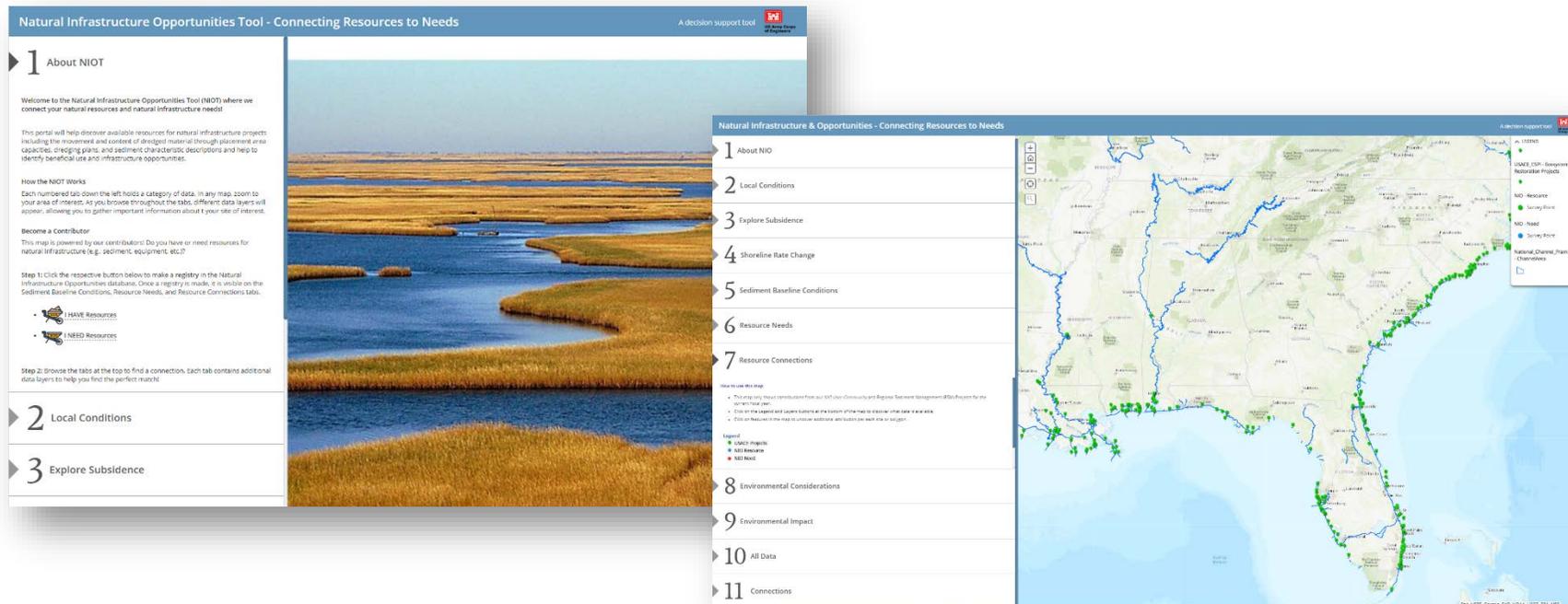# Using the Natural Infrastructure Opportunities Tool (NIOT)
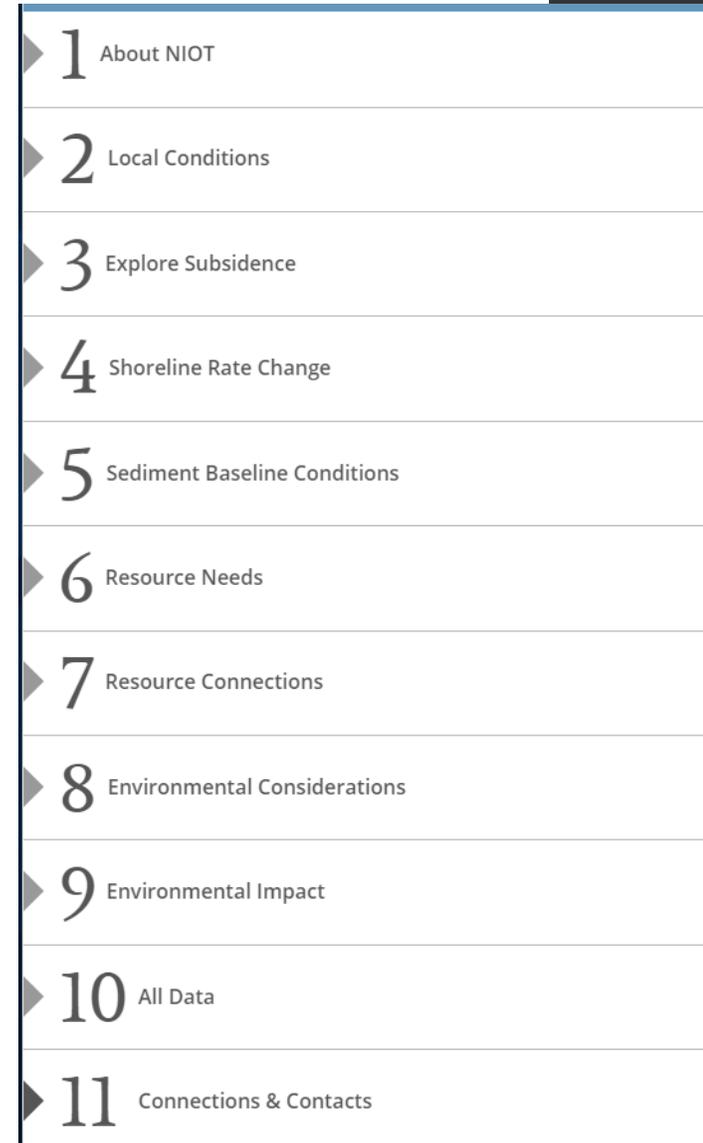## User's Guide

What is the Natural Infrastructure Opportunities Tool (NIOT)?

- The Natural Infrastructure Opportunities Tool is a public facing viewer that focuses on identifying natural infrastructure and beneficial use opportunities.

- Through map-based visualizations of environmental, geomorphic, and sediment conditions, as well as upcoming USACE projects, and an interface for users to add their resource needs and resource availability, this portal will help discover natural infrastructure connections and inspire innovative opportunities.

How the NIOT Works

- Each tab on the left side of the viewer holds a category of data. In any map, zoom to your area of interest. As you browse throughout the tabs, different data layers will appear, allowing you to gather important about the sediment at your site.

- There are 11 tabs. Each tab holds a subset of data organized for that category. Interested in seeing all data together? Tab 10 provides access to all data layers in the NIO tool. Interested in finding contacts who are also exploring natural infrastructure opportunities? Tab 11 provides contact offices for users of the NIOT.

- Data is organized in a map. The map will change based on what links are clicked – either the category number or any hyperlinks in the category description.

- The NIOT brings together datasets from multiple agencies all in one place! Some links are slower than others because data is be hosted in served from many different locations.

Open the Online Application

1. Go to:
   https://ewn.el.erdc.dren.mil/tools.html
   Scroll for "and click link to visit the web application.

2. Scroll to find "**Natural Infrastructure Opportunities Tool**" mapping application. Click on the link to view the application.

3. This will launch the application within your web browser.
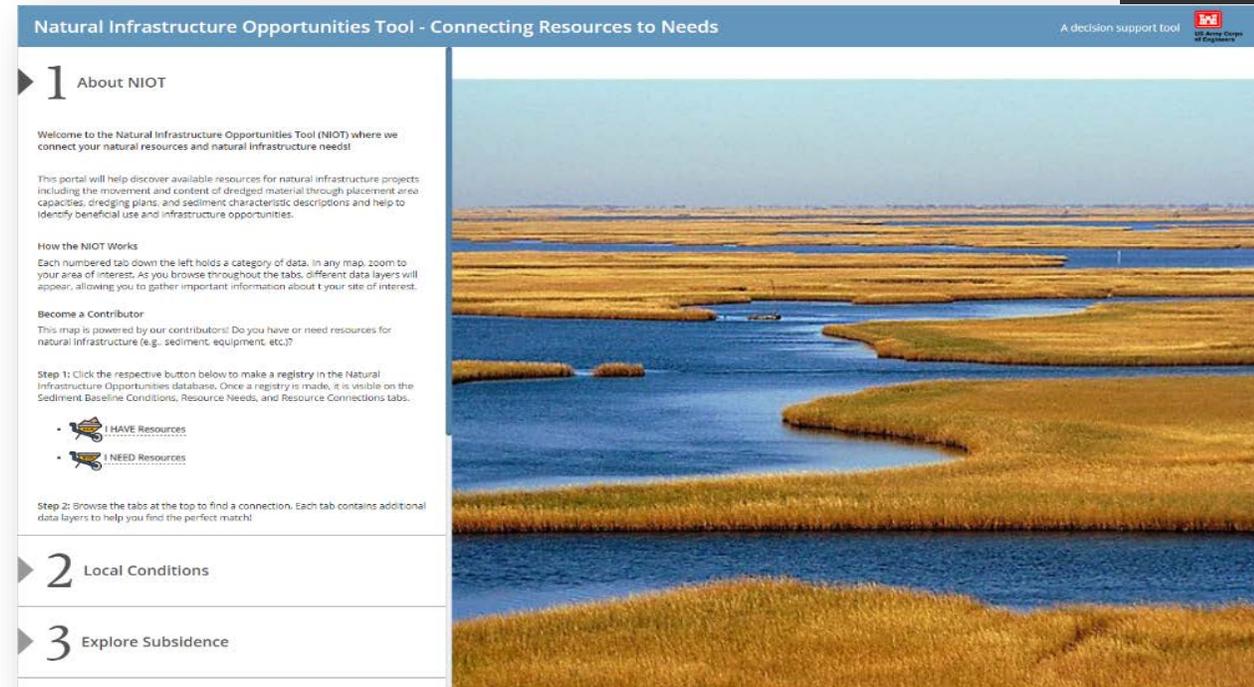
NIO Contributors

- The mapping tools allows the community of users to submit "announcements" of resources or needs.

- Tabs 1, 5, and 6 have links to create a mapped "announcement" of Available Resources or Resource Needs.

Become a Contributor

This map is powered by our contributors! Do you have or need resources for natural infrastructure (e.g., sediment, equipment, etc.)?

Step 1: Click the respective button below to make a **registry** in the Natural Infrastructure Opportunities database. Once a registry is made, it is visible on the Sediment Baseline Conditions, Resource Needs, and Resource Connections tabs.
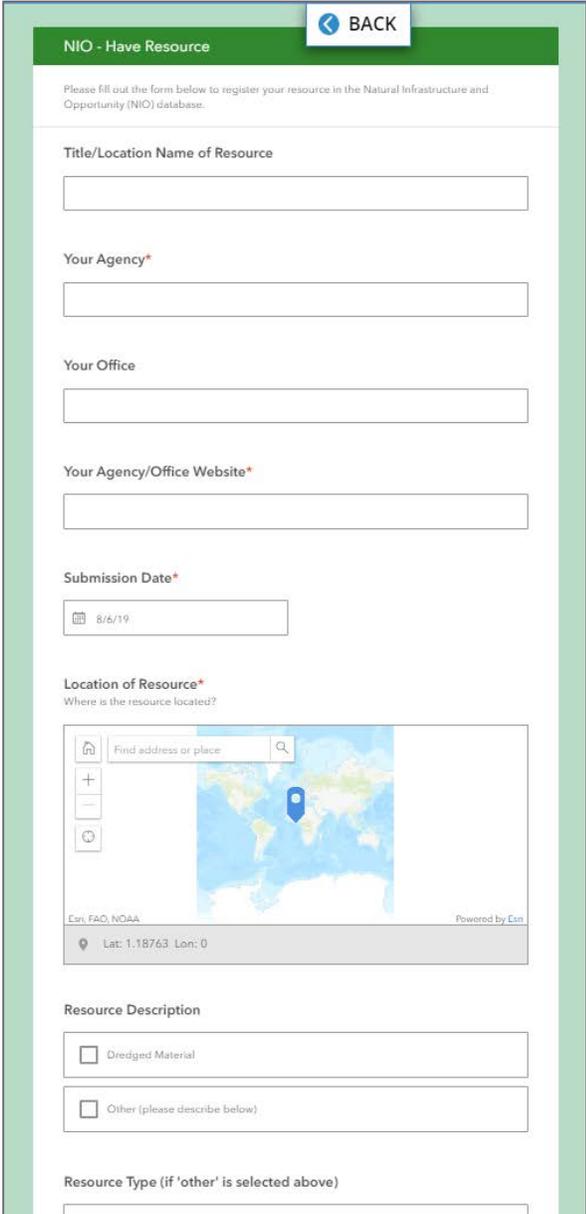
- I HAVE Resources
- I NEED Resources

- Click the respective link to open the online entry form
  - Users supply location and basic descriptions of resources that they need or have and can include links to web services for inclusion.

1 About NIOT
2 Local Conditions
3 Explore Subsidence
4 Shoreline Rate Change
5 Sediment Baseline Conditions
6 Resource Needs
7 Resource Connections
8 Environmental Considerations
9 Environmental Impact
10 All Data
11 Connections & Contacts

NIO Contributors | Forms

Resource Fields

- Title/Location Name of Resource

- Location of Resource (Where is the resource located?)

- Your Agency

- Your Office

- Your Website

- Submission Date

- Location of Resource

- Resource Description (e.g. sediment, equipment, supplies, data layers, etc.)

- Resource Availability Date

- Resource Status (Planned, Under Contract, Currently Unavailable)

- Provide details if the Resource a Web Mapping resource

- Provide details if the Resource is dredged material

- Restrictions/Special Cases

NIO Contributors | Forms

Resource Need Fields

- Submission Date

- Your Agency

- Your Office

- Your Website

- Title/Location Name of Resource Need

- Location of Need (Where is the need located?)

- Area of Interest Buffer (Approximate width of Area of Interest)

- Resource Type Needed

- Description

- Timeframe Needed – Start/End Date

- Provide details if the Resource Need is Sediment

Using the Map Content

- Once you click on each tab, a map or image will appear on the right. Maps are designed with data layers from a selection of different sources. Each is focused on data applicable to the tab category.

- **Accessing Map Legends.** All maps have integrated legends and are designed for full user interaction.
  1. Click the Legend button to expand the menu in the upper right corner.
  2. More complicated maps have many data layers which may be difficult to see all at the same time. Click the Layers button to toggle layers on/off.

- Some data layers are more complex than others and may take longer to load. Please be patient!
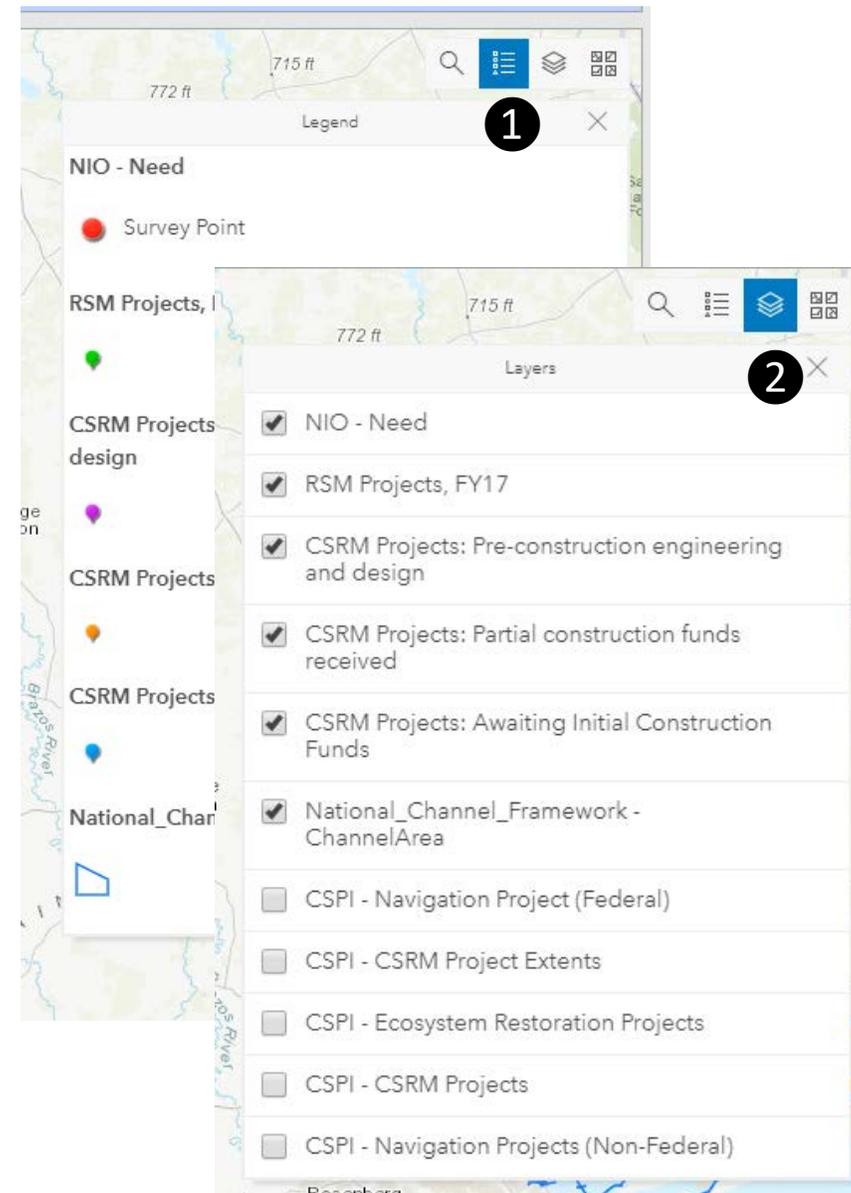
Mapping Data | What's Available?

- To gather more information about what the map is displaying, always be sure to view the description in the selected tab.

- Each tab provides descriptive information on the purpose and content of the map.

- Don't forget to scroll to see all of the content!

4 Shoreline Rate Change

How to use this map:

- Click to show Corps Shoaling Rate (CSAT)
- Click to show change rate (ft/year) 2000s - 2012
- Click to show change rate (ft/year) 1950s - 2012
- Click to show change rate (ft/year) 1930s - 2012

Other options to explore:

- Bureau of Economic Geology's Shoreline Change Map
- CSAT mapping application
- CSAT data sources

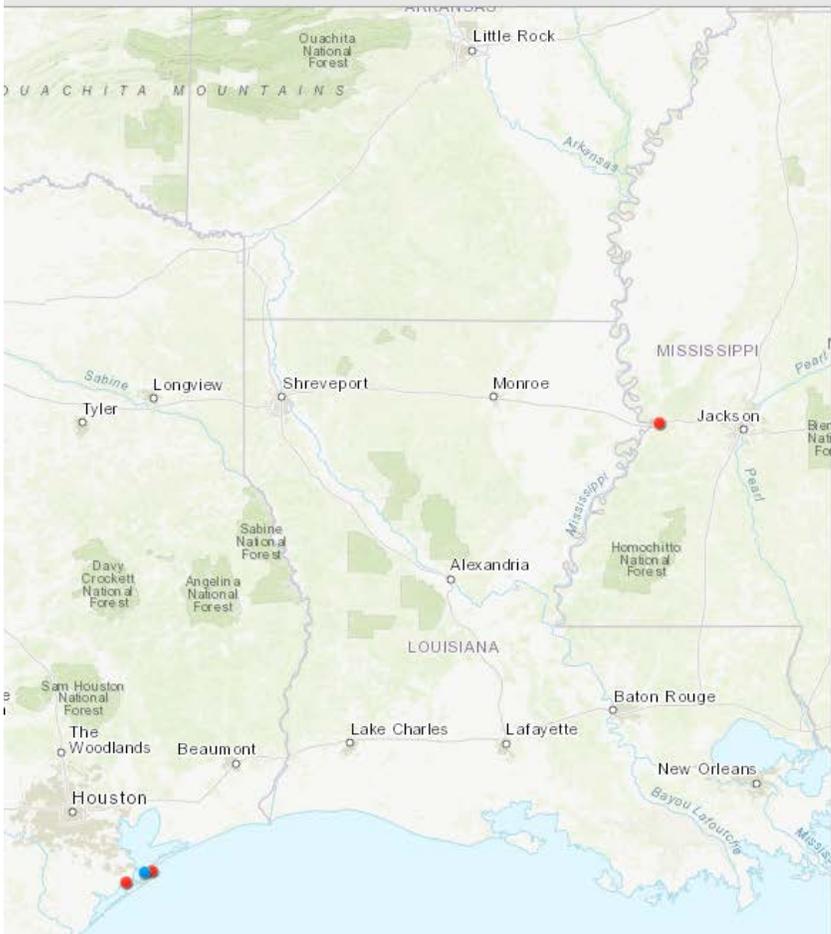**9 Environmental Impact**

How to use this map:

- View the NIO Environmental Impact Map

  - Zoom to your area of interest and discover potential environmental considerations.
  - Click on the Legend button in the upper right to discover what data is available.
  - Click on features in the map to uncover additional attribution per each site.
  - Use the map tools in the upper right corner to toggle or filter fields.
  - Available Map Layers:

    - National Wildlife Refuge
    - USFWS' Wetlands, Historic Wetlands, and Critical Habitat

Making Connections

- One goal of the viewer is to connect groups that are interested in Natural Infrastructure Opportunities, including the public sector, the private sector, NGOs and other stakeholders.

- Tab 11 displays office contact information for all NIO Contributors that submit an Available Resource or Resource Need survey

Providing Feedback

- We are always trying to improve the utility of the viewer and encourage questions, comments and suggestions!

- Please contact the NIOT POC: Safra.Altman@usace.army.mil