

## Semi-Annual Report: April 2016 – September 2016

The Morro Bay National Estuary Program has moved forward on completing new and ongoing tasks in the FY16 workplan. All workplans are approved by the Environmental Protection Agency and the Estuary Program’s Implementation and Executive Committees. The budget report below shows that our Section 320 expenses under the current grant in the second half of the fiscal year were \$256,073. As of September 30, we have expended 88% of our current 320 grant (started in FY12), with a remainder of approximately \$300,000. The EPA extended the end date of this grant, so it will end April 28, 2017. MBNEP has met 100% of its match requirement for the cumulative grant with cash match and estimated current in-kind contributions (at approximately \$2,366,000).

The Estuary Program requests EPA’s continued participation on the Executive Committee and assistance with meeting relevant administrative and programmatic grant conditions. During this reporting period, the Estuary Program completed the site visit portion of its 5-year program review with the EPA. The final program evaluation letter was completed in beginning of the fiscal year.

The following table summarizes activities completed during the semi-annual report period. Completed deliverables from the workplan are listed. Activities that will continue into FY17 are described in the “Pending Deliverables” section. Clean Water Act implementation roles for each task are also listed.

**Table 1: Reporting on activities from past six months and planned for next six months**

Goals and Tasks	Progress To Date and Deliverables Completed
<b>5.1 Habitat &amp; Water Quality Protection and Restoration</b>	
Land Conservation <i>FY15, FY16 and FY17 Task</i> <i>(Ongoing Task)</i>	<ul style="list-style-type: none"> <li>• Objective: Conserve land to achieve Management Plan goals as opportunities arise.</li> <li>• Estuary Program continues to partner with the Land Conservancy on potential land conservation deals in the watershed, with an emphasis on Los Osos Valley.</li> <li>• Estuary Program coordinated with the Land Conservancy to provide support for a grant application to secure additional funding for conservation easements.</li> <li>• The Land Conservancy is currently working to develop easements with interested landowners.</li> <li>• <b>NEP’s CWA Implementation Role:</b> Significant contribution toward <i>Controlling Nonpoint Source Pollution (NPS) on a Watershed Basis</i></li> </ul>
Freshwater Flow <i>FY15 and FY16 Task</i> <i>(Ongoing Task)</i>	<ul style="list-style-type: none"> <li>• Objective: Identify projects in lower Chorro Valley and Camp San Luis Obispo area to promote water conservation.</li> <li>• Estuary Program and Trout Unlimited (TU) partnership are discussing potential projects with interested landowners in the Chorro Creek valley.</li> <li>• Estuary Program and Central Coast Salmon Enhancement (CCSE) established an agreement for Estuary Program support of a Prop 1 Wildlife Conservation Board grant to collect and analyze of streamflow data to assess conservation project effectiveness.</li> <li>• <b>Pending Deliverables:</b> <ul style="list-style-type: none"> <li>○ Continued landowner outreach in anticipation of developing specific water conservation projects.</li> <li>○ Completed conservation easements, if warranted by landowner interest.</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>• <b>NEP's CWA Implementation Role:</b> Significant contribution toward <i>Controlling Nonpoint Source Pollution (NPS) on a Watershed Basis</i> and support contribution toward <i>Strengthening Water Quality Standards</i>.</li> </ul>
<p>Restoration Maintenance and Monitoring</p> <p><i>FY15 and FY16 Task</i></p> <p><i>(Ongoing Task)</i></p>	<ul style="list-style-type: none"> <li>• Objective: Complete monitoring for conservation easements and restoration projects, as necessary.</li> <li>• Ongoing riparian fence program and conservation easement monitoring continued.</li> <li>• Post-project monitoring of stream flow and instream habitat in Pennington Creek to show effectiveness of water catchment system at Cal Poly.</li> <li>• Eelgrass monitoring for bed condition and other variables.</li> <li>• Post-project monitoring of bacteria concentrations to show effectiveness of riparian fencing.</li> <li>• <b>Completed Deliverables:</b> <ul style="list-style-type: none"> <li>○ Pre-project flow monitoring and analysis for Cal Poly Rainwater Harvesting System project.</li> <li>○ Monthly memos with riparian fencing effectiveness data.</li> <li>○ Ongoing photo documenting of Road Erosion Prevention Project.</li> <li>○ Maintenance manual for Road Erosion Prevention Project.</li> <li>○ Conservation easement monitoring for Maino ranch.</li> <li>○ Project data submittal to NEPORT database.</li> </ul> </li> <li>• <b>Pending Deliverables:</b> <ul style="list-style-type: none"> <li>○ Eelgrass restoration bed monitoring, to be conducted in fall of 2016.</li> </ul> </li> <li>• <b>NEP's CWA Implementation Role:</b> Primary contribution toward <i>Improving Water Quality Monitoring and Controlling Nonpoint Source Pollution (NPS) on a Watershed Basis</i>.</li> </ul>
<p>Road Erosion Prevention</p> <p><i>FY15 and FY16 Task</i></p> <p><i>(Ongoing Task)</i></p>	<ul style="list-style-type: none"> <li>• Objective: Reduce excess sediment delivery to streams by implementing cost-effective erosion control measures.</li> <li>• Erosion control measures were completed on Camp SLO, Cal Poly, and US Forest Services (through an agreement with Pacific Gas and Electric) properties. 58 sites were completed, with 11.37 miles of road treated, and 9,575 cubic yards of sediment diverted from erosion.</li> <li>• <b>Completed Deliverables:</b> <ul style="list-style-type: none"> <li>○ 57 sites and 1,225 tons/year of sediment diverted over the next decade.</li> <li>○ Photo documentation.</li> <li>○ Annual monitoring report.</li> <li>○ Annual progress report.</li> <li>○ Final site list, treatment, and as-built maps.</li> <li>○ Final project report.</li> <li>○ Maintenance manual.</li> <li>○ Final site visits with landowners and funder (Central Coast Regional Water Quality Control Board).</li> <li>○ Final presentation to Water Board and landowners.</li> </ul> </li> <li>• <b>Pending Deliverables:</b> <ul style="list-style-type: none"> <li>○ Annual monitoring report.</li> </ul> </li> <li>• <b>NEP's CWA Implementation Role:</b> Primary contribution toward <i>Controlling Nonpoint Source Pollution (NPS) on a Watershed Basis</i>.</li> </ul>
<p>Eelgrass Restoration</p> <p><i>FY15 and FY16 Task</i></p> <p><i>(Ongoing Task)</i></p>	<ul style="list-style-type: none"> <li>• Objective: Meet eelgrass restoration goals with plantings and partnership efforts.</li> <li>• Estuary Program and partners at Cal Poly were awarded funding to conduct monitoring and research in the bay concerning the recent precipitous decline of eelgrass.</li> <li>• Eelgrass bed condition monitoring continued.</li> <li>• <b>Deliverables:</b> <ul style="list-style-type: none"> <li>○ Monitoring protocol in partnership with Cal Poly.</li> </ul> </li> <li>• <b>Pending Deliverables:</b></li> </ul>

	<ul style="list-style-type: none"> <li>○ Restoration bed condition monitoring report.</li> <li>○ New data from Cal Poly/CDFW partnership.</li> <li>○ Bay-wide sonar map of eelgrass beds.</li> <li>● <b>NEP's CWA Implementation Role:</b> Primary contribution toward <i>Controlling Nonpoint Source Pollution (NPS) on a Watershed Basis</i>.</li> </ul>
<p>Chorro Creek Ecological Reserve Restoration Planning</p> <p>FY16</p> <p>(New Task)</p>	<ul style="list-style-type: none"> <li>● Objective: Update restoration plans for the Chorro Creek Ecological Reserve to prepare for implementation.</li> <li>● Coordinate with CDFW and consultants to update planning and permitting to pave the way for restoration work.</li> <li>● Geotechnical investigation (test pits) completed to inform the design process.</li> <li>● <b>Deliverables:</b> <ul style="list-style-type: none"> <li>○ CDFW streambed alteration notification</li> </ul> </li> <li>● <b>Pending Deliverables:</b> <ul style="list-style-type: none"> <li>○ Updated plans for restoration effort at 30%, 65%, and 100% design levels.</li> <li>○ Required permits for restoration effort.</li> </ul> </li> <li>● <b>NEP's CWA Implementation Role:</b> Primary contribution toward <i>Controlling Nonpoint Source Pollution (NPS) on a Watershed Basis</i>.</li> </ul>
<p>Other Restoration Efforts</p> <p>FY15 and FY16 Task</p> <p>(Ongoing Task)</p>	<ul style="list-style-type: none"> <li>● Objective: Engage in other restoration efforts that arise and help achieve Management Plan goals.</li> <li>● Participated in Tri-County Fish Team and San Luis Obispo Steelhead Initiative meetings.</li> <li>● Participated in public process for wastewater treatment facility in Morro Bay.</li> <li>● Participated in sub-committee for planning a boat haul-out facility in Morro Bay.</li> <li>● Provided ongoing support for Sweet Springs expansion project.</li> <li>● Conducted general outreach on invasive species as part of Estuary Program watershed tours and presentations.</li> <li>● Conducted planning and permitting for pikeminnow removal project on Chorro Creek.</li> <li>● Attend field visit and provided support to Coastal San Luis RCD for a bank stabilization project along a stretch of Los Osos creek.</li> <li>● Participated in Regional Water Management Group meetings and provided project recommendations to the County of San Luis Obispo.</li> <li>● <b>Completed Deliverables:</b> <ul style="list-style-type: none"> <li>○ Attend semi-annual meetings of WMA/Invasive Species Action Network.</li> <li>○ Submitted grant application for pikeminnow management project.</li> <li>○ Received permit for upcoming pikeminnow management project.</li> </ul> </li> <li>● <b>Pending Deliverables:</b> <ul style="list-style-type: none"> <li>○ Final conservation planning document.</li> <li>○ Final report from pikeminnow management project.</li> </ul> </li> <li>● <b>NEP's CWA Implementation Role:</b> Primary contribution toward <i>Strengthening Water Quality Standards and Controlling Nonpoint Source Pollution (NPS) on a Watershed Basis</i>.</li> </ul>
<p><b>5.2 Environmental Monitoring and Research</b></p>	
<p>Monitoring Program Coordination</p> <p>FY15 and FY16 Task</p> <p>(Ongoing Task)</p>	<ul style="list-style-type: none"> <li>● Objective: Continue coordination of Volunteer Monitoring Program and collect data that meets QAPP guidelines.</li> <li>● Ongoing monitoring in the watershed and estuary to track long-term ambient trends and project implementation effectiveness.</li> <li>● Estuary Program staff coordinated with CA Department of Public Health and local shellfish growers on monitoring related to toxic plankton blooms and bacteria.</li> <li>● Monitoring program staff continued a long-term partnership with Cuesta College, teaching two college laboratory and lecture sessions in oceanography.</li> <li>● Conducted 2016 macroinvertebrate data collection in the spring of 2016.</li> <li>● <b>Completed Deliverables:</b> <ul style="list-style-type: none"> <li>○ Updated monitoring protocols.</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>○ 2016 macroinvertebrate data.</li> <li>● <b>NEP's CWA Implementation Role:</b> Primary contribution toward <i>Improving Water Quality monitoring</i>. Significant contribution toward <i>Strengthening Water Quality Standards</i> and <i>Developing Total Maximum Daily Loads (TMDLs)</i>.</li> </ul>
<p>Monitoring Program Reporting and Analysis</p> <p><i>FY15 and FY16 Task</i></p> <p><i>(Ongoing Task)</i></p>	<ul style="list-style-type: none"> <li>● Objective: Analyze data and share results with grantors, partners, local land owners, and the public.</li> <li>● Monthly bacteria reports have been completed and distributed on schedule.</li> <li>● Responses to data requests from regulatory agencies and private landowners are completed as requested.</li> <li>● <b>Completed Deliverables:</b> <ul style="list-style-type: none"> <li>○ Monthly bacteria memos.</li> <li>○ Data requests.</li> </ul> </li> <li>● <b>Pending Deliverables:</b> <ul style="list-style-type: none"> <li>○ Monthly bacteria memos.</li> </ul> </li> <li>● <b>NEP's CWA Implementation Role:</b> Primary contribution toward <i>Improving Water Quality monitoring</i>. Significant contribution toward <i>Strengthening Water Quality Standards</i> and <i>Developing Total Maximum Daily Loads (TMDLs)</i>.</li> </ul>
<p>Monitoring Program Data Management</p> <p><i>FY15 and FY16 Task</i></p> <p><i>(Ongoing Task)</i></p>	<ul style="list-style-type: none"> <li>● Objective: Maintain data in SWAMP-compatible format.</li> <li>● Data management work included ongoing maintenance of program data in a SWAMP-compatible data format and ongoing maintenance of program Quality Assurance (QA) data.</li> <li>● Submitted 2016 bioassessment data into CEDEN.</li> <li>● Submitted 2016 water quality and bacteria data into CEDEN.</li> <li>● Completed data analysis for State of the Bay environmental report card.</li> <li>● <b>Completed Deliverables:</b> <ul style="list-style-type: none"> <li>○ Submitted data to CEDEN.</li> </ul> </li> <li>● <b>Pending Deliverables:</b> <ul style="list-style-type: none"> <li>○ Continual submittal of data to CEDEN.</li> <li>○ State of the Bay data analysis.</li> </ul> </li> <li>● <b>NEP's CWA Implementation Role:</b> Primary contribution toward <i>Improving Water Quality monitoring</i>. Significant contribution toward <i>Strengthening Water Quality Standards</i> and <i>Developing Total Maximum Daily Loads (TMDLs)</i>.</li> </ul>
<p>Monitoring Program Quality Assurance</p> <p><i>FY15 and FY16 Task</i></p> <p><i>(Ongoing Task)</i></p>	<ul style="list-style-type: none"> <li>● Objective: Maintain an approved Quality Assurance Project Plan and implement necessary quality assurance methods.</li> <li>● Ongoing Quality Assurance (QA) activities, including analysis of replicate and split samples, equipment calibration, and maintenance of QA-related data in Access database.</li> <li>● <b>Deliverable:</b> <ul style="list-style-type: none"> <li>○ Results of USGS SLQA sediment quality assurance effort.</li> <li>○ QA data managed in database.</li> </ul> </li> <li>● <b>Pending Deliverables:</b> <ul style="list-style-type: none"> <li>○ Annual QAPP update submission to EPA.</li> <li>○ Annual QAPP update submission to CCRWQCB.</li> <li>○ Management of QA activity data in database.</li> </ul> </li> <li>● <b>NEP's CWA Implementation Role:</b> Primary contribution toward <i>Improving Water Quality monitoring</i>. Significant contribution toward <i>Strengthening Water Quality Standards</i> and <i>Developing Total Maximum Daily Loads (TMDLs)</i>.</li> </ul>
<p>Project Effectiveness Monitoring</p> <p><i>FY15 and FY16 Task</i></p> <p><i>(Ongoing Task)</i></p>	<ul style="list-style-type: none"> <li>● Objective: Complete monitoring to show project effectiveness for various restoration projects.</li> <li>● Maintained sediment sampling sites for annual monitoring.</li> <li>● Conducted upstream/downstream monitoring to assess the effectiveness of bacterial reductions on riparian fencing projects.</li> <li>● Conducted monitoring of freshwater seeps around the bay to assess impacts of recently completed Los Osos Wastewater Treatment Facility.</li> <li>● Began planning for monitoring of eelgrass restoration beds.</li> <li>● <b>Completed Deliverables:</b> <ul style="list-style-type: none"> <li>○ Monthly bacteria memos.</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>• <b>NEP's CWA Implementation Role:</b> Primary contribution toward <i>Improving Water Quality monitoring</i>. Significant contribution toward <i>Strengthening Water Quality Standards</i> and <i>Developing Total Maximum Daily Loads (TMDLs)</i>.</li> </ul>
<p>Eelgrass Monitoring</p> <p><i>FY15 and FY16 Task</i></p> <p><i>(Ongoing Task)</i></p>	<ul style="list-style-type: none"> <li>• Objective: Monitor eelgrass to determine distribution in the bay.</li> <li>• Continue eelgrass bed condition monitoring.</li> <li>• Deliverables for eelgrass research and restoration efforts are listed under Task 2.1.9 (Eelgrass Restoration).</li> <li>• <b>Pending Deliverables:</b> <ul style="list-style-type: none"> <li>○ Bed condition monitoring data.</li> </ul> </li> <li>• <b>NEP's CWA Implementation Role:</b> Primary contribution toward <i>Improving Water Quality monitoring</i>. Significant contribution toward <i>Strengthening Water Quality Standards</i> and <i>Developing Total Maximum Daily Loads</i>.</li> </ul>
<p>Partner Research Efforts</p> <p><i>FY16 Task</i></p> <p><i>(New Task)</i></p>	<ul style="list-style-type: none"> <li>• Objective: Support science partners in pursuing research efforts relevant to the goals of the Estuary Program.</li> <li>• Coordination and collaboration with Cal Poly, CDFW, NOAA and other partners to research causes of eelgrass decline and related water quality issues.</li> <li>• <b>Pending Deliverables:</b> <ul style="list-style-type: none"> <li>○ Monitoring results and protocols.</li> </ul> </li> <li>• <b>NEP's CWA Implementation Role:</b> Primary contribution toward <i>Improving Water Quality monitoring</i>. Support contribution toward <i>Strengthening Water Quality Standards</i> and <i>Supporting sustainable wastewater infrastructure</i>.</li> </ul>
<p><b>2.3 Public Participation, Education and Outreach</b></p>	
<p>Communications</p> <p><i>FY15 and FY16 Task</i></p> <p><i>(Ongoing Task)</i></p>	<ul style="list-style-type: none"> <li>• Objective: Communicate with a variety of audiences using presentations, printed materials, online presence, social media, and other venues.</li> <li>• Weekly blog posted on website and social media platforms, and emailed to subscriber list. (List is currently 11 members.)</li> <li>• Fourteen presentations and field trips given, reaching 753 individuals.</li> <li>• Continued circulating the Clean Water pledge. We now have more than 700 pledges.</li> <li>• Continued to increase the number of followers of the Facebook page to 1,145 users. Continued to increase two-way communication with these users, as well as their participation in Estuary Program activities and projects. Estuary Program also maintained a Twitter feed that currently has 439 followers, and an Instagram feed that currently has 969 followers.</li> <li>• Created and distributed press releases for our public outreach events including DogFest 2016 and our annual Morro Bay Poetry Contest. Both release resulted in media coverage.</li> <li>• Created new outreach materials for display in our Nature Center.</li> <li>• <b>Completed Deliverables:</b> <ul style="list-style-type: none"> <li>○ Blog posts.</li> <li>○ Website and Facebook statistics.</li> </ul> </li> <li>• <b>Pending Deliverables:</b> <ul style="list-style-type: none"> <li>○ Clean Water Pledge follow-up survey results.</li> <li>○ Annual Report for FY2016.</li> </ul> </li> <li>• <b>NEP's CWA Implementation Role:</b> Support contribution toward <i>all CWA core programs</i>.</li> </ul>
<p>Education</p> <p><i>FY15 Task</i></p> <p><i>(Ongoing Task)</i></p>	<ul style="list-style-type: none"> <li>• Objective: Develop formal education partnerships and services and continue to maintain the Nature Center and other education efforts.</li> <li>• Ongoing work to maintain the Nature Center and its exhibits continued in FY16.</li> <li>• Coastal Conservancy grant was awarded for creation of content for an app to draw visitors to the coast. The Estuary Program will create educational content for points of interest within Los Osos and Morro Bay that surround the estuary.</li> <li>• Grant from Harold J. Miossi Charitable Trust was awarded to allow us to develop new educational content for our interactive touchscreen kiosk in our</li> </ul>

	<p>Nature Center and to move that content online so that it can be used outside of the Nature Center.</p> <ul style="list-style-type: none"> <li>• Nature Center Docent Program continued for its third summer season with a few docents beginning early in the spring and a few continuing on into the fall. From April through September, eight individual docents interacted with more than 490 visitors.</li> <li>• Four watershed model demonstrations completed in grades kindergarten through sixth, reaching 100 students.</li> <li>• <b>Completed Deliverables:</b> <ul style="list-style-type: none"> <li>○ Nature Center promotional materials and statistics.</li> <li>○ Fieldtrip and talks statistics.</li> </ul> </li> <li>• <b>NEP's CWA Implementation Role:</b> Support contribution toward <i>all CWA core programs</i>.</li> </ul>
<p>Community Grants FY15 Task (Ongoing Task)</p>	<ul style="list-style-type: none"> <li>• Objective: Provide support for community projects that further the goals of the Management Plan and engage the community.</li> <li>• Completed grants during this reporting period: Centennial Parkway Rainwater Harvesting Project and SPARES grant to support the Clean Marinas Program.</li> <li>• <b>Completed Deliverables:</b> <ul style="list-style-type: none"> <li>○ Grant final reports.</li> <li>○ Completed education materials from grant results.</li> </ul> </li> <li>• <b>NEP's CWA Implementation Role:</b> Support contribution toward <i>all CWA core programs</i>.</li> </ul>
<p>Outreach for Boating and Harbor Best Management Practices FY 15 and FY16 Task (Ongoing Task)</p>	<ul style="list-style-type: none"> <li>• Objective: Conduct outreach to boaters about responsible waste disposal practices and other clean boating best management practices.</li> <li>• Engaged in focused outreach to live-aboard and boating organizations, in conjunction with partners such as the city of Morro Bay Harbor Department and the Morro Bay Coast Guard Auxiliary.</li> <li>• Updated educational materials for distribution and drafted a survey to gauge the effectiveness of those materials and the clean boating services offered in the bay.</li> <li>• <b>Completed Deliverables:</b> <ul style="list-style-type: none"> <li>○ Updated educational materials.</li> <li>○ Survey draft.</li> </ul> </li> <li>• <b>NEP's CWA Implementation Role:</b> Support contribution toward <i>all CWA core programs</i>.</li> </ul>
<p>Bay Friendly Recreational Uses FY16 (New Task)</p>	<ul style="list-style-type: none"> <li>• Objective: Support partner efforts to disseminate messages to the public about recreating on the bay while minimizing impacts to wildlife and other competing uses.</li> <li>• Support partner efforts to engage people on recreating while minimizing impacts to wildlife.</li> <li>• Draft survey to gauge public perception of and interest in kayak docent program.</li> <li>• <b>Deliverables:</b> <ul style="list-style-type: none"> <li>○ Docent training materials for program of kayak docents.</li> <li>○ Draft of kayak docent program survey.</li> </ul> </li> <li>• <b>Pending Deliverables:</b> <ul style="list-style-type: none"> <li>○ Statistics from outreach efforts.</li> </ul> </li> <li>• <b>NEP's CWA Implementation Role:</b> Support contribution toward <i>all CWA core programs</i>.</li> </ul>
<p>State of the Bay Analysis and Planning FY16 (New Task)</p>	<ul style="list-style-type: none"> <li>• Objective: Begin analysis and report planning for triennial State of the Bay report.</li> <li>• Compiled data, developed text, and reviewed layouts for 2017 State of the Bay report.</li> <li>• Began planning for triennial conference/event to share knowledge about the status of the estuary and watershed, to take place in Spring 2017.</li> <li>• <b>Deliverables:</b> <ul style="list-style-type: none"> <li>○ Analysis and graphics for State of the Bay report card publication.</li> </ul> </li> <li>• <b>Pending deliverables:</b> <ul style="list-style-type: none"> <li>○ State of the Bay report card publication.</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>○ State of the Bay highlights brochure publication.</li> <li>● <b>NEP's CWA Implementation Role:</b> Support contribution toward <i>all CWA core programs</i>.</li> </ul>
<p>Other E&amp;O Tasks/Community Partner Projects</p> <p><i>FY15 and FY16 Task</i></p> <p><i>(Ongoing Task)</i></p>	<ul style="list-style-type: none"> <li>● Objective: Support outreach projects in the community that further goals of the Management Plan.</li> <li>● Fourteen presentations and field trips given in and out of the watershed, reaching 753 individuals.</li> <li>● <b>Completed Deliverables:</b> <ul style="list-style-type: none"> <li>○ Completed presentation materials.</li> </ul> </li> <li>● <b>NEP's CWA Implementation Role:</b> Support contribution toward <i>all CWA core programs</i>.</li> </ul>
<b>2.4 Program Management</b>	
<p>Manage Committees and Build Partnerships</p> <p><i>FY15 and FY16 Task</i></p> <p><i>(Ongoing Task)</i></p>	<ul style="list-style-type: none"> <li>● Objective: Hold quarterly meetings and support partnerships.</li> <li>● Quarterly meetings of the Implementation Committee and Executive Committee were held throughout the fiscal year. When appropriate, working group meetings were also held prior to committee meetings. Membership was updated for both committees as needed.</li> <li>● <b>Completed Deliverables:</b> <ul style="list-style-type: none"> <li>○ Minutes, agenda, staff reports, and materials were completed for each meeting.</li> </ul> </li> <li>● <b>NEP's CWA Implementation Role:</b> Support contribution toward <i>all CWA core programs</i>.</li> </ul>
<p>Grants and Contracts Administration and Financial Management</p> <p><i>FY15 and FY16 Task</i></p> <p><i>(Ongoing Task)</i></p>	<ul style="list-style-type: none"> <li>● Objective: Develop workplan, administer grants, and complete annual financial management tasks.</li> <li>● FY16 work for this task included financial reporting, progress reports to the EPA and management conference, and attendance on ANEP conference calls and committees.</li> <li>● <b>Completed Deliverables:</b> <ul style="list-style-type: none"> <li>○ Monthly financial reports completed and approved by the Bay Foundation board.</li> <li>○ ANEP conference calls were attended by Executive Director.</li> <li>○ FY17 Workplan and budget.</li> <li>○ Biannual Executive Committee report.</li> <li>○ Audit and taxes work.</li> <li>○ Annual financial statements.</li> <li>○ Attendance at ANEP meeting in DC in February 2016.</li> </ul> </li> <li>● <b>NEP's CWA Implementation Role:</b> Support contribution toward <i>all CWA core programs</i>.</li> </ul>
<p>General Administration and Human Resources Management</p> <p><i>FY15 and FY16 Task</i></p> <p><i>(Ongoing Task)</i></p>	<ul style="list-style-type: none"> <li>● Objective: Maintain accurate financial and human resource records and manage personnel.</li> <li>● MBNEP requires ongoing financial and administrative functions, including record keeping and filing, bookkeeping, equipment and office space upkeep, as well as interacting with the general public. In addition, the Director spends time managing staff performance and workplan progress. Other HR tasks include training, professional development, recruitment when applicable, and keeping all personnel policies and procedures up to date.</li> <li>● <b>Completed Deliverables:</b> <ul style="list-style-type: none"> <li>○ Up-to-date bookkeeping records.</li> <li>○ Public friendly office space.</li> <li>○ Orderly and properly operating office and field equipment.</li> <li>○ Bi-weekly staff meetings.</li> <li>○ Safety meetings held at least monthly.</li> <li>○ Annual audited financial statements, including required Federal Single Audit.</li> <li>○ Updated policies and procedures.</li> </ul> </li> <li>● <b>NEP's CWA Implementation Role:</b> Support contribution toward <i>all CWA core programs</i>.</li> </ul>

<p>Tracking Implementation of the CCMP and Work Plan</p> <p><i>FY15 and FY16 Task</i></p> <p><i>(Ongoing Task)</i></p>	<ul style="list-style-type: none"> <li>• Objective: Keep track of Workplan and Management Plan implementation.</li> <li>• Tracking progress on CCMP implementation is done through biannual reports to the Executive Committee and through NEPORT data submissions, and project management.</li> <li>• <b>Completed Deliverables:</b> <ul style="list-style-type: none"> <li>○ Biannual Executive Committee reports.</li> <li>○ NEPORT data submitted.</li> </ul> </li> <li>• <b>NEP’s CWA Implementation Role:</b> Support contribution toward <i>all CWA core programs</i>.</li> </ul>
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**Status of Major Projects**

This section reports on the status of major projects from the second half of FY16 (April 1 to September 30, 2016). During this reporting period, the Estuary Program made substantial progress on a number of Workplan tasks.

The Road Erosion Prevention project was completed in the summer of 2016. During the three-year project, 58 sites were treated on a total of 11.37 miles of road. These road treatments are estimated to reduce 9,575 cubic yards of sediment delivery to the Chorro Creek watershed, preventing a total of 1,225 tons of sediment delivery per year over the next decade. The project was described in detail in the Summary of Accomplishments section of the FY17 Workplan.

**Project Name: Eelgrass Monitoring**

**Project Objective:** Improve understanding of eelgrass decline in the Morro Bay estuary to inform restoration efforts.

**Project Description:** The Estuary Program and its partners have been collaborating to obtain funding and conduct monitoring and research to support understanding of eelgrass decline. Our mapping efforts have documented a steep decline in eelgrass acreage since 2007 when 344 acres were mapped. Data from 2015 indicates that less than 20 acres remain.

During this reporting period, the Estuary Program obtained funding to support monitoring and research efforts. A grant from NOAA for \$35,000 will support bed condition monitoring by the Estuary Program and equipment and staff time to support California Polytechnic State University San Luis Obispo (Cal Poly) research efforts. A grant from the California Department of Fish and Wildlife (CDFW) Duck Stamp Program will support eelgrass restoration bed monitoring as well as a small experimental planting effort. Work is already underway on both of these projects.

Cal Poly has begun initial monitoring for eelgrass research efforts. Faculty members are studying water quality, eelgrass genetics, sedimentation impacts, predation, and impacts to biota such as fish and birds. All monitoring is taking place in close consultation with the Estuary Program, in order to coordinate all efforts. Data from some preliminary work indicates waters in the back bay may take longer to turn over than previously thought and have higher salinity levels than previously observed, likely due to evaporation from the shallow waters. Research efforts will continue to collect a more robust data set and explore connections between these conditions and eelgrass growth.

**Lead Implementer, Partner, and Their Roles:** The Estuary Program served as the lead implementer and was the partner that applied for funding and will be managing the grant and project work. NOAA and the CDFW, as funders, are project partners. Cal Poly are partners, as they were awarded Cal Poly grants to support their research and because they are an active partner in the monitoring and research efforts. The effort involves a large technical advisory committee, which includes members from EPA, USFWS, NMFS, Pacific Northwest National Laboratory, California State Parks, the city of Morro Bay, consultants, and numerous universities.

**Accomplishments and Deliverables:** Deliverables include technical reports, presentations, and brief publications that showcase eelgrass-related data and research results.



**Amount of 320 grant/cooperative agreement funds:** 320 funds supported staff time to foster partnerships, develop grant applications, and test monitoring methods.

**Expected Long-Term Outcomes:** The expected long-term outcomes include a long-range plan for addressing eelgrass loss in the bay.

**Primary or Significant Role:** The Estuary Program plays a primary role in this effort, including securing and managing the funding, directing monitoring activities, and creating products with the data.

**External Constraints:** Delays in contracting pushed back the start date for the CDFW and the NOAA funding.

**Project Name: Chorro Creek Ecological Reserve Planning**

**Project Objective:** Conduct the permitting and planning necessary for a restoration project on the Chorro Creek Ecological Reserve.

**Project Description:** In 2003, the Chorro Creek Ecological Reserve (580-acre parcel at the base of Hollister Peak) was purchased with Estuary Program support and leadership to prevent future development. The property was transferred to the California Department of Fish and Wildlife (CDFW) for ownership and management. Restoration plans were completed in 2008 to address floodplain restoration and gully remediation, but the plans were not approved by CDFW. As a result of efforts in FY16 to obtain funding and begin planning, coordination with CDFW is underway to facilitate a restoration effort. The effort involves updating the restoration plans, undergoing environmental review, securing necessary permits, and applying for implementation funding.

In 2016, Estuary Program staff worked with CDFW through the extensive Streambed Alteration permitting process. CDFW issued a finding of 'no alteration agreement needed' in August, which allowed the excavation of six test pits in September. The test pit survey was completed to better understand the substrate (e.g., resistant layer present) under the avulsion channel. Core samples were also taken and will be tested. These results are essential to inform project designs for the avulsion channel. The design plans are expected to be completed in Spring of 2017. After designs are completed, permitting and implementation funds will be secured.

**Lead Implementer, Partners and Their Roles:** The Estuary Program served as the lead implementer and was the partner that applied for funding and will be managing the grant and project work. CDFW, as a funder and landowner, is a project partner. Other partners include the State Coastal Conservancy, who provides review and feedback as a potential funder, and EPA, who offers technical assistance.

**Accomplishments and Deliverables:** The Estuary Program has obtained all elements necessary to proceed with project design, with design completion expected in Spring of 2017. Deliverables include Streambed Alteration permit and geotechnical test pit results. Future deliverables include 100% design plans.

**Amount of 320 Grant/cooperative agreement:** 320 funds supported staff time to foster partnerships, manage a grant applications, conduct environmental monitoring, and oversee drilling of test pits to inform project design.

**Expected Long-term Outcomes:** Reduction in sediment loading to the watershed creeks and the estuary. Improvements to instream and floodplain habitat in Chorro Creek.

**Primary or Significant Role:** The Estuary Program played a primary role in the project, which included applying for and managing the grant, overseeing grant tasks, and producing grant deliverables.

**External Constraints:** The intricacies of the permitting process were a challenge that delayed the project schedule. Until the Streambed Alteration permit was obtained, initial geotechnical pit testing could not be conducted. The test pit surveys were needed to inform the overall direction of the project designs.

**Project Name: State of the Bay Report**

**Project Objective:** Developed a triennial environmental report card providing a public-friendly update on bay and watershed health.

**Project Description:** Every three years, the Estuary Program develops an environmental report card that answers common questions about estuary and watershed health. The report incorporates data and analysis conducted by the Estuary Program and its partners to answer questions such as, “Are bay waters safe for swimming?” and “Is the bay filling in at an unnatural rate?”. Data gathering, analysis, and technical review have been completed. Text and graphics are completed, and a draft final report has been created. The report will be finalized in fall of 2017 and printed to be released in winter of 2017.

In 2017, the Estuary Program is planning a month of State of the Bay events, designed to reach different segments of the population. Past events have included a DogFest event to reach pet owners, technical talks to share scientific results, and a poetry contest with an estuary theme. The events accompany the release of the State of the Bay report, and the themes of the events are tied to a clean water message.

**Lead Implementer, Partners, and Their Roles:** The Estuary Program is the lead implementer and the State of the Bay report is an Estuary Program publication. Partners included individuals and organizations that contributed data and analysis to the report. These included USGS, CCRWQCB, CDFW, CDPH, Audubon, California Polytechnic State University San Luis Obispo, EPA, city of San Luis Obispo, and University of San Francisco.

**Accomplishments and Deliverables:** The completed report will be distributed in print and via our website. It reaches countless members of the public and those in the scientific community. The results of the analysis will be shared in presentations with a variety of audience types. In our 2014 events, our clean water message reached over 800 people, and we expect to reach at least that number with the 2017 events.

**Amount of 320 Grant/cooperative agreement:** 320 funding supports staff time for data analysis and report content development. Report design is underway, and in FY16 the graphic designer was paid \$1,900 of 320 funds.

**Expected Long-term Outcomes:** The opportunity to reach so many members of our community helps spread our message of protection, restoration, and conservation. The effort attracts new volunteers and monetary support, strengthens existing partnerships, and introduces us to new potential partners.

**Primary or Significant Role:** The Estuary Program played a primary role in this project, providing the funding for the analysis and collaboration to create the publication. The Estuary Program will also fund the printing of the report and distribution.

**External Constraints:** The CCRWQCB is overhauling their web interface and the analyses that it contains. As the site is still undergoing revision, we were unable to utilize all of the tools that will soon be available. But with CCRWQCB staff guidance, we were able to create meaningful analysis.

## **Budget Overview**

The following table describes costs incurred during the semi-annual report period and cumulative since the beginning of the current Section 320 grant (FY12). Match numbers do not include in-kind match, which is approximately \$1,689,500 cumulatively.

Table 2: Costs expended during this semi-annual report period and cumulative since beginning of grant

Category	Subcategory	FY16 Period 2 320 Funds	FY16 Period 2 Cash Match	FY16 Period 2 TOTAL	Cumulative 320 Funds	Cumulative Cash Match	Cumulative TOTAL
Personnel	Salaries	\$179,134	\$4,070	\$183,204	\$1,642,822	\$48,088	\$1,690,911
	Fringe	\$18,941	\$900	\$19,841	\$201,624	\$1,880	\$203,504
	Management Conference	\$0	\$0	\$0	\$0	\$0	\$0
	<i>Subtotal</i>	\$198,075	\$4,970	\$203,045	\$1,844,447	\$49,968	\$1,894,415
Travel		\$3,858	\$0	\$3,858	\$29,502	\$7	\$29,508
Supplies	Computers, software	\$3,016	\$0	\$3,016	\$5,625	\$0	\$5,625
	Vehicle maintenance, fuel	\$496	\$0	\$496	\$7,284	\$0	\$7,284
	Monitoring supplies	\$4,667	\$300	\$4,967	\$22,077	\$2,723	\$24,799
	Misc. office supplies	\$3,520	\$0	\$3,520	\$30,978	\$25	\$31,003
	Rent	\$27,492	\$0	\$27,492	\$255,069	\$0	\$255,069
	Utilities	\$1,677	\$0	\$1,677	\$17,383	\$0	\$17,383
	<i>Subtotal</i>	\$40,868	\$300	\$41,168	\$338,416	\$2,747	\$341,163
Contractual	Audit/Taxes/Accounting	\$6,304	\$0	\$6,304	\$55,374	\$0	\$55,374
	Education and Outreach	\$6,920	\$3,628	\$10,548	\$77,023	\$36,625	\$113,648
	Monitoring and Research	\$8,022	\$8,174	\$16,196	\$49,887	\$135,309	\$185,196
	Restoration and Protection	\$8,611	\$31,372	\$39,983	\$54,269	\$502,747	\$557,016
	<i>Subtotal</i>	\$29,857	\$43,174	\$73,030	\$236,554	\$674,681	\$911,235
Other	Postage	\$387	\$0	\$387	\$7,158	\$694	\$7,852
	Copying, Printing	\$1,660	\$0	\$1,660	\$15,837	\$384	\$16,221
	Training, Prof. Dev.	\$350	\$0	\$350	\$7,979	\$0	\$7,979
	Telephone, Internet	\$3,638	\$0	\$3,638	\$29,157	\$0	\$29,157
	Repairs and Maintenance	\$1,843	\$0	\$1,843	\$12,465	\$34	\$12,499
	Insurance	\$1,499	\$0	\$1,499	\$23,907	\$0	\$23,907
	<i>Subtotal</i>	\$9,377	\$0	\$9,377	\$96,502	\$1,112	\$97,615
	<b>TOTAL</b>	<b>\$282,034</b>	<b>\$48,444</b>	<b>\$330,478</b>	<b>\$2,545,421</b>	<b>\$728,516</b>	<b>\$3,273,936</b>

Table 3 lists costs by program area and task. Match numbers do not include in-kind match.

Table 3: Detailed costs expended by program area and task

Program Area	Project	FY16 Period 2 320 Funds	FY16 Period 2 Match	FY16 Period 2 TOTAL	FY16 Overall TOTAL
Education and Outreach	Communications	\$462	\$0	\$462	\$462
	Community Projects	\$275	\$0	\$275	\$275
	Community Grants	\$0	\$3,628	\$3,628	\$3,628
	Education and Nature Center	\$1,787	\$0	\$1,787	\$1,787
	State of the Bay	\$3,850	\$0	\$3,850	\$3,850
	Other E&O Tasks	\$546	\$0	\$546	\$546
	<i>Subtotal</i>	\$6,920	\$3,628	\$10,548	\$10,548
Monitoring and Research	Benthic Invertebrate Monitoring	\$0	\$5,960	\$5,960	\$5,960
	Stats	\$2,113	\$0	\$2,113	\$2,113
	Water Quality Monitoring	\$4,989	\$0	\$4,989	\$4,989
	Eelgrass Monitoring & Analysis	\$920	\$2,214	\$3,134	\$3,134
	<i>Subtotal</i>	\$8,022	\$8,174	\$16,196	\$16,196
Habitat Protection and Restoration	Road Erosion Prevention	\$0	\$14,241	\$14,241	\$14,241
	Restoration & Conservation Planning	\$0	\$0	\$0	\$0
	Freshwater Flow	\$4,332	\$0	\$4,332	\$4,332
	Chorro Creek Ecological Reserve	\$1,398	\$7,493	\$8,892	\$8,892
	Restoration Project Maintenance	\$314	\$0	\$314	\$314
	Other Restoration	\$2,567	\$17,227	\$19,794	\$19,794
	<i>Subtotal</i>	\$8,611	\$38,961	\$47,572	\$47,572
Program Administration		\$0	\$0	\$0	\$0
	<b>TOTAL</b>	<b>\$23,553</b>	<b>\$50,763</b>	<b>\$74,316</b>	<b>\$74,316</b>