
Staff Report

1. Introductions and Updates
2. Public Comment
3. Agenda Revisions
4. **ACTION:** Consider Approval of August 15, 2018 Executive Committee (EC) minutes
5. **ACTION:** Recommendations on Community Project Applications (see attached)

There are two Community Project applications this round for our consideration. One is a project involving research on *Labyrinthula* spp., the pathogen linked to wasting disease in eelgrass. It was submitted by Drs. Silvio Favoreto and Laurie McConnico, both of Cuesta College. This application was reviewed by partners and committee members with expertise in eelgrass and in genetics research. The second is a request to purchase accessories for the SLO Marine Protected Area (MPA) Collaborative Network's remotely operated underwater vehicle (ROV). This application was reviewed by those in the dive and marine research communities. Both applications were reviewed by the Education & Outreach (E&O) Working Group for feedback on their educational merit.

In the second round of awards for FY18, \$700 of the funding for FY19 was awarded to Dr. Perrine for his wildlife camera project. This leaves a balance of \$9,300 to be awarded during two rounds of awards in FY19.

Project: Role of *Labyrinthula* spp. in the development of eelgrass wasting disease in the Morro Bay estuary
Applicant: Drs. Silvio Favoreto and Laurie McConnico

Request: \$4,998 over one-year
Matching Funds: \$20,000
Total Budget: \$24,998

Summary: This proposed project would build upon research work begun in the summer of 2018, where Cuesta College students collected eelgrass samples from Morro Bay. Each blade was cut into sections and each section was sliced in half longitudinally. On each section of the blade, the presence of healthy (green) tissue versus necrotic (brown) was recorded. One half of the section was cultured for a qualitative assessment of the presence of the pathogen, and the other half was preserved for later analysis with quantitative polymerase chain reaction (qPCR). This analysis will allow the researchers to quantitatively assess total microbial load on healthy versus necrotic eelgrass tissue. The goal is to determine where in the bay the pathogen is present and whether it is more commonly associated with necrotic tissue than healthy tissue.

The next phase of the project (covered by this application) involves Cuesta students working through the fall of 2018 and spring 2019 on the samples collected during the summer to extract DNA. They will begin qPCR to quantify the amount of the pathogen and finish visually quantifying the extent of healthy

and necrotic tissue on blades. The students would compile their preliminary results in a poster to present at a conference in Spring 2019. During Summer 2019, 20 students enrolled in an applied environmental and microbiology course at Cuesta College will repeat the steps of the 2018 effort (collection, blade condition analysis, culture) as well as conduct qPCR. This phase of the project also proposes to determine the entire *Labyrinthula* genome and assess its genetic variability within Morro Bay. This genetic data would help determine if more than one strain of the pathogen was present in the bay.

The proposed project has the following budget components:

- Fees for California Department of Fish and Wildlife (CDFW) permit to allow eelgrass collection
- Supplies for culturing, qPCR, and DNA sequencing
- Student conference registration fee for Community College Undergraduate Research Initiative
- Printing costs for conference poster
- Cuesta College student course registration fee for four students, so that students with a financial need who are essentially volunteering their time for an unpaid internship do not have to pay course fees.

This application was reviewed by individuals involved in eelgrass research and management in Morro Bay and/or who were familiar with genetic analysis. All reviewers supported the application. There was uniform support for the culturing and qPCR portions of the project. Multiple reviewers felt there was less value from the genome sequencing portion of the project due to the error rate, and many felt that the funds might be better spent in an expanded effort in the qPCR effort. Some suggestions included expanding the number of replicate sites and increasing the number of eelgrass samples, which would allow for more robust analysis of the results. The E&O Working Group supported the proposal because they liked the approach of supporting research and career skills for community college students.

Recommendation: Staff supports funding for this project, with some proposed modifications. Staff included this research effort on our own CDFW permit application, so it is likely that this project expense will not be necessary. We support funding the other portions of the project, with the exception of the MinION DNA sequencer and any other supplies related to the genome sequencing effort. We propose that this portion of the proposal budget instead be used to support expanded sample collection, blade condition analysis, and qPCR work. We believe this would provide more robust results on quantifying the presence of the pathogen in different areas of the bay, as well as the relationship between the pathogen and blade condition. Assuming the CDFW permit fee is not needed, staff recommends funding the project award at \$4,565.

Project: Outfitting Exploration

Applicant: San Luis Obispo MPA Collaborative

Request: \$1,100

Matching Funds: \$1,823

Total Budget: \$2,923

Summary: The SLO MPA Collaborative, of which the Estuary Program is a member, received a donated OpenROV Trident Remotely Operated Underwater Vehicle (ROV) to support monitoring, research, and education within the Morro Bay estuary. The plan is for the Estuary Program to serve as a home for the ROV, to institute a check-out system, and to provide training for anyone borrowing the units. The ROVs can be used only by members of the SLO MPA Collaborative. For a full list of the members, see their [website](#). Each unit comes with a 25m cable/tether and a reusable cardboard carrying case. The unit requires a controller to be operated, and this was not supplied with the unit. The proposal requests funding for a 100m cable/tether, an all-in-one controller, a protective hard case, and the shipping, tax, and damage insurance for purchasing these items.

The application was reviewed by committee members and other project partners with experience in ROV use, harbor issues, diving, local scientific research interests, and other relevant areas. The reviewers were generally supportive of the proposal, feeling like the unit would bring value to scientific and educational endeavors in the estuary. The E&O Working Group reviewed the application and were generally supportive. There were some concerns about wildlife harassment, the potential for a longer cable/tether to tangle or get stuck on something in the bay, and poor visibility due to water clarity.

Recommendation: Estuary Program staff reviewed the application and recommends funding \$450 of the request, which would cover the cost of the Trident Controller and the shipping and tax for the item. This would allow SLO MPA Collaborative members to begin working with the unit to determine how useful it will be in the bay and which types of monitoring and educational efforts it can support. If the group determines that a longer cable/tether or the case would be useful, then perhaps SLO MPA Collaborative members could support the purchase of additional supplies and accessories.

6. DISCUSSION: Presentation of Semi-annual Report (see attached)

Twice a year, the Estuary Program submits a semi-annual report to EPA, which provides the program status on the budget and the tasks laid out in our workplan. This report covers our work for the second half of FY18, which is from April 1 through September 30, 2018. The report summarizes the budget status and workplan task progress.

7. DISCUSSION: Technical Advisory Committee Update – See attached revised bylaws

The Executive Committee approved revised bylaws by e-vote after the August meeting. The Estuary Program staff is conducting outreach to engage new Technical Advisory Committee (TAC) members and has already convened the E&O Working Group under the new structure. Other technical experts were brought in for the review of the community project applications. New TAC meetings will be convened in winter and spring.

8. DISCUSSION: Performance Evaluation Letter Update (see attached)

The EC requested periodic updates on the status of the corrective actions listed in the Performance Evaluation letter completed in early 2016. Estuary Program staff have made progress in multiple areas, as described in the attached document. Staff will provide an update at the May 2019 EC meeting.

9. DISCUSSION: Chorro Creek Ecological Reserve Update

Staff worked with CDFW to set up the contract for the CDFW Fisheries Restoration Grant Program (FRGP) award for just over \$1,000,000 to support project implementation. The Estuary Program's request for additional funding for the effort is in front of the California Coastal Conservancy's board at their December meeting. Estuary Program staff continues to coordinate with CDFW and SLO County on permitting and planning for the project. Staff is also working to develop the bid packages to solicit qualified bidders. Contracts are underway with ESA to assist with bid package development and with Precision Construction for bid package review assistance. We are also contracting with the California Conservation Corps for riparian plantings.

10. DISCUSSION: Program Highlights

- **Pennington Creek Fish Ladder Completed:** Trout Unlimited has completed construction on the Pennington Creek Fish Ladder project, which removed an old non-functioning fish ladder and installed a new design that allows fish access to upstream habitat under a wider variety of flow conditions. The project location is just upstream from Rancho El Chorro Outdoor School off Hwy 1. The Estuary Program is partnering on this project by providing pre- and post-project monitoring support.

- **Estuary Program Outreach and Restoration to be Highlighted at Coastal Conservancy Meeting:**
The Coastal Conservancy is meeting on December 5th in Morro Bay and will be considering funding for the Chorro Creek Ecological Reserve floodplain restoration project. The Board will be visiting the project site. In addition, Coastal Conservancy staff has selected our Explore the Coast app content to highlight this statewide program to the Coastal Conservancy Board. The Board will walk through some of the site covered in our app content along the Morro Bay waterfront.
- **2017 Eelgrass Report and Other Data Reports Now Available:** Estuary Program monitoring staff have been working hard on our backlog of data reporting to make our results available to the public. Staff will be completing additional reports in the coming weeks covering creek health and bay health. Our 2017 Eelgrass Report, which includes the baywide map of eelgrass done in December 2017, is now online: <https://www.mbnep.org/wp-content/uploads/2018/10/2017-Eelgrass-Report-Final.pdf>. Other recent reports include:
 - 2018 Morro Bay Seeps Health Summary - <https://www.mbnep.org/wp-content/uploads/2018/10/Morro-Bay-Seeps-Summary-2018-Final.pdf>
 - 2017 Macroinvertebrate Data Summary Memo - https://www.mbnep.org/wp-content/uploads/2018/09/2017-Macro-Data-Summary-Memo_Final.pdf

11. Adjourn to next meeting of February 13, 2019 at 4:00 pm at the Estuary Program offices.

Attachments:

- Minutes from August 15, 2018 EC meeting
- FY18 Semi-annual Report Draft
- Community Project Application: Role of *Labyrinthula* spp. in eelgrass wasting disease in Morro Bay
- Community Project Application: Outfitting Exploration
- Revised EC bylaws
- Program Evaluation Status Fall 2018