



Implementation Committee Quarterly Meeting
CA Nature Conservancy – 895 Napa Ave, Suite B2, Morro Bay

Feb 2, 2017
12:00 pm

Staff Report

1. Introductions and Updates
2. Public Comment
3. **Presentation:** Jen Nix, Coastal San Luis Resource Conservation District

Jen Nix will present an overview of CSLRCD work in the Morro Bay watershed over the past three decades. The breadth of project types they undertake and landowners that the CSLRD partners with are impressive.

4. Agenda Revisions
5. **ACTION:** Consider Approval of November 3, 2016 IC minutes
6. **DISCUSSION:** FY18 Workplan Input – See 2017 Workplan

Estuary Program staff will be preparing the 2018 Workplan over the next few months and presenting it for consideration at the May committee meetings. Current budget projections indicate level funding at \$600,000, although staff will also develop alternative budgets to prepare for other potential scenarios. Staff will present an overview of the ongoing and new tasks planned for 2018. Committee members will then be asked to flag tasks they see as priorities, tasks they consider to be low priorities, and ideas that are not currently included in the workplan that they feel merit attention in the future. We are taking this facilitated approach to discussing the workplan in order to better solicit feedback from the committee.

7. **DISCUSSION:** Restoration Fund Five-Year Plan: 2018 to 2022

We are nearing the end of the five-year plan for Restoration Fund spending for 2013 to 2017. At the meeting, we will present our proposed spending plan for 2018 to 2022.

8. **DISCUSSION:** Chorro Creek Ecological Reserve Update

Efforts are underway to move the CCER restoration project forward. Conceptual designs (30%) are completed and will be finalized in April 2017. Plans include lowering levees to reconnect the creek with its floodplain, grading two secondary (avulsion) channels to improve floodplain habitat and stabilize banks, planting riparian vegetation, and re-sloping a creek road crossing to reduce erosion.

The project is currently funded by CDFW Fisheries Restoration Grant Program (FRGP) to support permitting and biological/cultural surveys to support design and permitting.

The estimated milestones are to conduct permitting and surveys in 2017 to 2018, with implementation anticipated during 2018 to 2019.

9. **DISCUSSION:** Eelgrass Update on Monitoring, Restoration, and Research

The Estuary Program has been focusing quite a bit on eelgrass monitoring and restoration efforts.

Monitoring

- Detailed monitoring of the conditions of existing eelgrass beds: This was conducted in the fall of 2016 and will be repeated each year. Cal Poly plans to conduct a round of monitoring each spring.
- Monitoring of restoration beds: Surveys indicate little eelgrass survived from the restoration planting efforts. However, surveys indicate eelgrass present in areas where it has not been seen since the decline. See attached map.
- Monitoring of permanent transects: These permanent transects are measured each fall/winter for eelgrass presence and health. We repeated the measurements at these five locations in the December/January timeframe.
- Baywide eelgrass map and bathymetry: We are planning creation of a winter/spring survey utilizing SONAR and drone imagery collection to create a map of bathymetry and eelgrass bed locations.

Restoration

- The NOAA and CDFW Duck Stamp grants fund a small-scale experimental planting effort. We are planning two rounds of planting, one in March and one in the summer/fall. Eelgrass will be harvested from beds throughout the bay and planted in plots in two areas – near the bay mouth and near State Park Marina. Various anchoring methods will be tested prior to implementation. We are currently working to obtain permits and work through the logistics for the effort.

Research

- Cal Poly faculty Ryan Walter of the Physics Department has placed orders for the water quality sensors which should arrive in January and will be deployed soon after.
- Cal Poly faculty Jennifer O'Leary is analyzing data from a fish trawl in October. She is planning a fish trawl in March for comparison. She plans to release her results upon completion of the second trawl.
- Cal Poly faculty Jenn Yost is wrapping up analysis of genetic results from eelgrass collected from throughout the bay. Preliminary results indicate genetic diversity in Morro Bay eelgrass (not all eelgrass is genetically identical) and that the diversity extends throughout the bay (meaning eelgrass in the front bay is not genetically different than eelgrass in the back bay). This means that eelgrass harvested from one area of the bay should be able survive if replanted elsewhere in the bay.
- Cal Poly faculty Lisa Needles is studying whether crab predation is limiting eelgrass recovery. Trapping efforts determine the spatial composition and density of crab in different bay habitats while also monitoring for invasive crabs.

10. **DISCUSSION:** Update on State of the Bay Events and Data Preview

The Estuary Program staff are about to send the 2017 State of the Bay Report to the printer. The publication presents answers to nine questions regarding the health of the bay and watershed. The report will be printed this winter and released this spring. See the attached preview of the results of sea level rise modeling by USGS.

Planning is underway for the triennial State of the Bay events, which will occur primarily in April of this year. The calendar includes:

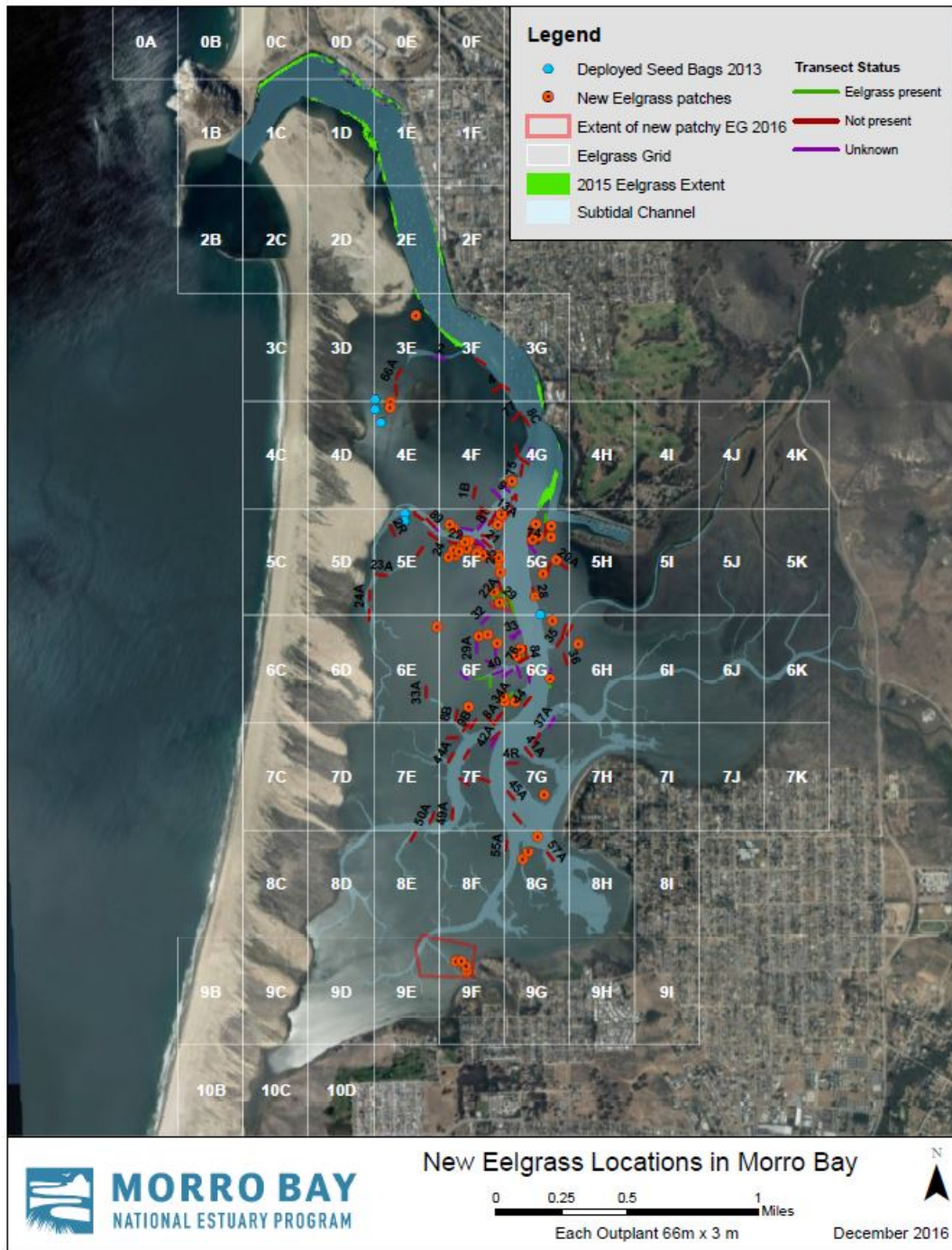
- A presentation of environmental report card results on water quality, bacteria, and shellfish farming accompanied by launch of an estuary-themed beer brewed by Libertine, on April 1, at their Morro Bay location.

- Art show and open house in partnership with the Gallery at Marina Square on April 14.
- Saturday Scientist presentation on macroinvertebrates in conjunction with the Morro Bay Natural History Museum on April 15.
- Presentation of environmental report card results on eelgrass, sediment, and climate change as part of the Science After Dark series, in SLO on April 18.
- Presentation of environmental report card results on birds and steelhead at the Morro Bay Natural History Museum on April 27.
- Poetry contest.
- DogFest.
- Earth Day paddle event, which is a day to get people out on the water.
- A bay-friendly gardening event in partnership with SLO Botanical Gardens on April 8.

11. Adjourn to next meeting of May 4, 2017 at 12:00 pm at the CA Nature Conservancy.

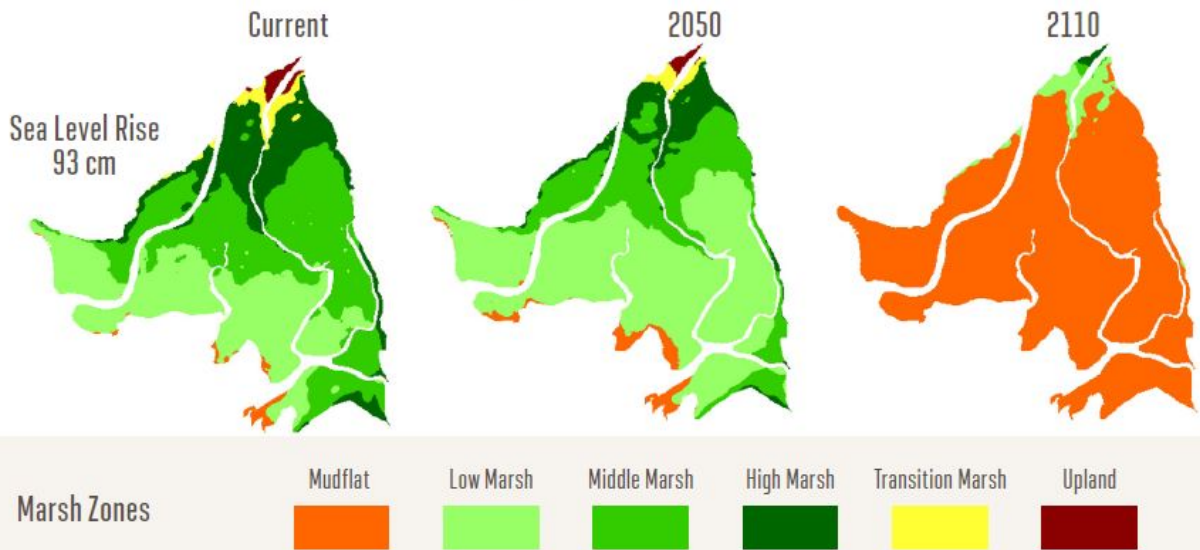
Attachments:

1. November 2016 IC meeting minutes
2. Workplan 2017
3. Eelgrass map
4. Sea level rise data from State of the Bay Report



(note: I'll put a higher resolution image in here)

Impacts of Sea Level Rise in Morro Bay



Another expected impact of climate change is sea level rise. Global sea levels are rising due to warming temperatures and glacial ice melt. Accelerating rates of sea level rise threaten low-lying coastal habitats and the ecosystem services they provide for human communities. While modeling indicates minimum impacts to infrastructure around the bay, impacts to the natural environment are expected to be more severe. To better understand future changes to sensitive tidal marsh habitats in Morro Bay, the U.S. Geological Survey

and University of California, Los Angeles embarked on a multi-year study and modeling effort. The maps above demonstrate the shift from salt marsh habitat to primarily mudflats over the next century as sea levels rise. Models show similar impacts on Grassy Island. Loss of salt marshes means loss of habitat for fish, birds, and other animals. It also means loss of ecosystem services like protection against flooding and damage from storm events.