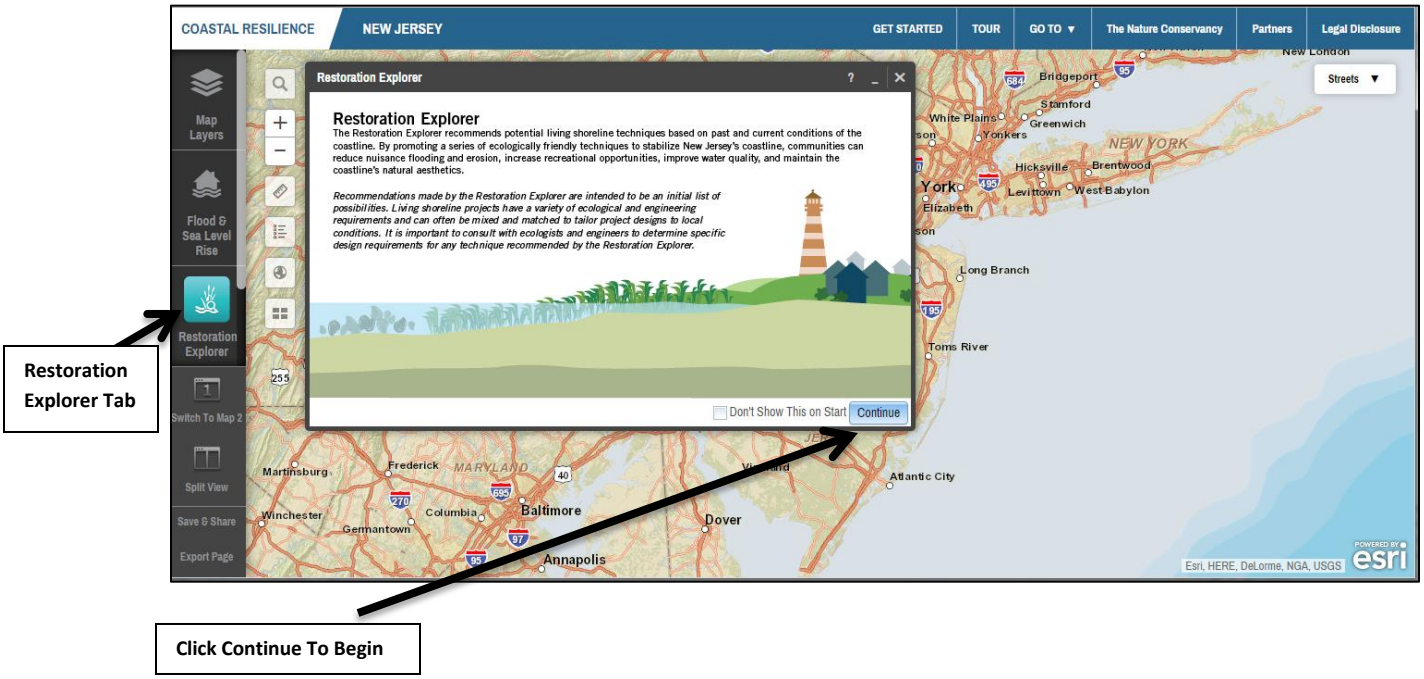
Restoration Explorer User Guide

This user guide provides information on how to move through the "decision tree" within **The Restoration Explorer,** a web-based application located on the larger Coastal Resilience Tool platform (maps.coastalresilience.org/newjersey). The Restoration Explorer application, along with the other applications on the Coastal Resilience site, enables planners, elected officials, managers and citizens to visualize current and future risk and plan for actions to mitigate those risks. Specifically, the Restoration Explorer allows users to identify which nature-based technique(s) could work best in reducing coastal erosion, while promoting the multiple benefits of healthy coastal habitats. It currently provides guidance on six specific living shoreline techniques: Beach Restoration, Nature-Based Living Shoreline, Marsh Sill, Ecologically-Enhanced Revetment, Living Reef Breakwater and Breakwater. Definitions are provided within the Restoration Explorer.

Disclaimer: Living shoreline techniques suggested by the Restoration Explorer may require Federal, State, and local regulatory approvals and The Nature Conservancy makes no representation that potential projects will gain all required Federal, State or local approvals. Before engaging in design work, please contact New Jersey's Coastal Land Use Office and local building officials for more specific information and guidance about the permits or other approvals which may be needed.

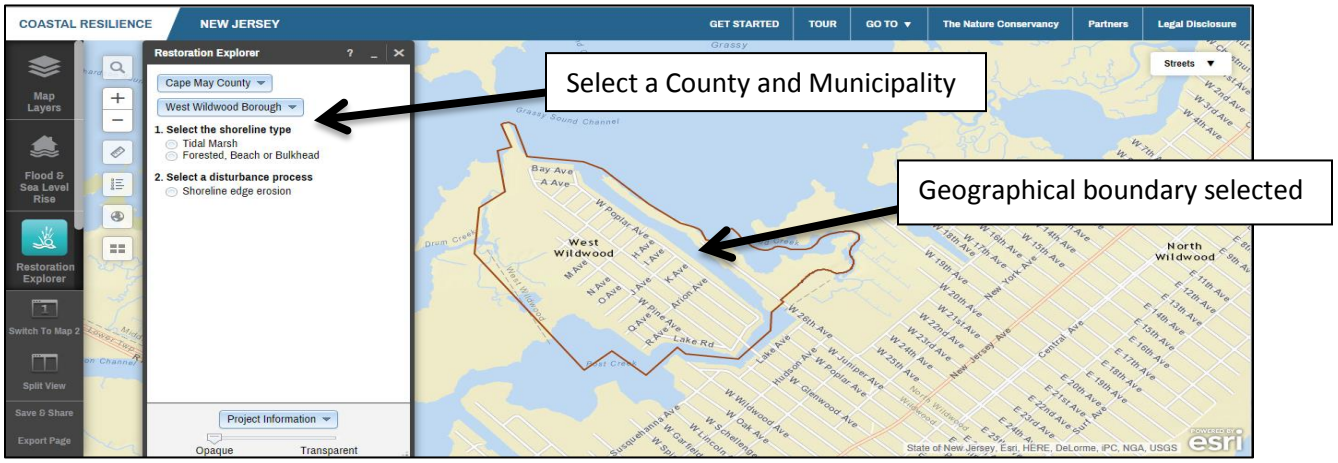
To begin using the Restoration Explorer, select the application tab on the left of the screen (See Figure1). Click the "Continue" button located on the bottom of the pop-up box that will appear after selecting the Restoration Explorer tab (See Figure1).

Figure 1



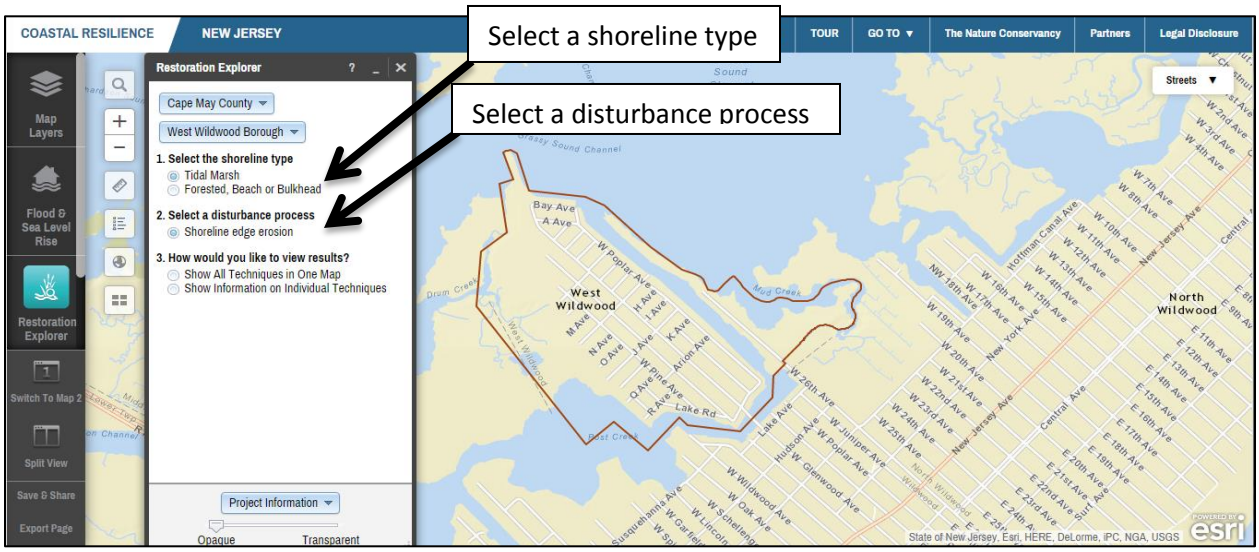
The Restoration Explorer will display a pop-up box allowing the user to classify the County and Municipality where they are seeking to identify applicable potential restoration practices. After the County and Municipality are selected by the user, the corresponding geographical boundary will be automatically zoomed-in and outlined on the Restoration Explorer mapping software (See Figure 2).

Figure 2



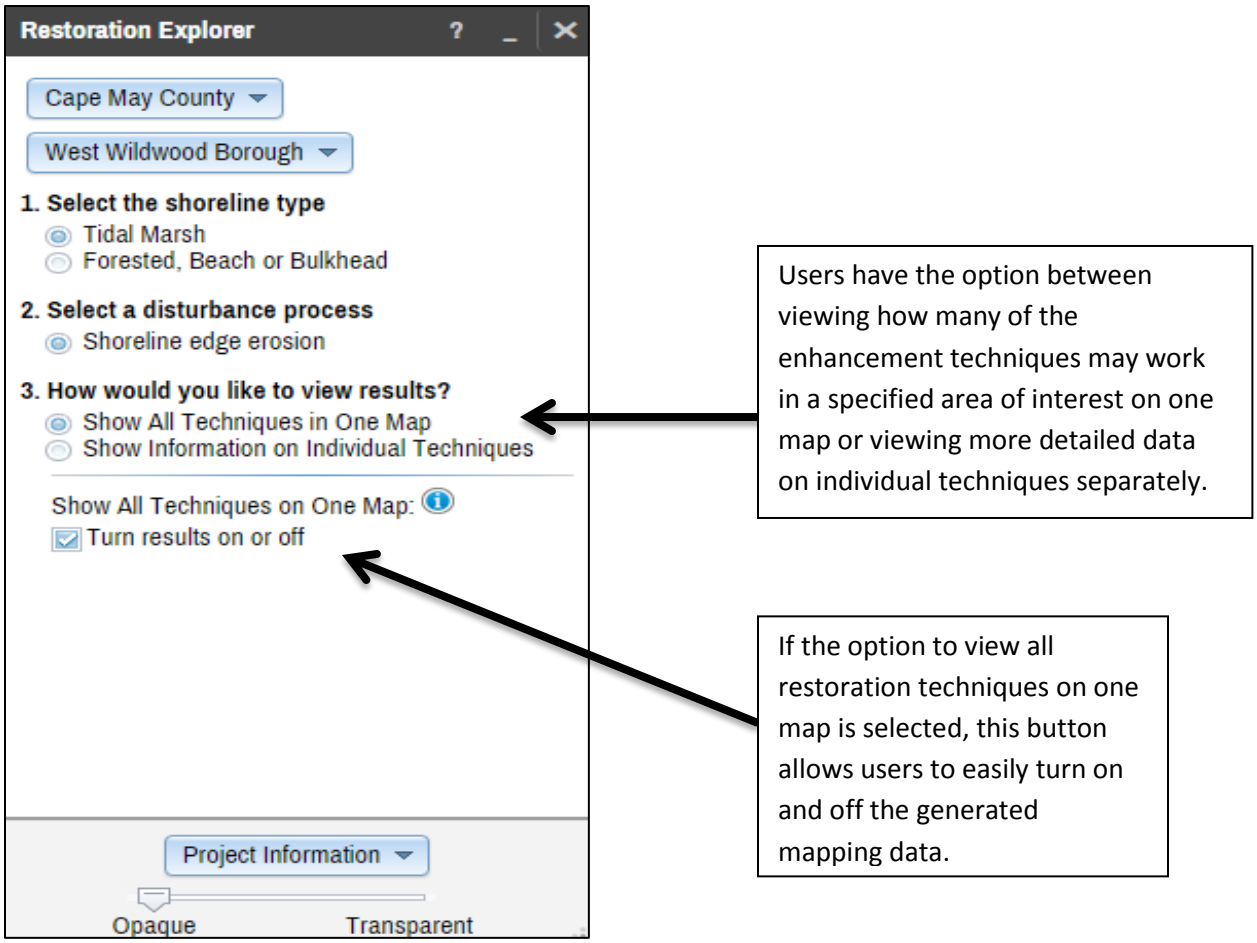
After selecting the County and Municipality, the Restoration Explorer will provide guidance on the different types of shorelines (See Figure 3). Upon selecting the shoreline type, the user will be guided to select a disturbance process (See Figure 3). After these two selections are made, the user is led to choose the way in which they would like to view the results of the application (See Figure 4).

Figure 3



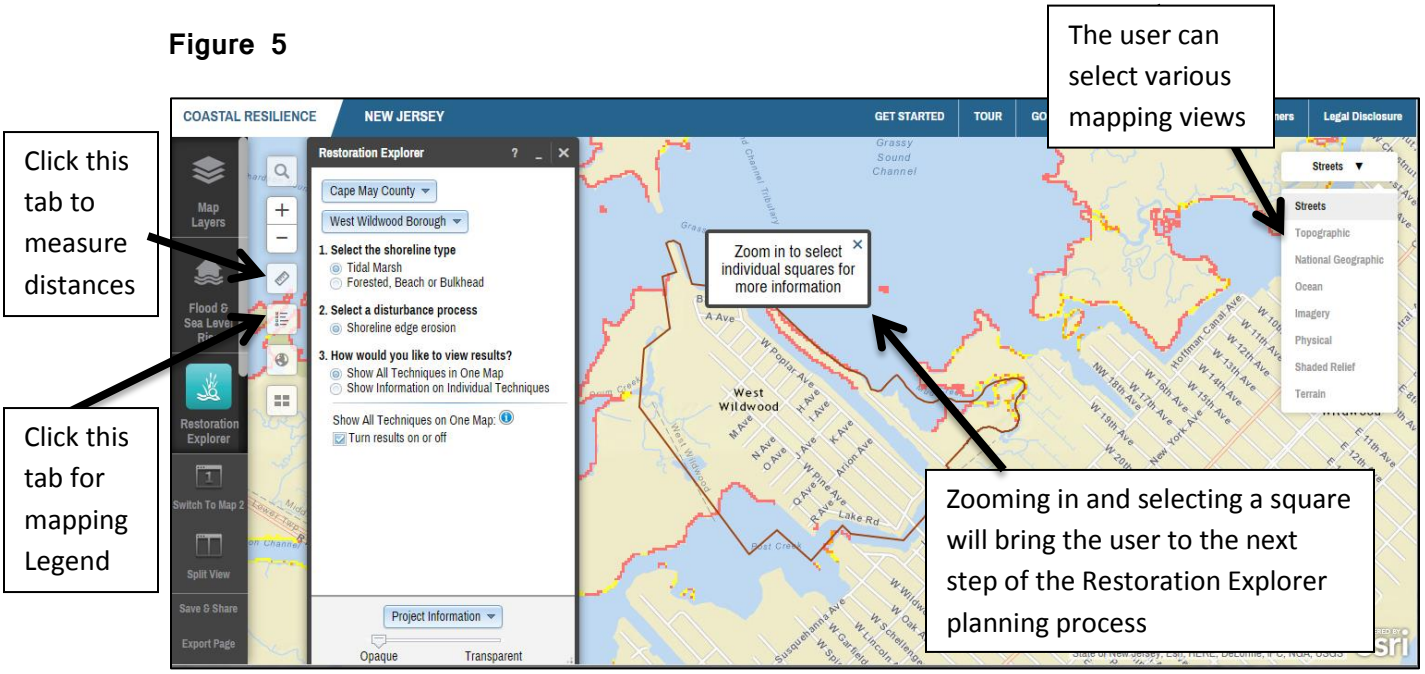
Users the have the ability to view all of the applicable restoration techniques on one map or view information on individual techniques separately (See Figure 4).

Figure 4



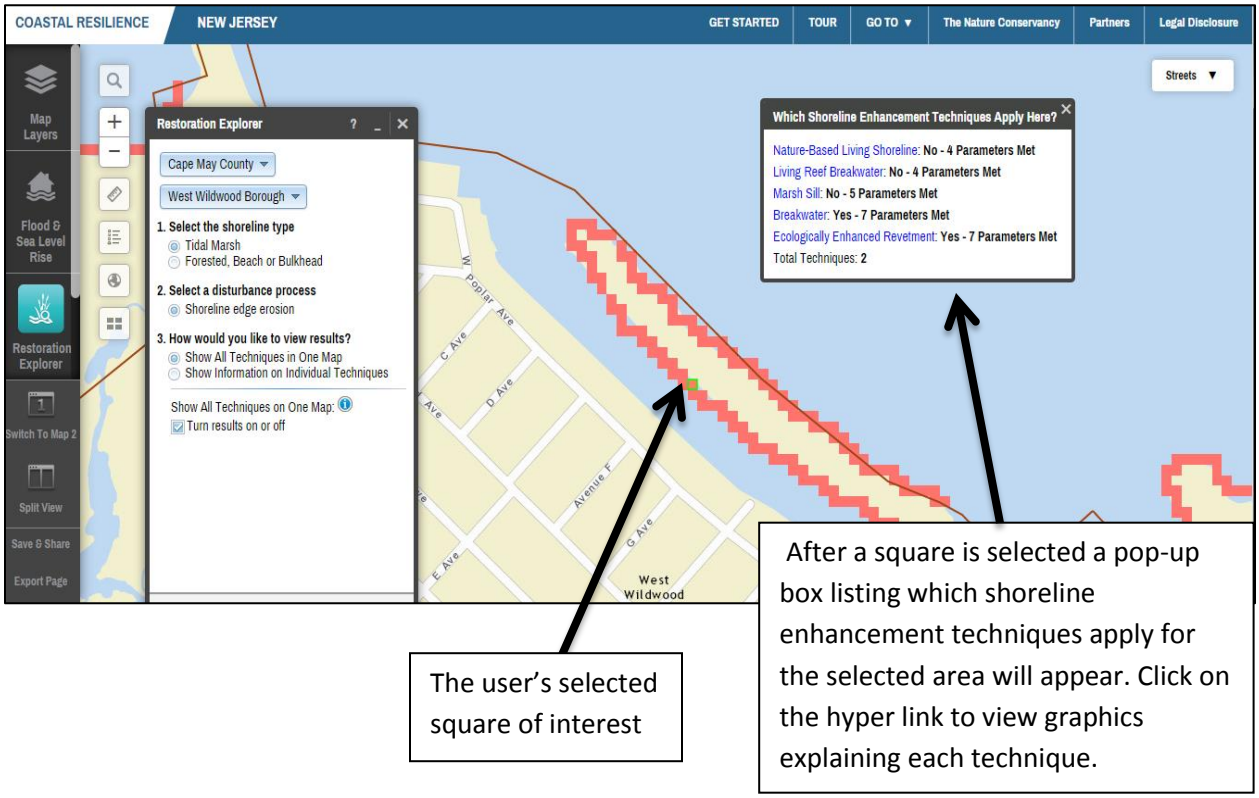
If the option is chosen to view all of the restoration techniques on one map the user will have the ability to **zoom in and select a square** representing a 10 meter length of shoreline (See Figure 5).

Figure 5



Upon selecting a square the user will be presented with a pop-up box that shows which of the six shoreline enhancement techniques are most likely to be successful within the selected area (See Figure 6).

Figure 6



If the option is chosen to view information on individual techniques, a dropdown menu appears allowing the user to select each of the restoration techniques (See Figure 7). The user is then able to evaluate the applicability of each living shoreline restoration technique separately within a selected geographic area (See Figure 8).

Figure 7

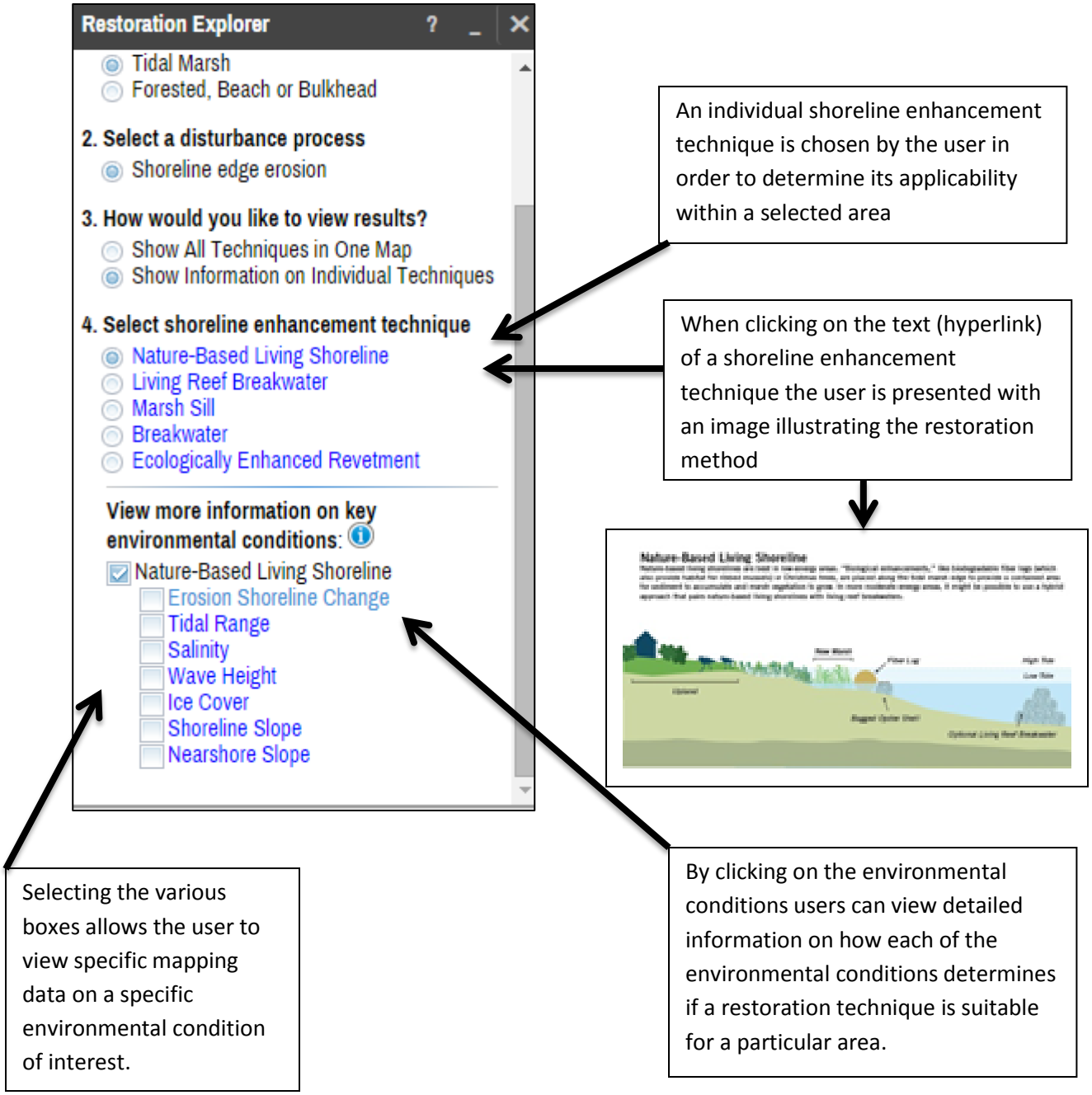
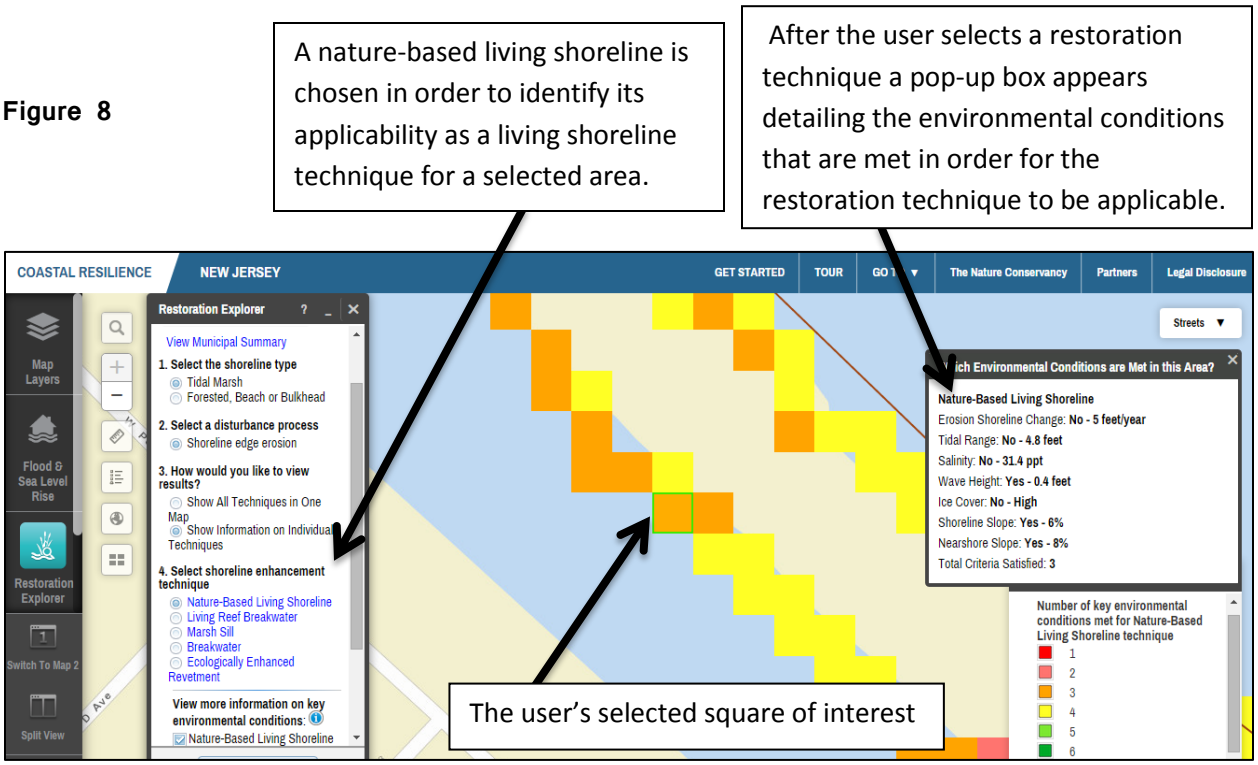
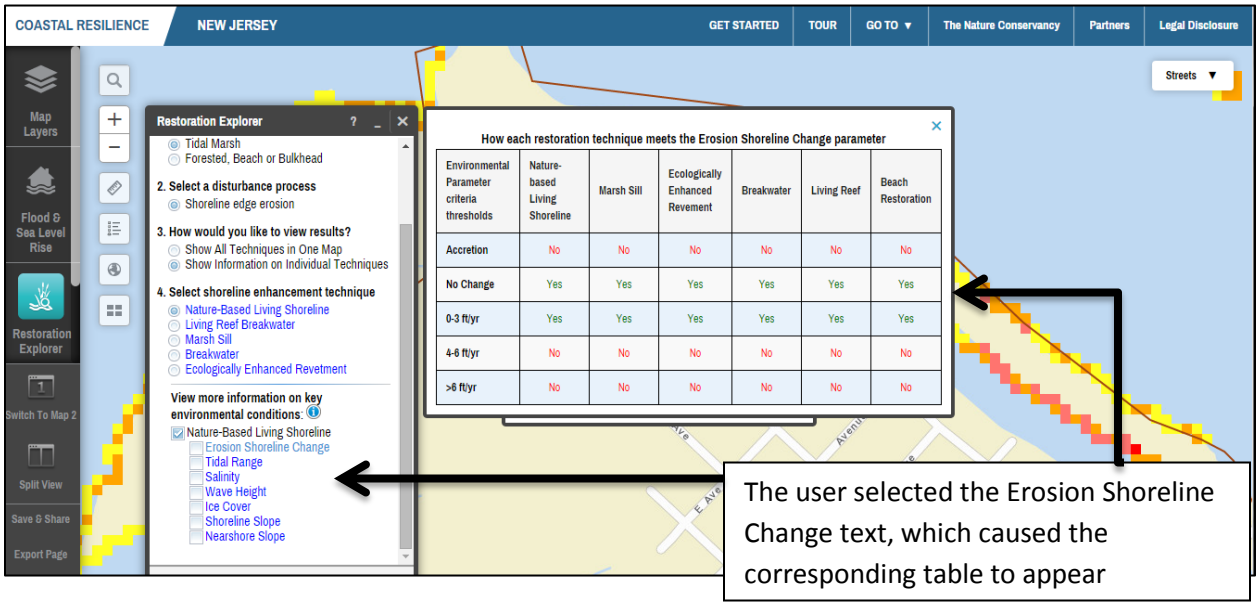


Figure 8



The user can click on the text of the environmental conditions which will display a table detailing the parameters of applicability for each restoration technique. Each environmental condition will display its respective table. For example, should the user select "Erosion Shoreline Change," the user can see which techniques would work better in areas of low rates of erosion versus higher rates of erosion. (See Figure 9).

Figure 9



The Restoration Explorer application is not intended to provide rigid recommendations but rather to support collaborative discussion about how to begin the process of considering the implementation of a living shoreline project. Users are urged to consult with ecologists, engineers, as well as State and Federal environmental officials regarding plans for site work.