

**Evaluating Physical, Chemical, and Biological Impacts from  
the Savannah Harbor Expansion Project**

Cooperative Agreement Number W912HZ-13-2-0013

**FY 2015 - Second Quarterly Report – April 1, 2015**

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Dear Ms Richards –

The following paragraphs summarize the progress on the project for the period January 1, 2015 through March 30, 2015, according to the five objectives outlined in the Statement of Work and summarized below.

**Progress by Objective**

**1. Research and develop data analysis tools and standardized maps; Analyze and integrate multiple, complex datasets to provide detailed map**

- a. **Bathymetric Data** –The bathymetry data has been merged with existing LiDAR datasets of the surrounding terrain. These data sets are included in our local Geodatabase and may be migrated to the on-line map.
- b. **Sturgeon Data:** We did not receive any additional data for the Sturgeon monitoring study in the Savannah River during this quarter. We have created a few different display concepts of sturgeon movement as well as other tagged species, i.e. Striped Bass and American Shad, and we have discussed different methods for analysis and display with Bill Post. We have received reports for sturgeon distribution for December 2014 and January 2015 and posted them to the SHEP monitoring website.
- c. **Vegetation/Marsh Monitoring Data** – We did not received any additional data for the Vegetation Monitoring project during this quarter. We have received reports from December 2014, January 2015, and February 2015 and the annual report of FY 2014. They have all posted been posted to the SHEP monitoring website.
- d. **Avian Tissue Monitoring** – We not have received any data nor reports for this quarter.

- e. **Marsh Edge Fishes** – We did not received any data for the Marsh Edge Fishes project during this quarter. We have received the fourth quarterly report of FY 2014 and posted it to the website.
  - f. **Intensive Water Quality/Hydrologic Monitoring Events** – We received the final report for the Intensive Water Quality project and posted it to the website. Because the original report document was very large, we split the report into 5 smaller files, labelled parts 1 through 5, to facilitate downloading.
2. **Research, identify, and catalogue existing study documents for the major resource areas**
- a. All existing study documents that we are aware of have been gathered and catalogued.
3. **GIS Data and Web Portal**
- a. **Determine appropriate attributes for the GIS**
    - i. This is an on-going effort and depends on the data we receive from other researchers as described above in Objective 1. All mapping coordinates are being standardized on the Georgia State Plane Coordinate System, East Zone, NAD83. Vertical coordinates are referenced to NAVD88, except for raw bathymetric data, which are referenced to local MLLW. Data sets with coordinates in other systems are converted to State Plane for compatibility. The original coordinates are preserved in the data sets as attributes. *(no change from the previous reports)*
  - b. **Develop a web portal to facilitate public access to the pertinent data**
    - i. In order to further understand how the website is accessed by the public google analytics were implemented on the SHEP website. These analytics currently can track the number of page views and information regarding the users accessing the site. The analytics information provided tells us if the user is a new or returning visitor, the operating system used by the visitor, and the country of origin of the user.
    - ii. Additional metrics have been added to the google analytics interface. Data generated by visitors to the SHEP website can now track what pages were visited as well as the average session duration. A use for this data is still being discussed.
  - c. **Develop Standard Operating Procedures (SOP)**
    - i. These have not been established yet – since it is still early in the monitoring program, much of the data is not yet available. We are receiving some preliminary data but not enough to begin to set up formal SOPs. We have been developing visualization and display methods for the preliminary sturgeon monitoring data and the bathymetric surveys.

**4. Update and maintain the GIS**

- a. These efforts are on-going. We continue to collect available GIS data for Chatham and Effingham counties (Georgia) and Jasper County (South Carolina), including LiDAR, base GIS data layers (roads, hydrology, boundaries, etc.), multi-date aerial photography and satellite images in order to build a comprehensive geodatabase for the region. We are collecting data from the Georgia GIS Data Clearinghouse, the USGS National Map, NOAA Coastal Services Center, and Savannah SAGIS.
- b. Additional data will be incorporated into the base GIS as they become available.

**5. Prepare quarterly progress reports and annual reports**

- a. This document represents the Second Quarterly Report of FY 2015 for this project.
- b. A budget summary is attached at the end of this document.

Please feel free to contact either Marguerite Madden or Tommy Jordan if you have questions or concerns regarding this report.

Respectfully submitted,



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