Draft Mapping tool walk-through

1. Go to: https://geosyn.shinyapps.io/SMAPr/
   1. No specific browser is recommended
   2. If you had previously used an older version of this tool, you may need to clear the cached images and files on your browser.
2. Welcome to the SMAPr!
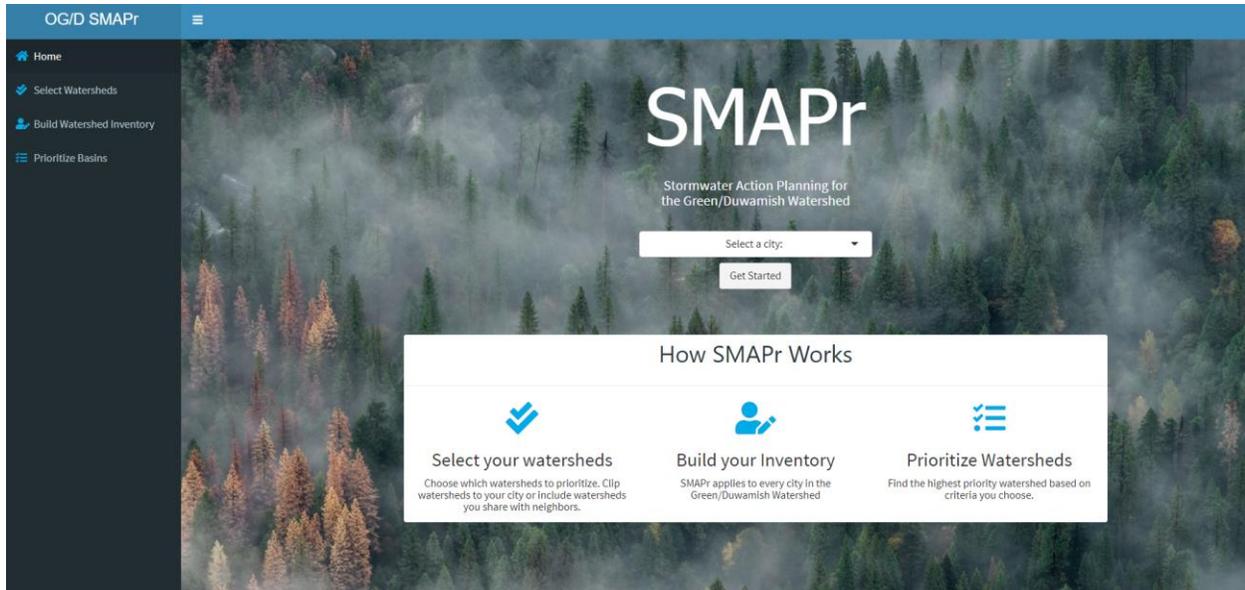
3. Select city
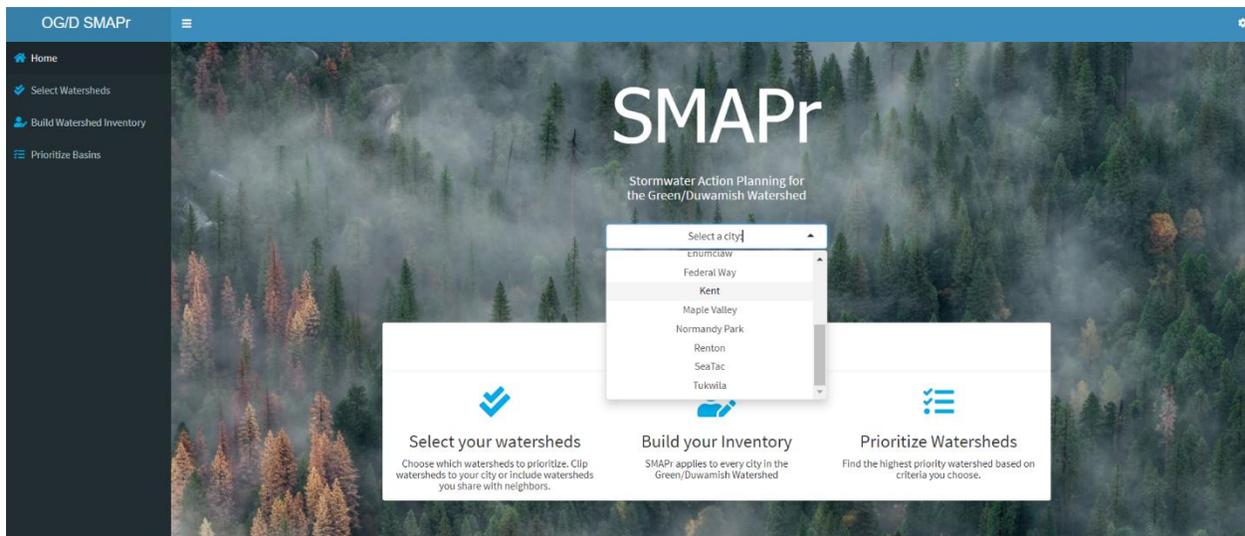
4. Click "get started" button and it will take you to the "Watershed Selection" screen:

5. Select the watersheds you want to analyze and prioritize by selecting the row from the "Watershed Selection Table" at right.

6. You can choose to clip the basin boundaries to your jurisdictional boundaries with the toggle button at the bottom. See red circle -

7. You can also select the layer you want to view the basins in with the radio buttons in the lower right. This is also where you can view the streams layer. See blue circle -

8. Once you've determined your preferences, you can select your watersheds in the "Watershed Selection Table" at right. Click the basins you want and click them again to deselect them.

9. After selecting your basins, click the button that says "✓Save Watersheds". This will automatically take you to this window:

10. Once you have selected your watersheds you then move to the next step of selecting the data layers you want to consider for the prioritization process.

   1. **Please note** – the legend in the bar chart may not match the legend in the map. We are working on this

11. Click the dropdown menu to Choose layer to display. There are 2 groups of data layers, **Landscape and Categorical** shown circled in PINK. Categorical data can be viewed in this window but cannot be added to the basin prioritization step.
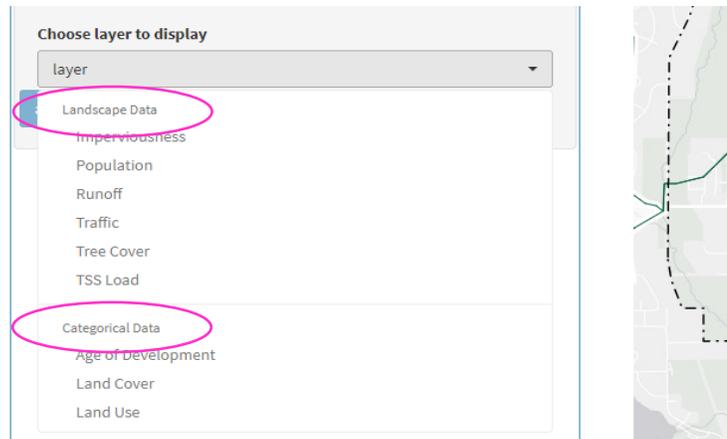
12. View either type of data here by selecting it from the drop-down menu. You have three options. 1 – you can stack the data, 2 – you can download the image for use in your SMAP document, and 3 – you can view the data in a table that can be copied and pasted into excel.
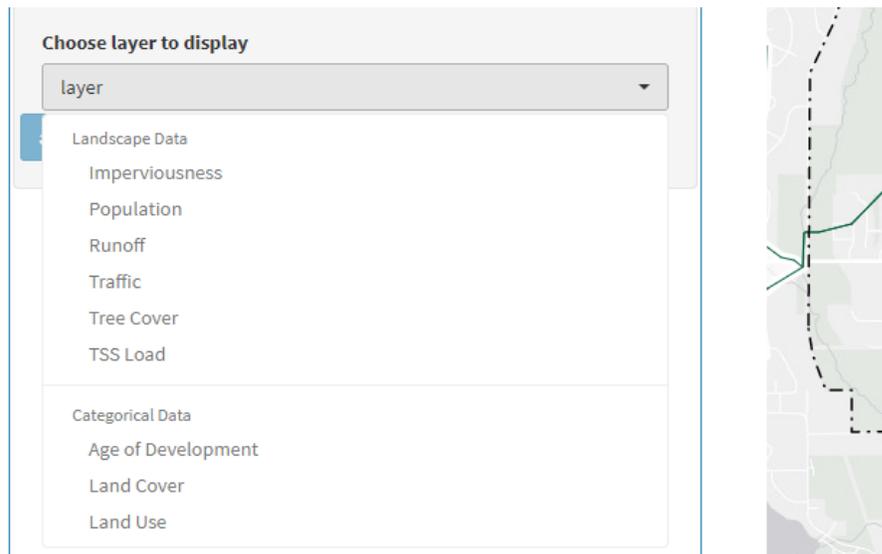
1. To view the data stacked, click the stack button and it will display inside the window.
2. To download the image, click the download image button and open it on your computer. From here you can insert the image into a document.
3. To view the data in a table format, click the data button circled above in purple

13. This will display a table:

14. Highlight the data (click inside the data window and then use select-all (Ctrl-A) to make sure you select everything), copy and paste it into excel. Then you are free to make your own tables in excel. This might be helpful if you want to run a different type of comparison or format your own charts.

    1. You may only do this one data layer at a time.

15. In addition, **Landscape data** can be used to help **Prioritize basins** with a pairwise analysis.
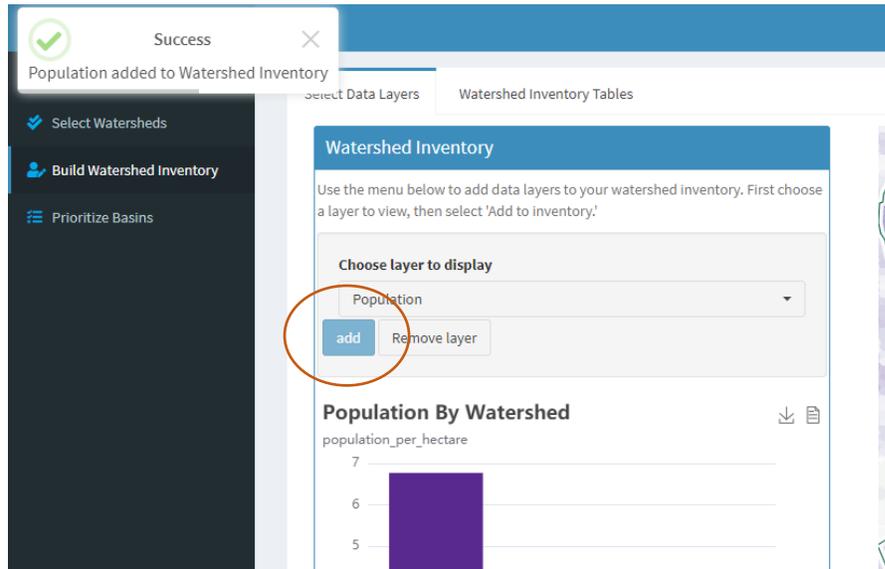
16. To start building the watershed inventory, select a **Landscape data** layer for inclusion in your analysis. Click on the drop-down menu and select a layer. For this example, we are looking at Population. Select population, then click 'add'. A pop up will flash in the upper left corner of your screen saying that the data layer has been added to your watershed inventory.
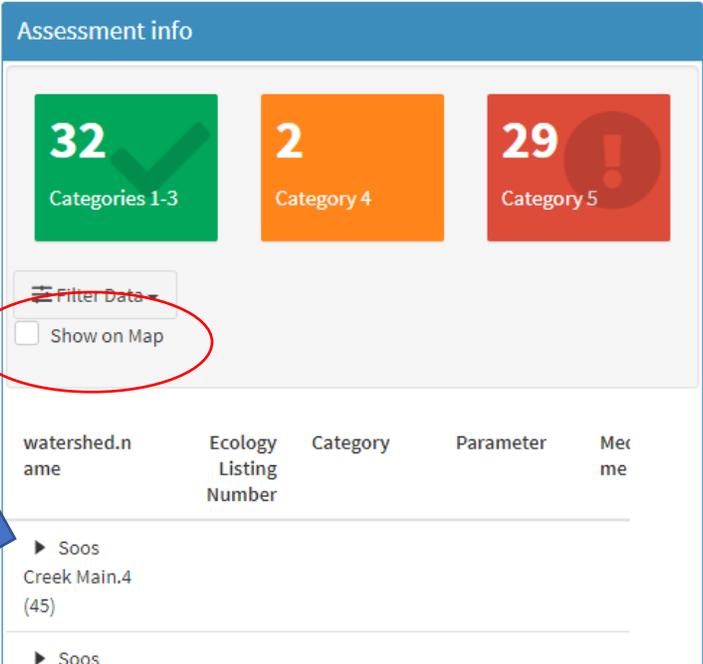
17. Once you've added the layers you're interested in using, you can see how the basins compare to each other, by clicking the "Watershed Inventory Tables" tab at the top of the page:

Watershed Name	Watershed Area acres	Watershed Area w/in City Limits acres	Imperviousness	Population per ha
Soos Creek Main.4	3820	982	47%	6.77
Soos Creek Main.2	2820	90.7	32%	4.09
Little Soos Creek	4700	702	27%	2.68

18. In the "Watershed Inventory Tables" view, you can sort the columns and take a look at how each of your chosen basins compare to each other.

19. To continue, toggle back to the 'Select Data Layers' tab.

20. Next you can access assessment information to view existing impairments. These impairments are important to understanding and defining jurisdictional stormwater influence.

21. Click the blue "Assessment info" ribbon, which is found below the "Watershed Inventory" bar. From here you can filter by impairment and 303(d) category. Click on the watershed name to view individual listings. The listing number is linked to Ecology's web page and clicking it will take you to the water quality listing.
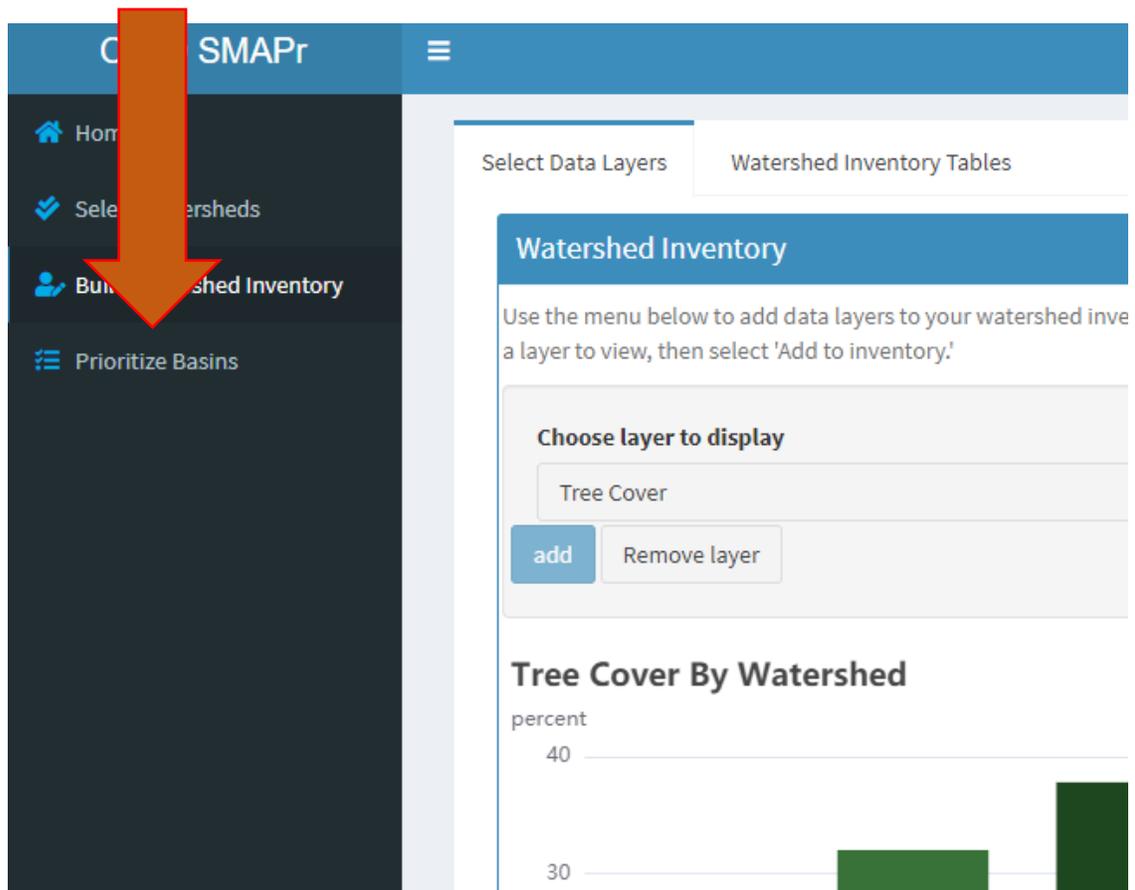

To display the listing on the map, make sure to click the "show on map" box. Circled here in red.

22. Once you've added your landscape data, go on to the next step in the process – "Prioritize Basins" – in the far-left panel.

23. From there you will need to start by weighting the relative priority of each layer.
24. For each layer you added there is a sliding scale from 0-10. This is intended to allow you to set the importance of each layer.
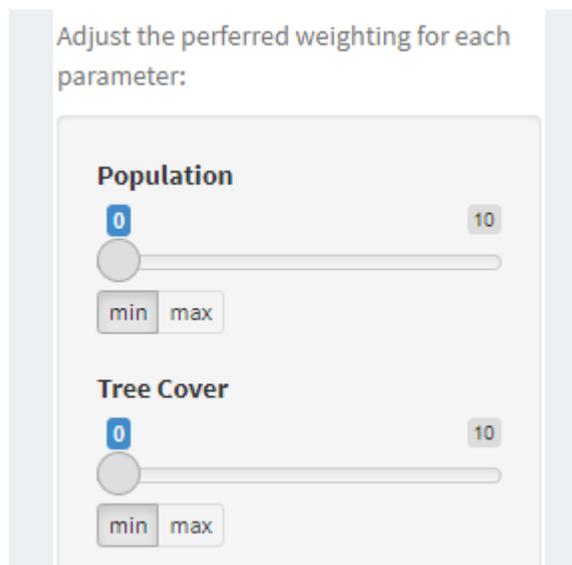

Below each sliding scale is a "min" button and a "max" button. Use the slider to select a number from 0 (lowest weighting) to 10 (highest weighting) and then choose either "min" or "max" from the buttons below the slider to prioritize watersheds with the least or most of the selected parameter.

For example, in the screen shot shown below, both population and tree cover are weighted as important, but population has more weight (is more important – 9 out of 10), and we are

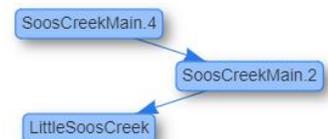prioritizing basins with the least amount of tree cover and the most people.
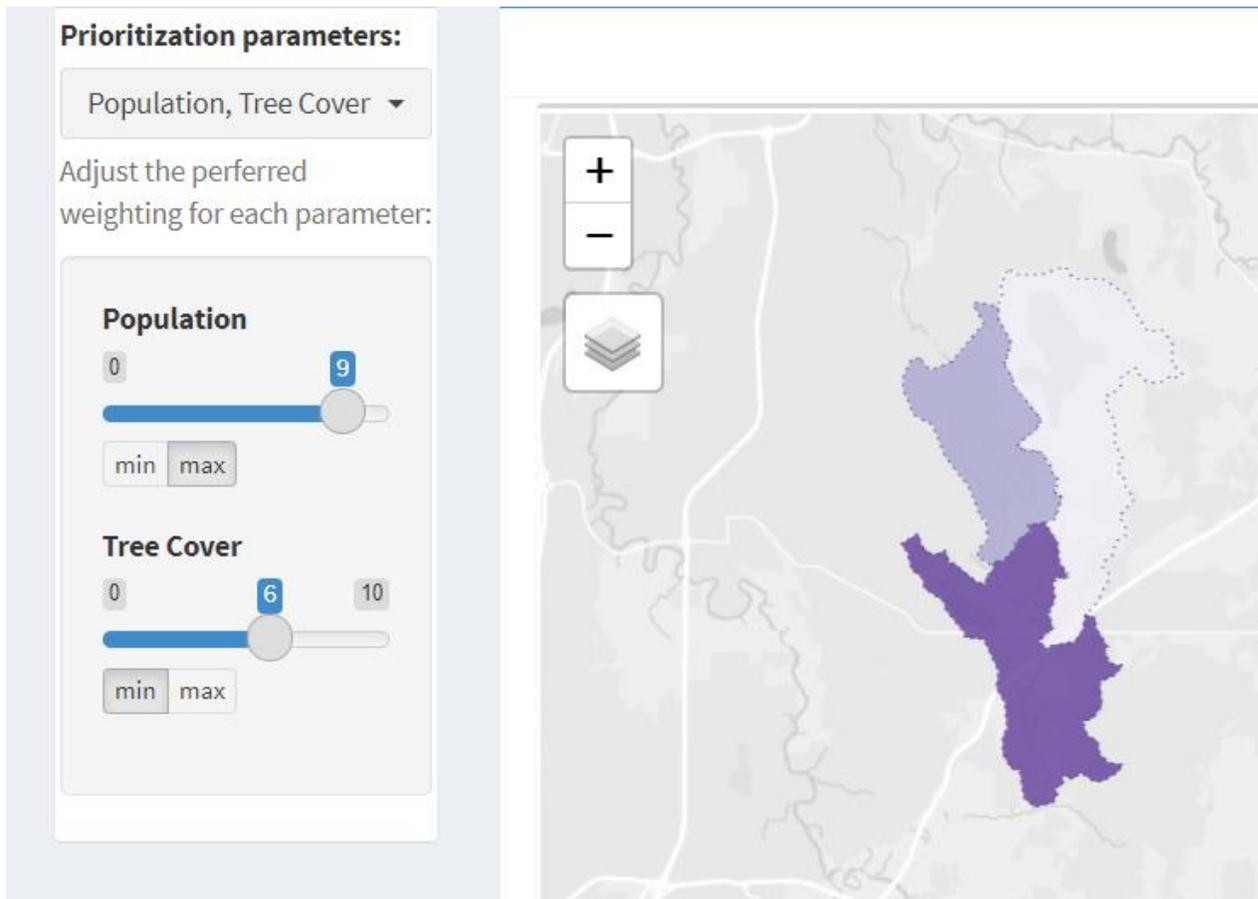
25. As you continue weighting your selection the pairwise preference chart on the right will change (see below). The pairwise preference chart are the blue boxes on the right side of the screen with the watershed names.
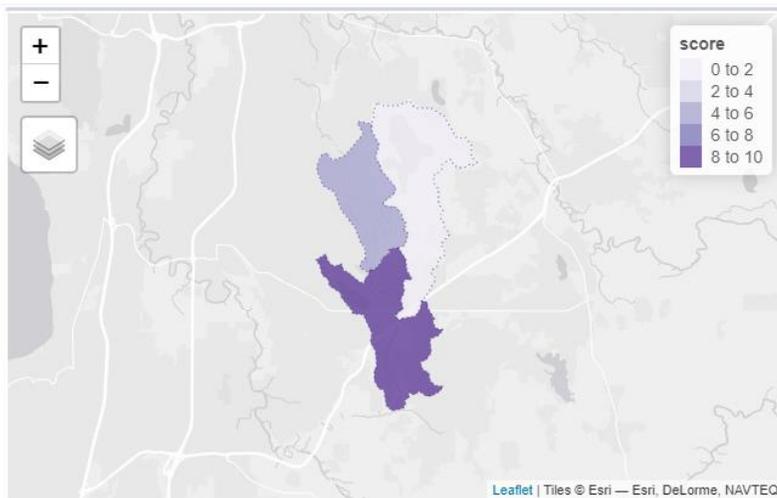
26. The program will score the basins based on your preferences. The basin with the highest score is the basin that ought to be considered for Stormwater Management Action Planning.

Information about the data layers can be found here:
https://stormwaterheatmap.github.io/docs/reference/water-quality-statistics.html#spatial-data

Questions or Comments?

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We want to improve the tool, so please let us know how it's working for you.