

**A PLAN TO  
BEAUTIFY LUNADA BAY OPEN SPACE**

*Submitted to the  
City of Palos Verdes Estates  
by the  
Lunada Bay Homeowners Association  
July 2015*

**LUNADA BAY**  
  
Homeowners Association

*... our community by the sea*



## **ACKNOWLEDGEMENTS**

This plan as developed by Lunada Bay residents Bill Ailor, Peter Bena, Marlene Breene, and Reggie Jue, and incorporates inputs and suggestions provided by interested Lunada Bay homeowners in six community meetings held in 2014 at the Lunada Bay Elementary School.

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# 1.0 INTRODUCTION

The City of Palos Verdes Estates was established in 1939 and is the oldest city on the Palos Verdes Peninsula. Figures 1 and 2 shows the overall boundaries of the city.

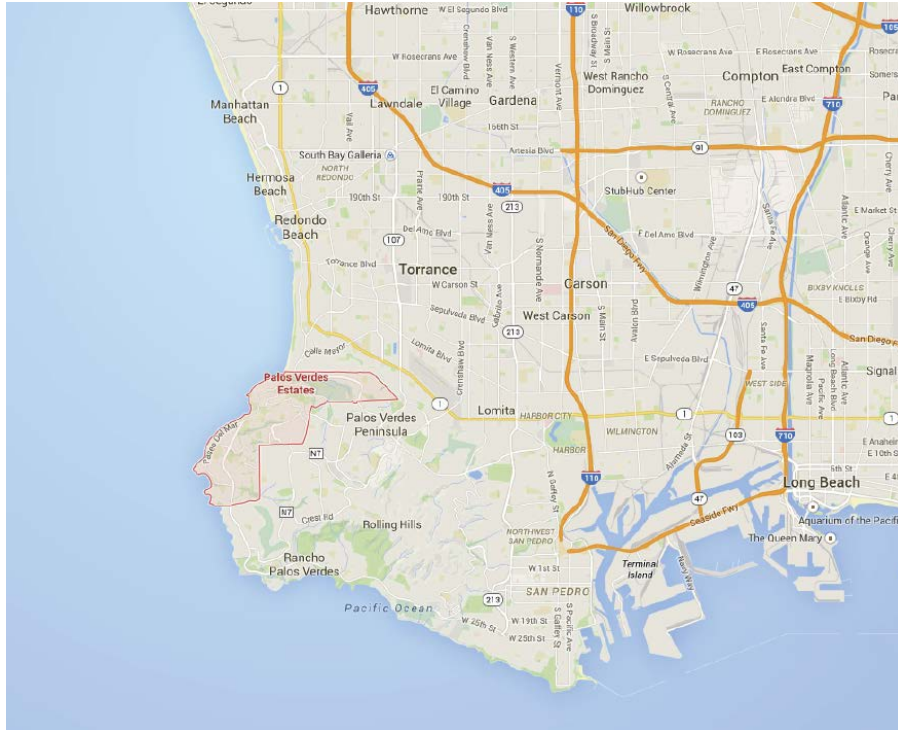


Figure 1. Palos Verdes Estates and the South Bay region.

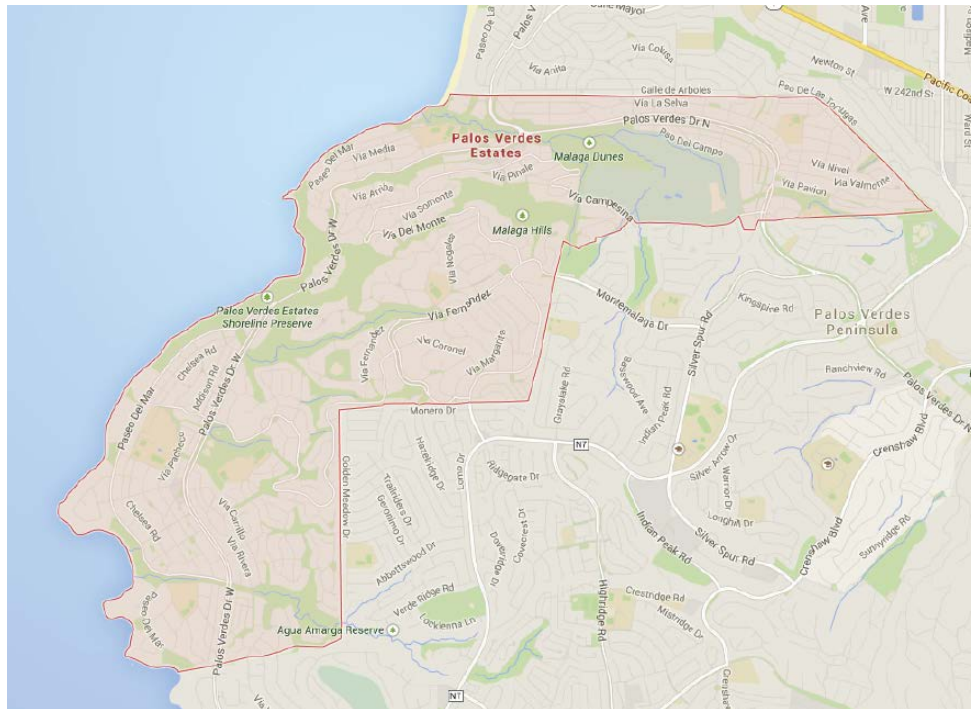


Figure 2. Boundaries of the City of Palos Verdes Estates.

The Palos Verdes Estates web page gives the following history:

New York financier Frank A. Vanderlip, Sr. purchased the land from the Bixby family in 1913 with the idea of building a planned, residential community. The new community was laid out and landscaped by the famous Olmsted Brothers, sons of Frederick Law Olmsted, Sr., who designed Central Park in New York City. Gently winding roadways, green hillsides, paths, stands of eucalyptus, pepper, and coral trees were established, and a full 28% [or approximately 850 acres] of the land area was dedicated to be permanent open space. This early planning and dedication of parklands gives the City its unique rural character and has resulted in its international reputation for scenic beauty.

Vanderlip's plans were slowed by World War I, but subdivision of the land and construction of the first Spanish style homes in what is today Palos Verdes Estates began in the early 1920's. Deed restrictions were imposed on the land in 1923, when the Bank of America, as trustee for Vanderlip's Palos Verdes Project, drafted a trust indenture and outlined provisions for development. The area was unincorporated and governed by the Palos Verdes Homes Association, which was liable



for taxes on all parkland. After the economic crash in 1929, the Association owed taxes to Los Angeles County and residents, concerned that the parklands might be sold for payment, in 1939 voted for City incorporation. In 1940, the parklands were deeded by the Homes Association to the new City.

Over the years, the City's governance has been guided by the vision of the original founders with an emphasis on preserving, protecting and enhancing the quality of life and natural assets that make Palos Verdes Estates unique.

### **1.1 Lunada Bay Community**

For the purposes of this document, the Lunada Bay community is defined as the portion of the city of Palos Verdes Estates that overlooks Lunada Bay and extends from the city's southern boundary with the city of Rancho Palos Verdes to Bluff Cove on the north. The specific area is shown in Fig. 3.



Figure 3. Lunada Bay community.

### 1.2 Lunada Bay Open Space

As Fig. 4 shows, the Lunada Bay community includes approximately 302 acres of open space. Many of these acres are bluff tops overlooking the Pacific Ocean. Others are steep hillside and canyon areas.





*Figure 4. Major open space areas (green) in Lunada Bay.*

Five major, blue-line streams drain water to the Pacific Ocean. One of these passes through the area known as Lunada Canyon, a major drainage course near the city's southern boundary. Water flowing through Lunada Canyon has been directed through a large underground drainage system that extends from Via Rivera on the east to Via Anacapa on the west. The remainder of the canyon is a riparian area.

While the open space in Palos Verdes Estates and in the Lunada Bay community is permanent open space, since the city's founding the only maintenance of that open space has consisted of periodic mowing or disking to minimize fire hazards. Very few plants indigenous to the coastal or riparian environments remain. Some open space areas have been used as dumping grounds for wood chips or large boulders; others are covered in invasive plants that grow quickly in Spring, die, and become sources for fires if not mowed or plowed. Walkers find trails covered with thick layers of wood chips or bare dirt. There are few places to sit and enjoy the magnificent views of the ocean and the spectacular sunsets that are common to this area. These areas are essentially barren and uninviting to both humans and wildlife. Figures 5 and 6 illustrate these points.



*Figure 5. Lunada Bay open space: top, in front of Lunada Bay School; bottom, on Paseo del Mar at northern entrance to Lunada Bay.*





*Figure 6. Wood chips dumped for weed control in upper Lunada Canyon.*

This document describes the process that will be used to enhance the beauty of these areas and their value to residents of the Lunada Bay community.



## 2.0 BEAUTIFY LUNADA BAY PROJECT

The long-term goal of the Beautify Lunada Bay project is to beautify and increase the user friendliness of the major open space areas in Lunada Bay by

- Preserving and enhancing the quiet beauty of these open space areas,
- Planting drought-tolerant plants indigenous to coastal areas of the Palos Verdes Peninsula, and
- Formalizing walking trails and providing seating areas that highlight the spectacular views from these areas.
- Utilizing indigenous plants will minimize long-term maintenance and water usage, and will attract birds, butterflies, and other wildlife to these areas.

The Beautify Lunada Bay Project will develop and implement a long-range plan for the rehabilitation of open space in the Lunada Bay community. Developed in partnership with the City of Palos Verdes Estates, residents of the Lunada Bay community, and local organizations dedicated to preserving land and restoring habitat, the plan will define specific areas to be included in the restoration effort, the process and timeline for implementation of the plan, manpower and funding requirements for its implementation, costs and plans for long-term maintenance, and potential sources for funds.

In addition, the plan will consist of:

- Results of a survey of plants and wildlife in each open space area defining which plants are appropriate for retention and which should be removed. The survey will also identify any birds, reptiles, or other species that should be considered as restoration projects are defined.
- A palette of indigenous, low maintenance, low water plants suitable for each habitat area.
- Plans for walking trails and benches or boulders for seating in the restored areas.

The area to be restored over the long term may include many of the bluff tops and canyon areas noted in Fig. 4. The BLB project and the City of Palos Verdes Estates will make the final selection.

The BLB project will be initiated with development of a plan for a pilot project, and if approved, implementation of the plan in a small, visible area. The pilot project will introduce the community to the concept, help to understand issues and requirements, and begin establishing relationships, approvals, and funding sources necessary for the longer-term project. The pilot project is described next.

### 3.0 PILOT PROJECT

A pilot project is proposed to introduce the concept to the Lunada Bay community. The pilot will enable the BLB team to develop and test procedures, identify funding sources, and verify the availability of volunteer and other resources.

#### 3.1 Project Area

The location of the first pilot project is an approximately one-acre portion of Lunada Canyon across the street from the Lunada Bay Elementary School (see Figs. 7 and 8). The location provides the community with visibility of that effort and also serves as an introduction to the overall plan. The effort will help understand City and resident concerns and requirements, and establish a relationship with the Palos Verdes Peninsula Land Conservancy, which has a native plant nursery and well-developed volunteer and habitat restoration projects on the Peninsula.



Figure 7. Location of sites for pilot project.

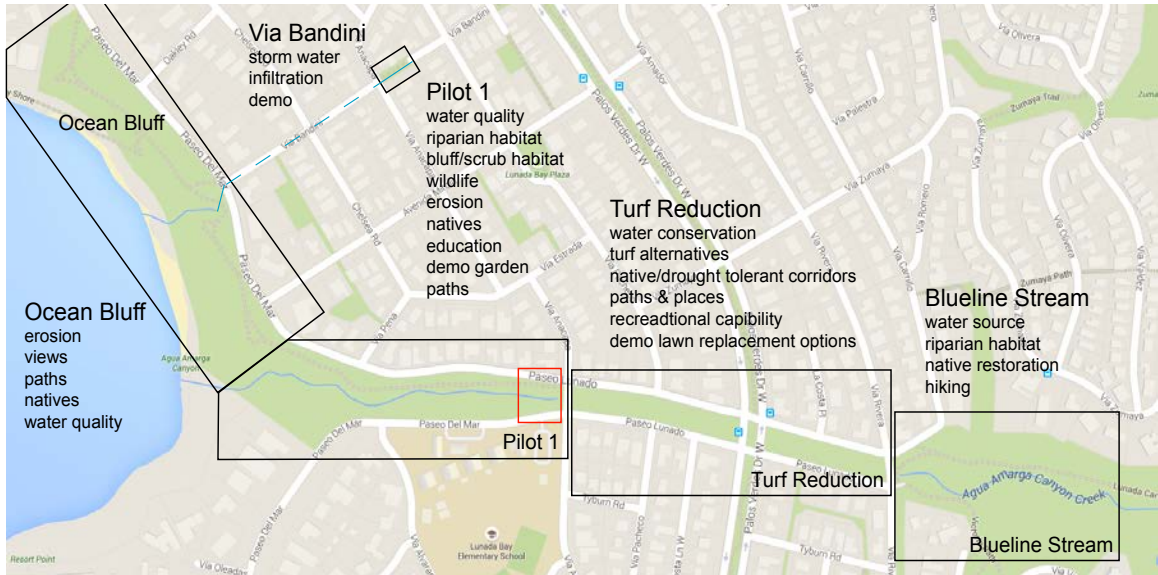


Figure 8. Lunada Canyon and bluff top, with area designed for the first phases of the Beautify Lunada Bay project. The area within the red box is the site of the Pilot Project.

Marlene Breene, a local landscape designer, has developed the notional design for the pilot project area shown in Figs. 9 and 10, which might include a segment of a walk path similar to that illustrated in Fig. 11. These designs will be used to introduce the concept to the community. The final design will include linkages to the remainder of the canyon area in Palos Verdes Estates, which extends to the edge of the bluffs on the north and south side of the canyon. Fig. 12 gives photos of some of the low-growing California native plants that might be included the palette for this area.

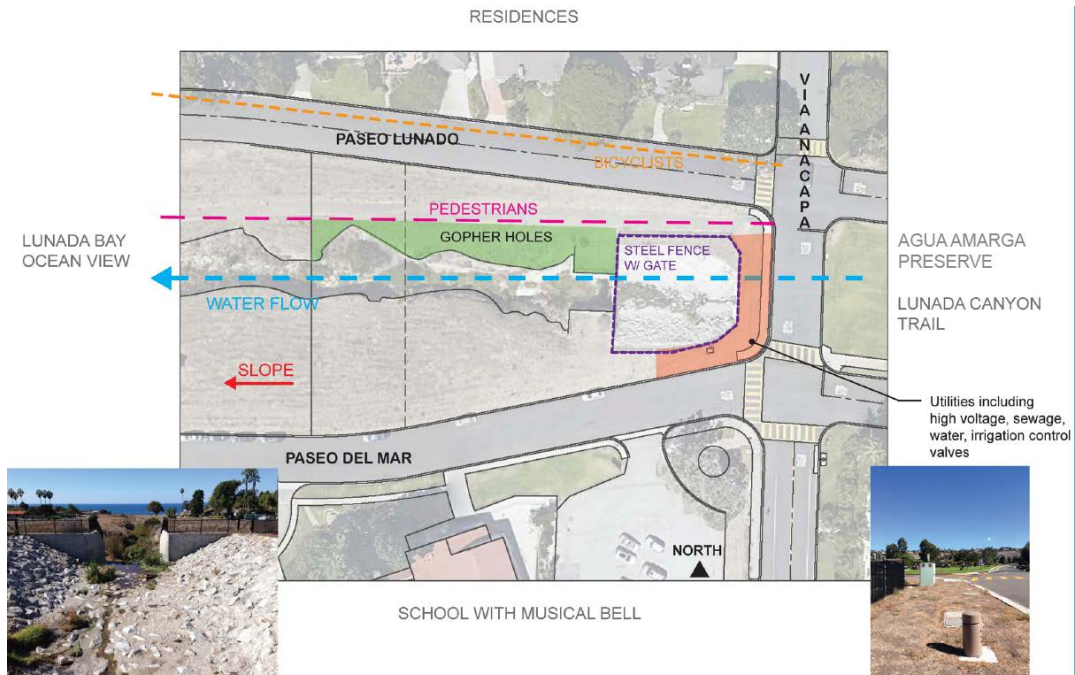


Figure 9. Overview of area of Pilot Project (courtesy Marlene Breene).



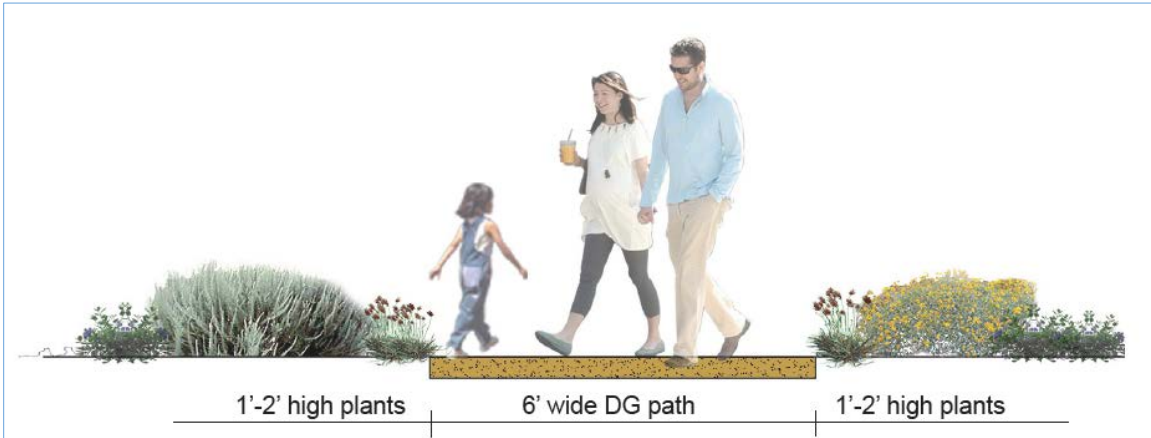


Figure 10. Concept for walking paths.

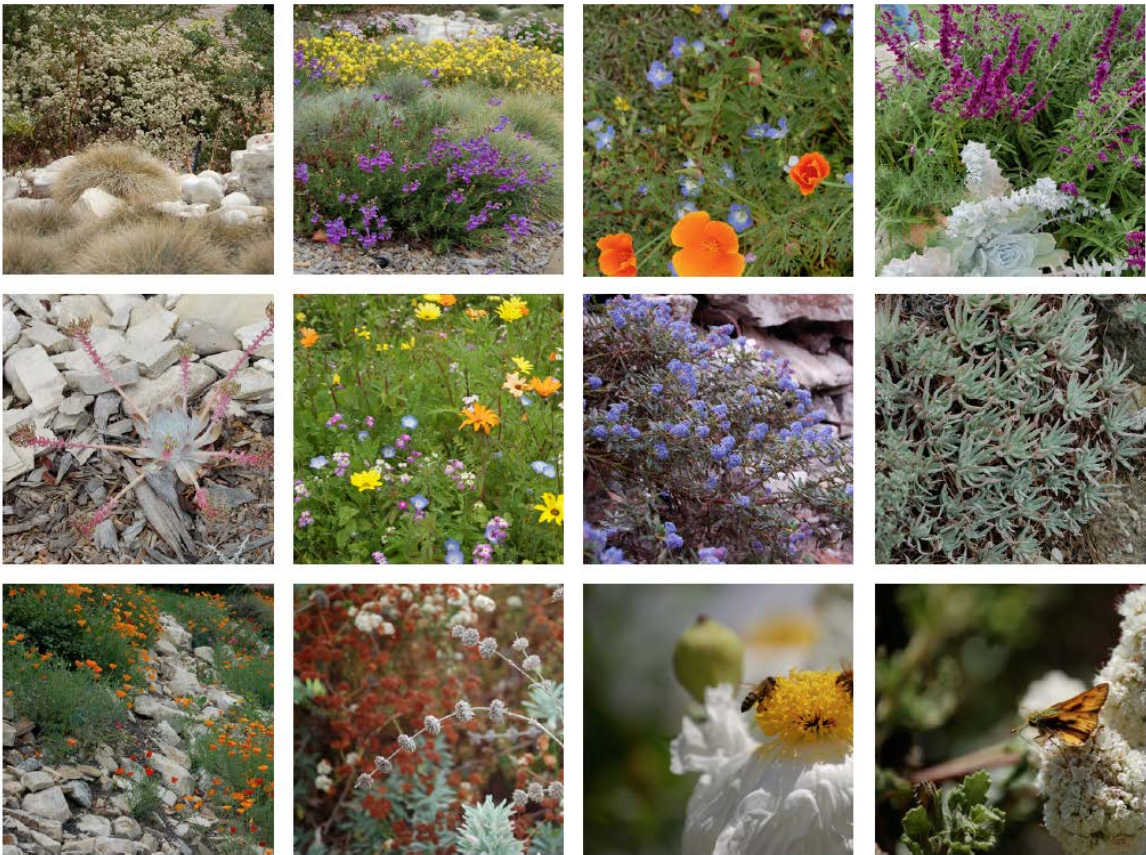


Figure 11. Plant communities that may be considered for the pilot project.



### **3.2 Goals Of Pilot Project**

Goals of the pilot project are to:

1. Introduce the community to the BLB effort and solicit community support of and involvement in the development of a long-range plan for enhancing major open space areas in Lunada Bay.
2. Develop a relationship with the City of Palos Verdes Estates that supports the overall BLB goals, process, and long-term use of the affected properties.
3. Understand costs for the BLB effort and develop funding sources for the BLB effort.
4. Determine the availability of volunteers and financial resources from the local community.
5. Developing a means for residents to donate to the effort either by formalizing a relationship with an existing nonprofit such as the PVPLC.
6. Develop relationships with the PVPLC and other community organizations that can play a role in the project.

### **3.3 Funding Requirements**

The Palos Verdes Peninsula Land Conservancy provided the information in Table 1 on estimated costs for design, installation, and three years of maintenance for the pilot project area. A three year period was selected based on the Conservancy's experience that native habitat requires watering and maintenance for this amount of time in order to be sufficiently established. The project would be initiated with a survey of currently existing plans in the pilot area and development of a restoration plan. The plan would include identification of plant material appropriate for the area, sources for plants, watering options, and other information as noted in the table.

Watering would likely use a drip water system, and might include trial of a Groasis Waterboxx<sup>1</sup> system, which collects water deposited as dew (e.g., morning dew on a car) and requires minimal addition watering.

The total cost of the pilot project as estimated by the Conservancy would be approximately \$80,000. It should be noted that the cost assumes that there is a fixed time frame for the completion of the project, so hired labor would be necessary for major tasks. Based on their experience, heavy use of volunteer labor makes it difficult to meet a specified schedule. A refined estimate would be solicited should there be agreement to consider partnership with the conservancy on the pilot project.

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<sup>1</sup> See <http://www.groasis.com/en>

Table 1. Rough estimate of overall cost for installation and first three years of pilot project.

Habitat Restoration Services	\$4,000	Preparation of a conceptual habitat restoration plan for the Lunada Bay site. The restoration plan will summarize the existing conditions and outline the goals of the restoration program. Detail the planting design, address plant material sources and lead time, describe installation requirements, address soil instability and erosion control, provide supplemental watering options, provide a maintenance and monitoring program, outline the performance goals and discuss site monitoring and reporting over time.
Irrigation Plan	\$4,000	
Planning total		<b>\$8,000</b>
Site work and Construction	\$3,275	Site clearing and collection of brush, boundary fencing, silt fence or Straw Wattles (Save \$2,100 if no fencing or straw wattles)
Irrigation system (assumes three years of water costs)	\$43,600	Temporary irrigation drip system, Establish POC and backflow pressure regulator. Includes water costs (water provided by the city; assumes 3 years at \$100/ac/month, ~\$3600 total).
Plant and Seed Installation	\$10,000	1,500 plants per acre. Plants in one-gallon container. If project would like hydro-seeding, add \$4,000
Maintenance period for three years	\$11,700	Monthly visits
Installation AND maintenance total		<b>\$68,575</b>
Total of planning, installation and maintenance		<b>\$76,575</b>
DG Walking paths	Estimate at \$19/linear foot	6-foot recommended width. Actual cost will depend on final design specifications.
Signage		Need more info to provide an estimate

### 3.4 Funding Sources

Potential funding sources for the project include:

- City of Palos Verdes Estates
- Donations from local community: Members of the community have indicated an interest in possibly donating funds to the effort and asked whether BLB would be a nonprofit so that donations could be tax deductible. A major goal of the project should be to provide a mechanism where residents' donations can be tax deductible.
- Grants: As the partnership for planning and executing the pilot project matures, potential sources for and requirements of different granting organizations will be developed. Table 2 below provides a preliminary set of potential sources for grant funds.

*Table 2. Potential sources for grant funds for the pilot project (courtesy Reggie Jue).*

Grant	Sponsoring Agency	Criteria	Application Date
Environmental Enhancement Fund	CA Dept of Fish and Game Office of Spill Prevention and Response (OSPR)	Support environmental enhancement projects in areas within or adjacent to the marine waters of the state	Spring 2015
Urban Streams Restoration Program	CA Dept of Water Resources	Innovative non-structural methods to return streams impacted by urban development to a more natural, stable state	Jan 2015
Watersmart Grant	US Dept of Interior Bureau of Reclamation	Conserve and use water more efficiently, benefit endangered and threatened species	Jan 2015
Green America Awards	Nature Hills Nursery	Honors non-profit community groups make neighborhoods better places by planting trees, bushes, and shrubs	No announcement for 2015 program

Grant	Sponsoring Agency	Criteria	Application Date
Captain Planet Foundation Grant	Atlanta-based Captain Planet Foundation	Projects performed by youths with real environmental outcomes; catalyst for environmental based education	Jan 2015
Wells Fargo Environmental Grant Program	Wells Fargo	Two environmental programs addressing local environmental priorities in our communities and foster innovation to help accelerate a "green" economy	Mid December
National Science Foundation Coastal SEES	NSF Science, Engineering and Education for Sustainability	sustainability of coastal systems--swath of land closely connected to the sea, including barrier islands, wetlands, mudflats, beaches, estuaries, cities, towns, recreational areas, and maritime facilities	Oct 2015
The Coastal Program	US Fish and Wildlife Service	provides direct technical and financial assistance in the form of cooperative agreements to coastal communities and landowners to restore and protect fish and wildlife habitat on public and private lands	Sept 2015

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### 3.5 Project Management and Execution

The three key participants included in management of the project, and their respective, roles are noted Fig. 12. As the figure shows

- As the landowner of the property, the **City of Palos Verdes Estates** has overall responsibility for the project. As part of its regular duties, the City must approve the project, which includes the project's design, schedule and structure, and the overall management of the project. The City must be comfortable that the project addresses concerns of the local neighbors and assist with securing approvals from relevant agencies for the work to be done.
- The **Lunada Bay Homeowners Association** would be involved with the development of plans for the pilot project and for the long-range plan for open space in Lunada Bay. LBHOA would also assist with developing grant applications and encouraging donations to the effort. It is recommended that LBHOA conduct an annual event to highlight the work being done and solicit volunteers.
- The **Palos Verdes Peninsula Land Conservancy** was selected as a potential partner based on their nonprofit status, extensive and long term experience in restoring native plants at various locations on the Palos Verdes Peninsula, their use of plants sourced from the Peninsula and grown in their own nursery, their ability to raise and manage both hired and volunteer resources, and their planning and management of restoration projects. In addition, since the Conservancy is a nonprofit organization, they potentially could accept donations earmarked for the project and assist in preparing grant applications related to the Pilot Project and the overall Beautify Lunada Bay project.



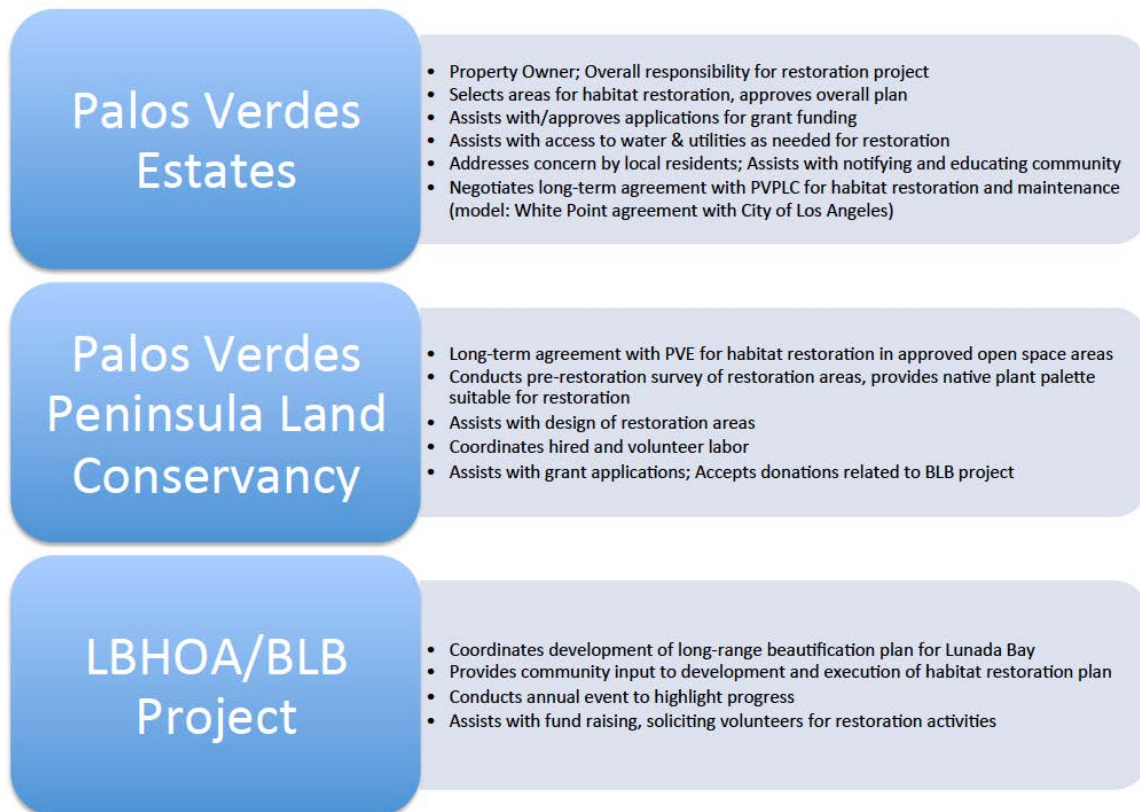





Figure 12. Possible team members and responsibilities for planning and executing the Pilot Project.

### 3.6 Community Support

The BLB concept and the proposed pilot project have been developed by residents of the Lunada Bay community via a series of six meetings held over the last ~18 months. In addition, the invitation shown in Fig. 13 was delivered to each residence adjacent to the full length of Lunada Canyon informing them of an open meeting to hear about the overall BLB concept and the pilot project. Over a dozen individuals attended the meeting, and all were enthusiastic about the general proposal to upgrade the open space areas as proposed, and equally pleased with the proposed one-acre pilot project's location area and conceptual plan. These residents also reported strong support from neighbors who did not attend.

Prior to the meeting with local residents, the Lunada Bay Homeowners Association the overall concept and proposed pilot were briefed to the Board of the Lunada Bay Homeowners Association. The LBHOA offered its support and provided funding to cover the cost of printing the brochure pictured in Fig. 13.

<p><b><i>Beautify Lunada Bay (BLB)</i></b></p> <p>A project by the Lunada Bay Homeowners Association (LBHOA) to enhance the beauty of our community</p> <p>You are invited to a community meeting at 7:00 PM February 12, 2015, in the Multipurpose Room at Lunada Bay Elementary School. Come learn about the LBHOA plan and participate in development of our Pilot Project</p> 	<p><b><i>What are the goals of BLB?</i></b></p> <ul style="list-style-type: none"> <li>• Improve the quality of life in Lunada Bay by restoring/enhancing the natural beauty of major open space areas</li> <li>• Restore natural landscaping and add carefully selected low-water, low-growing, self-sustaining flora</li> <li>• Enhance the natural habitat for native wildlife</li> <li>• Provide educational projects for Lunada Bay students</li> <li>• Determine community support via a pilot project</li> </ul> 	<p><b><i>Purpose of the February 12 Meeting</i></b></p> <ul style="list-style-type: none"> <li>• Discuss the BLB project and goals</li> <li>• Describe the proposed pilot project on open space across the street from Lunada Bay Elementary School</li> <li>• Hear your comments and concerns</li> <li>• Solicit your help and involvement as we begin this effort to Beautify Lunada Bay!</li> </ul> 
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## Aspects of Beautify Lunada Bay Project



Figure 13. The tri-fold brochure that was circulated to neighbors of Lunada Canyon.

## 4.0 SUMMARY AND NEXT STEPS

The draft of a concept and plan for planting low water, Peninsula-native plants in major open space areas of the Lunada Bay community has been developed and socialized within the community. Based on preliminary responses, the conceptual plan has been enthusiastically received and supported. A similar response was received for the proposal to execute a pilot project, where approximately one acre of Lunada Canyon open space across from Lunada Bay School would be planted with native plants and would include a trail segment similar to what would be used in other areas.

Moving forward on the pilot project is the first major step in moving the concept further, and decisions are required for:

- Overall support of the project by the City of Palos Verdes Estates.
- Identification of the key members of the planning team for the pilot project.
- Formal identification and marking the area for the pilot project and identifying sources for water and any other required resources.
- Identifying and reaching an understanding among the key participants of roles and responsibilities. This discussion should include the mechanisms that will be used to solicit and accept donations of time and funds to the effort.
- Notifying the public of the intent of the pilot project and the long-term effort.
- Authorizing and funding a survey of existing plants in the pilot project area and developing a conceptual habitat restoration plan for the Lunada Bay site. The restoration plan would summarize the existing conditions and outline the goals of the restoration program, detail the planting design, address plant material sources and lead time, describe installation requirements, address soil instability and erosion control, provide supplemental watering options, provide a maintenance and monitoring program, and outline the performance goals and discuss site monitoring and reporting over time.

The local community has expressed strong support for the overall goals of the effort described. Developers of this plan look forward to building on this support to enhance the quiet beauty of Lunada Bay open space.