

NOAA Center for Coastal and Marine Ecosystems (CCME) – Proposal Synopsis

Student Name: Elizabeth Del Rosario

University Name/Degree Sought/Degree Program:

Texas A&M University-Corpus Christi / Ph.D. Coastal and Marine System Science

CCME Faculty Advisor Name: Dr. Richard McLaughlin

Proposed NOAA CCME Focus Area(s): Place-based Conservation

Date: 11/30/17

Title: Environmental Flows Management Strategy for the Coastal Zone in Texas

Background: Environmental flows describe the quality, quantity, and timing of freshwater inflows required to maintain the components, functions, processes, and resilience of downstream bay and estuarine resources. Concern over the delivery and quantities of environmental flows prompted the Texas Legislature to pass Senate Bill 3 (2007), and implement an adaptive management process forming scientific and stakeholder groups for seven bay/basin systems. These groups independently devised their own strategy for determining recommended inflows their estuarine system. Final reports were created by each Science and Stakeholder team and used to establish rules by the Texas Commission on Environmental Quality (TCEQ).

Rationale: The project proposes a complete autopsy of the Texas SB3 Environmental Flows process to discover benefits and weaknesses of policy decisions for each bay/basin system.

Goal and Significance*: My research goal is a comparative study of the Science Team Reports, the Stakeholder Team Reports, and the TCEQ Rules. The significance of this research is to examine how well specific laws and policies are actually operating to enhance freshwater inflows into Texas Bays. The social sciences/human dimensions aspect of my research involves improving the effectiveness of these laws and policies, which will have a significant impact on the quality of life of the citizens of Texas.

Research Approach and Proposed Methods*:

I plan to do a quantitative and qualitative policy analysis of SB3, review the reports produced by each group, and review the rules established by TCEQ.

* Language in the CCME grant explicitly requires that some aspect of social sciences/human dimensions be incorporated into every student's research project. Briefly explain the social science/human dimensions features of the project in either space.

NOAA Line and Program Office Associated with the Proposed Work

(<http://www.noaa.gov/organizations.html>)

NOAA Line Office: National Ocean Service (NOS): <http://oceanservice.noaa.gov/programs/>

NOAA mentor: (Seeking a mentor from the National Water Center, Tuscaloosa Alabama)

Program Office: National Centers for Coastal Ocean Science

Indicate why the proposed work is associated with the NOAA Line and Program Office

given above: My research is based on the NOS mission of providing science-based solutions through collaborative partnerships to address evolving economic, environmental, and social pressures on our ocean and coasts. My research fits in with the Program Office under Place-based Conservation because I am focusing on conservation methods and issues as they pertain to a specific place or region in Texas, and the people that directly use the freshwater resource.

Funded by NOAA EPP/MSI Coastal and Marine Ecosystems Award (NA16SEC4810009)