

WRP SMALL GRANTS PROGRAM

APPLICATION SUMMARY

1. **Project Name:** Wetland Restoration & Education

2. **Type of Project** (check only one): ___ Planning Restoration/Enhancement

3. **Project summary** (1-2 sentences -- specify key action(s) to be undertaken):

Aquatic Adventures and Project Pacific will collaborate to restore an important San Diego wetland habitat and empower the community by providing education about this valuable resource along with the tools for immediate action. The project in its entirety includes, a task force working to determine appropriate restoration, an educational and restoration event to be held May 4, 2002 (removal of invasive plants, unnecessary paths and trash—and trail enhancement), the installation of a series of interpretive signs, a planting effort, and the establishment of a volunteer group to provide long term continued restoration.

4. **Location:** County: San Diego
 Watershed: San Diego River Valley
 State Senate District (#): 39
 State Assembly District (#): 78

5. **Acreage:** Total acreage of project area: ~3 acres
 Acres of existing (pre-project) wetland habitat: ~1.5 acres
 Acres of post-project wetland habitat: ~1.5 acres
 Feet of stream corridor (if applicable): N/A

6. **Budget Summary:** Total project cost: \$60,000
 Amount requested from WRP: \$25,000

7. **Contact Information:**

Name:	Shara Fisler	Melissa Studer
Organization:	Aquatic Adventures	Project Pacific
Address:	1010 Santa Clara Place San Diego, CA 92109	4455 Lamont Street, Suite C San Diego, CA 92109
Telephone:	(619) 665-3861	(858) 270-8851
Fax:	(619) 488-4703	(208) 330-7858
Email:	sfisler@acusd.edu	studer@projectpacific.org

8. **Proposal prepared by:** Melissa Studer Title: President, Project Pacific

Signature  Date March 1, 2001

Wetland Restoration & Education

PROJECT NARRATIVE (4 page max)

Site Description

The proposed location for restoration is the salt marsh and sand dune area just east of Dog Beach in Ocean Beach (City of San Diego). This marsh site is at the mouth of the San Diego River Valley and offers a diverse habitat for local plants and animals. This habitat, however, is severely threatened. Many non-native invasive plants are present throughout the area, as well as a tremendous amount of trash and animal waste. There are also several unnecessary paths throughout the site.

The upland area consists of a series of sand dunes. These dunes are vegetated by both native plants (such as primrose and ambrosia) and non-native plants (such as chrysanthemum and tumbleweed). Inhabitants include dune beetles and lizards. The marsh area is alternately submerged. Native plants include alkalai heath, pickleweed, sea blite, and jaumea. Non-natives such as foxtails and Bermuda grass are also present. Fauna include butterflies, tiger beetles, killdeer, and least terns foraging for food. The sub-tidal area is submerged a majority of the time. Native plants include cord grass and eelgrass. This area is not inundated with invasive species. Birds such as the blue ibis, snowy egret, and great heron are common. Fish such as mudsuckers and killifish are also common; invertebrates are diverse here as well.

Approximately 500,000 people visit this site per year. Due to its location next to Dog Beach it receives a preponderance of regular visitors, including many from out of town. In addition, a paved path is set above the site and is a popular biking, running, and walking route. A large parking lot with 298 public spaces creates easy access into the area. Public bathrooms and food stands are also present.

Project Description

Project Need:

Three primary issues threaten the salt marsh area by Dog Beach: non-native invasive plants, overuse, and pollutants and animal waste.

1. Non-natives (such as chrysanthemum and tumbleweed) out-compete native plants (such as primrose and ambrosia) and negatively impact the wetland (see photos, attached). This translates into loss of habitat for endangered species such as the least tern and an unhealthy ecosystem. Lying at the mouth of the river valley, this site is particularly subject to seeds traveling from upstream sources.
2. Overuse includes the unintentional creation of trails. Too many trails and foot traffic has lead to a “freeway” environment and has broken up native plant aggregation (see photos, attached). This site has had no regulation of these trails in the past. Visually, a park user is even encouraged by the layout to walk directly through the most sensitive habitat. There are over a dozen trails throughout the approximately 3 acres (see photos, attached).
3. Pollution and animal waste threaten not only the salt marsh, but also the people who enjoy the area for recreational use. Storm drain outfalls bring pollutants and street runoff, and individuals not aware of the damage they are causing do not clean up after themselves and their pets. In August 2001, the San Diego Regional Water Quality Control Board issued a declaration of need in regards to water quality at the site.

Aquatic Adventures (a non-profit organization promoting science and stewardship through marine science education) and Project Pacific (a non-profit organization promoting “actions benefiting the ocean” by balancing preservation, enhancement, and use of coastal resources) will collaborate to restore an important San Diego wetland habitat, and empower the community by providing education about this valuable resource along with the tools for immediate action.

The project in its entirety includes: a task force (formed in December 2001) working to determine appropriate restoration, an educational and restoration event to be held May 4, 2002, the installation of a series of interpretive signs, a planting effort to be completed in December 2002, and the establishment of a volunteer group to provide long term continued restoration.

Task Force: Aquatic Adventures and Project Pacific have assembled and are working with a “task force” consisting of: Jeff Van Deerlin and Peter Bryan (City of San Diego District Two), Gary Stromberg and Robin Stribley (Mission Bay Park & Recreation), Isabelle Kay (Scripps Reserves Manager, UCSD), Gary Ruyle (Helix Environmental), Robert Hutsel (San Diego River Foundation), Jim Peugh (San Diego Audubon Society & Friends of Famosa Slough), Tim Flemming (Primrose Project), Jean Nichols (JNE Associates), Chris Nordby (Tierra Environmental), and Ted Griswold (Procopio Cory Hargreaves & Savitch). The task force will establish all plans for the proposed restoration. For example, the task force will determine planting needs, strategize how to best remove unnecessary paths and create wheelchair accessibility for trails that are to remain, give input for interpretive sign content, and develop an ongoing restoration effort.

May 4th Event: “Wetland Avengers” will educate the community about the value of this resource and provide a venue in which this awareness will be directed toward action. Under the guidance of biologists and volunteer coordinators, participants will work on restoration and clean up of the area. Participants will also learn to identify native and non-native plants, wetland birds, and other salt marsh inhabitants, as well as gain understanding of the overall threat of invasive species throughout the environment.

The participants (“Avengers”) are instructed they are on a “mission possible” to save the wetland habitat. This theme is used to create a high level of excitement (particularly for youth participants) as well as to demonstrate the need for blending into this delicate environment in a non-intrusive manner. The theme will be used throughout the event. Avengers will be separated into three categories (adults, families, youths), so that education and instruction will be appropriate. Once groups are established, “Sergeant Biologists” will take the Avengers on a 15-minute educational tour of the wetland. At the tour’s completion, Avengers will be directed toward a restoration site where a “Squad Leader” will be waiting. Squad Leaders will assign projects and assist in facilitating restoration (primarily invasive plant removal and reallocation of paths).

Upon completion of restoration/clean-up activities, Avengers will return to the registration area. There will be booths with educational games, further wetland information and hands-on activities from other organizations (e.g. Department of Environmental Health Storm Water Program, I Love a Clean San Diego, Ducks Unlimited, etc.) and food and beverages. The interpretive signs will most likely not be completed. However, true size paper layouts will be present so that participants will be able to visualize their appearance and read the text. Dates will be posted on each interpretive sign model, revealing when actual signs will be unveiled.

December 2002 Event: The focus of this event will be to implement the planting of native species. Volunteers will be recruited at the May event to ensure the success of this endeavor. In addition, one or more interpretive signs will be unveiled at this time.

Continued Restoration: Aquatic Adventures and Project Pacific will work to establish a core of volunteers that will provide continued restoration for this site. This “Friends of Dog Beach Salt Marsh” will care for the area on a regular basis. Equipment used for events will be made available to this group. The San Diego River Foundation and Friends of Famosa Slough are taking a particularly active role in this process. Earth Works has also expressed interest in coordinating volunteers that will include Point Loma High School students.

Interpretive Signs: A series of five interpretive signs will be designed, constructed, and installed. Each sign will include artistic renderings, wetland habitat definition, description, and importance; they will further explain the threats to this sensitive area along with tools for action that every individual can use to help preserve water quality and wetland habitat. The task force will determine the specific locations of the interpretive signs.

- Sign #1: Sub-tidal, Sign #2: Salt Marsh, Sign #3: Uplands/Dunes
The first three signs will consist of three boxes within each sign. Within the first box, text will discuss the micro-ecosystem and its importance, and will show an artistic rendering of that system. The second box will highlight species of interest and be accompanied by color photos. The third box will discuss direct threats to the ecosystem at this particular site—including photos taken at or near the site—and provide tools for action to help prevent these threats.
- Sign #4: Awareness into Action
This sign will focus on what individuals can do to help protect this valuable resource. It will provide very specific and simple measures that can be taken.
- Sign #5: Time and Tides Gone By
This sign will feature three boxes. One box will show the area in the late 1800’s pre-development and prior to the dredging of Mission Bay. The second box will reveal the site in the 1920’s when an amusement park and trolley were present. The final box will show the site as it is presently.
- Construction
All signs will be constructed of embedded fiberglass to decrease vandalism and wear and tear. Park & Recreation will approve the signs. The signs will be mounted on a variety of artistic structures. For instance, the salt marsh sign will be mounted on ironwork created to replicate cord grass.
- Collaboration
Aquatic Adventures and Project Pacific are exploring with the San Diego River Foundation (the organization responsible for coordination of restoration efforts in the San Diego River Valley) the possibility that these signs may act as a prototype for signage all along the river valley, so that all signage will appear consistent.
- Maintenance
Signage is within Park & Recreation jurisdiction and will be maintained under their authority.
- Accessibility
As part of the restoration process, trails will be improved and made wheel chair accessible. Therefore, all signage will be easily within reach of all. In addition, a large parking area is adjacent to the site.

Ecological Benefits

Removal of invasive plants like chrysanthemum, tumbleweed, foxtails, Bermuda grass, and ice plant will protect native flora and fauna present throughout the area such as cord grass, eelgrass, primrose, jaumea, alkali heath, butterflies, tiger beetles, killdeer, least terns foraging for food, blue ibis, snowy egret, and great heron. Likewise, planting native seeds will further benefit the salt marsh and help achieve a more natural state. The trail system will be designed to minimize impact and unnecessary trails will be identified, closed-off, and restored as part of the restoration efforts. Pollution and animal waste will also be removed, protecting the flora and fauna throughout the area, as well as the numerous visitors to the site.

Community Involvement/Education Element

The Wetland Avengers restoration and educational event will include as many as 600 participants from throughout the San Diego Community. Participants will be composed of approximately 200 under-represented youth, 200 corporate volunteers, and 200 individual community members. In addition, volunteers will be recruited from throughout the community to establish the "Friends of Dog Beach Salt Marsh" group for continued and regular restoration and removal of invasive plants. Finally, the planting event will be conducted with volunteers from throughout the community as well. An educational element exists throughout each of these events, through trained biologists, other organizational representatives, literature, and interactive booths. The series of interpretive signs constructed and placed throughout the site will provide continued education for the 500,000 people who visit the area each year.

Applicant's Experience

On September 8, 2001, Aquatic Adventures and Project Pacific, in partnership with the Volunteer Center of San Diego, provided "Wetland Avengers" as the kick off event for Hands On San Diego 2001. This event led participants in wetland education and restoration. 600 volunteers attended the event, making it the largest Hands On event to date. Council members Wear and Peters lent support at the event, and it was at this time that Council member Wear pledged \$25,000.00 to the continued restoration and education efforts.

Aquatic Adventures and Project Pacific are working in partnership with many organizations, government entities, and community members to complete this project. Some of these include: City of San Diego District Two and Park & Recreation, Ocean Beach Town Council, Ocean Beach Community Development Corporation, S.D. River Foundation, Friends of Famosa Slough, I Love a Clean San Diego, Earth Works, Ducks Unlimited, City of S.D. Storm Water Pollution Prevention Program, Ocean Beach Dog Wash, Home Depot, Qualcomm, S.D. Stream Team, S.D. Audubon Society, California Native Plant Society, Sierra Club Canyonlands, S.D. Regional Water Quality Control Board, S.D. River Coalition, Vietnam Vets of San Diego, Friends of Los Penasquitos Marsh Natural Preserve, Boys & Girls Club of S.D., AmeriCorp, S.D. Backed, YMCA, and others.

Some of Aquatic Adventures' achievements include: serving over 2500 low-income students each year with free interactive science curriculum, providing intensive after-school programs for at-risk youth, awarding summer camp scholarships to marine science summer camp, receiving City of San Diego Special Commendation for "education and protecting the San Diego region's coastal environment", November 2001.

Some accomplishments of Project Pacific include increased awareness of invasive species such as *Caulerpa taxifolia* (the recipient of a City Resolution, an event that drew 200 participants, helping pass a City Ordinance), prompting a review of the City's beach grooming policy with regard to grunion (gathering a "review panel", coordinating over 200 volunteers, conducting a research study), and establishing and operating a White Seabass "grow-out" facility on Mission Bay.

PROJECT BUDGET

Include Table 1 *or* Tables 2A and 2B. Note: You can provide a different budget table as long as it provides the total project costs broken down by task and all of the project funding sources.

Table 2A: Estimated Project Budget

Project Task	City of San Diego	CA Coastal Conservancy	WRP Small Grant	Total Cost (Estimated)
Interpretive Signs (5)		\$10,000	\$2,500	\$12,500
Plants/Seeds			\$5,000	\$5,000
Salaries	\$8,000		\$8,000	\$16,000
Instructors	\$500		\$500	\$1000
Small Equipment	\$1500		\$1000	\$2,500
Supplies	\$1500		\$1000	\$2500
"Friends of" Group (Year 1)	\$1000		\$1000	\$2,000
Printing/Copying	\$1000		\$1500	\$2,500
Consultant Fees	\$1000		\$1000	\$2,000
T-Shirts	\$1800			\$1,800
Food	\$500		\$500	\$1000
Music	\$200			\$200
Booth Activities	\$2500			\$2500
Cobble/Trails	\$4000		\$2000	\$6,000
Permits	\$500			\$500
Misc.	\$1000		\$1000	\$2000
TOTAL	\$25,000	\$10,000	\$25,000	\$60,000

Table 2B: Estimated Funding Sources

Funding Source	Amount	Confirmed/Applied/Etc.
City of San Diego, District Two	\$25,000	Confirmed
Coastal Conservancy	\$10,000	Applied
WRP Small Grant	\$25,000	Applied