



CHANJ

Connecting Habitat Across New Jersey



NEW JERSEY DIVISION OF
Fish and Wildlife



Last updated March 2019

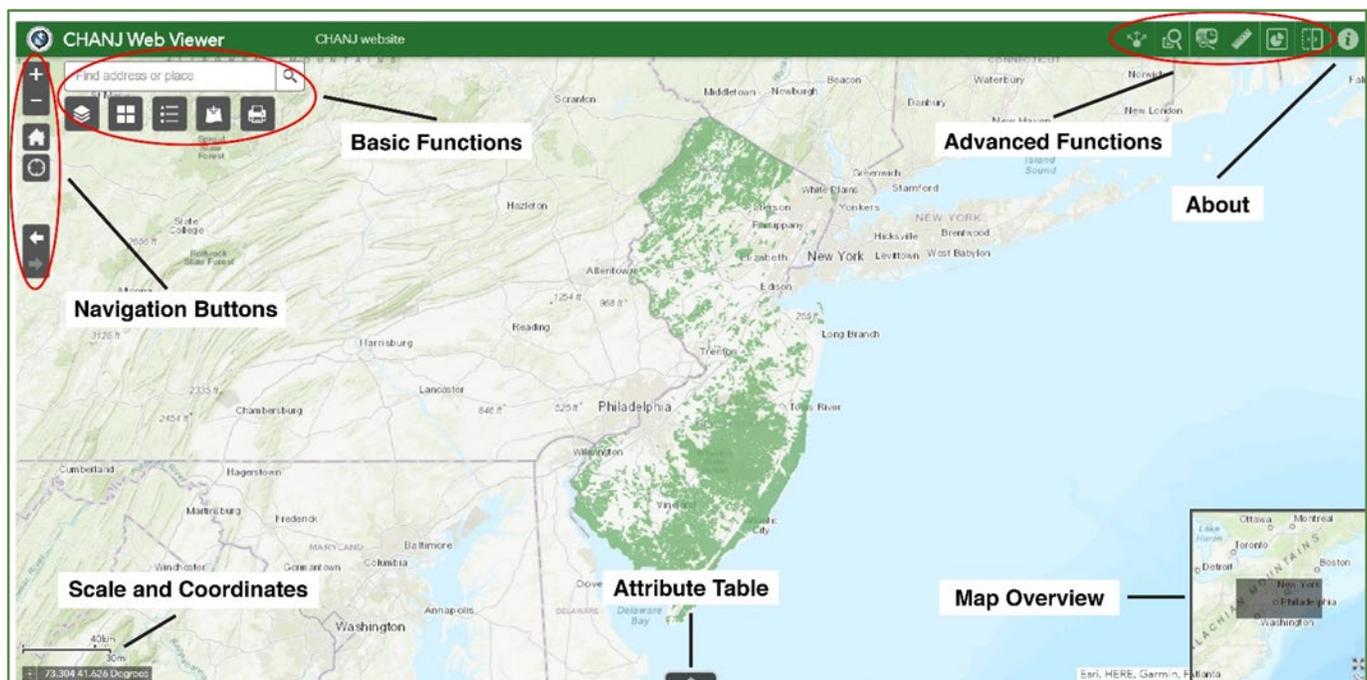
Web Viewer User Guide

Connecting Habitat Across New Jersey ([CHANJ](#)) is an effort to make our landscape more permeable for land-based wildlife by protecting important habitats, restoring corridors for movement, and making roads safer to cross. CHANJ offers tools and resources to guide these goals forward in a strategic way.

This User Guide aims to familiarize users with the tools and functions of the [CHANJ Web Viewer](#) application. It is not meant to serve as a manual for ArcGIS Online mapping in general. For further guidance on strategic approaches to using the layers provided in the CHANJ Web Viewer, please consult Chapter 4 of the CHANJ Guidance Document.

OVERVIEW OF THE CHANJ WEB VIEWER

Notes: We recommend bookmarking or adding the CHANJ Web Viewer link to your Home Screen on your mobile device for ready access to it in the field. Some functions and displays may vary depending on the browser or device being used.



ABOUT



The **About** section describes several key CHANJ mapping layers offered in the Web Viewer, including habitat Cores, Corridors, and Road Segments, preserved lands, road mitigation projects, and others.

BASIC FUNCTIONS

Find address or place



Find locations using the search bar above the Basic Functions buttons. Users can search by addresses or coordinates to zoom to a location.



The **Basemap Gallery** includes several background maps to choose from to customize the map display, such as aerial imagery, street maps, and topography.



Use the **Layer List** to see and select (or un-select) the various layers that can appear on your map. In addition to the key CHANJ mapping, other layers include aquatic features like vernal pools and streams, parcel boundaries, municipal and county lines, watersheds, several aerial imagery options, and more. Check the box beside each layer you'd like to appear. Use the ●●● icon to refine the display of a given layer, such as its transparency or visibility range.



The **Legend** displays the names and symbology of layers currently visible on the map.



Add Data allows you to add other data layers to the map from the following sources:

Search: Search by keyword for existing data sources.

URL: Enter the URL of a known data source.

File: Add data locally from your device in an accepted file format.



Print brings up print options for the current map display, such as layout, format, and additional options under Advanced, such as extent, size, and print quality. The map can also be saved to a file.

NAVIGATION BUTTONS

Navigation Buttons control the location and extent of the map display. To move or pan the map, simply click and drag anywhere on the map display.



Zoom in and out of the map view by clicking the plus (+) and minus (-) symbols, respectively. (You can also zoom in and out using the wheel on your mouse.)



Clicking the **Home** icon will return the map display to its default view, zoomed out to show the entire state of NJ. Your chosen basemap and any layers you've selected will still be active.



Clicking the **My Location** icon will zoom and center the map display on your current location, if using a location-enabled device. This button is especially handy in the field, to quickly see how a parcel of land or stretch of road you're on fits within NJ's connectivity puzzle.



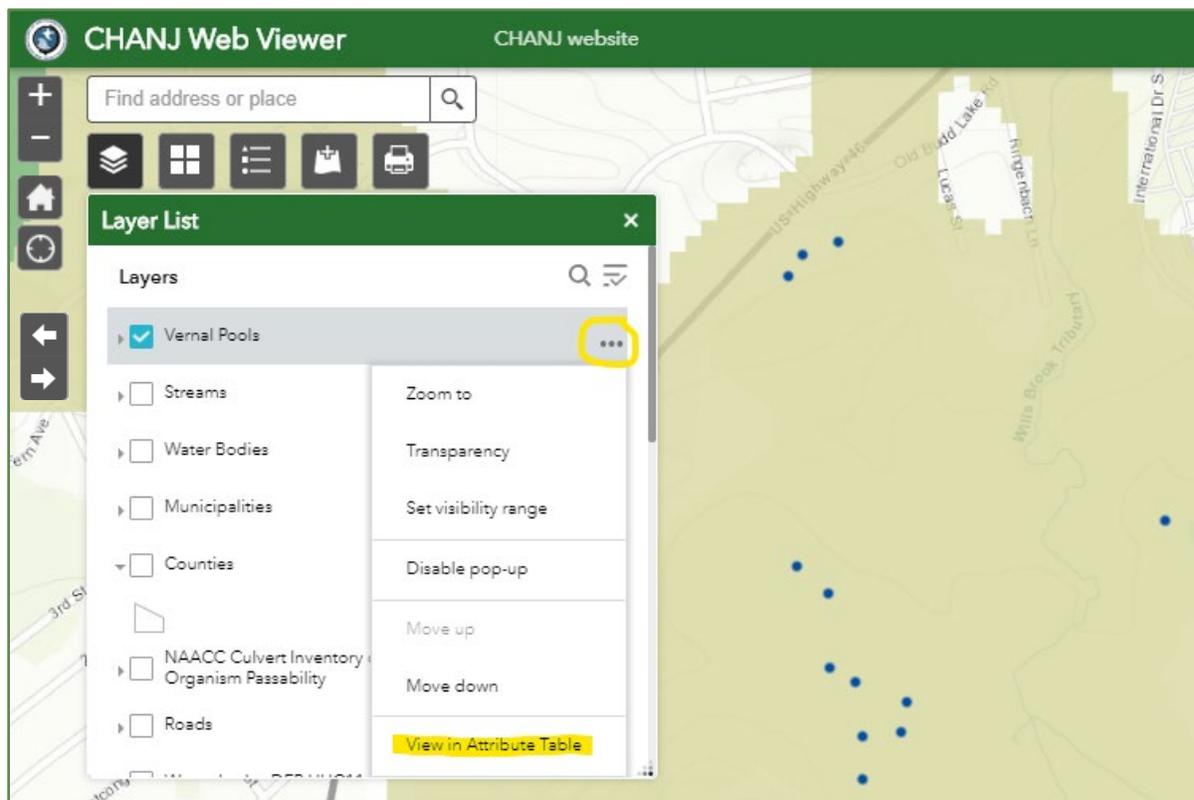
Go back to a previous map view using the **previous and next extent** arrow buttons. These buttons are useful if you've zoomed to a new map scale (or accidentally panned away from your area of interest) and want to return to a previous view or go back and forth between different views.

A **scale bar** and the **GPS coordinates** of your cursor's position are shown in the lower left corner of the map. You can obtain coordinates of a specific location by clicking the rosette symbol (☐) to the left of the coordinates, then dropping a pin on the map. Coordinates are given in decimal degrees as Longitude, Latitude.



In the bottom right corner of the screen is a **Map Overview** window, with a shaded box indicating the area currently visible across your screen. Drag the shaded box to navigate across the map at the current map scale. The Map Overview can be hidden by clicking the arrow on the bottom right corner, or maximized by clicking the four-arrow icon.

The full attribute table for a given layer or feature can be accessed from the Layer List, by clicking on the layer's drop-down button (•••) and choosing "View in Attribute Table," like in this example using the Vernal Pools layer:



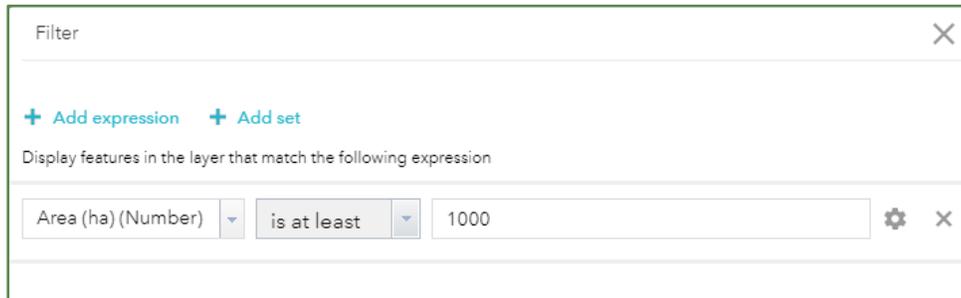
An attribute table will appear at the bottom of your screen. When "Filter by map extent" is selected, the table will only show details about the features that are currently visible on the map:

Vernal Pool ID	Vernal Pool Habitat ID	Vernal Pool Status	Region
5,442	2,975	Vernal pool location	Skylands
5,454	2,975	Vernal pool location	Skylands
5,458	2,975	Vernal pool location	Skylands
5,462	2,975	Vernal pool location	Skylands
5,476	2,975	Vernal pool location	Skylands
5,480	2,975	Vernal pool location	Skylands
5,484	2,975	Vernal pool location	Skylands
5,487	2,975	Vernal pool location	Skylands

15 features 0 selected

When “Filter by map extent” is selected, the attribute table automatically adjusts its data contents to any new view you create when zooming in or out or panning to another area of the map.

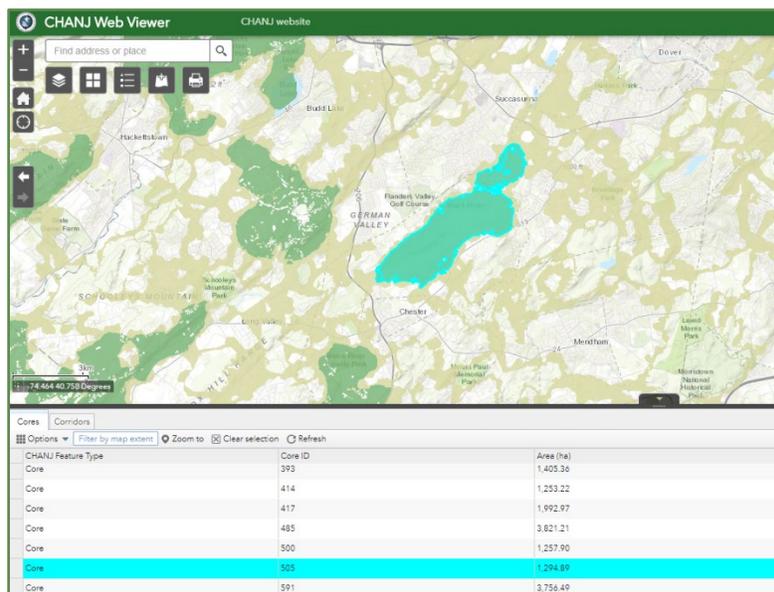
The attribute table can also be used to highlight and zoom to a particular record, or to filter the results to only show features meeting certain criteria. For example, if you were interested in habitat Cores of at least 1,000 hectares in size, you would select “Options” then “Filter” in the Cores attribute table, and create an expression with the formula “Area (ha) is at least 1000”:



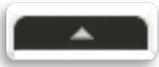
Click “OK,” and only the records meeting those criteria will be shown. Again, if “Filter by map extent” is selected, you’ll only see attributes for the relevant records within your current map view. If “Filter by map extent” is *not* selected, results will be pulled from the entire layer (i.e. NJ statewide).

Similarly, you could choose to look at *severe* road barriers to wildlife movement by checking Road Segments in the Layer List, opening the drop-down (•••) and choosing “View in Attribute Table,” then using the attribute table Options to Filter “Road Threat is Severe” (or “Road Threat contains Severe,” to include severe high-volume roads (“Severe_hv”) as well).

You can highlight one or more records from the attribute table by clicking the grey box(es) on the far left side of each row (select multiple rows by holding down the Ctrl key). These records will be highlighted in the map, too:

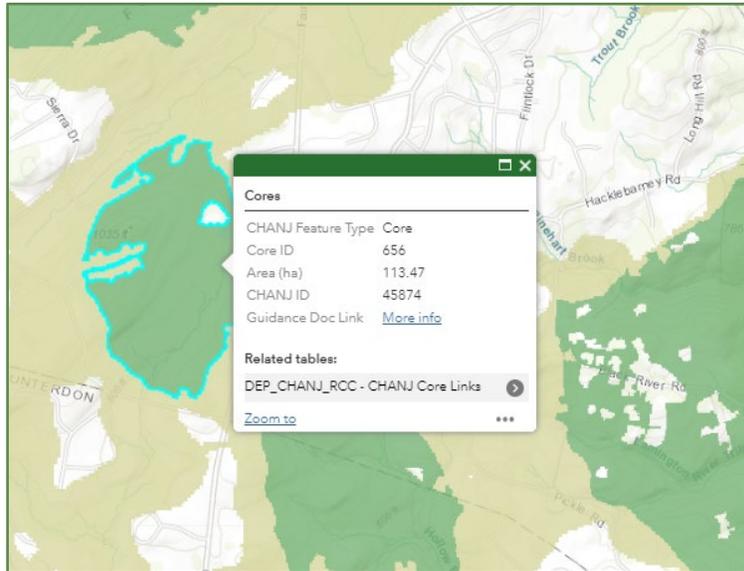


You can zoom to highlighted records by clicking the “Zoom to” button in the attribute table.



Hide or open the **attribute table** containing all of the attributes of the features in a layer by clicking the arrow at the bottom center of the screen. You can also drag its top border (the black line) up or down to adjust the amount of screen space the table fills.

Basic attributes of each layer are available in a **pop-up window** simply by clicking on a feature of interest within the map. For example, clicking on a particular Core habitat patch will bring up a box showing attributes like the size (Area) of that patch and its unique Core ID:



Note: CHANJ Cores, Corridors, and Road Segments have a “Guidance Doc Link” in the attribute table, which links to the relevant section of the CHANJ Guidance Document (within Chapter 4) to offer some help in prioritizing and accomplishing projects that protect or restore important habitats for wildlife connectivity or that mitigate the impacts of roads.

ADVANCED FUNCTIONS



Share the map as it appears on your screen - with current scale and visible layers - by using the Share button. This generates a link which can be shared through email or social media, as well as an embed code for embedding the map in a webpage or other online platforms.

Click on "Link Options" to select URL parameters for the sharable map link, including the scale, center, and zoom level of the map. You can also center on a point of interest via a location name search, feature query, or by dropping a marker on the map. The Link Preview box allows you to confirm the map view before sharing a link. Once the desired map parameters are selected, return to the main Share page by clicking the back arrow in the upper left corner, then share or copy the link provided.



Query allows you to zoom to a municipality, county, or land parcel of interest, or to add a subset of NAACC culverts* to your map. Counties and municipalities are queried by name; parcels are queried by block and lot number. NAACC culvert inventories are queried by barrier severity. You can choose to include all culvert inventory information state-wide, or a subset of culvert inventories within a user-defined area. Scroll through query results in the drop-down menu under the Results tab to view, export, or save query results.

*The NAACC Culvert Inventory is a multi-state effort by the [North Atlantic Aquatic Connectivity Collaborative](#) to identify road/stream crossing structures, train individuals to survey those structures for wildlife passability using a standardized protocol, and store the results in a central database. The CHANJ Web Viewer includes only NJ's portion of this database in the NAACC Culvert Inventory of New Jersey data layer.



The **NAACC Culvert Query tool** returns a report of NAACC-inventoried culverts within a specified buffer distance of a chosen location, or within a user-defined area. Selecting a culvert from the report will highlight it in the map.

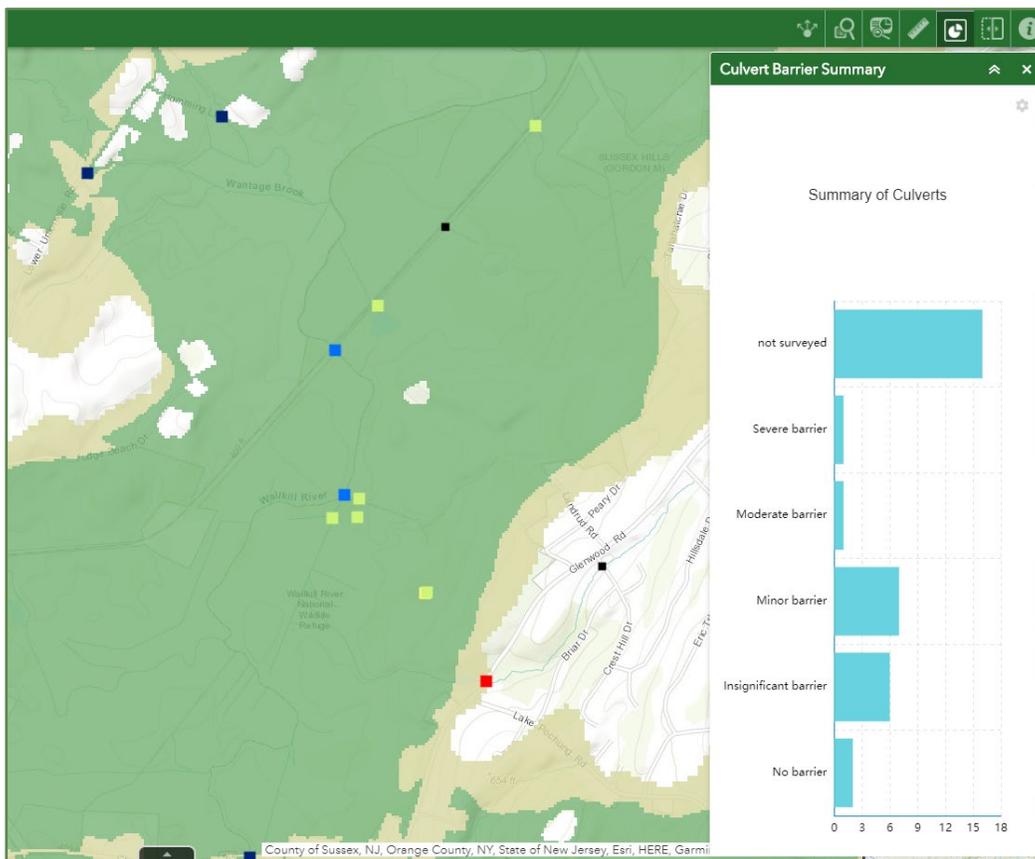
NAACC Culvert Inventory Reports for the area specified in the NAACC Culvert Query can be printed or downloaded. Specify the area units and the culvert inventory fields to display in the report by clicking on the top and bottom gear icons, respectively. A report title and comments can be edited before printing.



The **measurement tool** is used to measure the area of a shape, the distance of a line, or to define the coordinates of a point drawn by the user on the map. The units for area, distance, and coordinates can be specified in the dropdown menu. Coordinates are represented in decimal degrees ("Degrees") or degrees minutes seconds ("DSM").



The **Culvert Barrier Summary** creates a graph summarizing the number of NAACC culverts by wildlife passability classification within the current map view:



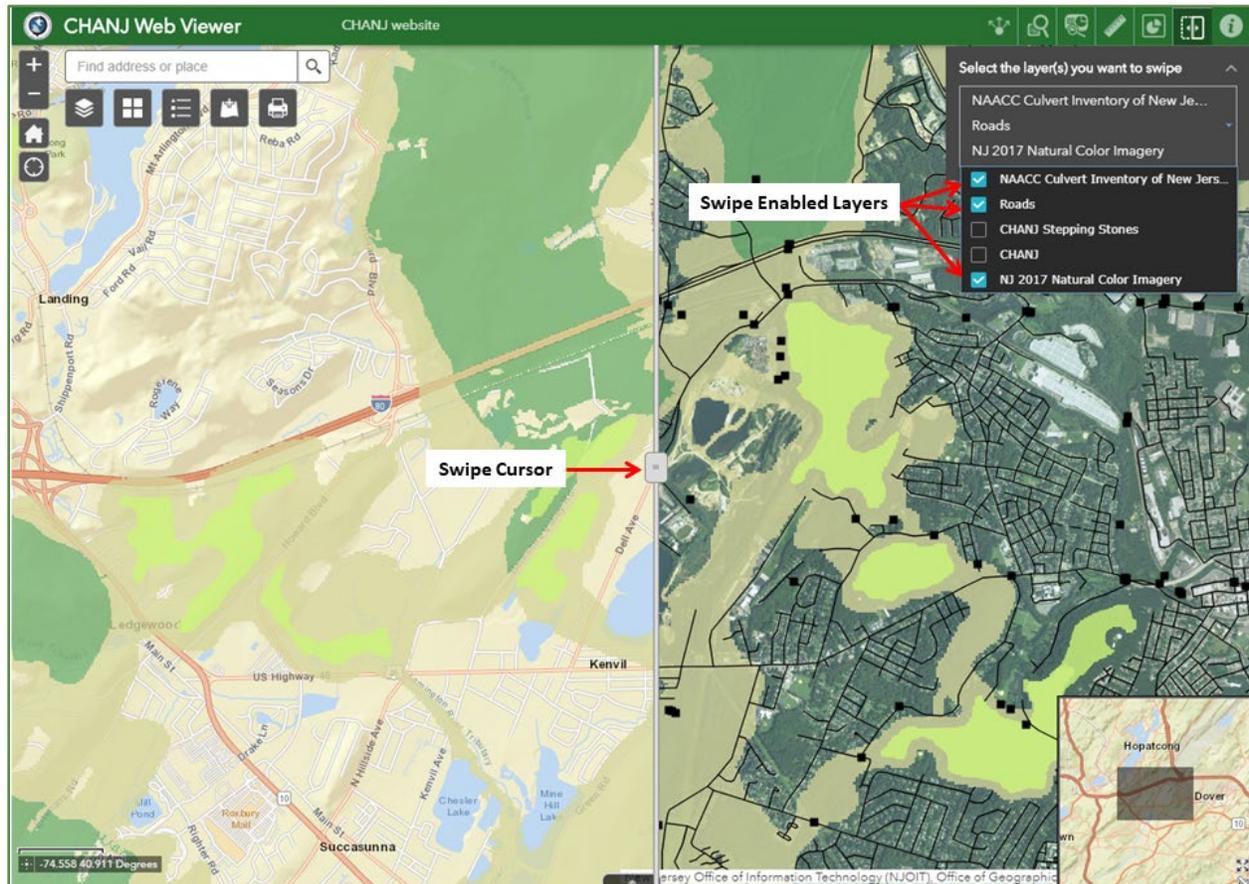
Hovering over a bar on the graph displays the exact number of culverts in that passability classification category.



The **Swipe tool** enables you to visually compare the content of different layers and basemaps within an area of interest without having to click layers on and off.

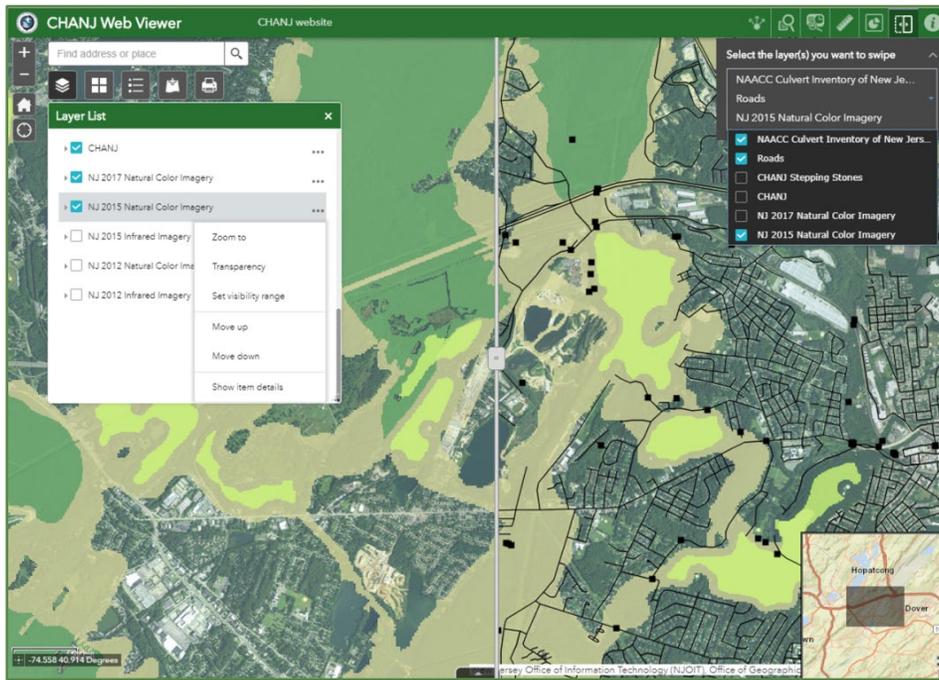
To enable a layer for swiping, you must first select it in the Layer List. The layer will then appear in the right-hand selection box as well, showing the layers you can choose to swipe. Swipe-enabled layers will only appear on the right side of the swipe cursor. Slide the swipe cursor left or right, like a screen door, covering or uncovering the left-side view with the swipe-enabled layers.

For example, you might want to swipe aerial imagery and the NAACC Culvert Inventory layer over a basic topographical map of an area of interest with the CHANJ layers visible:

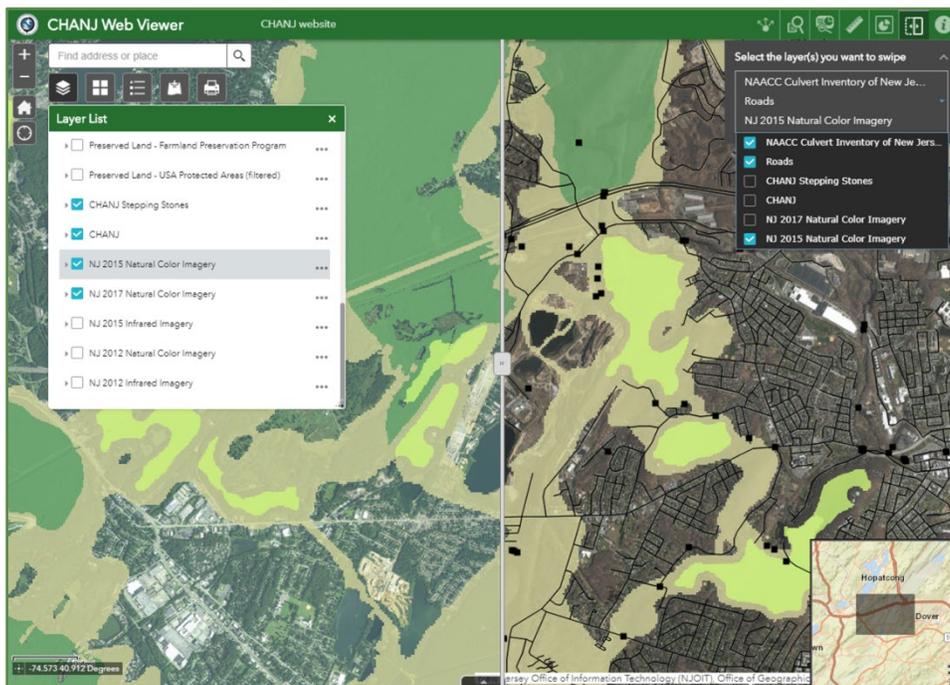


To get your desired base layers on the left or right side of the swipe cursor, you may need to move layers up or down in the Layer List using the drop-down menu (•••).

For example, in the following map, both the NJ 2015 Natural Color Imagery and NJ 2017 Natural Color Imagery layers are selected in the Layer List, with the 2017 imagery layer listed above the 2015 imagery layer. However, the 2015 imagery layer is selected as the swipe-enabled basemap layer for this map (in the box on the right). Therefore, the 2017 imagery layer covers the 2015 layer and appears in both the swipe and non-swipe sides of the map:



Once the NJ 2015 Natural Color Imagery layer is moved above the NJ 2017 Natural Color Imagery in the Layer List, the 2015 imagery layer appears on the swipe side of the map:



CHANJ IS HERE!

We hope you'll find the CHANJ Web Viewer to be a useful and user-friendly tool to help you advance wildlife habitat connectivity in New Jersey. Please feel free to contact the [CHANJ](#) team with any questions or suggestions about the mapping or this project.