

Community Grant Program Application

Submit application by email to staff@mbnep.org or mail to the Morro Bay National Estuary
Program's offices by 4pm on the due date. Please be sure to include the summary coversheet
below, the Priority Issue check list and Action Plan summary, and the Narrative Information
Section.

Project Title:	
Applicant:	
Address:	
Contact Person(s):	
Phone:	Fax:
Email:	
Grant Amount Requested (cannot e	exceed \$5,000) :
Total Estimated Project Cost:	
Amount & Source of Other Fundin	g (if relevant):
Project Description Summary (fill in	n here or attach additional document; word limit 300):



Check off the Comprehensive Conservation and Management Plan Priority Issue(s) addressed by the proposed project:

Sedimentation.
Bacterial contamination.
Elevated nutrient levels.
Toxic pollutants.
Scarce freshwater resources.
Preserving biodiversity.
Environmentally balanced uses.

The proposed project must work to implement, at a minimum, one of the Action Plans that address the Priority Issues listed above. Please list the relevant Action Plans that will be addressed by this project below. The Action Plans are detailed within the Management Plan which can be found at MBNEP.org or from the Estuary Program's office.

Promoting Sea Otter Stewardship in Scuba Divers in Morro Harbor

Gena Bentall, Sea Otter Savvy

Cara O'Brien, California State Parks and Seabird Protection Network, Pt Sur to Pt Mugu Chapter

Mike Harris, California Department of Fish and Wildlife, Sea Otter Savvy Program Advisor

The problem

The Sea Otter Savvy program uses research and a science based approach to develop our outreach and education program with the goal of reducing human-caused disturbance to sea otters in California. With the help of our volunteer based citizen science team we collect data to help us understand the effect of marine recreation activities on sea otter behavior and energy budgets. During monitoring sessions, our citizen scientists have observed disturbances to resting sea otters by scuba divers at Target Rock. Disturbances most often occur when divers, intentionally or accidentally, surface very near the raft causing a "full flush", when all raft members dive suddenly in response to a perceived threat. Placement of dive flags too near a resting sea otter raft, and surface swimming by divers to and from access locations have also been reported as sources of disturbance. Additional reports of diver-caused disturbances to sea otters have been communicated to us by U.S. Geological Survey and California Department of Fish and Wildlife sea otter biologists, SeaLife Steward volunteers, Morro Bay Natural History Museum docents, and concerned citizens. As the kelp bed at Target Rock continues to thrive, it is likely to attract both sea otters who want to rest in the canopy and divers who want to explore the forest underneath. While similar diver-caused disturbances have not been observed at Coleman Beach, the proximity of popular diving sites to sea otter resting locations make disturbance probable.

Our solution

We believe that an inclusive outreach approach that incorporates the spatial needs of sea otters and preserves diver enjoyment will have the best chance of success. Our proposed strategy includes three elements:

- Engaging the SCUBA diving community: Reaching out to key members and leaders of scuba community, dive shops, and scuba organizations to collaborate on strategies and materials that most effectively educates divers on best practices to prevent disturbance while preserving diver experience.
- 2. Installing educational signage at key diver access points: Boulder mounted interpretive signs would provide information targeting scuba divers at two popular diver access locations that are adjacent to sea otter resting locations (<u>Figure 1</u>). We believe the boulder-mounted signage (<u>Figure 2</u>) simplifies installation and integrates attractively into the existing rock features at both locations. The signs might include (<u>Figure 3</u>):
 - a. Map showing diver access location(s) and sensitive sea otter areas (variable by site)
 - b. Tips for diving safely and responsibly in sea otter habitat with the dual goal of preventing disturbance and aggressive encounters
 - c. Underwater image of location (variable by site)
 - d. Images of common kelp forest fauna (above and below surface, kelp forest fauna at Target Rock and eelgrass at Coleman Beach)
 - e. Why rest is important for sea otters

3. Creating educational brochures/dive maps: Working with dive shops to create (waterproof?) maps of the relevant locations with tips for divers, information on responsible diving around sea otters and other marine wildlife, and field guides to marine life of Morro Harbor

We hope to implement elements 2 and 3 within the context of a collaboration with the diving community as described in element 1. Our goal is to provide information that is of use to divers wishing to explore these locations, helps ensure diver safety in sea otter habitat, and promotes a sense of good stewardship towards sea otters and other marine wildlife among divers.

Figures

Figure 1 Map of section of Morro Harbor showing proposed locations for interpretive signs at diver access points (red Xs) adjacent to sensitive sea otter resting areas (blue ellipses).



Figure 2 Examples of boulder-mounted interpretive signs





Figure 3 Draft sample of proposed content for Target Rock interpretive sign



Estimated Budget

	Graphic	Fabrication	Fabrication	Boulder	Total	Total
	Design by	Wildways	Fossil	Installation	Wildways	Fossil
	Wildways		Industries			
Estimated cost	\$2500	\$450	\$293	\$250	\$3200	\$3043
per sign						
Total, 2 signs	\$5000	\$900	\$594	\$500	\$6400	\$6086
Requested						\$5000
funding						
MBNEP						
Balance						\$1086
requiring						
supplementary						
funds						

From Grant Application: The proposed project must work to implement, at a minimum, one of the Action Plans that address the Priority Issues listed above. Please list the relevant Action Plans that will be addressed by this project below. The Action Plans are detailed within the Management Plan which can be found at MBNEP.org or from the Estuary Program's office.

This project addresses the Environmentally Sound Estuarine Resource Use (USE-1) Action Plan by seeking to support recreational use of the bay and estuary, while educating recreationists to demonstrate good stewardship toward an ecologically important Morro Bay inhabitant, the sea otter. All facets of this proposal, from public interpretive signage to engagement with the diving community, fall within the Education and Outreach (EO-1) objectives described in the CCMP.

Additionally, we contend that, as sea otters are a keystone species known to promote biodiversity where they live and feed, their persistence in Morro Bay is likely to promote biodiversity and estuary health. Recent studies have linked the presence of sea otters to increased recovery and resilience of eel grass beds, a critical ecological community in Morro Bay. Encouraging the persistence of sea otters in Morro Bay by protecting them from human-caused disturbance is one way to support the presence of this species that may have a critical role in the health and recovery of estuary habitats in a manner consistent with multiple Action Plans under the category of Ecosystem Conservation and Recreation.

Considerations for Interpretive Design

Following is a description of general elements to consider when developing interpretive panels. The approach implemented depends on what best suits the site, themes, orientation, regulatory and branding requirements.

Branding

Often projects involve multiple agencies or organizations. If your project seeks to gain recognition for your agency and/or its messages and goals, an attractive and consistent look is important. Your "branding" may involve the use of logo(s), colors, fonts, images and messages. A "branded look" can be created that will be the model for each interpretive panel. If you partner with other agencies requiring recognition, the appropriate additional logo is placed in the "logo set" on the panel or sign. You will be able to easily identify branding elements used in the examples supplied in this document.

Identify Themes

After reviewing in detail the scope and goals of the project, we work with the client to articulate the overall theme for the project, then identify themes to replace the "subjects or topics" describing each of the interpretive panels required. Themes are intended to at once capture the interest of the visitor and convey the primary message for each panel. Sub-themes are used in order to deliver the complete message. The over-all theme may become your "branding" message.

Understand Your Audience

Who are your visitors? (Education, age, school groups) Why do they visit? (Hiking, biking, watching birds and nature) Knowing more about your visitors will aid in tuning your message to generate interest and have impact, causing them to think about what they you've said after they've gone home, perhaps, even changing how they interact with ocean resources in the future.

Develop Text

Facts are researched and text is written to provide information that supports themes and subthemes. Interpretive text is written in short sentences, active voice. Interpretive writing guidelines recommend no more than 150-200 words per panel. **Acessibility requirements specify that**

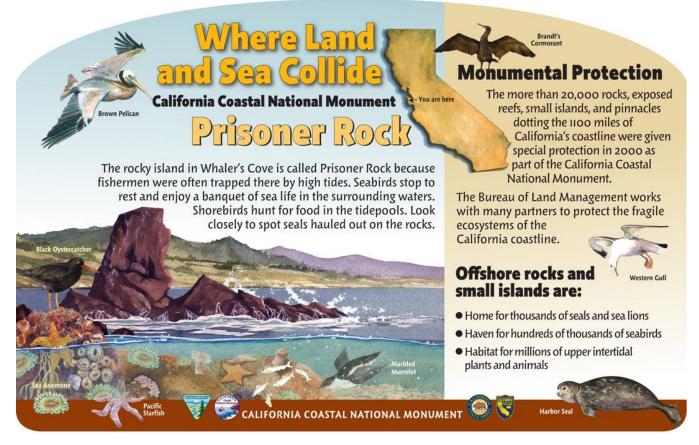
uppercase letters in body text be at least 3/8-inch high. Size alone will keep text short, especially if there are maps, photos, diagrams, and illustrations to be included. Sidebars may be used to develop a second theme or third in a panel.

See example here.



Determine Design Elements

Various design elements can be used to provide brand identity and consistency. These may include colors and fonts, shapes, title bars, and logos. Branding (e.g. logos) shouldn't out-weigh the message. Following are some examples:

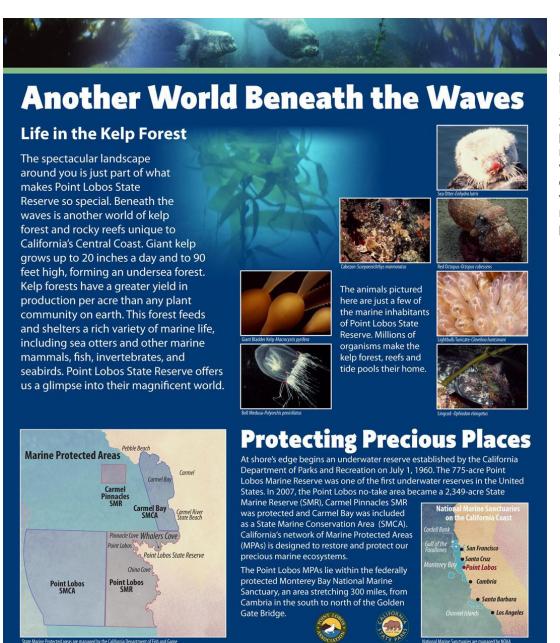


There are lots of logos on this 28"wide x 18"high panel at Pigeon Point, but they don't detract. Note also color bar and shape used for California State Park panels in several Central Coast locations.

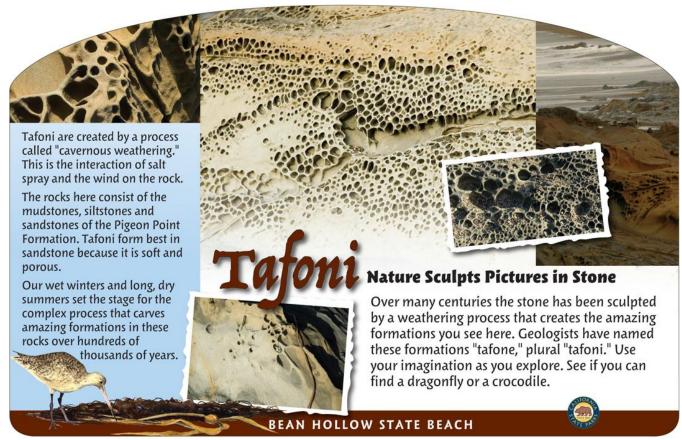
Adding Visual Content

The old adage "a picture is worth a thousand words" is especially true for interpretive signs. Research reveals that just 6% of visitors read entire interpretive panels. So the images used must also support the theme and convey the message and, hopefully, get more people to read the text. Photos, maps, diagrams, and illustrations can be used to that end. Timelines can visually carry the visitor through historical events. While illustrations are our specialty because they seem to convey something beyond what photographs do, photos, maps, and diagrams can be combined effectively.

Following are more examples:

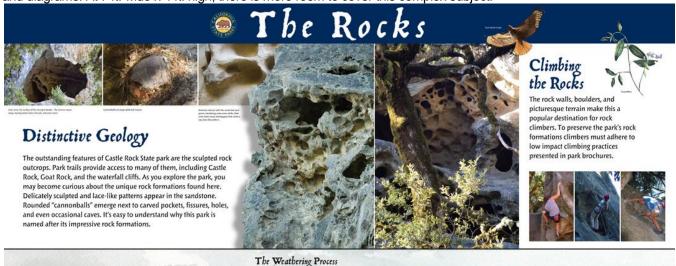


This design for a 3-panel kiosk at Point Lobos State Reserve is 32"wide x 40"high. We used photos along with map images given a watercolor wash in order to match the watercolor dive area map on the adjacent panel.



Here we describe geological features and processes using photos. We connect it with the other 9 panels in this series at Bean Hollow State Beach by adding the illustration of the bird and kelp. This panel is 28" wide x 18" high.

In this example we describe the same geological process (tafoni) using diagrams. We combined photos, illustrations, and diagrams. At 7 ft. wide x 4 ft. high, there is more room to cover this complex subject.

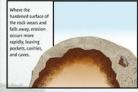


The Mystery of the Castle Rock Formations

Coarse grains of cemented sand make up the basic character of the Vaqueros sandstone found here. Our mediterranean climate (wet winters and long, dry summers) sets the stage for what occurs. Over many centuries the stone weathers through a complex process that creates the amazing formations you see. Geologists call these formations tafone (plural tafoni), an Italian word meaning "caverns."

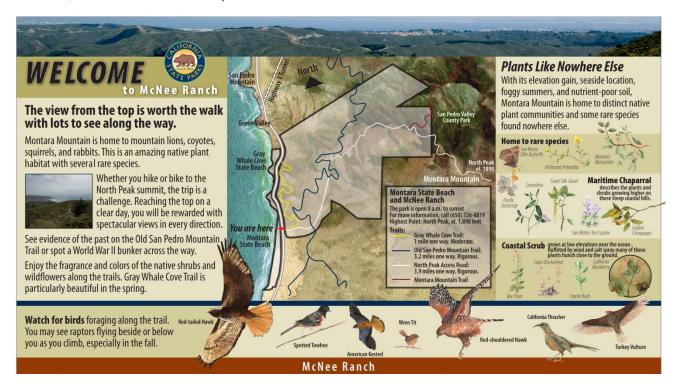






Castle Rock State Park

Below we've combined photos, illustrations, and a map on a 36"wide x24"high interpretive panel that offers a welcome, orientation, and information about the park's historic and natural resources.

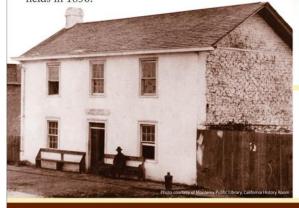




This welcome and orientation panel if 42"w x 36"h. Using a digital map with overlays and photos only, we describe options for hikers, bikers and equestrians; describing trail length, difficulty and highlights.



This old adobe was originally built in 1847 by David Wight as a home for his family. The floor plan is reported to be based on Wight's ancestral home in Scotland. The Wights lived in the house for only a short time before leaving for the gold fields in 1850.



Portuguese whalers, working for the Old Monterey Whaling Company, began shore whaling operations here in 1855. The building served as company headquarters and employee residence. Whales were spotted from the second floor windows, and the hunt began. The whale blubber was rendered on the beach in huge iron pots like the one you can see in the back garden.



Where whalers lived and worked





In 1864 the Monterey Gazette reported that pieces of whalebones, which were "plentiful on the beach," were cut and trimmed as paving blocks for "neat and pretty sidewalks" in front of Monterey stores.

The Old Whaling Station has one of the nation's last remaining whalebone sidewalks.

Today the Junior League of Monterey leases this historic site from California State Parks. The adobe and its gardens are used for weddings and other special events.

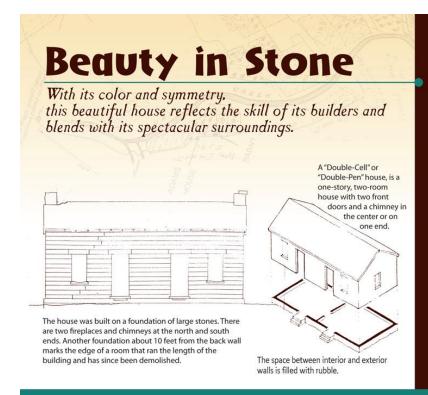




For more information, go to our website: www.parks.ca.gov/mshp

Monterey State Historic Park

This 36"wide x24"high interpretive panel that describes historic events and places using historic photos, art and modern images as well.



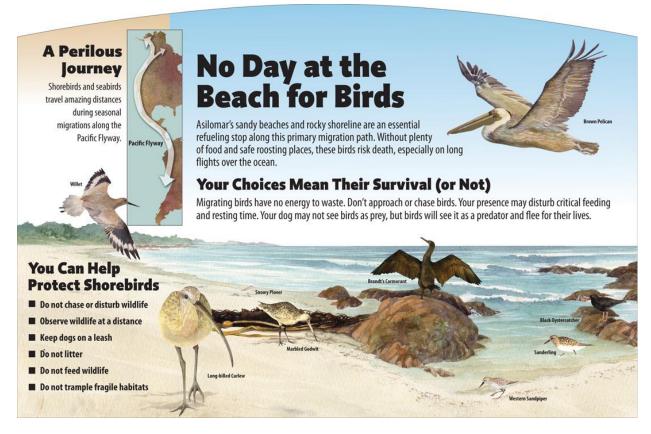


The Orson B. Adams House was built between 1863 and 1866. It is believed that Willard G. McMullin, a stone mason in Harrisburg at the time, either built or helped build the house.

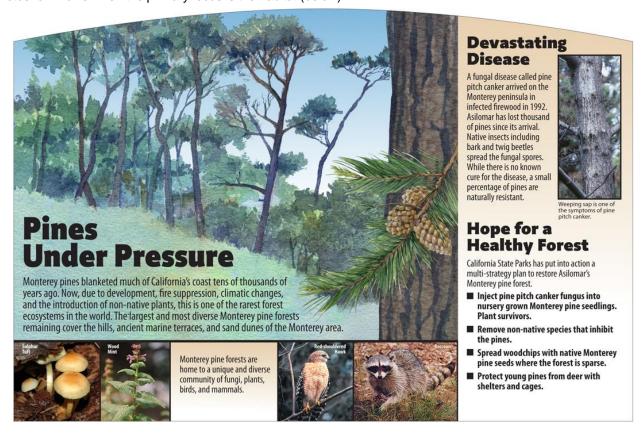
This house is often cited as an example of typical early Utah architecture. It is referred to as a "Double-Cell" or "Double-Pen" house. The style was developed in Virginia and carried into the deep south and west. It reflects the "Greek Revival Style" with its symmetrical features and boxed cornice returns for the roof. You may recognize these features in other historic buildings in the area.

Courses of sandstone blocks make up the interior and exterior walls. Notice how the carefully dressed stone, in varied shades of red and white, are laid in an alternating pattern. The lintel stones over doors and windows carry stripes of both colors, the work of skilled builders.

In the absence of historic photos, current photos can be combined with drawings, diagrams and, for this Utah historic home, an old map of the surrounding area is used as a background.



A client may choose to use illustrations for wildlife in one panel (above) and, at another location along the trail, use photos for wildlife when the primary focus is the habitat (below).



Here is another example, in this case the topic is sea otters. We use illustrations and a photo. Due to the nature of the audience, the message is presented in English and in Spanish. (NOTE: Client resources provided Spanish translation)



ADA Accessibility

Interpretive wayside panels must be easy to read for those who have vision issues or who use wheelchairs. Guidelines require specific font sizes for titles, sub-titles, body text, and captions. The contrast between type and backgrounds must be at least 70% for legibility. ADA requirements specify that wayside interpretive panels must be mounted with the lower edge at 28" to 34" above the ground and at an angle to avoid glare and be accessible to visitors who use a wheelchair. For larger panels the center of vision must be at 54" above grade.

For More Information

Some organizations have web sites and it may be appropriate to put a url address on the panel(s). There is also technology available that enables visitors with smart phones to visit whatever site you

want in real-time, from your site. The use of Microsoft Tags or QR codes is becoming more and more prevalent in print media and on signs. They are used for advertising, soliciting donations or volunteers, and simply providing more detailed information than can be offered in a magazine article or on an interpretive panel. Consider reaching a broader audience by adding Tags or QR codes to your panels. Both options give you the ability to manage the content or url address in each tag and provide reports of how many people have accessed the url via the tag. An excellent way to collect data about visitors with smart phones!



Panel Materials and Fabrication

The material we recommend to stand up best against the elements and potential vandalism is digital high pressure laminate. The material is printed and fabricated with a vivid 12-color process that offers UV protection, is graffiti resistant, and comes with a 10 year manufacturer's warranty.

The $\frac{1}{2}$ " material can be mounted without the need for frames. If you prefer the look of a frame, use the somewhat less expensive $\frac{1}{8}$ " material which comes with the same warranty.

Digital high pressure laminate panels are easy to maintain. Stains can usually be removed by the application of mild soap and water or baking soda or diluted bleach followed by rinsing with water. Spray paint, lacquer, and crayon graffiti can be removed with paint thinner, lacquer thinner or similar solvents.

Fabrication takes four to eight weeks plus time for initial set-up. The color proof review and approval cycle may add one to two weeks. The process can be expedited for an additional fee.

In Summary

Interpretive design is as important to meeting the goals of your interpretive project as planning and writing. Whether using photos, maps, diagrams, illustrations or all of these, the design and layout of your panels will guide the flow of information. Images, fonts and colors will add impact. Skillful interpretive design is critical to capturing the attention of your audience or visitors, engaging their interest, conveying your message, and making their visit to your site more enjoyable.

Budget

BUDGETARY COSTS

CREATIVE DEVELOPMENT

COST PER PANEL

Client visit, theme development, research, writing, editing, design, illustration, photo editing, photo and map placement, template for mounting hardware, production management.

36"w x 24"h sized panel

\$2,500 per panel

FABRICATION COSTS, $\frac{1}{2}$ " thick material with posts or pedestals Panel Fabrication 36"w x 24"h x $\frac{1}{2}$ " thick

Digital high-pressure laminate (10 yr warranty)

\$450 each

6-8 week lead time for Panel Production

Price may vary depending on contour, simple or complex cuts, number of mounting holes,etc.

Installation not included.

Qualifications

1. Company Experience

The best demonstration of our experience is the work we have completed. The projects in our portfolio included project management; graphic design; original watercolor illustrations of landscapes, plants, wildlife, maps, and process diagrams; research; interpretive writing; editing; specification of exhibit and panel mounts; selection of vendors for mounts and panel fabrication; production management; and delivery. These projects were completed by the team of Gay Kraeger (designer/illustrator) and Holly Reed (researcher/writer/editor/project manager). Together we make an effective team. See a portion of our portfolio in at our web site at www.wildwaysillustrated.com.

2. Project Personnel – Roles & Experience

Note: Resumes with additional details will be provided upon request.

A. Personnel

1) Gay Kraeger

Graphic Designer – Artist/Illustrator

2) Holly Reed

Project Manager – Writer – Researcher – Production and Sub-Contracts Manager

B. Years of Experience

- 1) Gay Kraeger, 16 years of Interpretive Design and Illustration
- **2) Holly Reed**, 13 years of Interpretive Writing, 25 years of Production and Project Management

3. References (provided upon request)

MBNEP Community Grant Application Follow-up Questions
Project name: Promoting Sea Otter Stewardship in Scuba Divers in Morro Harbor
Applicants: Gena Bentall of Sea Otter Savvy, Cara O'Brien of California State Parks, and Mike Harris of California Department of Fish & Wildlife

Prior to submitting an application, Gena Bentall of Sea Otter Savvy got in touch with us to discuss their potential project. Here are the MBNEP's feedback on the project idea and Gena's response to each point:

MBNEP Comment 1. It's great that you've already begun looking into the approval process and involving State Parks, CDFW, and the city of Morro Bay. It would be important for the application to educate yourself on the city ordinances and other regulations related to placing signage. While you do not have to receive approval from all of these entities prior to the application being submitted, it would strengthen the application if these entities had initially been contacted and are supportive of the concept.

I have just received word from Morro Bay City Planning and the Harbor Department that they are supportive of our sign project! We will not need to go through the sign permitting process, but will be working in collaboration with the City of Morro Bay and Harbor Dept on the placement of signs.

MBNEP Comment 2. If the project was funded, our staff would want a chance to review the language on the signage and suggest potential changes. This signage language does not need to be determined prior to submitting the grant application.

This is no problem. We have a graphic designer in mind that has worked on these kinds of signs. I will pass along her estimate and samples of work with the application.

MBNEP Comment 3. In your email, you mention "engaging leaders in the SCUBA community in the process." What are you envisioning here? Some ideas we came up with include a brochure to hand out in dive shops or providing training to dive shop employees.

We are interested in producing a give away fro dive shops that combines a useful things their customers might enjoy (map of diving areas, field guide to common species, etc) with wildlife etiquette information. One of the key points is that we plan to work together with the dive shop representatives to create materials that incorporate their expertise and knowledge. Training for employees will also be a goal.

Upon review of the application, MBNEP staff had some additional follow-up questions for the applicant. Here are those questions and the applicant's response.

MBNEP Question 1. If your project were funded, what expenses would our \$5,000 grant cover?

A grant from MBNEP would cover all of the expense of a single sign and most of the expense of both signs as shown in the budget estimate. We obtained the graphic design estimate last minute, and it came in much higher than we were expecting. It's possible with some shopping around, we could bring the total for both signs to within \$5K. What graphic designer does MBNEP use and/or recommend?

MBNEP Question 2. Would the grant be paying for Element 2 only?

We are asking for funding for the signs (Element 2) but would be open to discussing other options incorporating Element 3.

MBNEP Question 3. What would your plan be to complete the project if you can't obtain the remaining \$1,086 required for project completion?

If we can't obtain a lower bid on graphic design and go ahead with both signs as planned, I feel confident we could obtain the additional funding. The City of Morro Bay and Harbor Department are very supportive and might be sources of additional funds, and I have a few other ideas for piecing together the balance. Alternatively, we could produce one of the signs and assign the rest of the funds to Element 3.

MBNEP Question 4. Would there be any estuary-specific content (i.e., why otters like estuaries) in the signs?

The Coleman Beach sign would certainly have content about the importance of sea otters in estuaries. The Target Rock sign, as we've envisioned it, would have more of a kelp forest theme.