning pertaining to core conservation values.
Figure 1. Stewardship Planning Process. Stewardship plans can be modified at any time and should be thoroughly reviewed every 5 years.
Overview Map

Figure 2. Lower San Luis Obispo Creek Overview Map
Lower San Luis Obispo Creek Floodplain Preserve
(DeVincenzo)

PROPERTY SUMMARY

General Description
The 36 acre DeVincenzo section of the San Luis Obispo Floodplain Preserve is owned in fee title by The Land Conservancy and was acquired in 2006 when the other two sections of the property were bought. The Land Conservancy acquires funds to purchase properties, such as this one, through donations and government grants. This section of the preserve is located in the floodplain along highway 1/101 in San Luis Obispo County. The San Luis Obispo Creek runs directly through the property north to south, providing a riparian corridor rich in many plant and animal species, some of which are endangered. The Land Conservancy bought this property to protect the rich biological diversity related to the floodplain, as well as to preserve the land for agricultural activities. The DeVincenzo section of the preserve is used for irrigated row crop farming, apple orchards, nursery trees, and peach orchards.

Acres:
Figure 3. Overview Map DeVinceno
RESTRICTIONS
The Deed restrictions that resulted from the in fee-simple land acquisition are listed in Table 1 below. Deed restrictions prevent specific types of land use on the property. The title restrictions that result from easements are listed in Table 2. The deed and title restrictions stipulate the purpose of the easement, the prohibited uses, and the grantee’s (The Land Conservancy) rights to the land.

### Deed Restrictions

<table>
<thead>
<tr>
<th>Party/Parties</th>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Conservancy</td>
<td>1</td>
<td>No use of the property inconsistent with the San Luis Obispo Creek Enhancement Plan is permitted except by specific act of the legislature</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Without written permission of the Executive Director of the California Coastal Conservancy, the property or any portion of the property can not be used for mitigation. All funds generated from approved mitigation shall go to the California Coastal Conservancy until the Conservancy has been paid for all past, present, and future costs associated with the Real Property.</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>The real property shall not be used as security for debt without written approval of the Executive Director of the California Coastal Conservancy</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>The real property may not be transferred without written approval of the Executive Director of the California Coastal Conservancy</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>The Grantee must follow the “Use, Management Operation and Maintenance” section of the California Coastal Conservancy Grant Agreement No. 02-035. It may be amended from time to time.</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>If the grantee ceases to exist or if any of the above deed provisions are violated, all of the grantee’s right, title, and interest in the real property will be transferred to the California Coastal Commission if the property is accepted by the State Public Works Board and the Executive Director of the California Coastal Conservancy does not designate another public agency or non-profit organization to accept the right.</td>
</tr>
</tbody>
</table>

Table 1. DeVincenzo Deed Restrictions
## Title Restrictions

### Table 2. DeVincenzo Title restrictions

<table>
<thead>
<tr>
<th>Party/parties</th>
<th>Description</th>
<th>Location</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Public</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Easement for a public road over the portion of Parcel 1 included in Avila-San Luis Public Road.</td>
<td>Parcel 1</td>
<td></td>
</tr>
<tr>
<td><strong>Private</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>George Squires, et al.3.</td>
<td>easement for the right of way to on a strip of land 16 feet in width.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joseph A. Gravlich and Inace Q. Gravlich</td>
<td>easement for the right of way for the purpose of pumping water.</td>
<td></td>
<td>Book 445, Page 38 of Official Records</td>
</tr>
<tr>
<td>David W. Ralston and Patti M. Johnston</td>
<td>easement for Ingress, egress, and public utilities, together with the right to construct and maintain slopes and drainage facilities, as well the right to dedicate some over those portions lying adjacent to roads.</td>
<td></td>
<td>Book 3824, Page 224, of Official Records</td>
</tr>
<tr>
<td>David W. Ralston and Patti M. Johnston</td>
<td>an easement for well, well site, and appurtenances.</td>
<td></td>
<td>No. 1993-061392 of Official Records</td>
</tr>
<tr>
<td>Baron Canyon Ranch Homeowners Association and PG&amp;E document entitled “Memorandum of Agreement”.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Government</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>County of San Luis Obispo</td>
<td>easement for a public road.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State of California</td>
<td>waiver over any claim for damages to said land by the reason of location, construction, landscaping and maintence of the highway/freeway.</td>
<td></td>
<td>Book 475, Page 273 Official Records</td>
</tr>
<tr>
<td>State of California</td>
<td>easement for channel change.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>County of San Luis Obispo</td>
<td>covenant and agreement for Mitigations for lot line adjustment.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Utilities</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pacific Coast Railroad Company and Union Oil Company</td>
<td>unrecorded agreement with for use of west side of Highway 101.</td>
<td></td>
<td>Page 385 of Deeds</td>
</tr>
<tr>
<td>Union Oil Company of California</td>
<td>easement for ingress and egress to maintain pipe lines and pole lines.</td>
<td></td>
<td>Book 294, Page 268 of Official Records</td>
</tr>
<tr>
<td>Shell Oil Company</td>
<td>unrecorded oil and gas lease.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Union Oil Company of California</td>
<td>easement for pipeline right of way.</td>
<td></td>
<td>Grantor shall not construct or permit the construction of any building or other</td>
</tr>
<tr>
<td>Land Conservancy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Petroleum Company unrecorded lease.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>No right to ingress or egress to or from Highway 101</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Agreement for Abatement of Potential Nuisance to Tract 1637</strong></td>
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</tr>
</tbody>
</table>

It is the purpose of the Easement to insure that the DeVincenzo property (or “Property”) will be retained forever in its predominantly natural and open space condition and to prevent any use of the Property that will significantly impair or interfere with the conservation values of the Property. Grantor (CSLRCD) intends that this Easement will confine the use of the Property to such activities as are consistent with the purpose of the in fee-title land acquisition.

The prohibited uses include the following: any activity on, or use of, the Property inconsistent with the purpose of this Easement; subdivision of land; new buildings, structures, or improvements; incompatible land use and activities; coverage of land; alterations of the land surface; signs; removal of vegetation; placement, collection, or storage of trash; hunting; and fencing.

The grantee’s rights include the following: preserving and protecting the conservation values of the Property; entering the Property and monitoring Grantor’s compliance; engaging in any prudent action needed to prevent, abate, or mitigate the potential of significant injury to the Property resulting from natural disastrous events that are beyond the Grantor’s control; preventing any activity on or use of the Property that is inconsistent with the purpose of this Easement; and requiring the restoration of such areas or features of the Property that may be damaged by any inconsistent activity or use.

**Additional Restrictions**

The conservation easement over the DeVincenzo parcels (076-241-018, 076-241-020, 076-241-011) acts as a binding document to permanently protect the natural and open space values of the land forever, preventing the property from potential human development.
Additional restrictions to the properties at DeVincenzo Floodplain Preserve are identified below. The procedure for identifying additional services or utilities, existing on the properties, is to generate a grant deed or easement. Additional services and utilities may include power poles, power lines, pipelines, roads, building envelopes and other utilities that may involve monitoring or maintenance, as well as access to the property sites. It is recorded that no additional restrictions are documented for the DeVincenzo parcels (076-241-018, 076-241-020, 076-241-011) on the Lower San Luis Obispo Creek Floodplain Preserve regulations.

**REGULATIONS**

Prior to undertaking any of the management recommendations listed herein, The Land Conservancy will consult with all applicable agencies to ensure compliance with all local, state, and federal laws and regulations which include those listed in Table 3.
Table 3. Regulatory Agency Chart

<table>
<thead>
<tr>
<th>Federal Agencies</th>
<th>Acronym</th>
<th>P</th>
<th>C</th>
<th>J</th>
<th>E</th>
<th>U</th>
<th>Notes</th>
</tr>
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<tbody>
<tr>
<td>U.S. Fish and Wildlife Service</td>
<td>USFWS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Health and safety regulations</td>
</tr>
<tr>
<td>National Oceanic and Atmospheric Administration</td>
<td>NOAA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Federal agency</td>
</tr>
<tr>
<td>Administration of Native Americans</td>
<td>ANA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No jurisdiction in Black Lake Canyon (wetland present), due to non-navigable waters</td>
</tr>
<tr>
<td>Army Corps of Engineers</td>
<td>USACE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Future regulations (i.e. Climate Change, Emissions)</td>
</tr>
<tr>
<td>Environmental Protection Agency</td>
<td>EPA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Pacific Flyway</td>
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<tr>
<td>Migratory Bird Conservation Commission</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Involved with Conservation Easement</td>
</tr>
<tr>
<td>USDA Natural Resource Conservation Service</td>
<td>NRCS</td>
<td></td>
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<th>E</th>
<th>U</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Air Resources Board</td>
<td>CARB</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>Consulted through County</td>
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<tr>
<td>Department of Forestry and Fire Protection</td>
<td>CalFire</td>
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<td>Future regulations (i.e. Climate Change, Emissions)</td>
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<td>Cal/EPA</td>
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<td>State agency involved on nearby property</td>
</tr>
<tr>
<td>California Coastal Commission</td>
<td>CCC</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>Department of Fish and Game</td>
<td>DFG</td>
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<td>Part of Department of Fish and Game</td>
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<td>Fish and Game Commission</td>
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<td></td>
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<td></td>
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<tr>
<td>Native American Heritage Commission</td>
<td>CNAHC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>An over-arching governing state body</td>
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<tr>
<td>California Natural Resources Agency</td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Department of Transportation</td>
<td>DOT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>State agency involved on nearby property</td>
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<tr>
<td>State Water Resources Control Board</td>
<td>SWRCB</td>
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<td>SWPPP - NPDES</td>
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<td>Regional Water Quality Control Board</td>
<td>RWCQB</td>
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<thead>
<tr>
<th>Local Agencies</th>
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<th>C</th>
<th>J</th>
<th>E</th>
<th>U</th>
<th>Notes</th>
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<tr>
<td>San Luis Obispo County</td>
<td></td>
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<tr>
<td>City of AG</td>
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</tr>
<tr>
<td>Nipomo CSD</td>
<td></td>
<td></td>
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<tr>
<td>County Ag Commissioner</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Registers herbicide applicator, herbicide use projects</td>
</tr>
<tr>
<td>Sheriff's Department</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Safety</td>
</tr>
</tbody>
</table>

**Key to Chart**
- Permitting Required: P
- Consultation Required: C
- Jurisdiction: J
- Emergency Service: E
- Umbrella Organization: U
INFRASTRUCTURE

Figure 3. Overview map details the location and type of existing infrastructure occurring at the Preserve. The field crew gathered this information during an onsite overview of the property. The Land Conservancy maintains a number of access points to the Preserve. There are two accesses to Devincenzo property both are located off of Monte road. The southern entrance allows access to the property by bridge over the creek with no gate, while the north entrance is blocked by a steel gate. Additionally access can be made to the property through the southern neighbors property, but this is not an official entrance. There are two deer fencing gates blocking route when using this access. Access to any of these gates is granted to the San Luis Obispo County Land Conservancy, the property leaser, PG&E, and emergency services. The Preserve is currently served by PG&E electric utilities. The meter can be found at the well on Devincenzo east. There are four wells on the Devincenzo property; one on the north section and two on the east section. The north-east well on Devincenzo east services the house on the hill across Monte road. The property is entirely fenced off from both highway one and Monte road, but there is not a fence between the Devincenzo section and the southern neighbors. There is tree nursery located on the property that is entirely fenced in to protect it from natural grazers.

CULTURAL

The Land Conservancy consulted the Central Coast Information Center, California Archeological Inventory, located at University of California, Santa Barbara, Department of Anthropology, for the current surveys of environmentally sensitive areas in the DeVincenzo portion of the Lower San Luis Obispo Creek Floodplain Preserve. The surveys were tracked on USGS topography 7.5 minute quad maps, in the Pismo Beach section. The surveys included findings of archeological sites, historic sites, and cultural resources potentially found on the properties. Two previous cultural resource surveys conducted on portions of the property have yielded one archeological site. Due to the confidential nature of this information, The Land Conservancy retains all maps and information detailing the cultural resources found at these sites.

GEOLOGY

San Luis Obispo County lies within the southern Coast Range Geomorphic Province. This province lies between the Central Valley of California and the Pacific Ocean and extends from Oregon to northern Santa Barbara County. The Coast Range province is structurally complex. It is comprised of sub-parallel northwest-southeast trending faults, folds, and mountain ranges. Rock types in the San Luis Obispo area are mainly comprised of volcanic, metavolcanics, and melanges of serpentinite and graywacke sandstone. These rocks are highly fractured and are part of the Mesozoic aged Franciscan Formation. Intrusive and extrusive volcanic deposits of Tertiary age and marine sedimentary deposits of the Miocene aged Monterey Formation are also found in the area (SLO County General Plan and Ordinances 2013).
SOILS

Custom soil reports for the Lower SLO Creek - DeVincenzo parcels have been created using the Natural Resources Conservation Service (NRCS) online soils database. These reports can be found in Appendix B. The Lower SLO Creek – DeVincenzo is composed of the soil series listed in Table 3 and mapped in Figure A, Appendix B.

Table 4. DeVincenzo parcel soil series
DeVincenzo-San Luis Obispo County, California, Coastal Part

<table>
<thead>
<tr>
<th>Soil Series</th>
<th>Drainage</th>
<th>Erodibility</th>
<th>Shrink Swell</th>
<th>Area (Acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marimel sandy clay loam, occasionally flooded</td>
<td>Poor</td>
<td>Moderate</td>
<td>High</td>
<td>39.6</td>
</tr>
<tr>
<td>Still gravelly sandy clay loam 2-9% slopes</td>
<td>Well</td>
<td>Low</td>
<td>Low</td>
<td>38.6</td>
</tr>
<tr>
<td>Lopez very shaly clay loam 30-75% slopes</td>
<td>Excessively</td>
<td>High</td>
<td>High</td>
<td>14.4</td>
</tr>
<tr>
<td>Riverwash</td>
<td>Excessively</td>
<td>Low</td>
<td>Low</td>
<td>1.4</td>
</tr>
<tr>
<td><strong>Total Area:</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>94</strong></td>
</tr>
</tbody>
</table>

Marimel Sandy Clay Loam

The Marimel series consists of deep, somewhat poorly drained soils that formed in alluvium weathered from sedimentary rock. Marimel soils are found on flood plains, alluvial fans and in valleys and have slopes of 0 to 9 percent. The mean annual precipitation is about 18 inches, and the mean annual air temperature is about 58 degrees F. The soil between depths of 6 and 17 inches is usually moist from some time in November to some time in May and usually dry the rest of the year. Mean annual soil temperature is about 61 degrees to 64 degrees F. Organic carbon is more than 0.6 percent at a depth of more than 20 inches and is more than 0.3 percent at a depth of 50 inches. Clay content in the 10 to 40 inch control section averages 18 to 35 percent. Intermittent ground water occurs at depths of 24 to 60 inches. It ranges from neutral through moderately alkaline. The lower part of this horizon is calcareous with lime both disseminated and segregated in threads (United States Department of Agriculture Natural Resources Conservation Service 2008).

Horizon A, sub-horizon A11—0 to 16 inches; grayish brown (2.5Y 5/2) sandy clay loam, very dark grayish brown (2.5Y 3/2) moist; moderate medium granular structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine roots; many very fine tubular pores; slightly alkaline (pH 7.5); clear smooth boundary. (10 to 20 inches thick)

Horizon A, sub-horizon A12ca—ca being an accumulation of Calcium and Magnesium carbonates. 16 to 35 inches; grayish brown (2.5Y 5/2) clay loam, very dark grayish brown (2.5Y 3/2) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; common very fine roots; many very fine tubular pores; few thin clay films lining pores; slightly alkaline (pH 7.5); slightly effervescent with lime disseminated and segregated in filaments; clear smooth boundary. (10 to 20 inches thick)

Horizon Cgca—g being molting and gleying due to water saturation and ca being an accumulation of Calcium and Magnesium carbonates. 35 to 60 inches; g being variegated gray (5Y 5/1) and pale olive (5Y 6/3) silty clay loam, very dark gray (5Y 3/1) moist; few
fine prominent light yellowish brown (10YR 6/4) and strong brown (7.5YR 5/6) mottles, fine distinct dark yellowish brown (10YR 4/4, 3/4) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; common very fine roots; many very fine tubular pores; few thin clay films lining pores; slightly alkaline (pH 7.5); strongly effervescent with lime disseminated and segregated in filaments; free water at depth of 36 inches.

*Recommended Use:* Where these soils have been drained, they are used for crops, barley and orchards. Where not drained they are used mainly for wildlife habitat. Vegetation is annual grasses, forbs, and water tolerant plants. The soil is class 3w, determined by the Natural Resource Conservation Services, land capability, prime farmland if irrigated and drained.

**Still gravelly sandy clay loam, 2-9% slopes**
This very deep, well drained, gently sloping and moderately sloping soil is an alluvial plains and marine terraces. It formed in alluvium weathered from sedimentary rocks. Areas are long and narrow and range from 5 to 250 acres. The natural vegetation is mainly annual grasses and forbs with scattered hardwoods. Elevation ranges from 10 to 1,000 feet. The average annual precipitation ranges from 16-22 inches, and the average annual air temperature is about 58 degrees F. The average frost-free season ranges from 275 to 365 days, depending on location. Typically, the surface layer is very dark grayish brown gravelly sandy clay loam about 23 inches thick. His is underlain by grayish brown gravelly loam to a depth of 60 inches or more. Some areas of this soil contain higher amounts of gravel. Permeability of this still soil is moderately slow, and the available water capacity is moderate or high, about 7.6 inches, Surface run off is slow or medium and the hazard of water erosion is slight, the effective rooting depth is 80 inches or more (United States Department of Agriculture Natural Resources Conservation Service 2008).

*Recommended Use:* This soil’s land capability is 2e, Prime farmland if irrigated and 3e non-irrigated. Most areas of this soil are used for hay or vegetable crops. Oats is the most common grown gay crop, and is usually dry farmed. Vegetable crops commonly grown include lettuce, cabbage, and cauliflower. The soil has few limitations for row crops if properly leveled. Soils maintained with minimum management practices, such as crop rotation or cover crops, fertilization, crop residue use, and proper tillage will maintain soil tilth and fertility, preventing erosion. This soil is also suited for rangeland.

**Lopez very shaly clay loam 30-75% slopes**
This shallow, somewhat excessively drained, steep and very steep soil is on mountains. It was formed in residual material weathered from hard shale. Areas are irregular in shape and range from 10 to 3,500 acres. The natural vegetation is mainly brush, annual grasses and forbs, and scattered hardwoods. Elevation ranges from 300-3,000 feet. The average annual precipitation ranges from 16-20 inches, and the average annual air temperature is about 58 degrees F. The average frost-free season ranges from 210 to 300 days, depending on the location. Typically, the surface layer is gray very shaly clay loam about 18 inches thick. His is underlain by hard shale. Some small areas have a very shaly loam surface layer. Permeability of this lopex soil is moderate, and the available water capacity is very low. Surface runoff is rapid or very rapid, and the hazard of water erosion is high.
or very high. The effective rooting depth ranges from 6-20 inches. Because of the very shaly clay loam surface layer and steep slopes, the soil is subject to sheet erosion, which increases the concentration of shale fragments on the soil surface. This soil is a 7e land capacity, not prime farmland (United States Department of Agriculture Natural Resources Conservation Service 2008).

**Recommended Uses:** For best control of erosion this soil should have cover on it year around. To control fire fuels in remote areas livestock grazing is encouraged.

**Riverwash**
This soil map unit is mainly found in active stream and river channels that consist of excessively drained, water-deposited sand, loamy sand, and sandy loam that have varying amounts of gravel and cobbles. The solid material is highly stratified; mostly features are too variable to characterize. Areas are subject to flooding during and immediately after every storm, with subsequent scouring and deposition. These areas are essentially barren but include areas that have scattered clumps of sage pr water-tolerant plants. The soil land capability is 8w, not prime farmland. Riverwash generally is exclusively drained, but it ranges to somewhat poorly drained in low-lying areas. Permeability is very rapid. Surface runoff is very slow. The hazard of erosions tends to be variable. The available water capacity is very low. Due to the variability of riverwash onsite investigation is necessary to determine appropriate management strategies to limit erosion (United States Department of Agriculture Natural Resources Conservation Service 2008).

**Recommended Use:** Areas of Riverwash are used mainly for recreation or as wildlife habitat.

**HYDROLOGY**

**Hydrogeology**
The San Luis Obispo Creek Watershed drains an 83.6 square mile area including the City of San Luis Obispo and its surrounding hills, mountains, and valleys. The watershed generally drains through San Luis Obispo creek from south to southwest until it meets the Pacific Ocean at Avila Beach. San Luis Obispo Creek starts at the Santa Lucia Mountains north of San Luis Obispo at an elevation of 2,200 above mean sea level. The creek flows south through the City of San Luis Obispo adjacent to Highway 101 until it reaches the southern extent of the Irish Hills where it veers west to the ocean (City of San Luis Obispo Community Development 2013).

According to the Safety Element of the General Plan, average seasonal precipitation in the City of San Luis Obispo is 21.68 inches and average seasonal precipitation throughout the county varies from 8.52 inches to 25.59 inches.

Flooding within the San Luis Obispo Creek system is generally caused by intense Pacific storm systems that occur during the months of December, January, February, and March. The great topographic variability of the watershed causes these systems to drop large amounts of precipitation, especially along the higher ridgelines. The Irish Hills, cresting at about 500 m (1650 ft) in elevation, can experience twice the rainfall observed in the
lower portions of the watershed. San Luis Obispo Creek can respond very quickly to short high intensity rainfall bursts. Floods in San Luis Obispo Creek tend to be of high magnitude and relatively short duration (City of San Luis Obispo Community Development 2013).

WATER QUALITY
San Luis Obispo Creek flows through the city of San Luis Obispo, California for fifteen miles, starting at the Santa Lucia Mountains and ending at Avila Beach where the creek empties into the Pacific Ocean. Land along the creek is both privately and publicly owned and a two-mile stretch is under a conservation easement held by the Land Conservancy of San Luis Obispo County (LCSLO).

Due to nutrient levels, the Central Coast Regional Water Quality Control Board (RWQCB) has listed the nine-mile stretch below the Marsh Street Bridge as an impaired water body (Stark et al. 2002). Surrounding land uses such as agriculture, grazing, municipal point sources, and urban runoff are identified as contributing to the discharge of harmful pollutants and sediments into the creek. Increased land use within the floodplain surrounding San Luis Obispo Creek, such as farming and recreational development continues to negatively impact the quality of the water body and biological community that occupies the area. As a result, San Luis Obispo Creek has been placed on the United States Environmental Protection Agency’s (EPA) 303(d) list for violation of multiple water quality objective,s including pathogens and nutrient pollution for which Total Maximum Daily Load’s (TMDL) have been developed (Stark et al. 2002). In addition, according to the RWQCB the water quality impairments have compromised beneficial uses such as Cold Freshwater Habitat and Contact Recreation.

Ecological concerns, resulting from water quality degradation, include increased stress on aquatic plants and endangered species. Furthermore, the owners of the lands that surround the lower portion of the creek as well as recreational users of the public paths that run along the creek have a vested interest in how the creek is and will be managed in the future. Below are the current slightly impacted to severely impacted water quality categories and their range provided by the Central Coast Ambient Monitoring Program (CCAMP) lead by the Central Coast Regional Water Quality Board between 2001 and 2012. The original report can be found in Appendix C.

<table>
<thead>
<tr>
<th>Category</th>
<th>Units</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorophyll a, water column</td>
<td>ug/l</td>
<td>0</td>
<td>31.09</td>
<td>2.816</td>
</tr>
<tr>
<td>Coliform, ecoli</td>
<td>MPN/100 ml</td>
<td>10</td>
<td>100,000</td>
<td>1,522</td>
</tr>
<tr>
<td>Coliform, fecali</td>
<td>MPN/100 ml</td>
<td>17</td>
<td>50,000</td>
<td>1,217</td>
</tr>
<tr>
<td>Coliform, total</td>
<td>MPN/100 ml</td>
<td>500</td>
<td>240,000</td>
<td>11,515</td>
</tr>
<tr>
<td>Dissolved Solids, Total</td>
<td>mg/l</td>
<td>320</td>
<td>1,100</td>
<td>688</td>
</tr>
<tr>
<td>Nitrate, Nitrite as N</td>
<td>mg/l</td>
<td>1.27</td>
<td>22.032</td>
<td>12.077</td>
</tr>
<tr>
<td>OrthoPhosphate as P</td>
<td>mg/l</td>
<td>0.29</td>
<td>3.4</td>
<td>1.925</td>
</tr>
<tr>
<td>Oxygen, Saturation</td>
<td>%</td>
<td>37.6</td>
<td>147.8</td>
<td>79.58</td>
</tr>
<tr>
<td>Riparian Corridor Shading</td>
<td>%</td>
<td>1</td>
<td>100</td>
<td>25.7</td>
</tr>
<tr>
<td>Sodium</td>
<td>mg/l</td>
<td>20</td>
<td>260</td>
<td>86.93</td>
</tr>
</tbody>
</table>
BIOLOGICAL RESOURCES

Lower San Luis Obispo creek floodplain has long been a significant corridor for many species of plants, animals, and fish, while also offering private landowners financial opportunities, a water supply for agriculture, and ground water recharge.

Plant Communities

The DeVincenzo section of the preserve was surveyed between 2006 when the property was purchased and again in 2013. This survey effort identified and described three broadly defined plant communities: 1) riparian corridor, 2) irrigated orchards, and 3) irrigated crops. The survey was conducted by the Land Conservancy’s in field botanist and biologist.

Riparian Corridor

California Sycamores (*Platanus racemosa*) are the tallest trees in this community providing the over story of the riparian corridor. The sycamore is native to California and Baja California, found in floodplains, riparian areas, seeps, springs, creeks/rivers, and canyons where there is available water supply. These trees can grow up to 115 feet tall with large palm like leaves, providing a large amount of protection and shade.

Arroyo Willows (*Salix lasiolepis*) are found growing along the creek edge shading the creek habitat. Arroyo Willows prefer to grow in swamps, pond shores, and canyons, mainly found in California due to the high moisture content required for these trees and shrubs to grow. They are native to North America. The Arroyo Willows in the riparian area tend to grow as shrubs or small trees growing 30 feet or less. They create a thick bushy layer from the understory up.

Coyote Brush (*Baccharis pilularis*) is found in many places long the edge of the riparian corridor of the creek. Coyote brush is most often found in canyons and coastal locations with an elevation ranging from 0-2000 feet, most often it grows in coastal shrub communities and chaparral. In this location the Coyote brush is smaller that 9.5 feet and generally grows intermixed with the understory of the Arroyo Willows and California Sycamores.

California Blackberry (*Rubus ursinus*) can be found in the under story of the riparian area. This particular cultivar is native to North Western America. It is a wide spreading vine with prickly branches, white flowers, and when fruiting it has purple edible fruit. The other berry bush found here is the Himalayan Blackberry (*Rubus discolor*) this berry is a non-native listed on the Invasive Plants of California Wildland website. It also is common to areas with a watercourse, has white flowers, and purple fruit. The Himalayan Blackberry has larger rounder leaves, than the California Blackberry, and it grows in large bushing mounds.
Cape Ivy (*Delairea odorata*) is a common invasive/non-native species found growing up the taller vegetation such as the trees and shrubs, as well as on the ground. It is a listed Invasive Plant of California Wildland. On the ground the Cape Ivy often grows up to 30 inches deep blocking out all light for other competing plants. Cape Ivy is a shiny, branching, and perennial vine often removed by management.

Arundo (*Arundo donax*) is another invasive/non-native found in the creek in this area. It is a giant perennial grass 9-30 feet tall, growing in cane like clumps. The giant reed grows a plume like flower head at the top of the stem and the stem is mostly hollow. It is found all over central and southern California in elevations under 1,000 feet. Arundo grows directly in the watercourse and causes many drainage problems. Arundo has been partially removed from this stretch of the creek and is controlled by management.

**Irrigated Crops**
About one third of this property is used for irrigated crops. Almost any vegetable crop can be grown here including but not limited to; Zucchini, corn, tomatoes, winter squash, pumpkins, beans, and lettuce. Soil test and seasons would determine the best fitted crop for this section of the preserve. Other crops such as Sunflowers could also grow here.

**Irrigated Orchard**
This parcel is very special in that it is the only one of the three parcels used for irrigated orchards. The orchards consist of peaches, apples, and nursery trees.

Crabgrass (*Digitaria*) is a perennial grass often found in between the trees in the orchard. Crabgrass grows long intertwined roots creating a mat cover on the soil. In the orchard it creates cover for the road and erosion. It is commonly a problematic plant for farming this section due to its long branching roots that cause a mat difficult for vegetables to grow through. Crabgrass also makes it difficult to work the soil, because it’s balling up characteristic when ripped out and it grows back very quickly.

**Fauna.**
San Luis Obispo Creek is one of the most southern habitats for the southern steelhead trout, a federally listed threatened species. Other species of concern that live in the habitat provided in Lower San Luis Obispo Creek floodplain and riparian corridor also include the western pond turtle, the California red-legged frog and the two-striped garter snake. The estuarine waters near Avila Beach are also home to the tidewater goby, a federally listed endangered fish species.

Numerous mammals and bird species frequent the riparian areas in this floodplain. Notable species include Willow Flycatcher recognized as a nesting bird of state concern, Rufus Hummingbird, and Lawrence’s Goldfinch birds of federal conservation concern. In more costal parts of the floodplain Western Snowy Plovers a federally threatened can be found nesting, as well as California least terns a federal and state endangered species. There are many other birds that frequent the area not of concern including blue herons, red-shouldered hawks, coopers, and kingfishers. Mammals found along the creeks...
include opossum, gray squirrel, ground squirrel, pocket gophers, raccoon, pacific blacktail deer, and coyotes. There has been some sitings of the American Badger a mammal species of concern. Amphibians of concern such as the federally and state threatened California red-legged frog and tiger salamander live in this area. Other amphibians that frequent the area not of concern are two-striped garter snake, southwest pond turtle, silvery legless lizard, and the coast horned lizard.

**Sensitive Species**

Table 5 below provides a review of rare and endangered taxa previously detected or having the potential to occur on the property. All surveys efforts detailed above made an effort to determine occupancy by these taxa. Sensitive species detected on the property are listed in bold.

<table>
<thead>
<tr>
<th>Species Name</th>
<th>Common Name</th>
<th>Federal</th>
<th>State</th>
<th>CNPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agrostis hooveri*</td>
<td>Hoover's Bent Grass</td>
<td>None</td>
<td>None</td>
<td>1B.2</td>
</tr>
<tr>
<td>Arctostaphylos wellsii*</td>
<td>Well's Manzanita</td>
<td>None</td>
<td>None</td>
<td>1B.1</td>
</tr>
<tr>
<td>Layia jonsii</td>
<td>Jone's Layia</td>
<td>None</td>
<td>None</td>
<td>1B.1</td>
</tr>
</tbody>
</table>

**Table 5. Lower SLO Creek Floodplain Preserve Sensitive Species**

<table>
<thead>
<tr>
<th>Species Name</th>
<th>Common Name</th>
<th>Federal</th>
<th>State</th>
<th>CDFG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rana aurora draytonii*</td>
<td>Red-Legged Frog</td>
<td>Threatened</td>
<td>None</td>
<td>Species of Special Concern</td>
</tr>
<tr>
<td>Emys marmorata pallida</td>
<td>Southwest Pond Turtle</td>
<td>None</td>
<td>None</td>
<td>Species of Special Concern</td>
</tr>
<tr>
<td>Thamnophis hammondii</td>
<td>Two-striped Garter Snake</td>
<td>None</td>
<td>None</td>
<td>Species of Special Concern</td>
</tr>
<tr>
<td>Eucyclogobius newberryi</td>
<td>Tidewater Goby</td>
<td>Endangered</td>
<td>None</td>
<td>Species of Special Concern</td>
</tr>
<tr>
<td>Oncorhynchus mykiss irideus</td>
<td>Steelhead - south/central California coast DPS</td>
<td>Threatened</td>
<td>None</td>
<td>Species of Special Concern</td>
</tr>
<tr>
<td>Empidonax traillii</td>
<td>Willow Flycatcher</td>
<td>None</td>
<td>Endangered (Nesting)</td>
<td>None</td>
</tr>
</tbody>
</table>

**Key to Sensitive Species Chart**

**California Native Plant Society (CNPS)**

List 1B = Rare, threatened, or endangered in California and elsewhere.
List 2 = Rare, threatened, or endangered in California but more common elsewhere.
List 3 = Plants that about which more information is needed.
List 4 = A watch list plants of limited distribution.

**Threat Code**

.1 = Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 = Fairly endangered in California (20-80% occurrences threatened)
.3 = Not very endangered in California (<20 of occurrences threatened or no current threats known)

**Species or Community Level**
G1 = Less than 6 viable element occurrences (EOs) OR less than 1,000 individuals OR less than 2,000 acres.
G2 = 6-20 EOs OR 1,000-3,000 individuals OR 2,000-10,000 acres.
G3 = 21-80 EOs OR 3,000-10,000 individuals OR 10,000-50,000 acres.
G4 = Apparently secure; this rank is clearly lower than G3 but factors exist to cause some concern; i.e., there is some threat, or somewhat narrow habitat.
G5 = Population or stand demonstrably secure to ineradicable due to being commonly found in the world.

**State Ranking**
The state rank (S-rank) is assigned much the same way as the global rank, except state ranks in California often also contain a threat designation attached to the S-rank.

S1 = Less than 6 EOs OR less than 1,000 individuals OR less than 2,000 acres
   S1.1 = very threatened
   S1.2 = threatened
   S1.3 = no current threats known

S2 = 6-20 EOs OR 1,000-3,000 individuals OR 2,000-10,000 acres
   S2.1 = very threatened
   S2.2 = threatened
   S2.3 = no current threats known

S3 = 21-80 EOs or 3,000-10,000 individuals OR 10,000-50,000 acres
   S3.1 = very threatened
   S3.2 = threatened
   S3.3 = no current threats known

S4 = Apparently secure within California; this rank is clearly lower than S3 but factors exist to cause some concern; i.e. there is some threat, or somewhat narrow habitat. NO THREAT RANK.

S5 = Demonstrably secure to ineradicable in California. NO THREAT RANK.

**MANAGEMENT**

**PROPERTY MONITORING**
The Land Conservancy maintains a formally adopted Fee-Simple Monitoring Policy (Appendix D). All site stewards should review and understand this policy and attendant procedure. Although all site visits should be treated as a monitoring event, the policy requires Conservancy staff to conduct monitoring at a minimum, on an annual basis. This annual inspection is documented with a fee-simple monitoring form (Appendix E).

**INVASIVE SPECIES**
Virtually all native habitats in California are invaded to some degree by exotic plant species. While unfortunate, not all weedy species carry the same impact/threat to the ecosystems they occupy. A weed can be defined as simply a plant found in an undesired location. Weeds of the West (1996), elaborates on this and offers the following working definition: “A plant that interferes with management objectives for a given area of land at a give point in time.” Therefore, both native and non-native species can and do meet the description of weeds as defined above. For the purposes of stewardship, The Land Conservationists...
Conservancy considers the stated management objectives of a property prior to initiating management actions for weedy species. Invasive species are defined by the United States Department of Agriculture (2012) in the following way:

An "invasive species" is defined\(^1\) as a species that is:

1) non-native (or alien) to the ecosystem under consideration and

2) whose introduction causes or is likely to cause economic or environmental harm or harm to human health.

Several things distinguish invasive species from a weed species. Where a weed species might be either native or non-native, an invasive species is always an introduced non-native species. Further, a species may be a weed in one place and not in another as determined by a project or properties given management objectives, invasive species if left unchecked can expand rapidly and quickly degrade ecosystems and the services these ecosystems provide to wildlife and human health. Therefore, The Land Conservancy endeavors to control all invasive species determined to occur on our properties (Appendix G).

As might be expected, plant species have varying degrees of invasiveness and as such those highly invasive species are given treatment priority over a less invasive species. The Land Conservancy relies on the invasive species ranking system established by the California Invasive Plant Council (Cal-IPC). All ranked invasive species determined to be present on the Preserve will have their Cal-IPC ranking identified in the inventory (Appendix G). Species with the highest Cal-IPC rated will be given the greatest weight with respect to treatment priority.

**Early Detection and Rapid Response**

The narrative above contemplates the identification, classification, and prioritization of preexisting invasive and weedy species. While managing these species is important to maintaining ecosystem balance and function, treatment of established pest species is laborious and costly. Looking at the phases of invasion below, there is a lag phase where the invader has introduced and is established but has not yet entered the exponential growth phase (Fig. 3). Detecting invasive species in this lag phase is critical to management and greatly reduces labor and monetary inputs. The process of identifying and managing invasive species within the lag phase is known as early detection and rapid response (EDRR). To stress the need and benefits of EDRR, higher priority is given to incipient population of invasive botanical species irrespective of Cal-IPC ranking. Frequent biological surveys should be conducted to identify any new or potential invaders.

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\(^1\) Executive Order 13112
Introduction Pathways

As discussed above, the early detection and rapid response to incipient populations of invasive species is of paramount importance. Frequent surveys of the property should be conducted to identify these newly established populations. While the property should be surveyed to the greatest extent possible, extra consideration should be given to the following traditional pathways of introduction:

- Lands adjacent to roadways
- Unpaved roads
- Trails and/or paths
- Areas which are frequently disturbed
- Staging/stockpiling areas
- Areas adjacent to agricultural fields
- Upland areas adjacent to riparian/riverine systems

In addition to these introduction pathways, The Land Conservancy maintains formal decontamination and prevention protocols\(^2\) which address introduction vectors and is considered a supporting document to the Preserve’s Stewardship Plan. Introduction vectors contemplated within this protocol include:

- Seed and/or vegetative material introduced by contaminated work clothes and/or materials (truck tires, shovels, etc.).
- Seed and/or vegetative material introduced in contaminated materials such as container stock, mulch, straw/hay, and gravel.

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\(^2\) S:\Active files\LAND\LandArchive\LC_owned\General Stewardship\PreventionBMPs_LandManager
FUNDING & RESPONSIBILITIES

The Land Conservancy intends to hold the Lower San Luis Obispo Creek Floodplain Preserve properties in our suite of properties in the region for the long term. Funds must be allocated for liability insurance, property taxes, monitoring and enforcement. As good stewards, The Land Conservancy is dedicated to diligently ensure conservation values are not degraded through either inaction or wrong action. Since the biggest stressors at the Floodplain Preserve are water table decline, erosion and trespass, some funding must be allocated to prevention of these each year. Additional funds are recommended (but discretionary) for species research, less pressing erosion control, and public outreach and trail construction.

The following table includes estimated annual stewardship costs for the property. The basic annual stewardship costs include property taxes, property insurance, and expenses associated with monitoring the site once per year. The elective annual stewardship costs are for maintenance and management that LCSLO intends to perform each year provided funding exists to support those actions. These activities include, but are not limited to: visiting sites on a monthly or weekly basis; fence maintenance; re-grading roads to maintain vehicular access; developing planning documents for restoration projects; weed control; waste removal; well maintenance; maintaining trails; and implementing erosion control.

The estimated costs were derived from records in LCSLO’s QuickBooks accounting system. Reports were generated that quantified the amount of time spent and expenses incurred specifically for the property over the course of five years. Five years of data was analyzed since it provided a robust data set for a length of time wherein the LCSLO’s systems for reporting expenses remained relatively constant. It also fits well with LCSLO’s intent to review this budget every five years. Where data was missing or seemed inadequate, staff estimated the time and expenses that would be required using reasonable assumptions and data for other properties owned in fee by LCSLO. Costs associated with staff time were based on using LCSLO’s stewardship rates per hours worked, which are updated every five years in response to increases in the cost of doing business and inflation. LCSLO’s stewardship rates are calculated by adding all costs to support each employee for an hour’s work, including direct costs such as employee compensation and indirect costs such as a prorated share of administrative expenses. LCSLO also has other rate schedules for projects where grants have specific requirements, or LCSLO is allowed to charge more to provide revenue for other programs. The stewardship rates are the most appropriate for estimating the fiscal impact of stewarding property.
ANNUAL STEWARDSHIP

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<th>Basic Annual Stewardship Costs</th>
<th>Quantity</th>
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<th>Unit Cost</th>
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Funding Sources
Stewardship funds will be acquired from the seller/grantor, upon The Land Conservancy’s acquisition of the property. If funding cannot be acquired at this time, a funding plan will be developed to identify the means of acquiring the necessary funds to steward the property for the anticipation duration of holding the land, sometimes being in perpetuity. Funds will be deposited into the Healthy Lands Forever Stewardship Endowment, where stewardship funds will be drawn annually from the interest accrued.

Basic annual stewardship costs will be funded by revenue from the Healthy Lands Forever Account, which is a Board-designated quasi-endowment managed by Natural Investments, invested by Charles Schwab, and governed by the LCSLO Board-adopted Investment Policy Statement (approved in August 2012). The general fund, lease income (if applicable), and grant funding will be used to implement the elective annual stewardship activities.

Responsibilities
The Land Conservancy will perform all administrative duties in a timely manner, including tax and insurance payments, processing of monitoring records, and updating policies and procedures as needed.

Contingency Backup Plan
In the event that The Land Conservancy ceases to exist or can no longer manage the preserve, The Land Conservancy will transfer ownership, all records, and available stewardship funds to an appropriate agency or group.
Condemnation

The Land Conservancy’s Stewardship Policy and Procedures have been established to protect the conservation values on the Preserve. The Land Conservancy staff, including the Director of Conservation Science, visits the site once, minimally, each year to inspect and record current conditions. Additionally, the Stewardship Plan is reviewed every five years, and updated based on any changing conditions. The Land Conservancy works diligently to prevent a net loss in conservation values at the Preserve.

ACCESSABILITY, OUTREACH, & EDUCATION

The Land Conservancy’s stewardship policy prioritizes healthy natural communities through the protection and/or enhancement of our core conservation values [scenic, agricultural, biological, and cultural]. At the same time, LCSLO recognizes the intrinsic values which natural areas provide to people, and seeks to promote and facilitate access to these natural areas so long as access does not compromise core conservation values.

Potential conflicts including those with sensitive biological or cultural resources should be identified by overlaying trails and access points (infrastructure) with conservation values and those trails or access points in conflict will be either closed and restored, or re-routed to avoid the impact. Trails and access points not in direct (e.g. aligned over a population of rare plants) or indirect (e.g. trail or access poorly designed and promotes erosion which would threaten conservation values) conflict with conservation values will be evaluated for user experience and safety then formally adopted as trails as appropriate.

As with all stewardship issues, the issue of accessibility is not static and must be continually managed and evaluated to minimize conflict and negative impact while maximizing enjoyment by recreational users.

The stewardship Policy prioritizes the following outreach and education goals:

• Encourage community support for the stewardship of our properties.
• Encourage visitors to become stewards.
• Support the development of volunteer programs that create direct links between the community and our properties.
• Provide opportunities for interpretation and experiential learning pertaining to core conservation values.

LCSLO achieves the stated outreach and education goals principally via passive means such as information signs, leaflets, and other print materials. In addition to passive outreach materials, LCSLO ultimately intends to create a volunteer docent program to address outreach and education at those fee-title properties that do not have consistent public access.

SIGNAGE PLAN

It is the intention of LCSLO to provide, at a minimum, signage at the primary access point(s) and/or clearly visible locales for every property we hold in fee. While the content on these signs may differ from site to site, all signs should clearly provide the following information:
• Property name (e.g. Kathleen’s Canyon Overlook)
• The Land Conservancy logo and contact information
• Partners/funders which helped make the acquisition possible
• Use restrictions (e.g. no firearms)
• Hours of operation

MANAGEMENT GOALS AND OBJECTIVES
Goals are statements of purpose that serve as a long-term structural or philosophical guide to property management. For the DeVincenzo property (Parcel Numbers: 076-241-018, 076-241-020, 076-241-011), the goals clearly defined in the properties conservation easement are:

The purpose of the conservation easement and fee and title ownership of the DeVincenzo property is to protect properties identified as being critical to protecting the unique and sensitive species and natural habitats of Lower San Luis Obispo Creek Flood Plain, which include two natural communities of concern (freshwater wetland and marsh, and agricultural land). This property will be retained for both agriculture and riparian corridor habitat and managed in a way that will prevent any use of the property that will significantly impair or interfere with the conservation values of the property. Grantor intends that this Easement will confine the use of the property to such activities as are consistent with the purpose of fee and title ownership.

This section contains an overview, list of primary stressors on this property, general stewardship background knowledge, and a table of specific goals, objectives and action items.

Historical Land Conservancy Stewardship Actions
The property contains a unique interface between many agricultural opportunities and the diverse dynamics of the San Luis Obispo Creek riparian corridor. Animals and plants such as the federally endangered spawning steelhead and red-legged frogs frequent the creek habitat. These biological factors are the most important value to The Land Conservancy, of the other values; preservation of agriculture is another important aspect of this property and plays a large role in this document. In the past The Land Conservancy has encountered various recurring issues at the floodplain preserve outlined below.

Overview of Stewardship Policy Categories
The stewardship of the Floodplain Preserve is primarily focused on a conservation priority of preserving and maintaining the wetland; i.e. protecting the biological aspect of the land. With this in mind, we address stressors and detailed goals and objectives for each of the four categories of stewardship policy. The most important elements of the four categories of stewardship policy Lower San Luis Obispo Creek Floodplain Preserve are:

Key Conservation Values:

• Biological resources are critical.
• Protect and enhance biodiversity, water quality and quantity, and soils.
• Maintain agriculture where appropriate, with focus on production of healthy food for local consumers.

Funding & Responsibility
• Intend to keep property under LCSLO ownership.
• Outline required and recommended actions
• Develop timeline and budget

Accessibility
• Annual Monitoring
• Maintain and improve roads and gates with minimal impact to biological resources.
• Continue weed control affecting existing infrastructure.

Outreach & Education
• Establish/continue neighborhood stewardship.
• Continue agency relationships.
• Maintain educative property signage.

Primary Biological Value and Primary Stressors
San Luis Obispo Creek Floodplain Preserve is located on 2 miles of the San Luis Obispo perennial creek consisting of freshwater wetland and marsh. Over the years Arundo Donax and Cape Ivy, both invasive/non-natives have greatly spread through the riparian habitat displacing native species. Recent efforts were put forth to remove the Arundo Donax completely from the length of the creek, but still poses a threat that if not continually managed will continue to spread. Some Cape Ivy has also been removed, the efforts are still on going and should be treated as a priority stressor.

The Land Conservancy, to preserve the prime conservation values on the site, has made it a priority to retain and restore the freshwater wetland and marsh. The value of preserving these freshwater marsh areas is immense, considering their rarity throughout the West. Due to development many freshwater marsh environments no longer exist. The freshwater marsh community is listed by the California Department of Fish and Game as a "Rare Plant Community" (State of California 1992). The riparian habitat here supports a population of the threatened California red-legged frog, federally endangered steelhead salmon, and many sensitive plant species.

Due to the majority of this property being in agricultural use, imposing non-native and/or invasive weeds are a stressor due to their ability to limit productivity and beneficial species. Agriculture itself is a stressor in regards to increased rates of erosion due to tilling, bare-ground, and activities disturbing soil. Part of the agricultural use is orchard farming such as apples and peaches, which are stressed by poor management of their complex needs. The orchards are an important resource for The Land Conservancy and agricultural conservation.

An additional stressor to this section of the floodplain is illegal dumping, squatting and trespass. While declining in recent years, the issue still is a high priority to resolve.
Graphically, the four main stressors and potential actions include:

- **Erosion of Soils**
  - Evaluation of property for erosion and possible erosion
  - Cover roads and bare soil for protection
  - Assessment of current practices and projects such as irrigation

- **Water Quality**
  - Re-assess Best Management Practices (BMP) to avoid fertilizer run off
  - Increase filtering vegetation in the riparian corridor

- **Weed Control**
  - Soil cultivation and cover crops to reduce bare soil and increase competition
  - Mowing, grazing, and herbicides
  - In creek physical pruning and shredding of invasives/non-natives

- **Trespassing**
  - Maintain or construct necessary signs, fencing, and gates.
  - Field checks for signs of trespass and to hold presence on property
  - Establish relationship with neighbors to help keep watch

**Figure 5. DeVincenzo Stressors**

To fulfill its duty as good land stewards, the Land Conservancy must focus attention on immediately addressing the stressors identified in the figure 5 above, and it is vital to establish funding and plans to minimize these threats to the parcel riparian area and agricultural lands.

**Stewardship Background Knowledge**

Before addressing specific actions, there are some overarching stewardship priorities at San Luis Obispo Creek Floodplain Preserve to note regarding cultural resources, soil erosion, hydrology, water quality, biological resources, and sensitive species.

**Cultural Resources**

Any stewardship activity planned should consult an appropriate cultural resource for current surveys of environmentally sensitive areas from the Central Coast Information Center, California Archeological Inventory, located at University of California, Santa Barbara, Department of Anthropology.
Soil Erosion
Erosion is one of the major stressor concerns to conservation values at San Luis Obispo Floodplain Preserve, due to the characteristics of a floodplain. It is extremely important that all management actions and projects include adequate measures to minimize soil disturbance, reduce impervious surfaces, promote soil cover and build soil structure (including native vegetation and organic matter), and convey runoff in a safe and non-erosive manner. All projects and management actions on the property shall be designed and implemented using the best available practices and technology to reduce the potential for concentrating runoff and causing erosion.

Hydrology
Any stewardship action must use rainfall intensity data to predict impacts of projects that may increase runoff into the creek. This data must also be used to design structures that must convey flow. All projects expected to increase impervious surfaces must be carefully designed and shall retain and infiltrate runoff onsite wherever possible. When complete percolation is not practicable, runoff must be conveyed in a non-erosive manner to the creek body. These actions will reduce the risk of damaging the sensitive fresh water wetlands and bogs in the floodplain and will increase groundwater recharge. Particular types of irrigation can cause erosion, so it is important to take this into consideration when designing an irrigation system for future restoration activities on the property. Any roads constructed during future restoration activities should eventually be decommissioned when the project is complete by scarifying the soil and re-vegetating the road surface.

Hydrogeology
Implement restoration projects that include elements that assist with groundwater recharge. Runoff should be slowed and allowed to infiltrate, this can be achieved by vegetation selection and decrease of imperious layers and bare soil.

Water Quality
Based on the water quality measured at the San Luis Bay road bridge the water entering San Luis Obispo Creek Preserve is listed as an impaired water body by the Regional Water Quality Control Board and is 303(d) listed by the EPA. Without an entire watershed enhancement plan there will not be any large changes to the water quality entering The Land Conservancy’s two-mile stretch of the creek. But any practices or actions on this parcel of the Preserve will be done in a way that will reduce the risk of damaging the sensitive fresh water wetlands and bogs in the floodplain. This means Best Management Practices (BMP) will be used by The Land Conservancy and by agricultural leasers.

Algal blooms, chemical-type smells, strange coloring, murkiness, and oily sheens are indicators that pollutants have entered a waterway and/or that the chemical/nutrient ratios in the water body are off balance. The wetlands have a lot of natural biochemical activity, thus it is important to be able to discern between natural peat bog processes and man-made pollutants.
Road runoff is the primary source of pollutants as concentrated flow delivers nutrients, chemicals, and sediments directly to sensitive waterways. Runoff from suburban areas, orchards, and irrigated crops can carry excessive nutrients from fertilizers, and toxic chemicals from pesticides and petroleum-based products.

Vegetated buffers, swales, and specialized filtration systems on project sites and between roadways and the wetlands can help improve water quality should samples reveal unacceptable levels of nutrients and chemicals.

**Biological Resources—Sensitive Species**

Protocol level surveys should be conducted prior to any major restoration activity. Restoration activities should be timed to occur outside of breeding bird season March-June. Restoration activities should be timed to occur outside of California red-legged frog breeding season November-March and Steelhead Salmon spawning season January-April.

The remainder of this section discusses specific goals, objectives and actions for each stewardship category. (LT= Longterm action. These actions will happen now and proceed into the future or be planned for the future. ST = Short-term action. These actions are short lived and have an end point. They are for early on and may only require some monitoring.

**Conservation Values (Biological)**

Of the four conservation values, biological, scenic, agricultural and cultural, the primary focus at San Luis Obispo Creek Preserve is to preserve and protect the biological aspects of the unique fresh water wetland and marsh. For the DeVincenzo property (Parcel Numbers: 076-241-018, 076-241-020, 076-241-011), these goals are clearly defined in the property’s reason for fee and title ownership.

In order to conserve these properties several objectives concerning management of property infrastructure, cultural resources, soils, hydrology, and biology are developed and described below to protect and enhance the natural connectivity of this property, the soil and soil building processes, and the water quality and quantity on the site. We also will restore and enhance the ecological system present on the property (freshwater marsh) through the following actions.

**Goal: Improve water quality within the riparian corridors fresh water marsh and species**

Objective: Determine the baseline delineation for property

Action: Survey property for sources of pollution and erosion such as roads, drainage areas, pipeline leaks, corroding equipment. There are two pipes on the property pose a threat. It is important to know the property’s possible sources of the pollution in order to make educated decisions in management.

*Time Frame: Short Term*
Action: Survey for special plants and animals living on the property that should be protected and may be affected by poor water quality. The property is in Land Conservancy ownership because of the special habitat found here, it is very important that it is properly cared for.

*Time Frame: Short Term*

Objective: Use Best Management Practices (BMP) for irrigation and land cultivation on property

Action: Review best methods to achieve desired conditions. The BMPs should be properly researched by the parcel leaser/Land Conservancy and used with good judgment of a qualified professional farmer. There are many options when it comes to farming, which is why a clearly stated desired future conditions and values should be used to make these decisions.

*Time Frame: Short Term*

Action: Change styles of irrigation and cultivation if it is not consistent with BMPs. Irrigation can be a large contributor to poor water quality, because it can cause erosion, nutrient leaching, and water contamination. The most effective and least soil erosive irrigation is drip tape the second best is micro-sprinklers. These options help to target root zones with fertilizers reducing leaching as well as reducing erosion by not using high volumes of water. It is not suggested to use sprinklers or furrow irrigation due to the high volume of water and lack of efficiency. Cultivation methods to help increase water quality would be; choosing crops that do not require high concentrations of fertilizers; are grown early enough to leave time for bare soil to re-cover before the rainy season; do not require extensive tilling and movement of soil.

*Time Frame: Short Term-Long Term*

Objective: Keep soil cover on roads and fields

Action: Identify areas with bare soil, erosion, or signs of future erosion. These areas might be on a high slope, high erosion soils, roads, crop fields, or well traveled areas. Bare soil creates slightly impervious surfaces that allows for high water velocities that carry soil, vegetation, and contaminates into the creek.

*Time Frame: Long Term*

Action: Plant bare soil with crops in the growing season, and cover crops in the winter. Roads that are not often used can be planted with perennial grasses, while roads that are frequented too often for grass should be laid with gravel. The grass will reduce impervious surfaces and the gravel will reduce the impact of rain caused erosion.

*Time Frame: Short Term*

Objective: Increase filtrating vegetation as buffer to fresh water marsh

Action: Pick and clear sites along the creek bank that have the proper characteristics to support the chosen vegetation. For most of the desired vegetation the site will need plenty of water and is best suited on the very edge of the creek. When taking action on projects such as these sensitive time periods for red-legged frog, birds, and steelhead salmon should be consulted. Bird season March-June, California red-legged frog breeding season November-March and Steelhead Salmon spawning season January-April.

*Time Frame: Short Term*
Action: Re-vegetate banks with the filtrating plants. This is best done plenty of time before the rainy season December-March, in order to give the plants time to stabilize enough to handle the volume of rain experienced in the winter months.  
*Time Frame: Short Term*

**Goal: Control non-native/invasive weeds in riparian corridor**

Objective: Continue removal all non-natives/invasive in riparian zone such as Arundo Donax and Cape Ivy.

Action: Identify location of the targeted plant species and determine the best season to remove vegetation, this could be best season for projects in the creek or best time in life cycle of the plant.  
*Time Frame: Short Term*

Action: Continue removing the target plant species from the riparian zone. Physical means of removal and shredding of the product is the most effective means of doing this. There has already been almost complete removal of the Arundo Donax and there has been partial removal of the Cape Ivy throughout the river. The removal was through a combined effort of the Conservancy and the California Conservation Corps (CCC).  
*Time Frame: Short Term*

Action: Using herbicides and paints, control the reproductive cycle until the plants are completely removed. By painting the Arundo Donax stumps after they are cut down the growth cycle can be hauled, if the stumps are not painted the new growth can be sprayed with herbicide later. After removal the Cape Ivy new growth is best controlled with herbicide.  
*Time Frame: Long Term*

**Goal: Increase riparian corridor size**

Objective: Make land that is not cultivated into riparian corridor

Action: Locate areas with trees or plants that are valuable to the habitat. Specifically on this Property there is a large Sycamore and surrounded by weeds. This are cannot be utilized and is a source for invasive species.  
*Time Frame: Short Term*

Action: Fence the area into the riparian zone so that it is accessible to animals and protected.  
*Time Frame: Short Term*

Action: Remove the invasive weeds and plant native riparian plants. These plants should be specifically picked for the environment it is being placed. There is plenty of water, medium sunlight, and moderate temperature.  
*Time Frame: Short Term*

**Conservation Values (Scenic)**

The floodplain preserve is quite vegetated but is visible from the sides of boundary roads. The scenic values to be protected are mainly related to signage.

**Goal: Maintain scenic beauty and preserve existing scenic viewsheds**

Objective: Consider impacts to viewsheds from potential stewardship actions
Action: No Specific actions currently required. As projects are implemented, check for scenic impacts, particularly with any proposed signage, trail building, or major erosion control structures.

Time Frame: Long Term

Conservation Values (Cultural)

There are no known cultural sites in the wetland preserve.

Goal: Preserve any known cultural Values at the site

Objective: Consult appropriate cultural resource for current surveys of environmentally sensitive areas before proposed projects.

Action: No Specific actions currently required. When projects are implemented, check for potential cultural impacts; allow for additional cultural surveys in previously un-surveyed locales.

Time Frame: Long Term

Conservation Values (Agricultural)

This section of the Preserve functions as agricultural resource, holding orchards as well as irrigated row crops. These areas make up the majority of the acreage of this section of the property and are one of the main reasons the Conservancy purchased the Preserve. The goals in this section focus on maintaining agricultural activities in the area with the best possible management.

Goal: Control vegetation on irrigated agricultural land

Objective: Periodically control and reduce volume of vegetation

Action: Cultivate the irrigated land. The land here can grow row crops such as vegetables and flowers or it can be used as an irrigated pasture for forage such as alfalfa, orchard grass, timothy, and other grasses. Currently it is used for growing row crops.

Time frame: Long Term

Action: harvest, weed, mow, graze, and/or burn the area. These options can also be used in combination of each other. Burning should be avoided, because of the danger/liability it poses, nutrient lost, and the bare soil left behind. Mowing and grazing are the best options. Mowing can be done evenly and periodically, but is not an efficient use of forage. The property could be grazed; if grazed animals should be on a grazing schedule taking into account pasture size, animal units, and forage available. This would require fencing to move animals periodically to reduce over grazing of plants, bare soil, soil impaction, and to allow for pasture rest. Grazing is the best option for vegetation control in a irrigated pasture. The biological planning equation to determine the paddock capacity can be found in Appendix F. The planning used for this action is based on the Holistic Management concepts portrayed in Carol Akarius book Small-Scale Livestock Farming.

Time Frame: Long Term

Objective: Plant desirable plants in areas that are not cultivated
Action: Remove the undesirable weeds. This can be done with mowing, herbicide, hand weeded, or short term grazing. If grazed goats would be the best because of their non-selective characteristic, depending on the amount of goats they should be concentrated and moved often.

Time Frame: Short Term
Action: Introduce desirable plants that are competitive, but not invasive. This will reduce the amount of weeds growing in the un-cultivated areas. This is the best alternative to others because it provides a long-term solution that keeps cover on the ground. This is an opportunity to choose plants that provide habitat for beneficial bugs, birds, mammals, or sensitive species. Watering needs for the plants should be determined. Plants that are perennial and so not require irrigation are best.

Time Frame: Short Term

Goal: Enhance orchard heath and longevity
Objective: Get components for the orchards in order
Action: Place a knowledgeable person in charge of leasing and caring for orchards. The orchards need to be watered, pruned, thinned, fertilized, and sprayed seasonally to stay in good health. Without these things a orchard will slowly stress and fail. There are particular signs of stressed trees, depending on the orchard, which should be looked for during the year. Some broad signs would be; yellowing and curling of the leaves and scarring of the branches and trunk. Overtime you might also see a decrease in tree productivity.

Time Frame: Short Term - Long Term
Action: Change styles of irrigation consistent with BMPs. The most effective and least soil erosive irrigation is drip tape the second best is micro-sprinklers. These options help to target root zones with fertilizers reducing leaching as well as reducing erosion by not using high volumes of water. It is not suggested to use sprinklers or furrow irrigation due to the high volume of water, lack of efficiency, and erosion around base of trees exposing roots.

Time Frame: Short Term
Objective: Maintain area surrounding the orchard
Action: Keep ground around trees weeded and cleared of debris. This is important because of disease that can derive from left over prunings, materials carried by the flood, and discarded weeds. Mass debris around the base and in the branches of the trees also attracts rodents that can girdle or damage the tree.

Time Frame: Long Term
Action: Mow in between orchard rows. This reduces competition for water and sunlight. The ground should still grow a maintained cover crop.

Time Frame: Long Term
Action: Keep cover on roads. Roads pose a risk of becoming bare soil, which does two things; one it causes dust, which carries damaging mites onto the trees; and two it reduces water infiltration for the trees. The best cover is some kind of durable grass, but if the road cannot be alternated with another road the grass will not survive. For more frequented roads they should be graveled.

Time Frame: Short Term
Action: Clear the orchard before and after a flood. The flood carries in trash and carries left over trash or vegetation off this property down stream. This trash gets stuck in the trees and causes damage.

*Time Frame: Short Term*

**Accessibility**

The preserve relies on fencing, gates, and roads that are accessible to The Land Conservancy when necessary, but prevent trespassing. The goals in this section focus on maintaining and/or enhancing what is already in place and constructing what is not already there.

**Goal: Manage access for The Land Conservancy, while restricting trespassers**

**Objective: Maintain and enhance fencing**

Action: Repair current fencing and gates. Get the fencing already in place into working condition that is effective. Currently the fencing is patchy in places and does not stop access. All gates on this section are in working order.

*Time Frame: Long Term*

Action: Construct fencing in places that are accessible from public roads. There are some areas where there is no fencing and pose a threat to the accessibility for trespassers. Some of these areas have had noted trespassing in the past.

*Time Frame: Short Term*

**Objective: Establish Signage relaying Land Conservancy boundaries**

Action: Create and install signs where appropriate to discourage dumping, squatting, and trespassing on the property. Some areas that would be best are access gates and long stretches of fencing along public roads. These signs would only have to be replaced in the long term.

*Time Frame: Short Term*

**Objective: Maintain safe environment and emergency access**

Action: Maintain emergency access such as gates and locks onto property, vegetation kept clear from road, and removal of any debris.

*Time Frame: Long Term*

Action: Certified arborist to survey for diseased, damaged, or otherwise hazardous trees along access roadways. Any trees that pose a threat to safety should be flagged and trimmed or removed, if feasible.

*Time Frame: Short Term*

Action: Conduct routine site visits to discourage dumping of trash and illegal trespass or squatting. When trash is found onsite request San Luis Obispo County Public Works to remove it. Squatters should be removed from the property by the San Luis Obispo County Sheriffs Department for safety.

*Time Frame: Long Term*

**Outreach and Education**

The Floodplain Preserve stewardship unit is primary managed to protect the freshwater marsh and then agriculture. There are no public uses at this time do to the properties use for farming. Goals are primarily focused on current educational signage and relationships with neighbors.
Goal: Maintain current interface with public
Objectives: Provide educational signage for each property
   Action: Have field staff periodically check quality of the signs. The signs currently
   provided at each property are in good condition, very viewable locations, and are
   sufficient in providing information/education on the property, until they need to be
   replaced no further action is needed.
   Time Frame: Long Term

Objective: Maintain and improve relationship with surrounding landowners
   Action: Consult neighbors before actions are taken on property that may affect
   them. This would avoid any negative relationships resulting in proposition to The
   Land Conservancy and its actions.
   Time Frame: Long Term
   Action: Communicate when there is any neighborhood trespassing, dumping, or
   vandalism. This would create a kind of neighborhood watch and security.
   Time Frame: Long Term

Property Management
The Land Conservancy maintains a formally adopted Fee-Simple Monitoring Policy
(Appendix D). All site stewards should review and understand this policy and attendant
procedure. This policy requires Conservancy staff to conduct monitoring at a minimum,
on an annual basis. All site visits should be treated as a monitoring event and should be
documented with a fee-simple monitoring form (Appendix E).
APPENDIX

A. Bibliography


B. Infrastructure Map

Overview Map: Lower San Luis Obispo Creek Floodplain Preserve (DeVincenzo)
C. Soil Survey

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.
Custom Soil Resource Report

Map Unit Legend (DeVincenzo)

<table>
<thead>
<tr>
<th>Map Unit Symbol</th>
<th>Map Unit Name</th>
<th>Acres in AOI</th>
<th>Percent of AOI</th>
</tr>
</thead>
<tbody>
<tr>
<td>156</td>
<td>Lopez very shaly clay loam, 30 to 75 percent slopes</td>
<td>14.4</td>
<td>15.4%</td>
</tr>
<tr>
<td>169</td>
<td>Marinel sandy clay loam, occasionally flooded</td>
<td>39.6</td>
<td>42.1%</td>
</tr>
<tr>
<td>194</td>
<td>Riverwash</td>
<td>1.4</td>
<td>1.4%</td>
</tr>
<tr>
<td>210</td>
<td>Still gravelly sandy clay loam, 2 to 9 percent slopes</td>
<td>38.6</td>
<td>41.1%</td>
</tr>
<tr>
<td><strong>Totals for Area of Interest</strong></td>
<td></td>
<td><strong>93.3</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

Map Unit Descriptions (DeVincenzo)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If
Custom Soil Resource Report

intensive use of small areas is planned, however, onsite investigation is needed to
define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each
description includes general facts about the unit and gives important soil properties
and qualities.

Soils that have profiles that are almost alike make up a soil series. Except for
differences in texture of the surface layer, all the soils of a series have major horizons
that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity,
degree of erosion, and other characteristics that affect their use. On the basis of such
differences, a soil series is divided into soil phases. Most of the areas shown on the
detailed soil maps are phases of soil series. The name of a soil phase commonly
indicates a feature that affects use or management. For example, Alpha silty loam, 0
to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas.
These map units are complexes, associations, or undifferentiated groups.

A complex consists of two or more soils or miscellaneous areas in such an intricate
pattern or in such small areas that they cannot be shown separately on the maps. The
pattern and proportion of the soils or miscellaneous areas are somewhat similar in all
areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An association is made up of two or more geographically associated soils or
miscellaneous areas that are shown as one unit on the maps. Because of present or
anticipated uses of the map units in the survey area, it was not considered practical
or necessary to map the soils or miscellaneous areas separately. The pattern and
relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-
Beta association, 0 to 2 percent slopes, is an example.

An undifferentiated group is made up of two or more soils or miscellaneous areas that
could be mapped individually but are mapped as one unit because similar
interpretations can be made for use and management. The pattern and proportion of
the soils or miscellaneous areas in a mapped area are not uniform. An area can be
made up of only one of the major soils or miscellaneous areas, or it can be made up
of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include miscellaneous areas. Such areas have little or no soil material
and support little or no vegetation. Rock outcrop is an example.
169—Marimel sandy clay loam, occasionally flooded

Map Unit Setting
Elevation: 0 to 400 feet
Mean annual precipitation: 15 to 20 inches
Mean annual air temperature: 55 to 59 degrees F
Frost-free period: 300 to 365 days

Map Unit Composition
Marimel and similar soils: 85 percent
Minor components: 11 percent

Description of Marimel

Setting
Landform: Valleys, flood plains, alluvial fans
Landform position (two-dimensional): Toe slope, foote slope
Landform position (three-dimensional): Trend
Down-slope shape: Concave, linear
Across-slope shape: Linear
Parent material: Alluvium derived from sedimentary rock

Properties and qualities
Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 24 to 60 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Available water capacity: High (about 10.2 inches)

Interpretive groups
Farmland classification: Prime farmland if irrigated and drained
Land capability classification (irrigated): 3w
Land capability (nonirrigated): 3w
Hydrologic Soil Group: D
Ecological site: FINE LOAMY FLAT (R014XD037CA)

Typical profile
0 to 18 inches: Sandy clay loam
16 to 60 inches: Stratified loam to clay loam to silty clay loam

Minor Components
Camarillo sandy loam
Percent of map unit: 3 percent
Custom Soil Resource Report

San Luis Obispo County, California, Coastal Part

156—Lopez very shaly clay loam, 30 to 75 percent slopes

Map Unit Setting
Elevation: 300 to 3,000 feet
Mean annual precipitation: 16 to 20 inches
Mean annual air temperature: 57 degrees F
Frost-free period: 210 to 300 days

Map Unit Composition
Lopez and similar soils: 85 percent
Minor components: 9 percent

Description of Lopez

Setting
Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Residuum weathered from acid shale

Properties and qualities
Slope: 30 to 75 percent
Depth to restrictive feature: 6 to 20 inches to lithic bedrock
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Very low (about 1.6 inches)

Interpretive groups
Farmland classification: Not prime farmland
Land capability classification (irrigated): 7e
Land capability (nonirrigated): 7e
Hydrologic Soil Group: D
Ecological site: SHALLOW GRAVELLY FINE LOAMY (R015XD145CA)

Typical profile
0 to 18 inches: Very channery clay loam
18 to 22 inches: Unweathered bedrock

Minor Components
Los osos loam
Percent of map unit: 3 percent

Rock outcrop
Percent of map unit: 3 percent

Santa lucia very shaly clay loam
Percent of map unit: 3 percent
Landform: Alluvial flats
  Landform position (two-dimensional): Toeslope
  Landform position (three-dimensional): Tread
  Down-slope shape: Linear
  Across-slope shape: Linear

Buried marimel
  Percent of map unit: 3 percent

Tujunga, frequently flooded
  Percent of map unit: 3 percent
  Landform: Flood plains
  Landform position (two-dimensional): Toeslope
  Landform position (three-dimensional): Tread
  Down-slope shape: Linear
  Across-slope shape: Linear

Unnamed
  Percent of map unit: 2 percent
  Landform: Depressions

194—Riverwash

Map Unit Composition
  Riverwash: 90 percent
  Minor components: 6 percent

Description of Riverwash

Setting
  Landform: Channels
  Landform position (three-dimensional): Dip
  Down-slope shape: Linear
  Across-slope shape: Concave

Properties and qualities
  Slope: 0 to 2 percent
  Drainage class: Excessively drained
  Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
  Depth to water table: About 0 to 24 inches
  Frequency of flooding: Frequent
  Available water capacity: Very low (about 2.9 inches)

Interpretive groups
  Farmland classification: Not prime farmland
  Land capability classification (irrigated): 8w
  Land capability (nonirrigated): 8w
  Hydrologic Soil Group: D

Typical profile
  0 to 6 inches: Sand
Custom Soil Resource Report

6 to 60 inches: Stratified coarse sand to sandy loam

Minor Components
Fluvents, occasionally flooded
  Percent of map unit: 3 percent
Corralitos
  Percent of map unit: 3 percent

210—Still gravely sandy clay loam, 2 to 9 percent slopes

Map Unit Setting
  Elevation: 10 to 1,000 feet
  Mean annual precipitation: 16 to 22 inches
  Mean annual air temperature: 57 degrees F
  Frost-free period: 275 to 365 days

Map Unit Composition
  Still and similar soils: 85 percent
  Minor components: 12 percent

Description of Still
Setting
  Landform: Alluvial flats, terraces
  Landform position (two-dimensional): Toeslope
  Landform position (three-dimensional): Tread
  Down-slope shape: Linear
  Across-slope shape: Linear
  Parent material: Alluvium derived from sedimentary rock

Properties and qualities
  Slope: 2 to 9 percent
  Depth to restrictive feature: More than 80 inches
  Drainage class: Well drained
  Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
  Depth to water table: More than 80 inches
  Frequency of flooding: None
  Frequency of ponding: None
  Maximum salinity: Non saline (0.0 to 2.0 mmhos/cm)
  Available water capacity: Moderate (about 7.6 inches)

Interpretive groups
  Farmland classification: Prime farmland if irrigated
  Land capability classification (irrigated): 2e
  Land capability (nonirrigated): 3e
  Hydrologic Soil Group: B
  Ecological site: GRAVELLY FINE LOAMY (R014XD104CA)

Typical profile
  0 to 23 inches: Gravelly sandy clay loam
D. Fee-title Monitoring Policy

THE LAND CONSERVANCY OF SAN LUIS OBISPO COUNTY
FEE PROPERTY MONITORING POLICY

Adopted by the Board of Trustees on: _____________ Date of last review (if applicable):
This Policy will include the purpose, frequency, qualifications of the monitor, method, documentation and recordkeeping.

Purpose
It is the policy of The Land Conservancy of San Luis Obispo County (LCSLO) to visually inspect (monitor) each Land Conservancy-owned property (fee property) at least once each year (more frequently if circumstances warrant) to ensure that conservation values are protected, to identify changes in property conditions, to inform management actions, to maintain working relationships with surrounding landowners, and to maintain legal records.

Frequency of Monitoring
At a minimum, LCSLO monitors all fee properties once each calendar year and maintains an annually updated monitoring schedule for all LCSLO properties to assure that every property will be monitored. The frequency of monitoring may be increased by the Executive Director or Conservation Director given, but not limited to, the following:
- Following a natural catastrophe
- A history of vandalism, dumping, or encroachment along property boundaries

Qualifications of the Monitor
LCSLO staff member(s) and/or volunteers with training in monitoring and the appropriate field experience will conduct the fee property monitoring. LCSLO has determined that using trained and experienced staff to monitor its properties provides valuable continuity, better interpretation of stewardship management goals, and better long term organizational accountability. LCSLO recognizes that it shall use at least one staff member to monitor its properties, except in extraordinary circumstances.

Method of Monitoring
All LCSLO fee properties will be monitored according to a regularly updated Land Trust Property Monitoring Procedure to assure that all fee properties are inspected in a similar manner. The Land Trust Property Monitoring Procedure provides instructions to create a Monitoring Report that provides evidence (see Documentation below) to substantiate the monitor’s observations for each monitoring visit. The Monitoring Report is designed to provide an assessment of the property, its condition and the uses and practices on the property according to the conservation values established in the Stewardship Plan for the property. The Monitoring Report will also provide thorough documentation of any damage to conservation values along with follow-up procedures and an action item list. The entire property will be viewed on each visit unless noted by the monitor. (It is not necessary to physically go to every place on the property if access is prohibitively difficult, although overview photo points of every portion of the conservation property should be established.) Ground monitoring is the normal inspection mode of travel (using a vehicle or by foot). Aerial Monitoring (by airplane) will be scheduled if it is determined the property is not adequately accessible based on the size and/or terrain of the...
property. A follow-up of ground monitoring will be scheduled if there are specific areas of concern following the aerial monitoring. If any conservation values are compromised, as observed during the inspection, the LCSLO shall take action to correct those measures in a timely manner.

**Documentation**

The Monitoring Report will be completed for each monitoring visit and will include:

- A Monitoring Checklist specific to the fee property’s conservation values, rights and restrictions to document the monitor’s observations. Also included in the Monitoring Checklist is the mode of travel (aerial, foot, vehicle), weather/ground conditions.
- Photographs with a Photo Index which is a photograph log prepared to identify the photo points and document each photograph, along with the name and signature of photographer.
- Monitoring Map (aerial map with photo points and route of travel), to include inspecting the easement perimeter(s) and along anticipated photo points (and photo direction) deemed necessary to document conservation values and terms.
- Post Monitoring Memo with any follow-up procedures to be completed. The Monitoring Report will be prepared by the monitor(s), and reviewed and signed by the Executive Director.

**Record Keeping**

Original records and photos in the Monitoring Report will be archived as Permanent Files according to the Land Conservancy Record Keeping Policy and Procedures to maintain legal records. A Stewardship Fee Property Binder for each fee property will be updated each year with the annual Monitoring Report and will include a copy of the Land Trust Property Monitoring Procedure to describe the process along with a copy of the Stewardship Plan for the property.

Stewardship Fee Property Field Binders: To include a copy of the Stewardship Plan, the two latest Monitoring Reports, and any recent correspondence logs. The Monitoring Report for each year includes: Copy of the signed Monitoring Checklist, copy of photographs, Photo Index, Monitoring Map with photo points, and Post Monitoring Memo.

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i Policies are the formalized approach to guide and determine present and future decisions and comply with the Land Trust Alliance (LTA) Standards and Practices. Policies must be reviewed and adopted by the Board of Trustees. Procedures are written by staff to implement Policies adopted by the Board of Trustees, and are guidelines or a series of steps followed in a regular order by LCSLO staff, board or volunteers. Procedures will be created and updated as needed by LCSLO staff and will incorporate the most recent relevant LTA Guidance Document(s) and do not require Board of Trustees approval.

ii Required monitor training and field experience are defined in the Fee Property Monitoring procedure.

iii Monitoring report content is discussed in detail within the Fee Property Monitoring procedure.

iv Stewardship Binder and Project Binders are available for review at Land Conservancy office in San Luis Obispo, CA.

S:\Active files\OFFICE\Accreditation\Standard12FeeLandStewardship\12D Monitoring Land Trust Properties\Land Trust Property Monitoring ProcedureFINAL

S:\Active files\OFFICE\Accreditation\Standard12FeeLandStewardship\12D Monitoring Land Trust Properties\12D_MonitoringPolicy_Final.docx
E. Fee-title Monitoring Form

Name of Fee Property: Lower San Luis Obispo Creek Preserve

MONITORING CHECKLIST

Monitoring Report includes: Monitoring Checklist, Photographs taken during the site visit, documented on a Photo Index with the fee property name, name of photographer, signature of photographer, photo point, location, GPS point, compass direction, a Monitoring Map (aerial map with location of photo points and route) and, if needed, Post Monitoring Memo.

Reason for Inspection: Annual Monitoring Visit_______Follow-up visit______
______________Other/Describe____________

Address and Directions:__________________________________________________________
_____________________________________________________________________________

Description of Area (e.g. entire property)__________________________________________

Date of Inspection: _______Inspector(s):______________________________________________

Others Present: __________________________________________________________________

Mode of Travel: ____________________________________Ground Conditions/Weather_____

Review Materials:
_________________Aerial photo or Topo Map with property boundaries __________Baseline Conditions Report/update
_________________Easement or Summary of Rights and Restrictions __________Previous Monitoring Notes/Photos
_________________Management Plan or other information:______________________________

FEE PROPERTY SPECIFIC INSPECTION ITEMS

Preserve Use:
1. Preserve is: __Open to Public __Closed; open with permission only
2. Estimated number of visitors this year: __0-20 __20-100 __100-1,000 __1,000+
3. Users: __Conservation Groups __Individuals __Scientists __Civic Organizations __Schools

SPECIFIC INSPECTION ITEMS

Purpose
Retain open space condition; prevent incompatible uses that would significantly impair with the Conservation Values (natural, scenic, and open space values).

Acceptable Uses
Grantor retains right to passive enjoyment of scenic open space,

Reserved Rights
Use of the property for nature, education and research activities (approved by the Grantee) and the restoration of native vegetation and the removal of exotic vegetation.
Does this property have a conservation easement? Y/N  If Yes, Easement owner:

Deed Restrictions/Prohibited Uses
Did you observe any act (or affecting) the Property that is inconsistent with deed restrictions (or easement) on this property? Y/N

Property Boundaries
a) Are boundaries posted? Yes/No/Partially
b) Are trails clearly marked? Yes/No/Partially/NA
Can you identify boundary corners and property lines on the ground?

Have there been any changes in boundary markers of the property?

If there are fencelines or signs marking the boundaries, are they in good repair?

Land Use Specific
Did you observe any use or activity that would diminish or impair the Conservation Values of natural, scenic, cultural/historic and open space values? Y/N

Construction or Placement of Buildings and Other Structures
Did you observe any construction of any structures? Y/N

Coverage of Land
Did you observe any asphalt, concrete, or other material that does not constitute a natural cover for the land except as necessary for activities related to the purpose of this Easement, or access and maintenance related to acceptable uses? Y/N

Irrigated Crops
Did you observe any irrigated crops outside of the intensive agriculture and building envelope?

No change evident  Change Evident (describe)

Alteration of Land
Did you observe any grading, soil-filling or trenching, (allowed for Acceptable Uses)? Y/N

Signs
Did you observe any advertising signs or billboards for commercial purposes? Y/N

Vegetation
Did you observe cutting or removal of native trees, shrubs or other vegetation outside of areas used for access? The removal of vegetation for fire protection, elimination of diseased growth, and restoration of native plant communities and fisheries resources, education or research is allowed. Y/N

Sedimentation
Did you observe any use that would cause sedimentation around the riparian areas? Y/N
Did you observe any changes in erosive channels/gully development? Y/N__________

Trash/Vandalism
Did you observe any trash or any other unsightly material? Y/N______________

Hazards
Did you observe any hazardous conditions (hazardous trees, trail conditions, etc.)?

Monitoring Report Completed by:

__________________________________________ Date

Judith Hildinger, Volunteer

Report Reviewed:

__________________________________________ Date

Daniel Bohlman, Conservation Director

__________________________________________ Date

Kaila Dettman, Executive Director
F. Biological Planning Equations for Grazing
(Small-Scale Livestock Farming by Carol Ekarius)

- Forage required (i.e., daily intake) = body weight x intake factor

Intake factor is a multiplier based on the percent of body weight that each class required in dry matter each day.

- 1” of grass in a well-sodded field = 300 pounds of available forage per acre
- Forage production = hay equivalents/acre x acre
- Carrying capacity = (animal units x forage produced) / (forage required x 1.25)
- Total paddocks = (recovery period / grazing period) + 1
- Stock density = (available forage x utilization rate) / (daily intake x grazing period)
- Paddock size = animal units / stock density

Table. Intake factor calculation

<table>
<thead>
<tr>
<th>Class of Livestock</th>
<th>% of Body Weight</th>
<th>Multiplier for Body Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large species (cattle, horses, bison) at rest</td>
<td>2.5%</td>
<td>.025</td>
</tr>
<tr>
<td>Large species at work (lactating or bulls in service)</td>
<td>3.0%</td>
<td>.030</td>
</tr>
<tr>
<td>Large species, growing</td>
<td>3.5%</td>
<td>.035</td>
</tr>
<tr>
<td>Small species (sheep, goats, llamas, deer, elk) at rest</td>
<td>3.5%</td>
<td>.030</td>
</tr>
<tr>
<td>Small species at work</td>
<td>3.0%</td>
<td>.035</td>
</tr>
<tr>
<td>Small species, growing</td>
<td>4.0%</td>
<td>.400</td>
</tr>
</tbody>
</table>
## G. Plant/Animal Identification Survey

<table>
<thead>
<tr>
<th>PLANTS</th>
<th>Species Name</th>
<th>Common Name</th>
<th>Federal</th>
<th>State</th>
<th>CNPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agrimyrtus howiesii</td>
<td>Heaven’s Bents Grass</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>10.2</td>
</tr>
<tr>
<td>Hesperostephanus howiesii</td>
<td>Wolf’s Maranta</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>18.1</td>
</tr>
<tr>
<td>Laya imani</td>
<td>Joss’s Laysia</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>16.1</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>AMPHIBIANS</th>
<th>Species Name</th>
<th>Common Name</th>
<th>Federal</th>
<th>State</th>
<th>CDFG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rana aurora draytonii</td>
<td>Red-Legged Frog</td>
<td>Threatened</td>
<td>None</td>
<td>None</td>
<td>Species of Special Concern</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>URBOS</th>
<th>Species Name</th>
<th>Common Name</th>
<th>Federal</th>
<th>State</th>
<th>CDFG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enyaliomys marmoratus pachyceps</td>
<td>Southwestern Painted Turtle</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>Species of Special Concern</td>
</tr>
<tr>
<td>Thamnophis hammondii</td>
<td>Two-striped Garter Snake</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>Species of Special Concern</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FISH</th>
<th>Species Name</th>
<th>Common Name</th>
<th>Federal</th>
<th>State</th>
<th>CDFG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eucycloglossus newberryi</td>
<td>Tidewater Salamander</td>
<td>Endangered</td>
<td>None</td>
<td>None</td>
<td>Species of Special Concern</td>
</tr>
<tr>
<td>Oncorhynchus mykiss inermis</td>
<td>Steelhead - south/central California coast DPS</td>
<td>Threatened</td>
<td>None</td>
<td>None</td>
<td>Species of Special Concern</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BIRDS</th>
<th>Species Name</th>
<th>Common Name</th>
<th>Federal</th>
<th>State</th>
<th>CDFG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empidonax translusio</td>
<td>Willow Flycatcher</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>Species of Special Concern</td>
</tr>
</tbody>
</table>

**NOTES:** * * = COSEED. Blank indicates species confirmed on property.

**California Native Plant Society (CNPS):**

- **10:** Rare, threatened, or endangered in California and elsewhere.
- **2:** Rare, threatened, or endangered in California but not more common elsewhere.
- **3:** Plants that about which more information is needed.
- **4:** A watch list of species of limited distribution.

**Threat Code:**

- **1:** Currently endangered in California (over 80% of occurrences threatened).
- **2:** Endangered in California (20-90% occurrences threatened).
- **3:** Not threatened in California (20% or less occurrences threatened).

**Species or Community Level**

- **1:** Less than 12 viable element occurrences (VEO) or less than 1,000 individuals or less than 1,000 acres.
- **2:** 1-20 VEO or 1,000-1,000 individuals or 1,000-50,000 acres.
- **3:** 10-200 VEO or 5,000-10,000 individuals or 10,000-50,000 acres.
- **4:** Apparently secure; this rank is clearly lower than 3 but factors need to cause some concern; i.e., there is some threat, or somewhat narrow habitat.

**State Ranking**

The state rank (5-100) is assigned in the same way as the global rank, except state ranks in California often also contain a threat designation attached to the species.

- **1:** Less than 10 VEO or less than 1,000 individuals or less than 1,000 acres
  - S1.1 = very threatened
  - S1.2 = threatened
  - S1.3 = no current threats known
- **2:** 1-20 VEO or 1,000-3,000 individuals or 2,000-10,000 acres
  - S2.1 = very threatened
  - S2.2 = threatened
  - S2.3 = no current threats known
- **3:** 21-80 VEO or 3,000-10,000 individuals or 10,000-50,000 acres
  - S3.1 = very threatened
  - S3.2 = threatened
  - S3.3 = no current threats known
- **4:** Apparently secure within California; this rank is clearly lower than 3 but factors need to cause some concern; i.e., there is some threat, or somewhat narrow habitat.
- **5:** Demonstrably secure in California. NO THREAT RANK.
H. CCAMP Water Quality Report (San Luis Bay Drive Station)

### Monitoring Sites

#### Nitrogen, Total Kjeldahl at 3108SLB (mg/L)

<table>
<thead>
<tr>
<th><strong>Analyte Name</strong></th>
<th><strong>Units</strong></th>
<th><strong>Min</strong></th>
<th><strong>Mean</strong></th>
<th><strong>Geometric Mean</strong></th>
<th><strong>Median</strong></th>
<th><strong>Max</strong></th>
<th><strong>Samples</strong></th>
<th><strong>Dates</strong></th>
<th><strong>Before</strong></th>
<th><strong>After</strong></th>
<th><strong>Year</strong></th>
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<tbody>
<tr>
<td>Air Temperature</td>
<td>Degrees C</td>
<td>7.2</td>
<td>19.2</td>
<td>18.6</td>
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<tr>
<td>Algae-attached</td>
<td>%</td>
<td>0.00</td>
<td>50.39</td>
<td>40.46</td>
<td>55.00</td>
<td>95.00</td>
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<td>66.88</td>
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<td>Algae-floating mats</td>
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<td>6.71</td>
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<td>112</td>
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<td>10.51</td>
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<tr>
<td>Ammonia as NTotal</td>
<td>mg/L</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>1.26</td>
<td>128</td>
<td>2001-2012</td>
<td>0</td>
<td>0</td>
<td>2008</td>
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<tr>
<td>Ammonia as NH3-ionized</td>
<td>mg/L</td>
<td>0.001</td>
<td>0.002</td>
<td>0.001</td>
<td>0.012</td>
<td>0.012</td>
<td>108</td>
<td>2001-2011</td>
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<tr>
<td>Benthic dissolved</td>
<td>mg/L</td>
<td>0.006</td>
<td>0.203</td>
<td>0.188</td>
<td>0.210</td>
<td>0.250</td>
<td>118</td>
<td>2001-2012</td>
<td>0.213</td>
<td>0.156</td>
<td>2010</td>
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<td>Calcium</td>
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<td>4.00</td>
<td>54.67</td>
<td>53.40</td>
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<td>56.47</td>
<td>51.43</td>
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### Lower San Luis Obispo Creek

**Stewardship Plan**

**June 13, 2013**

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Chlorophyll a, water column</td>
<td>μg/L</td>
<td>0.00</td>
<td>2.816</td>
<td>1.353</td>
<td>1.900</td>
<td>31.090</td>
<td>118</td>
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<td>1.796</td>
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<tr>
<td>Coliform, ecoli</td>
<td>MPN/100 mL</td>
<td>10</td>
<td>1,522</td>
<td>187</td>
<td>145</td>
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<td>Coliform, fecal</td>
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<td>1,217</td>
<td>352</td>
<td>350</td>
<td>50,000</td>
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<tr>
<td>Coliform, total</td>
<td>MPN/100 mL</td>
<td>300</td>
<td>11,515</td>
<td>5,034</td>
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<td>240,000</td>
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<tr>
<td>Dissolved solids, fixed</td>
<td>mg/L</td>
<td>190.00</td>
<td>478.56</td>
<td>466.76</td>
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<td>125</td>
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<tr>
<td>Dissolved solids, total</td>
<td>mg/L</td>
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<td>867.60</td>
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<td>Magnesium</td>
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<td>mg/L</td>
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<td>Oxygen, dissolved</td>
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<td>7.6</td>
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<td>Oxygen, saturation</td>
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<td>78.58</td>
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<td>25.7</td>
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<td>Sulfate</td>
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<td>Silicon as SiO2</td>
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<td>Specific Conductivity</td>
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<td>Suspended solids, fixed</td>
<td>mg/L</td>
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<td>1.20</td>
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