

Summary of Social Science Investigations:

Shoreline Permit Database

Project Activity: CCRM Tidal Shoreline Permit Database

Objective: Develop a comprehensive CCRM Shoreline Permit Database that will integrate Virginia tidal shoreline erosion control project and permit information from a variety of existing database sources into one master, searchable database. Continue to populate database with new information collected on shoreline erosion control projects from Joint Permit Applications (JPAs) submitted to the Virginia Marine Resources Commission (VMRC), as well as project shoreline site characteristics, preferred shoreline management recommendations from CCRM's Comprehensive Coastal Resource Management Portal (CCRMP), and additional information as needed to support various aspects of the NSF project, such as field site selection, comparative assessments, and a variety of surveys and analyses of social and natural systems.

Methods: We developed a comprehensive shoreline erosion control permit database (Microsoft ACCESS) utilizing fillable forms to house Virginia tidal shoreline erosion control permit and associated project information. Joint Permit Applications (JPAs) submitted to the Virginia Marine Resources Commission (VMRC) for proposed shoreline erosion control projects and associated information were reviewed. Project location were determined and coordinates identified. The following project information was extracted into the database: VMRC Number; applicant name and contact information; property owner information; contractor; project type, length, impacts, wetlands board decision, board minutes, project location (site address, locality, parcel ID, and lat., long.); fetch, waterway, year built; compliance; preferred shoreline management approach and consistency with BMP recommendations. Shoreline permit and associated project information is obtained from VMRC permit database, VIMS Shoreline Permit Records website, locality CCRMPs, local government websites, Google Earth and Bing maps.

Progress to date: CCRM Shoreline Permit Database was created in Access. Data have been collected on 17,332 shoreline erosion control projects to date. Data are continually collected on proposed shoreline erosion control projects and fields added as necessary for research needs. Older project information is updated as needed. Living shoreline projects were the initial focus for new information to the database, however, all erosion control project types are now being tracked and their data inputted.

<u>Data queries were developed for multiple aspects of the project including:</u>

- Sites for field investigation of multiple ecosystem functions of living shorelines were identified querying selected project criteria.
- Gloucester, Norfolk, and Lancaster Shoreline permit and property owner data for 2013-2018
 was compiled for waterfront property owner social survey and property owner shoreline
 modification decision making analysis.
- Oyster (shell, bag, and structure) shoreline project data (2000-2018) compiled for use in conducting comparative assessments of wave attenuation of oyster structures, stone sills, and control shorelines.
- Miles of approved shoreline structure types (1970-2018) as defined and categories by CCRM and based on available Joint Permit Application information generated. (This information does not represent miles of shoreline structure types installed and present along the shoreline, only permitted).

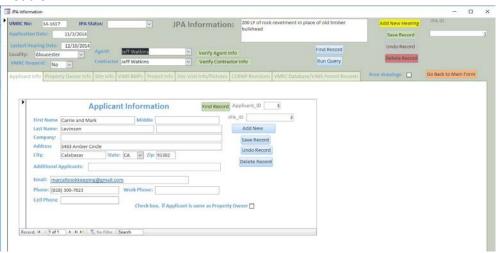






- Contractor and agent contact, shoreline project, location, locality and additional information complied for "The Role of Marine Contractors and Agents in Shoreline Decision-Making" survey and analysis portion of NSF project.
- 2018 Virginia tidal shoreline permit records related to erosion control including the applicant name, mailing address, approved shoreline structure type, VMRC number, living shoreline category, LF, Site Address, and Locality compiled to identify shoreline erosion control applicants for NSF waterfront shoreline property social surveys and property owner shoreline modification decision making analyses.
- 2019 Virginia tidal shoreline permit records related to erosion control to include the VMRC number, Applicant name, Applicant mailing address, Project Site Address compiled for the NSF waterfront shoreline property social survey and property owner shoreline modification decision making analysis.
- Marine Contractor and Agent information inputted for all projects between 2014-2018 for use in the Marine Contractor data analysis.

Visuals:



CCRM Tidal Shoreline Permit Database - Main Form View



CCRM Shoreline Permit Database Attribute Table







