

TOOL TYPE & AVAILABILITY

A web-based decision support tool.

SPONSORING ORGANIZATION & DEVELOPERS

[The Nature Conservancy](#) (TNC), in partnership with the [Natural Capital Project](#), [National Oceanic and Atmospheric Administration](#), [United States Geological Survey](#), [Center for Integrated Spatial Research at the University of California at Santa Cruz](#), [Association of State Floodplain Managers](#), and the [University of Southern Mississippi](#)

WEBSITE & CONTACT INFORMATION

The tool is available at <http://maps.coastalresilience.org/network/>; for additional information contact Zach Ferdaña, Lead Coastal Resilience Manager, The Nature Conservancy, at zferdana@tnc.org

TARGET USERS

Target users are private- and public-sector, and non-profit sector project planners.

RELEASE YEAR & UPDATES

The tool was originally released in 2008 and subsequently released as open source on October 7, 2013. The tool undergoes occasional updates and expansions of capabilities, most recently in April 2015.

COST

No cost.

Coastal Resilience Mapping Tool

PURPOSE AND OBJECTIVE

- The Coastal Resilience Mapping Tool provides communities, planners, businesses, and officials a stepwise process to guide decisions that reduce the ecological and socioeconomic risks of coastal hazards and determine how natural solutions and smart development can be implemented in a project.
- Originally designed as a simple data viewer, the tool now implements a robust mapping framework and browser-based apps (e.g., Future Habitat that maps the movement of tidal marshes as sea level rises). These apps are designed to target coastal hazard issues alongside social, economic, and ecological assets; they can be accessed by the open source community, readily adopted by partners, customized, readily made into a mobile device app, and advanced to address risk reduction and identify nature-based adaptation or mitigation solutions.

SOFTWARE AND DATA INPUT REQUIRED

- The tool operates in the user's web browser.
- No data input is required.

INFORMATION GENERATED

- The tool provides a range of information, depending on geography, including sea level rise, storm surge, social and economic assets, community vulnerability, and natural resource and ecosystem service geospatial data.

EXPERTISE & TIME INVESTMENT REQUIRED

- No expertise is required, although some browser-based apps target specific users or sectors, and therefore familiarity with the topic or issue is advantageous for maximum usability.
- The amount of time required to operate is based on user needs and current knowledge.

EXAMPLES OF COMPANY USERS

- TNC is working collaboratively with the insurance industry to enhance tools for assessing risks and strategies for building resilience. For example, TNC is partnered with SwissRe in the Gulf of Mexico and along the Meso-American Reef of Mexico to compare the cost effectiveness of gray vs. green (nature-based) defenses in reducing risks from flooding and to make these analysis tools and results more readily available to key decision-makers.