

Coastal South Carolina Water Monitoring Locations: A Visualization and Access Portal

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Coastal South Carolina has a diverse and multidisciplinary collection of programs monitoring its water bodies and watersheds, providing both a long-term baseline for understanding the status of our water resources and a context for understanding the impacts of episodic and chronic climate and weather events. In the aftermath of the October 2015 flooding in the state, the S.C. Sea Grant Consortium initiated discussions with research and technical representatives from institutions monitoring potential impacts to coastal waters. During this discussion, scientists indicated the need for a platform to coordinate and share information on monitoring site locations, types, and frequencies. An integrative, web-based visualization portal has been developed by the Consortium, in partnership with state and federal agencies and academic institutions, which can serve as a permanent application for hosting monitoring site locations and metadata for access by a broad audience of users.

The visualization portal will allow scientists, citizens, policy-makers, and resource managers to identify the locations of monitoring sites in South Carolina and provides information related to the “who, what, when, how” and the purpose for each site. In order to reach this wide range of users, it has a simple user interface that also provides advanced filtering and querying capacity. Users are provided with the information needed to contact the institutional representative for each site and, where available, directly link to the institution’s website. The portal illustrates both long-term monitoring projects occurring in the state and short-term monitoring in response to events. Water monitoring data are not directly accessible through the portal; data will only be available through the institution. The portal was developed under guidance from institutional representatives from the partner agencies initially providing site information; monitoring sites and networks will be added and updated.

The visualization portal will be a tool that integrates general descriptive information between institutions in the state conducting water resource monitoring and a source of information for citizens about the efforts of these institutions to understand our water resources. This hands-on demonstration will also illustrate how this type of framework has wide applicability for other geographic areas and could easily be adapted to host other types of monitoring.