

North Carolina's Restoration Explorer <http://maps.coastalresilience.org/northcarolina/#>

What is the Restoration Explorer?

Restoration Explorer is part of the Coastal Resilience web mapping tool and allows stakeholders to prioritize nature-based solutions like subtidal oyster reefs to reduce their community's risk.

Just after the Deepwater Horizon oil spill in 2010, TNC developed the first Restoration Explorer, an application (app) that allows coastal communities to use scientific data to map areas that are suitable for oyster reef restoration based on both ecological and socioeconomic criteria.

What DOES the Restoration Explorer do?

The Restoration Explorer application helps stakeholders identify where oyster reefs could make the most difference in preventing shoreline erosion as well as improving water quality. This web-based mapping application uses the most current regional data sets to map areas that are suitable for restoration. The web map then color ranks the shoreline to guide site selection for restoration projects. **Restoration Explorer provides three primary functions:**

1. **Determines areas that will be suitable for oyster reef restoration based upon:**
 - a. **Ecological Parameters: 1) Depth, 2) Salinity, 3) Existing Oyster Reefs, 4) Historic Oyster Reefs, 5) Proximity to Connected Salt Marsh, 6) Sea Bottom Type and 7) Proximity to Strategic Habitat Areas**
 - b. **Socioeconomic Parameters: 1) Shoreline Erosion, 2) Water Quality, and 3) Public Accessibility**
2. **Allows the user to adjust the above parameters to focus their site selection for their desired outcome.**
3. **Provides exportable maps for site visits and to support the CAMA application process.**

What are the benefits to a stakeholder that uses the Restoration Explorer?

1. **Provides a visual analysis and maps that save time for the stakeholders**
2. **Allows for an in-depth analysis of suitability of restoration sites which improves the restoration outcome**
3. **Saves time and money by limiting site visits to locations with a high restoration potential**

Where in North Carolina does this application work and what are the next steps for Restoration Explorer?

In North Carolina, Restoration Explorer identifies sites for subtidal oyster reef restoration within the Pamlico Sound.

In the near future there are plans to provide additional restoration tools including a Living Shorelines model and expand the geographic coverage of the application to restoration types suitable to the geography.

Who do I contact for more Information?

For information about the Pamlico Sound subtidal oysters project, contact Brian Boutin bboutin@tnc.org. For technical questions on Restoration Explorer, contact Laura Flessner, laura.flessner@tnc.org.