WAVE: Waterway Information for Vessels
A project funded by LSU’s Coastal Sustainability Studio to develop a smartphone app to improve emergency preparedness for commercial fishermen and other users of the waterway.

How the App was developed:

Users have many needs for information while out on the water. The project team started with surveys and interviews of commercial fishermen to identify data needs and conducted several phases of design to ensure an easy-to-use app with functionality.

Commercial fishermen use a variety of methods to receive weather and tide information, while official navigational charts and fishery-related information and available datasets and bringing them to mobile platforms. WAVE enables many publicly available tools and datasets to be available to mobile devices through a smartphone app.

Emergency: The Emergency tab provides users with real-time and historical hurricane intensity and precipitation data from NOAA. It also includes forecasts and preparedness, specifically geared toward emergency information.

Storms: The Storms tab provides useful information relevant to current storm events as well as animations and data from past storms. Here, users can view weather information relevant to hurricane size data, including area of hurricane, intensity (from Dr. James Elsner and others), surge and wave guidance, and high water marks from the National Ocean Service, NOAA River Forecast Center, and LSU’s Coastal Sustainability Studio.

How WAVE handles this data:

The WAVE app was developed to pull data from several sources including the National Ocean Service, LSU's Coastal Sustainability Studio, and U.S. Geological Survey. The data is then displayed in an easy-to-use format on the app.

The WAVE app is a web app built using a service called CocoonJS. CesiumJS is a webGL GIS API that handles the mapping and other GIS used in the app. It is designed to work with other GIS services and can be extended to work with other datasets.

Partners and Funding:

This project was made possible with support from LSU’s Coastal Sustainability Studio and SCIPP, as well as partnerships with other organizations and agencies.

An app like this is unique for many reasons, so reaching out to external partners has been a key component to the success of WAVE and the information that it provides. The Louisiana Department of Natural Resources (LDNR) provided access to and technical help with several datasets. This project was made possible with support from LSU’s Coastal Sustainability Studio and SCIPP, as well as partnerships with other organizations and agencies.

How to use WAVE:

The WAVE app is available on the Apple App Store. Look for it soon!