MORRO BAY
NATIONAL ESTUARY PROGRAM

Morro Bay National Estuary Program
Community Project Application Cover Sheet

Project Title: Outfitting Exploration

Applicant: San Luis Obispo MPA Collaborative

Address: c/o Coastkeeper 1013 Monterey St. San Luis Obispo, CA 93401

Contact Person(s): Gordon Hensley, Co-Chair SLO MPA Collaborative

Phone: (805) 781-9932 **Fax:** NA

Email: coastkeeper@epicenteronline.org

Amount Requested (cannot exceed $5,000**):** $1100.00

Total Estimated Project Cost: $2885.00

Amount & Source of Other Funding (if relevant):

Open ROV Corp drone: $1823.25 / Nat Geo “Open Explorer” web access: $ unkn

Project Description Summary (fill in here or attach additional document; word limit 300**):**

The SLO MPA Collaborative, which includes participating organization MBNEP, applied for a donation of 2 Trident underwater drones. While we have not heard whether the award includes both, one was delivered in August. The Collaborative intends to use our Remotely Operated Underwater Vehicle (ROV) to add scientific and educational value to current and planned CCMP and MPA projects through real-time, live observations. It is our intention to work with NEP Staff to make the ROV available through a “lending library” format. Approved and trained users would be able to check out the equipment, housed at the NEP office, for deployment in a variety of underwater exploration.

An example of a current Collaborative partner project is the Central Coast State Parks Association (CCSPA) SeaLife Stewards Program. SeaLife Stewards docents act as roving interpreters, providing information about animals and guidance on how to observe them while maintaining a healthy distance. An educational enhancement for this project could include opportunities to turn an outing on the bay into a live adventure below the surface for those visitors.

Our specific request is to fund 3 accessory items not included with the basic

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

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

Briefly describe how your project addresses the priority issue(s) you checked above.

A fully outfitted ROV will be able to support projects addressing multiple CCMP p

The proposed project must work to implement at least one of the Action Plans that address the Priority Issues listed above. The Action Plans are detailed beginning on page 23 of the Management Plan, which can be found at MBNEP.org.

In the space below, please list the relevant Action Plan(s) and briefly describe how they will be addressed by this project.

A fully outfitted ROV will be able to support multiple Action Plan projects.

MBNEP
Community Project Application / September 7, 2018

PROJECT NARRATIVE

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PROJECT DESCRIPTION SUMMARY:

The specific focus of our request is to fund the acquisition of 3 accessory items (a long tether line; an all-in-one controller unit; a protective hard case; shipping, tax, and damage insurance) not included with the basic Remotely Operated Underwater Vehicle (ROV) donated by the Open ROV corporation. (see https://www.openrov.com/)

As delivered the ROV will allow a limited operation, however upgrading to the accessories we desire will allow functionality more suited to support NEP projects currently underway and future NEP or other Collaborative participant projects.

It is our vision that the (ROV) to add scientific and educational value to ongoing and planned CCMP and MPA projects through real-time, live observations. It is our intention that the ROV will be made available to groups and individuals through a "lending library" format. Approved and trained users would be able to check out the equipment, housed at the NEP office, for deployment in a variety of underwater exploration.

Project Task Detail & Schedule

Steps to Goal	Responsible Parties	Indicators of Success
MBNEP Community Project Program Application Submission 9/7/2018	SLO MPA Collaborative Co-Chairs, Gordon Hensley & Cara O'Brien	MBNEP approval and funding provided
Order Components from Open ROV (or possibly Amazon) as soon as funding is available.	SLO MPA Collaborative Co-chairs	Components delivered and installed
Create Lending Library Protocol (Fall 2018)	MBNEP Staff & SLO MPA Collaborative Co-chairs	Lending procedure and policy created
Create Training regime (Fall 2018)	SLO MPA Collaborative Co-chairs & NEP Staff	Training protocol created & interested users trained (this will be a continuing task(
Advertise / Promote ROV Availability (Fall & Winter 18-19)	Collaborative Partners	Media coverage and use requests
Deployment of ROV - Target Date January 2019.	Approved projects & uses	ROV use in the field; data collected; creation of on-line video; or live broadcast educational experiences; etc (limited only by the creativity and innovation of users)

COMMUNITY ENGAGEMENT:

The 89 SLO MPA Collaborative participants represent a broad cross section of stakeholders concerned about the health and restoration of Morro Bay and estuary. (See attached SLO MPA Collaborative partners list).

Many of these individuals, groups, and agencies are conducting, or have conducted projects in the Bay and estuary watershed. If funded, this proposal would provide a cost effective technology to support their projects. In addition the lending strategy will likely leverage funds invested in projects conducted by MPA Collaborative partners and others by provide opportunities to engage a wider community as well as enhance public awareness and participation in CCMP priorities.

AUDIENCE:

The primary audience focus initially will be MPA Collaborative partners. We intend to make presentations and announcements at Collaborative meetings and through the email list. As we approach deployment, we will seek media coverage. Once the ROV is in use we anticipate that our users will put video of their work or exploration on the web (especially National Geographic's web site: https://openexplorer.nationalgeographic.com/discover).

BENEFITS:

If funded, this proposal would provide a cost effective technology supporting opportunities to engage a wider community, enhance public awareness and participation. In addition the lending strategy will likely leverage funds invested in projects conducted by MPA Collaborative partners and others, including CPSU projects/studies addressing CCMP priorities.

An example of a current Collaborative project is, the Central Coast State Parks Association (CCSPA) SeaLife Stewards Program. SeaLife Stewards docents act as roving interpreters, providing information about animals and guidance on how to observe them while maintaining a healthy distance. Imagine the educational opportunity for this project to include opportunities to turn an outing on the bay into a live view adventure below the surface for those visitors.

Other examples of projects that might benefit from a fully equipped ROV include:

State Parks SMRA Periscope project showcasing the habitats of the Bay. (https://openexplorer.nationalgeographic.com/expedition/morrobaysmrmaperiscope)

San Luis Obispo Coastkeeper's crowdsourcing project. Currently volunteers and interns patrol the bay, docks, and marina areas observing stormwater system functions, boat maintenance practices, and general environmental harms. (http://epic805.org/reports/).

Eel grass studies being conducted by Cal Poly, Merkel Associates, Black Brandt Grooup, and Morro Coast Audubon could also benefit from the additional tether length we are proposing as observations can be made from a distance with less disruption to species or habitats of concern.

Future plans include:

Work with Cal Poly engineering students to design and create an attachment(s) to allow the ROV to gather water and sediment samples for analysis to support pollution issues. Open ROV encourages such innovation.

Using the ROV to facilitate interactive "virtual field trips" live on line with local schools.

Creating education and outreach underwater videos for use at the NEP visitor center, Natural History Museum, etc.

PROJECT BUDGET:

• 100m Tether	$300.00
• All-In-One Controller	$400.00
• Protective Hard Case	$250.00
• Shipping, Tax, & Damage Insurance	$150.00
TOTAL	$1100.00

QUALIFICATIONS:

While this is a relatively new technology, many of the SLO MPA Collaborative partners have experience with flying drones and of course Poly students and partner interns are experienced with modern technologies.

In addition, Collaborative partner SLO Coastkeeper has previously worked with Cal Poly engineering students to build an earlier DYI version of what has become the Trident ROV.

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MPA Collaborative's Grant Application's missing data (#73-18RF-C)

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