July 2008 to December 2009
PALOS VERDES NATURE PRESERVE REPORT FOR THE RANCHO PALOS VERDES NATURAL COMMUNITY CONSERVATION PLAN

Prepared By
Danielle LeFer
PALOS VERDES PENINSULA LAND CONSERVANCY
Prepared For
The City of Rancho Palos Verdes

February 2011
TABLE OF CONTENTS

EXECUTIVE SUMMARY ...........................................................................................................................  1

INTRODUCTION .....................................................................................................................................  1

   Site Description ................................................................................................................................  3
   Management Plan ..............................................................................................................................  5

HABITAT RESTORATION AND MONITORING .....................................................................................  6

   Habitat Restoration ............................................................................................................................  6
      Habitat Management Plan ................................................................................................................  6
      Additional Restoration .....................................................................................................................  9

   Habitat Monitoring ............................................................................................................................  12
      Targeted Exotic Removal Program for Plants ..................................................................................  12
      Covered Plant Species ......................................................................................................................  12
      Vegetation Mapping ........................................................................................................................  12

   Brush Clearance ...............................................................................................................................  12

SCIENTIFIC RESEARCH AND WILDLIFE MONITORING .................................................................  13

TRAIL MANAGEMENT, IMPROVEMENTS, AND MONITORING .........................................................  13

   Trail Management ..............................................................................................................................  13

   Trail Monitoring ...............................................................................................................................  13

   Trail Markers and Decals ..................................................................................................................  14

   Trail Repair .......................................................................................................................................  14

   Ranger Program ...............................................................................................................................  16

VOLUNTEER INVOLVEMENT ..............................................................................................................  16

GRANTS AND FUNDING ......................................................................................................................  16

BOARD OF DIRECTORS ......................................................................................................................  17
TABLES

1. Reserve Names of the Palos Verdes Nature Preserve .................................................... 3
2. Restoration Project Schedule for Alta Vicente Reserve Phases 1 and 2 ..................... 7
3. Restoration Project Schedule for Additional Restoration in Palos Verdes Nature Preserve ........................................................................................................................................................................ 11
4. Number of Missing Decals for Each Decal Type ................................................................................................................................. 14
5. Future Trails Project List ................................................................................................................. 15

FIGURES

1. Map of the Palos Verdes Nature Preserve with Associated Reserves Locations ...... 4
2. Map of Restoration Areas at Alta Vicente Reserve .......................................................... 8
3. Site map for All Restoration Projects in the Palos Verdes Nature Preserve ............... 10

APPENDICES

I. 2009 Targeted Exotic Removal Program for Plants
II. Volunteer Involvement
EXECUTIVE SUMMARY

The 2008-2009 Palos Verdes Nature Preserve Report for the Rancho Palos Verdes Natural Community Conservation Plan provides annual submittal requirements by the Palos Verdes Peninsula Land PVPLC (PVPLC) on the status of the Palos Verdes Nature Preserve (Preserve). Additionally this report details stewardship activities, research, funding, and community involvement in the Preserve during the period July 1, 2008 through December 31, 2009.

The Preserve encompasses approximately 1,200 acres and is located on the southern side of the Palos Verdes Peninsula in the City of Rancho Palos Verdes (RPV), California. PVPLC serves as the management agency for RPV. The Preserve was formed under a draft Natural Community Conservation Plan (NCCP) to “maximize benefits to wildlife and vegetation communities while accommodating appropriate economic development within the City of Rancho Palos Verdes and region pursuant to the requirements of the NCCP Act and Section 10(a) of the ESA (URS 2004a).”

The primary focus of management for the Preserve is to maintain or restore habitat for the covered plant and animal species listed in the draft NCCP. A Habitat Management Plan was adopted in 2007 that outlines the restoration of 5 acres per year for a total of 15 acres over a 3-year period. This plan also outlined the methodology for removal of exotic plant species, a predator control plan, and the monitoring of covered plant and animal species. PVPLC attempts to seek additional funding when possible, to perform restoration on more than the minimum 5 acres per year required in the NCCP. Several opportunities of this nature occurred during the reporting period that will enable PVPLC to conduct additional restoration over the next 3 years.

PVPLC also conducts scientific research and trail maintenance projects in the Preserve. Volunteers make up a large component of the management strategies for the Preserve. They assist in monitoring the properties, wildlife, and habitat as well as help restore habitat and maintain trails. Partnering with regional high schools and colleges allows for scientific research that expands our understanding of the Preserve. We also seek funding from a variety of sources including private donations, federal and state grants, and foundations.

INTRODUCTION

The Palos Verdes Peninsula Land PVPLC (PVPLC) serves as the management agency for the Palos Verdes Nature Preserve (Preserve), previously referred to as the Portuguese Bend Nature Preserve, for the City of Rancho Palos Verdes (RPV). The Preserve was formed under a Draft Natural Community Conservation Plan (NCCP) to “maximize benefits to wildlife and vegetation communities while accommodating appropriate economic development within the
City of Rancho Palos Verdes and region pursuant to the requirements of the NCCP Act and Section 10(a) of the ESA (URS 2004a).” As a primary component of the NCCP, a Preserve design was proposed to conserve regionally important habitat areas and provide habitat linkages in order to benefit sensitive plants and wildlife. PVPLC manages the Preserve under an operating agreement with RPV.

The operating agreement with RPV requires that PVPLC submit an annual report to the RPV City Council describing management activities with respect to habitat enhancement and restoration, property maintenance and monitoring, vegetation and wildlife monitoring, and efforts on targeted exotic plant removals. The 2009 Palos Verdes Nature Preserve Report for the Rancho Palos Verdes Natural Community Conservation Plan (NCCP) and Habitat Conservation Plan (HCP) provides annual submittal requirements on the status of the Preserve for the period of July 1, 2008-December 31, 2009. It is accompanied by a status report for the Targeted Exotic Removal Program for Plants (TERPP). Volunteer involvement and support and student-based scientific research are also covered in this report.

As stated above, the NCCP Implementing Agreement has not been signed by the regulatory agencies, and therefore, the NCCP is technically not officially executed. However, because it is anticipated that this agreement will be signed in the near future, this annual report was provided to satisfy the requirements of the both the Management Agreement with RPV and the reporting requirements of the Draft NCCP. Annual reporting requirements for the Draft NCCP are detailed below. Additionally, once every three years, a Comprehensive report is required. This Comprehensive report is provided along with this report.

**Annual submittals (included in this report)**

1. A monitoring report on habitat restoration areas using standard monitoring protocol as detailed in the Preserve Habitat Restoration Plan.


**Comprehensive Reporting Every Three Years (to be addressed in this year’s report)**

A comprehensive monitoring report will be prepared every three years and will include both a synthesis of all data collected in the preceding three years and an analysis of overall trends in biological resources. This comprehensive report will include the following:

1. A report that details surveys and data analysis regarding covered plants, gnatcatchers, cactus wren, and butterflies. These surveys occur once every 3 years.
2. Updated Predator Control Plan

3. Updated Habitat Restoration Plan

4. Annual Reports during years when the Comprehensive Report is due

This 2009 Palos Verdes Nature Preserve Report for the Rancho Palos Verdes NCCP and Habitat Conservation Plan has been divided into 6 main topics, with subtopics embedded into each main topic. Where applicable, subtopics have been further divided by Reserve (Reserves are explained under the heading Site Description), to provide easier reference for a particular area within the PVNP.

**Site Description**

The Preserve is located on the southern side of the Palos Verdes Peninsula in the City of Rancho Palos Verdes, California (Figure 1). The approximately 1023-acre Preserve has been divided into ten areas referred to as Reserves. The Public Use Master Plan Committee (PUMP Committee), described further in the Community Involvement section of the report, submitted recommendations for the naming of the Preserve and the 10 Reserve areas at the February 23, 2008 RPV City Council meeting. The committee made its recommendations based on currently used names and names that conveyed the physical characteristics of each area. Table 1 reflects the Reserve names as approved by the RPV City Council. In addition, the 190-acre Upper Filiorum Reserve, acquired in December 2009, added 190 acres to reserve, resulting in over 900 contiguous acres of protected open space and a wildlife corridor linking Three Sisters and Portuguese Bend Reserves (Figure 1).

**Table 1:** Reserve Names of the Palos Verdes Nature Preserve. See Figure 1 for locations.

<table>
<thead>
<tr>
<th>Reserve Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abalone Cove Reserve</td>
</tr>
<tr>
<td>San Ramon Reserve</td>
</tr>
<tr>
<td>Agua Amarga Reserve</td>
</tr>
<tr>
<td>Three Sisters Reserve</td>
</tr>
<tr>
<td>Alta Vicente</td>
</tr>
<tr>
<td>Upper Filiorum Reserve</td>
</tr>
<tr>
<td>Forrestal Reserve</td>
</tr>
<tr>
<td>Vicente Bluffs Reserve</td>
</tr>
<tr>
<td>Ocean Trails Reserve</td>
</tr>
<tr>
<td>Vista del Norte Reserve</td>
</tr>
<tr>
<td>Portuguese Bend Reserve</td>
</tr>
</tbody>
</table>
**Figure 1:** Map of the Palos Verdes Nature Preserve with associated Reserves locations.
The topography of the Preserve is diverse, ranging from relatively flat lowland areas above steep coastal bluffs in the south, to very steep slopes, ridgelines and gullies on the slopes to the north. Elevations range from approximately sea level along the coastal edges of Vicente Bluffs, Abalone Cove, and Ocean Trails to approximately 1,300 feet above mean sea level at the northern most parcel, vista del Norte. Adjacent land uses include single-family residences on most sides, open space associated with neutral lands on the Peninsula, the Pacific Ocean to the south and west, and the Los Verdes and Trump National golf courses near the western and eastern ends of the Preserve area.

On August 27, 2009, the Palos Verdes Fire burned approximately 165 acres of the Portuguese Bend Reserve, affecting both native and non-native vegetation and known nesting sites of the threatened coastal California gnatcatcher (*Polioptila californica californica*) and the special status cactus wren (*Campylorhynchus brunneicapillus*). To address the impacts of the fire, PVPLC created a Fire Recovery Plan in October 2009 (See Cumulative Report (2010), Section 3, Appendix I).

**Management Plan**

The original document dictating management of the Preserve was the Forrestal Management Plan. This management plan was adopted in 2001 when PVPLC became the management agency for the RPV owned Forrestal Nature Preserve. Since that time, more open space properties were purchased by RPV, and in February 2008, City Council adopted to name Forrestal as one of the Reserves within the Palos Verdes Nature Preserve.

Additionally, in 2006, the Public Use Master Plan Committee (PUMP Committee) was formed to provide recommendations for naming of the Preserve, forming a Preserve Trails Plan and reviewing other guidelines for the public use of the Preserve. The Preserve Trails Plan was brought before the RPV City Council over the course of several meetings in early 2008, and was approved by the City Council in April 2008.

The current document dictating management of the PVNP is the draft NCCP/HCP, expected to be finalized by August 2011, pending review by Wildlife Agencies.
HABITAT RESTORATION AND MONITORING

Habitat Restoration

Habitat Management Plan
The initial Preserve Habitat Management Plan (PHMP) for the Draft NCCP was created in 2007. A component of the PHMP was the Habitat Restoration Plan for the restoration of 5 acres per year for a total of 15 acres over the first 3-year period. This plan was completed in April 2007 and concluded that Alta Vicente Reserve in the Preserve ranked the highest in terms of site suitability for an immediate restoration project. The Habitat Restoration Plan for Alta Vicente Reserve outlines appropriate revegetation locations and methodology to adequately comply with the Preserve Management requirements of the Rancho Palos Verdes NCCP. The following provides a brief description of the Habitat Restoration Plan for Alta Vicente Reserve. The Habitat Restoration Plan for Alta Vicente Reserve provides guidelines for the establishment of coastal sage scrub (CSS), coastal cactus scrub (CCS), and butterfly habitat on a total of 15 acres during 3 consecutive years at the Alta Vicente Reserve. However, since the fire occurred at Portuguese Bend Reserve in August 2009, plans were adapted to focus immediate restoration at Portuguese Bend, and only Phase 1 and 2 will be completed in the at Alta Vicente. The proposed habitat restoration at the Alta Vicente Reserve consists of two 5-acre phases, with one phase initiated each year. The first 5 acres of restoration (Phase 1) began with site preparation during the fall of 2007. Phase 1 plants were installed and hydroseeded during the winter of 2009/2010. Site preparation for Phase 2 began in fall 2008, and planting and seeding was planned for winter 2010/2011. A Restoration plan for 15 acres at Portuguese Bend Reserve was commissioned, and restoration was scheduled to begin in 2010.

Draft NCCP annual reporting requirements include a monitoring report on habitat restoration areas using standard monitoring protocol for years 1, 2, 3 and 5 during the 5-year maintenance and monitoring period that follows plant installation. Monitoring will begin in 2011, one year after plant installation. The following provides a brief description of work done to fulfill the NCCP during the reporting period. Table 2 provides the implementation schedule for Phase 1 and Phase 2.
**Table 2:** Restoration Project Schedule for Alta Vicente Reserve Phases 1 and 2. This table has been modified from its original content in the 2007 Habitat Restoration Plan to reflect activities only in Phase 1 and 2.

<table>
<thead>
<tr>
<th>PHASE 1</th>
<th>Task</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Site clearing and soil preparation</td>
<td>Fall 2007, Fall 2008</td>
</tr>
<tr>
<td></td>
<td>Installation of temporary irrigation system</td>
<td>Fall 2008</td>
</tr>
<tr>
<td></td>
<td>Weed/exotic removal and grow-kill cycles</td>
<td>Fall 2008-Spring 2009</td>
</tr>
<tr>
<td></td>
<td>Planting container stock</td>
<td>Early Winter 2009/2010</td>
</tr>
<tr>
<td></td>
<td>Hydroseed application</td>
<td>Winter 2009/2010 (following planting)</td>
</tr>
<tr>
<td></td>
<td>Completion of installation/assessment of site installation</td>
<td>Following completion of installation and seeding and 120 day maintenance period</td>
</tr>
<tr>
<td></td>
<td>5-year biological monitoring and maintenance</td>
<td>To begin upon successful installation of restoration work</td>
</tr>
<tr>
<td></td>
<td>Phase one completion</td>
<td>2015, end of Year 5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PHASE 2</th>
<th>Task</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Site clearing and soil preparation</td>
<td>Fall 2008, Fall 2009</td>
</tr>
<tr>
<td></td>
<td>Installation of temporary irrigation system</td>
<td>Fall 2008, Fall 2009</td>
</tr>
<tr>
<td></td>
<td>Weed/exotic removal and grow-kill cycles</td>
<td>Fall 2008, Fall 2009-Spring 2010</td>
</tr>
<tr>
<td></td>
<td>Planting container stock</td>
<td>Winter 2010/2011</td>
</tr>
<tr>
<td></td>
<td>Hydroseed application</td>
<td>Winter 2010/2011 (following planting)</td>
</tr>
<tr>
<td></td>
<td>Completion of installation/assessment of site installation</td>
<td>Following completion of installation and seeding and 120 day maintenance period</td>
</tr>
<tr>
<td></td>
<td>5-year biological monitoring and maintenance</td>
<td>To begin upon successful installation of restoration work</td>
</tr>
<tr>
<td></td>
<td>Phase two completion</td>
<td>2016, end of Year 5</td>
</tr>
</tbody>
</table>
Figure 2: Map of Restoration Areas at Alta Vicente Reserve.
**Additional Restoration**

PVPLC attempts to seek additional funding when possible, to perform restoration on more than the minimum 5 acres per year required in the NCCP. Several opportunities of this nature occurred during the reporting period.

In January 2007, Los Angeles World Airports (LAWA) provided funding to conduct twenty-one acres of coastal sage scrub and perennial grassland restoration in the Three Sisters Reserve as part of mitigation for the Southwest Airfield at Los Angeles International Airport. A restoration plan was completed in 2008. In January 2009, the PVPLC began implementation of the first season of weed control, including the use of 250 goats for grazing. Acacia trees (300) were treated with a glyphosate herbicide, using the “drill and kill” method, and removed from the site. Staff systematically removed weeds such as fennel, mustard and non-native annual grasses through mechanical, hand removal, and herbicide application. An irrigation system was installed in September 2009. In December 2009, 7,930 container plants of coastal sage scrub species were planted, and the site was seeded with coastal sage scrub and native grass seeds from local sources.

In June 2008, two grant agreements were signed with the State Coastal Conservancy to provide restoration to seven acres of coastal sage scrub and riparian habitats. Four acres will be restored in McCarrell’s Canyon, which is the western boundary of Three Sisters Reserve, and three acres will be restored at the Fishing Access area of Vicente Bluffs Reserve. However, due to a funding freeze, restoration was delayed until 2010. Table 3 shows the timeline for each additional restoration project.

Figure 3 provides a site map for each restoration project, including the restoration at Alta Vicente Reserve that fulfills the requirements of the NCCP Habitat Restoration Plan.
Figure 3- Site map for all 2008-2009 restoration projects in the Palos Verdes Nature Preserve.
Table 3: Restoration project schedule for additional restoration in Palos Verdes Nature Preserve.

<table>
<thead>
<tr>
<th>Task</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Three Sisters Restoration 2.1 Acres</strong></td>
<td></td>
</tr>
<tr>
<td>Seed collection</td>
<td>Winter 2008-Spring 2009 (again in second year if necessary)</td>
</tr>
<tr>
<td>Initial site preparation/weeding</td>
<td>Winter 2008-Spring 2009, Fall 2009</td>
</tr>
<tr>
<td>Final site preparation(mowing/thatch removal)</td>
<td>Fall 2009</td>
</tr>
<tr>
<td>Seeding and container planting</td>
<td>Fall 2009</td>
</tr>
<tr>
<td>Irrigation installation</td>
<td>Summer 2009</td>
</tr>
<tr>
<td>Maintenance</td>
<td>Winter 2009-Spring 2010</td>
</tr>
<tr>
<td>Remedial seeding</td>
<td>Fall 2010 (if needed)</td>
</tr>
<tr>
<td>3-year monitoring (horticultural and performance)</td>
<td>Winter 2008-Spring 2011</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Task</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>McCarrell's Canyon Restoration 4 Acres</strong></td>
<td></td>
</tr>
<tr>
<td>Site clearing and soil preparation</td>
<td>Winter 2008/2009-Fall 2009</td>
</tr>
<tr>
<td>Planting container stock</td>
<td>Winter 2009/2010</td>
</tr>
<tr>
<td>Seeding application</td>
<td>Winter 2009/2010 (following planting)</td>
</tr>
<tr>
<td>Completion of installation/assessment of site installation</td>
<td>Following completion of installation and seeding and 120 day maintenance period.</td>
</tr>
<tr>
<td>3-year monitoring and maintenance</td>
<td>To begin upon successful installation of restoration work</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Task</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vicente Bluffs Restoration 4 Acres</strong></td>
<td></td>
</tr>
<tr>
<td>Site clearing and soil preparation</td>
<td>Winter 2009/2010</td>
</tr>
<tr>
<td>Planting container stock</td>
<td>Winter 2010/2011</td>
</tr>
<tr>
<td>Seeding application</td>
<td>Winter 2010/2011 (following planting)</td>
</tr>
<tr>
<td>Completion of installation/assessment of site installation</td>
<td>Following completion of installation and seeding and 120 day maintenance period.</td>
</tr>
<tr>
<td>3-year monitoring and maintenance</td>
<td>To begin upon successful installation of restoration work</td>
</tr>
</tbody>
</table>
Habitat Monitoring

Targeted Exotic Removal Program for Plants

The Targeted Exotic Removal Program for Plants (TERPP) is an element of the Preserve Habitat Management Plan for the Draft NCCP that requires the annual removal of exotic plant species of twenty individual populations or five acres found in the Preserve. The TERPP provides protocol for ranking the degree of threat to native vegetation, the feasibility of eradication, and the invasiveness of each exotic species found in the Preserve. Populations of exotic plant species are then targeted for removal based on the results of the ranking outcome. The 2009 TERPP Report documents PVPLC’s effort during the reporting period to fulfill the requirements of the TERPP plan. It details the methods of assessing the threat of individual exotic species to native vegetation, field methods for removal, and provides site-specific documentation related to every completed removal.

The complete 2009 TERPP Report can be found in Appendix 1 of this report.

Covered Plant Species

The draft NCCP/HCP includes a total of six covered plant species. They are aphanisma (Aphanisma blitoides), south coast saltscale (Atriplex pacifica), Catalina cossosoma (Crossosoma californicum), island green dudleya (Dudleya virens ssp. insularis), Santa Catalina Island desert-thorn (Lycium brevipes var. hassei) and woolly seablite (Sueda taxifolia). Focused surveys were conducted throughout the Preserve for each of these covered plant species. The covered plant species report can be found in Section 2.1 of the attached cumulative report.

Vegetation Mapping

In 2009, stewardship staff mapped vegetation through a Preserve-wide Dept. of Fish and Game Local Assistance Grant. However, the Upper Filiorum Reserve was not mapped because it was acquired at the end of 2009. In addition, the mapping occurred prior to the August 2009 fire that burned 165 burned acres at Portuguese Bend Reserve.

Brush Clearance

Brush clearance is the act of clearing or minimizing flammable vegetation in areas that occur immediately adjacent to residential structures and roads. RPV is responsible for ongoing maintenance of brush clearance within the Preserve, to provide an appropriate level of fire protection, emphasizing the protection of life, public safety, and property values in the urban-wildlife interface areas while minimizing environmental impacts of fire suppression and control. A portion of the Agua Amarga Reserve is owned by PVPLC and falls under their responsibilities to maintain brush clearance requirements. All of these requirements were met in May and June 2009. No other fuel modification areas within the Preserve fall under the responsibility of
PVPLC.

**SCIENTIFIC RESEARCH AND WILDLIFE MONITORING**

The Preserve is an ideal setting for an outdoor laboratory, because it provides scientists and students with access to a variety of habitats. Results of wildlife research are in Section 2.2, 2.3 and 2.4 of the attached Cumulative Report.

**TRAIL MANAGEMENT, IMPROVEMENTS AND MONITORING**

**Trail Management**

One of the directives of the draft NCCP was to minimize the number of trails within the Preserve, to ensure the conservation of habitat, while continuing to provide public access. In 2006, the Public Use Master Plan Committee was formed to provide recommendations for naming of the Preserve, forming a Preserve Trails Plan and reviewing other guidelines for public use of the Preserve. The Preserve Trails Plan was brought before the RPV City Council over the course of several meetings during early 2008.

Prior to this, only the Forrestal Reserve had a designated trails plan. Most other Reserves within the Preserve had a series of informal trails that had not been formally designated. In November 2007, RPV City Council decided to restrict public access solely to fire roads in the Portuguese Bend Reserve. The drought in 2007 had a severe impact on vegetation in all of areas of the Preserves, and the Portuguese Bend Reserve is the most heavily used of the Reserves. The drought, combined with an unofficial trail network and limited signage, was sufficient cause for concern to restrict access until the Preserve Trails Plan was approved. The Preserve Trails Plan for the Portuguese Bend Reserve was approved in February 2008 and City Council directed the PVPLC to initiate several management tools. Among these were the development of educational materials to alert the public to the new approved trail system and the sensitivity of the habitat and to install signage throughout the Reserve indicating trail names and uses.

As of the writing of this report, PVPLC staff continues to maintain trail markers, close off old trail routes, and provide trail brochures. As requested by the City Council decision to open up all trails in the Preserve Trails Plan on June 6, 2008, a 6-month trail monitoring report of the Portuguese Bend Reserve was submitted to the Council in December 2008.

**Trail monitoring**

PVPLC stewardship staff or volunteers from the Keeping an Extra Eye on the Preserve for Environmental Review and Stewardship (Keepers) Program conducted all trail monitoring
during the reporting period. The Keepers program is described in detail in the Volunteer Involvement section of the report (Appendix II).

Monitoring was typically limited to overall trail conditions such as erosion, hazards, and vegetation overgrowth. No efforts were made to improve or maintain any of the trails until the final approval of the Preserve Trails Plan with the exception of the Forrestal Reserve, which had designated uses, and one trail at Abalone Cove that had been badly eroded and was heavily used by the public as beach access. Details of all trail improvements follow.

**Trail Markers and Decals**
From July 2008 through December 2009, 30 trail markers and 244 trail decals were replaced.

<table>
<thead>
<tr>
<th>Type of Decal</th>
<th>Total # Replaced</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Bikes</td>
<td>56</td>
</tr>
<tr>
<td>Bikes OK</td>
<td>28</td>
</tr>
<tr>
<td>No Horses</td>
<td>4</td>
</tr>
<tr>
<td>Horses OK</td>
<td>46</td>
</tr>
<tr>
<td>Pedestrians OK</td>
<td>48</td>
</tr>
<tr>
<td>Trail Name</td>
<td>41</td>
</tr>
<tr>
<td>Arrows</td>
<td>21</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>244</strong></td>
</tr>
</tbody>
</table>

**Trail Repair**

The majority of trail work done in the Preserve corresponds to the outdoor volunteer workdays. PVPLC staff or RPV Public Works department were also involved in trail enhancement. A complete summary of the PVPLC Volunteer Trail Crew Program can be found in the Community Involvement section of the report (Appendix II).

In 2009, PVPLC restored unauthorized dirt bike jumps in the upper Peacock Flats trail at Portuguese Bend Reserve. The Toyon Trail Project at Portuguese Bend Reserve repaired and restored the Toyon Trail. The Pescadero trail that leads from the Fishing Access parking lot to the beach was repaired, through funding from a Coastal Conservancy grant. PVPLC also enhanced trails at Portuguese Bend, Three Sisters, Abalone Cove, and Forrestal Reserves.

Table 5 lists future trail projects.
<table>
<thead>
<tr>
<th>Reserve Name</th>
<th>Trail Name</th>
<th>Project Type</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forrestal</td>
<td>Flying Mane</td>
<td>Fence Removal Project</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td>Mariposa</td>
<td>Bridge and trail repair</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vista</td>
<td>Spur trail closure</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cristo</td>
<td>Spur trail closure</td>
<td></td>
</tr>
<tr>
<td>Portuguese Bend</td>
<td>Burma at Panorama</td>
<td>Grade trail to decrease water flow onto Panorama</td>
<td></td>
</tr>
<tr>
<td></td>
<td>North Sandbox</td>
<td>Trail Repair</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ishibashi</td>
<td>Spur trail closure and trail delineation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rim trail north of Burma Road</td>
<td>End-point delineation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Peppertree Trail</td>
<td>Trail erosion repair</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td>Barn owl trail</td>
<td>Trail erosion repair</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rim trail near Paintbrush</td>
<td>redirect away from private property</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Toyon Trail</td>
<td>Trail repair</td>
<td>Y</td>
</tr>
<tr>
<td>Three Sisters</td>
<td>Sunshine</td>
<td>Trail Repair</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td>Barkentine Spur Trails</td>
<td>Spur trail closure</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Connector between Three sisters and Upper Filiorum</td>
<td>Erosion Repair</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Three Sisters trail at McCarrell's Canyon</td>
<td>Trail Repair</td>
<td>Y</td>
</tr>
<tr>
<td>Fishing Access</td>
<td>Pescadero trail</td>
<td>Trail Repair</td>
<td>Y</td>
</tr>
<tr>
<td>Abalone Cove</td>
<td>Cave and Sacred Cove connection</td>
<td>Erosion repair</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sacred Cove (to beach)</td>
<td>Erosion repair</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bow and Arrow</td>
<td>Erosion repair on eastern portion</td>
<td></td>
</tr>
<tr>
<td>Alta Vicente</td>
<td>North Spur trail</td>
<td>Trail delineation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prickly Pear trail</td>
<td>Erosion repair and delineation</td>
<td></td>
</tr>
<tr>
<td>Agua Amarga</td>
<td>Lunada Canyon trail</td>
<td>Delineation</td>
<td></td>
</tr>
<tr>
<td>Vista del Norte</td>
<td>Indian peak loop trail</td>
<td>Delineation</td>
<td></td>
</tr>
</tbody>
</table>
Ranger Program
The City Council approved funding for a Ranger Program in June 2009. The City contracted with the Mountains Recreation and Conservation Authority (MRCA) to provide rangers at the Preserve.

VOLUNTEER INVOLVEMENT
PVPLC is a non-profit organization that relies heavily on the support of community involvement to perform many of the tasks necessary to manage the Preserve. The Volunteer Annual Report for July 1, 2008 through December 31, 2009 is located in Appendix 1I.

GRANTS AND FUNDING
Funding to support PVPLC activities on the Preserve, such as restoration, education, and monitoring is obtained through many sources including government agencies, foundations, donors, and grantors. The PVPLC maintains a program-based budget and accounting system, allowing it to allocate revenues and costs to specific projects. A list of funding awarded to PVPLC specific to the Preserve is found below.

- The City of RPV provided $157,138.00 toward management of the Preserve, as specified in the NCCP.
- Private donors and PVPLC members, including The Legacy Circle members, who committed to a $5000 per year donation for three years, and Mariposa Circle members, who commit to $1000 per year are a large component of funding sources.
- The Alcoa Foundation funded the RECIPE program, which includes science-related intern projects and science programming in the Preserve.
- In 2009, PVPLC received a $22,944 grant from Los Angeles County Weed Management Area (WMA) ARRA, to map and control populations of non-native carnation spurge (*Euphorbia terracina*) on the Peninsula. This funding is available through December 2011.
- In 2008, REI provided $10,000 to support the development of the Trail Crew Program.
- In 2009, REI provided $15,000 to enhance the Stewardship Volunteer Program.
- In 2009, two agreements were signed with the California Department of Fish and Game to provide restoration at Portuguese Bend Reserve. The first agreement, an NCCP Local Assistance Grant Award, provided funding to restore coastal sage scrub and cactus scrub habitat in the burned area of Portuguese Bend Reserve. Implementation is scheduled for 2010. The second agreement provided funding to restore 9.5 acres of coastal sage scrub and grassland habitat at Portuguese Bend Reserve.
2009 Officers
Henry Jurgens, President
Elizabeth Kennedy, Executive Vice President
Deena M. Sheridan, Secretary
Marc Crawford, Treasurer
Bill Ailor, President Emeritus

2009 Board of Directors
Bruce Biesman-Simons
Allen Franz
Michael J. Kilroy
Susan McKenna
Jess Morton
Joe Platnick
Jack Smith
Jim Staes
Bill Swank
Kenneth W. Swenson
Grace Wallace

2009 Staff

Executive Director
Andrea Vona

Office Administration
Hazel Martinez, Office Administrator
Christen Kitner, Administrative Assistant

Science Program
Ann Dalkey, Science Director

Education Program
Kristina Ellis, Director of Education Programs

Land Stewardship
Lily Verdone, Conservation Director
Cristian Sarabia, Stewardship Manager
Leslie Buena, Stewardship Associate
Baltazar Gonzalez, Stewardship Technician

Development
Robert Ford, Director of Development
Louise Olfarnes, Manager of Marketing Communications
Mary Lopes, Donor Relations

George F. Canyon Nature Center
Loretta Rose, Naturalist
Laurie Morgan, Assistant Naturalist