BACKGROUND

This case study is an example of a land conservation organization wishing to prioritize where they are concentrating their efforts based on a number of factors. In this case, it is a National Wildlife Refuge (Silvio O. Conte) that has identified important areas that they would like to add to the refuge. These were identified using some of their own criteria, and now we can use the Nature's Network data to further refine the areas to prioritize for acquisition.

PROCESS...

1. Outline

Identify the problem, the resource of interest and what actions need to be implemented

There are limited resources available for acquisition of new lands. Where will we get the most ecological "bang for our buck?"

2. Define

Identify important aspects to consider while you are investigating

In this case, bang for buck would mean a few things:

- *The best areas identified by the Nature's Network Conservation Design*

- *Take into consideration existing refuge lands*

- *Take into consideration other existing protected areas*

- *Take into consideration the best areas for blackburnian warblers*

3. Explore/Analyze
Identify specific opportunities by integrating or overlaying the data

For this exercise, we will be using Data Basin.

1. Direct your browser to the NALCC's Conservation Planning Atlas (CPA) on Data Basin: http://nalcc.databasin.org

2. Sign in to Data Basin (if you aren't already)

3. Pull down the Browse menu and select Galleries

4. Click on the text of the Case Studies gallery

5. Scroll down the page to locate the "Integrating protection priorities for land conservation organizations" folder. Click on the small arrow to the left of the folder to examine the contents.

6. Click on the text of the Nature's Network data set to open the data set page

7. Hover over the data image and click on Open in Map
    a. Explore the data by panning and zooming
    b. Save your map

8. Now let's add other layers of interest
    a. Click on the Layers tab at the left of the map
    b. Click **add datasets**
    c. In the Search dialog, click the **Browse Items** tab
    d. Find the Case Studies gallery, hover over the image and click on **Open Contents** in pop up
    e. Select the 3 Silvio O Conte data sets and click **add items**

9. Make sure the Conte data sets are "on top" of the NNCD. Zoom to the area of the Westfield River CFA (in red)
    a. Examine what areas might be best based on the NNCD - cores, connectors, etc

10. Now we need to further focus our efforts by looking at other data sets. We will obviously exclude areas already protected. We can see that there is a parcel already owned by the refuge. If we look at other areas that are protected nearby, we can look at adjacency and connectivity options. Go back to the **add datasets** option and search for Secured Lands. Choose **Secured Lands, 2014, Eastern US.** Save your map.

11. Now examine the map to look where we might "complete the puzzle" by making connections between existing protected areas. Use the identify tool to look at what type of protection is in place for the nearby lands. Based on what you find, identify a potential area for acquisition.

12. Remember, we also wanted to take into consideration the habitat for Blackburnian Warblers. So go back to the **add datasets** tool, and search for **blackburnian.** Select **Landscape Capability for Blackburnian Warbler, Version 3.0, Northeast U.S.**

13. Examine the data to look for best areas. Choose the Swipe tool, and drag the Swiper in the Legend up past NNCD layer. Swipe the warbler layer away and see where the most important areas are. Save your map.

14. Based on your evaluation of the available data, identify the area that best satisfies your criteria. If it is not already open, open the Layers tab on the left of the map. Click the **Drawing** tab and click **create.** Draw a polygon around the area you identified. Click **Submit.** Then click the arrow next to the drawing and choose **edit.** Make it transparent and choose a color that stands out against the other layers (probably best to have the NNCD be your background layer instead of the warbler one). Save your map.

15. At this point, you might want to share this with your colleagues. You can send them a URL for the map, or export it to different formats such as PDF and even PowerPoint. Choose one of the export options and then view your map in the appropriate software.

4. Reflect

Consider other possibilities by comparing and contrasting different scenarios and what you might want to do next

- *Are there other data sets that might inform the decision making process?*
- *Is the existing information sufficient or do I need more?*
- *Is there a different scenario that I need to define to get an answer?*
- *Do I need to use GIS to perform the analysis that I need?*