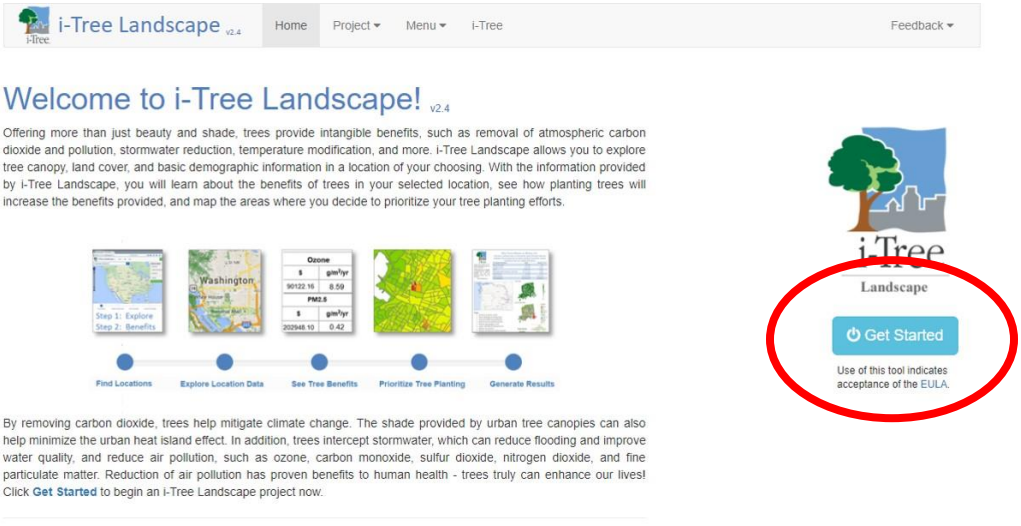
i-Tree Landscape Instructions

What is i-Tree?
i-Tree is a suite of software developed by the U.S. Forest Service to calculate environmental benefits of trees and other information.

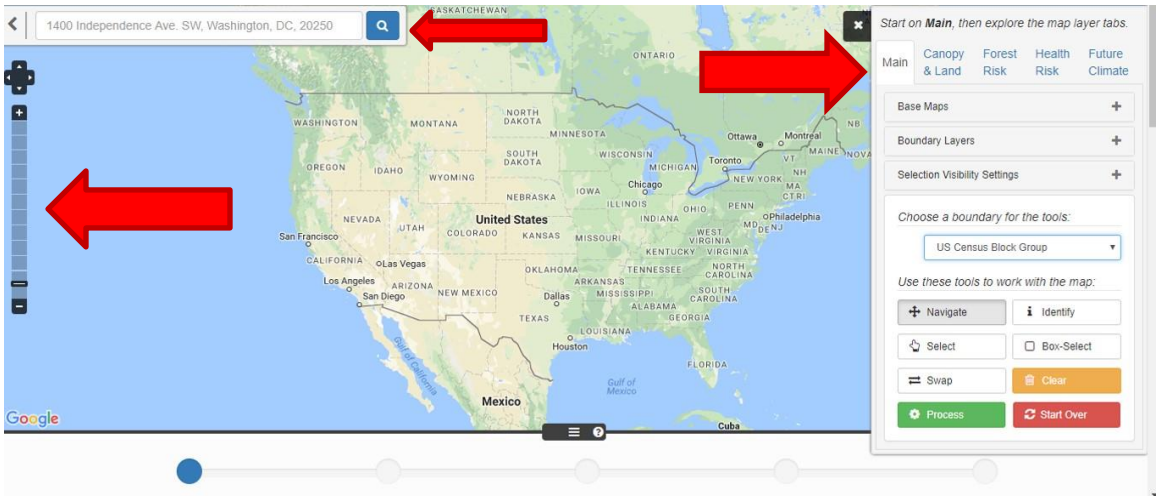
What is i-Tree Landscape?
i-Tree Landscape is a browser-based program with which a user can gauge tree cover at different spatial scales and allow users to prioritize planting locations based on different criteria (such as finding where there is low canopy and high poverty).

Let's Get Started

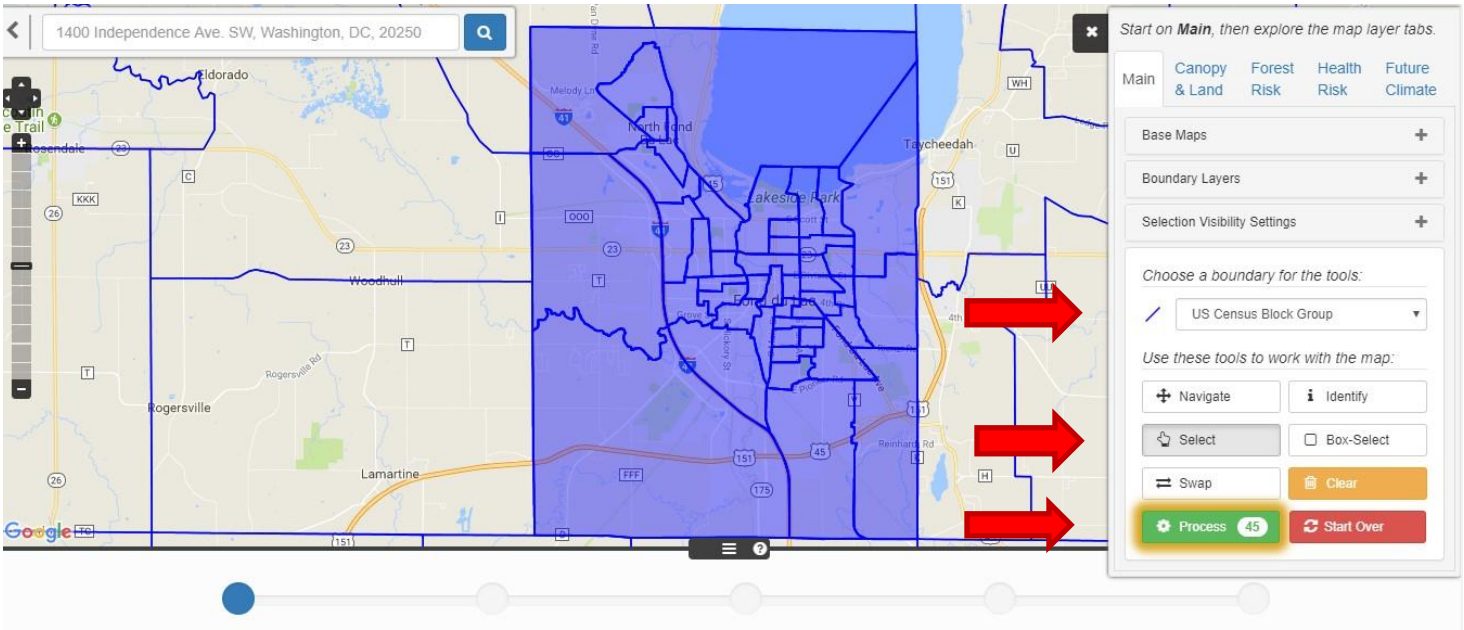
Step 1: Read the description of the program and click "Get Started"



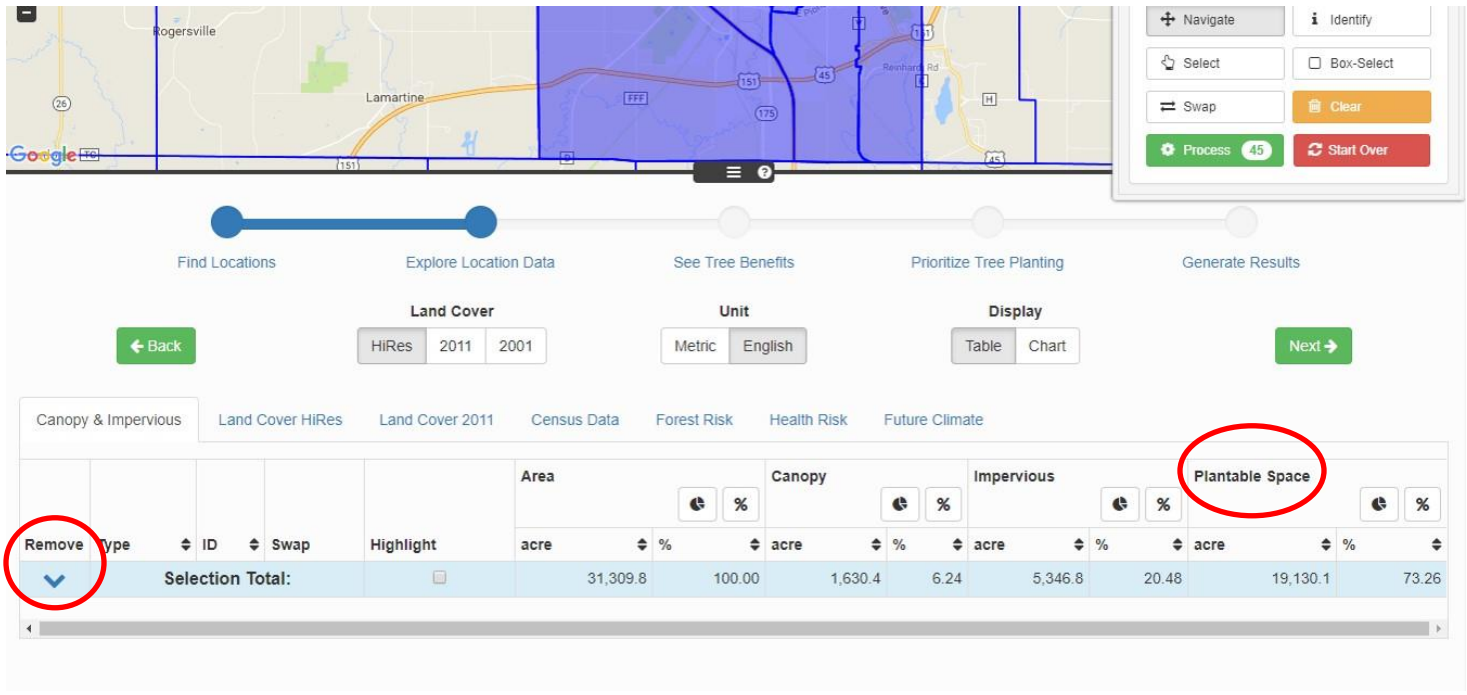
Step 2: Type your desired location in the address box or use the zoom buttons on the left to navigate to your location of interest. TIP: change what you see on the map by exploring the map layer tabs.



Step 3: Choose your boundary layer* for your tree canopy. Then select your polygons of interest with the "Select" or "Box Select" buttons. Once your areas have been selected, press "Process".
*Census block groups are currently the smallest unit of geography available for i-Tree Landscape analysis.



Step 4: Scroll down to see a general breakdown of the land within your selected areas. "Plantable Space" is any land that is not already forested and not impervious material (like a house or street). Click the inverted triangle to expand the table so you can see the canopy of each polygon.

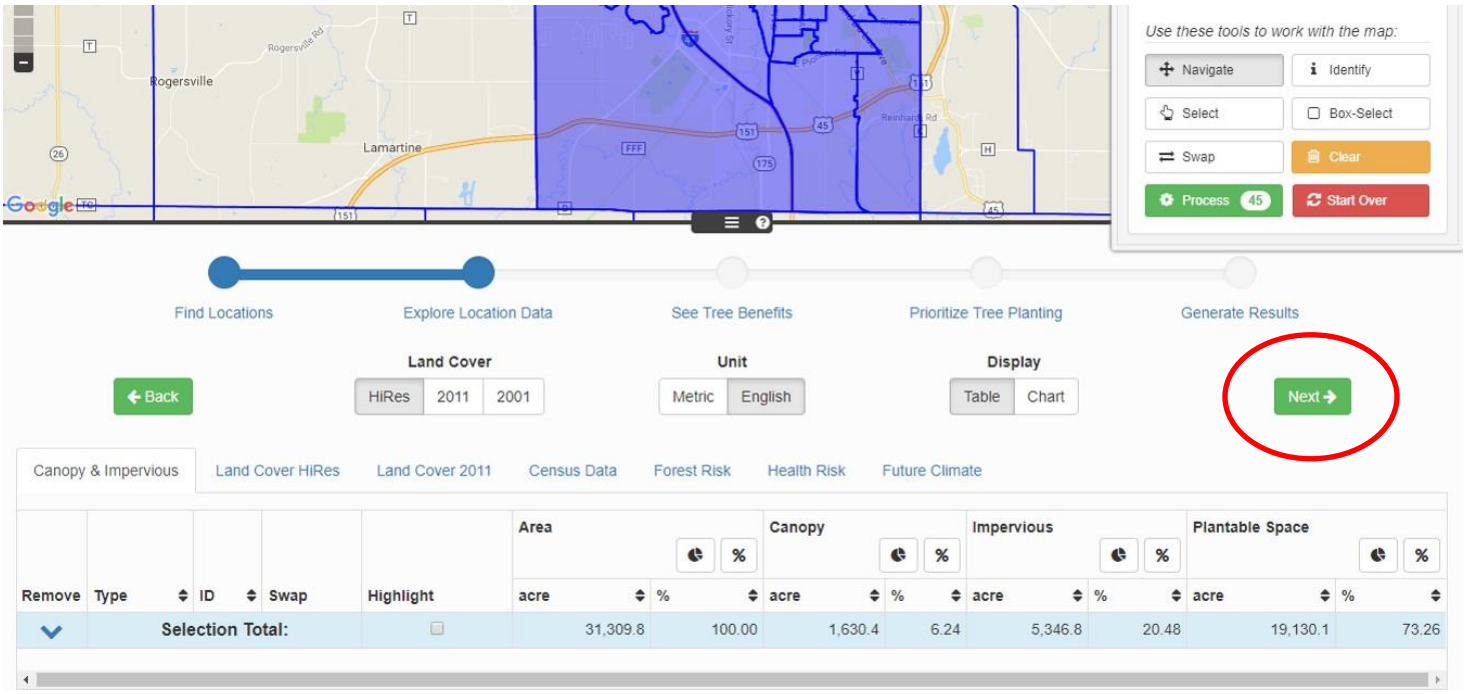


Step 5: You have calculated the canopy breakdown of each selected polygon.

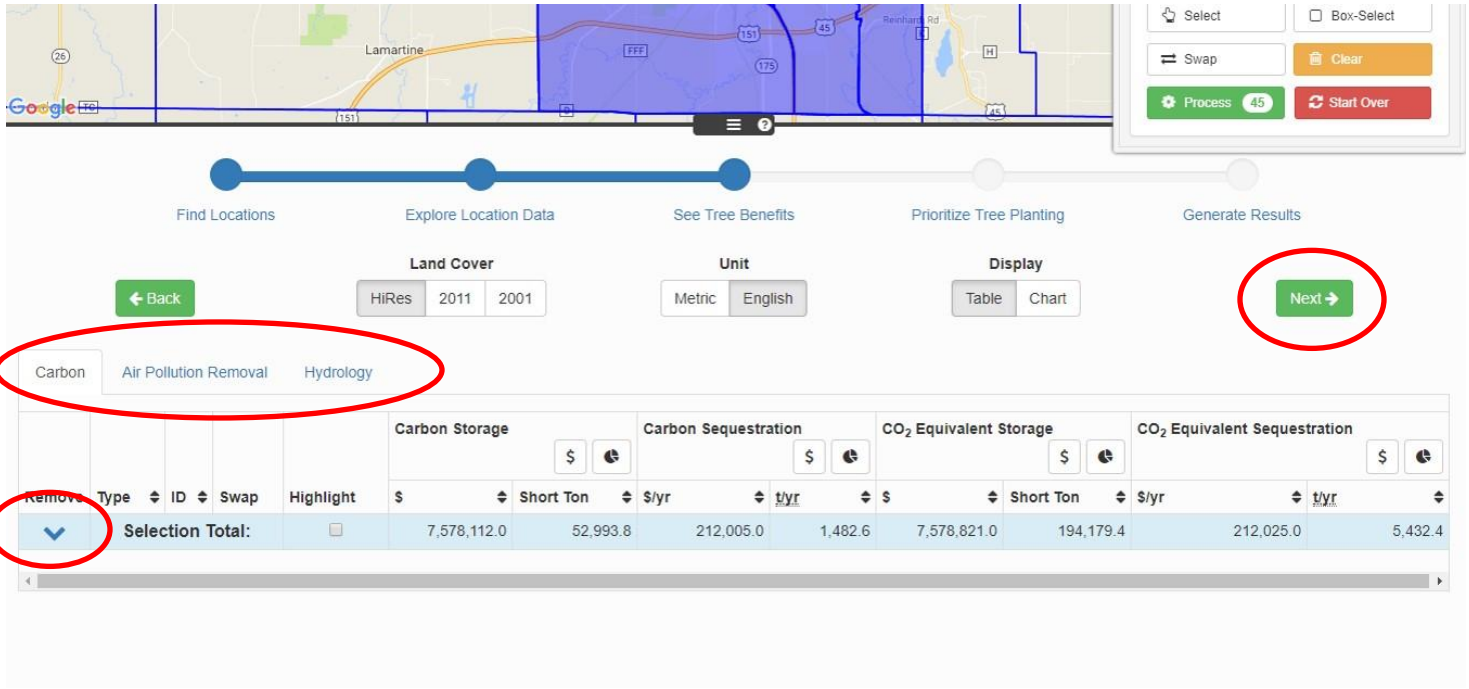
Canopy & Impervious | Land Cover HiRes | Land Cover 2011 | Census Data | Forest Risk | Health Risk | Future Climate

Remove	Type	ID	Swap	Highlight	Area acre	Area %	Canopy acre	Canopy %	Impervious acre	Impervious %	Plantable Space acre	Plantable Space %
✖	Block Group	550390401002	⇄	☐	253.5	0.81	16.1	10.25	60.5	38.44	80.6	51.22
✖	Block Group	550390408003	⇄	☐	79.7	0.25	6.9	8.68	36.9	46.34	35.8	44.93
✖	Block Group	550390405003	⇄	☐	65.9	0.21	3.0	4.54	39.5	59.93	23.7	35.95
✖	Block Group	550390408005	⇄	☐	79.8	0.25	6.7	8.44	37.4	46.83	35.4	44.40
✖	Block Group	550390413004	⇄	☐	130.3	0.42	9.9	7.65	57.8	44.66	61.7	47.68
✖	Block Group	550390413001	⇄	☐	7,032.6	22.46	111.1	3.59	414.3	13.38	2,574.9	83.13
✖	Block Group	550390402002	⇄	☐	84.1	0.27	6.5	7.68	44.8	53.28	32.7	38.86
✖	Block Group	550390408001	⇄	☐	54.4	0.17	4.0	7.34	29.5	54.23	20.9	38.46
✖	Block Group	550390410003	⇄	☐	164.4	0.53	13.0	7.89	63.3	38.49	88.1	53.56
✖	Block Group	550390407005	⇄	☐	7,081.7	22.62	493.2	7.06	639.2	9.15	5,849.6	83.71
✖	Block Group	550390411002	⇄	☐	1,880.2	6.01	204.6	10.96	144.0	7.72	1,517.0	81.28
✖	Block Group	550390403001	⇄	☐	395.0	1.26	10.7	2.71	240.2	60.94	143.5	36.41
✖	Block Group	550390409004	⇄	☐	98.8	0.32	7.4	7.45	43.3	43.80	48.2	48.72
✖	Block Group	550390404002	⇄	☐	86.6	0.28	7.9	9.11	39.9	46.04	38.8	44.83
✖	Block Group	550390411004	⇄	☐	782.3	2.50	30.1	3.86	171.3	21.97	578.8	74.23

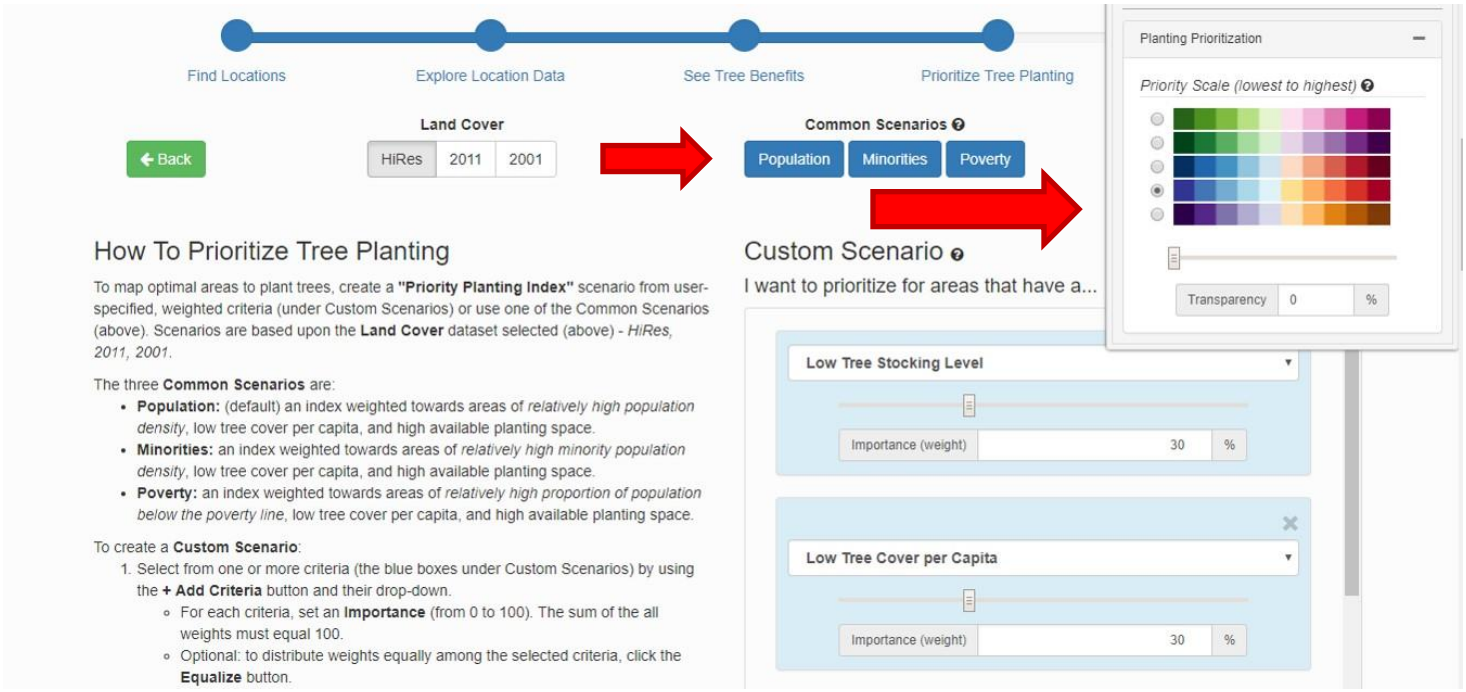
Step 6: When finished exploring the canopy breakdown, select "Next".



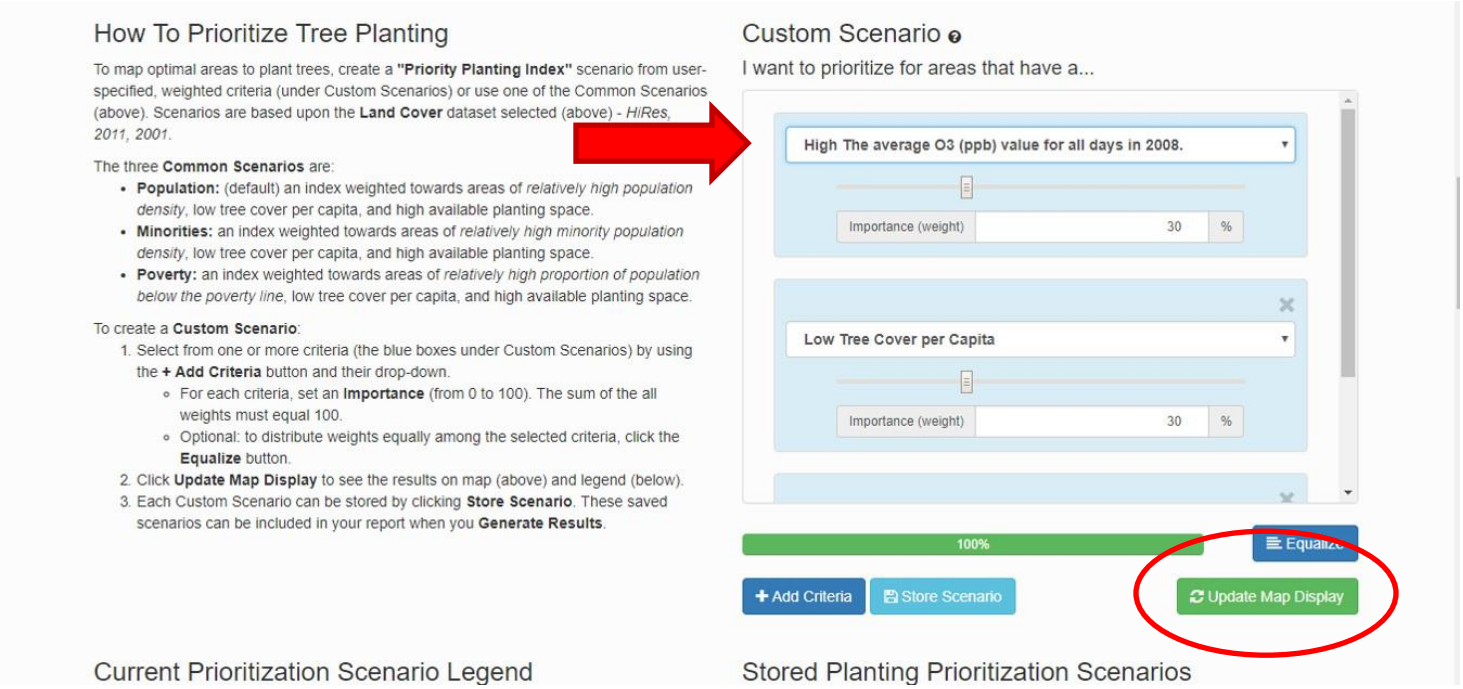
Step 7: You have no calculated environmental benefits of the forest canopy within your area of interest. Select different tabs to see different sets of benefits (you can select Carbon, Air Pollution Removal and Hydrology). You can again click the inverted arrow to see the benefits broken down by each polygon. When you are finished, click "Next".



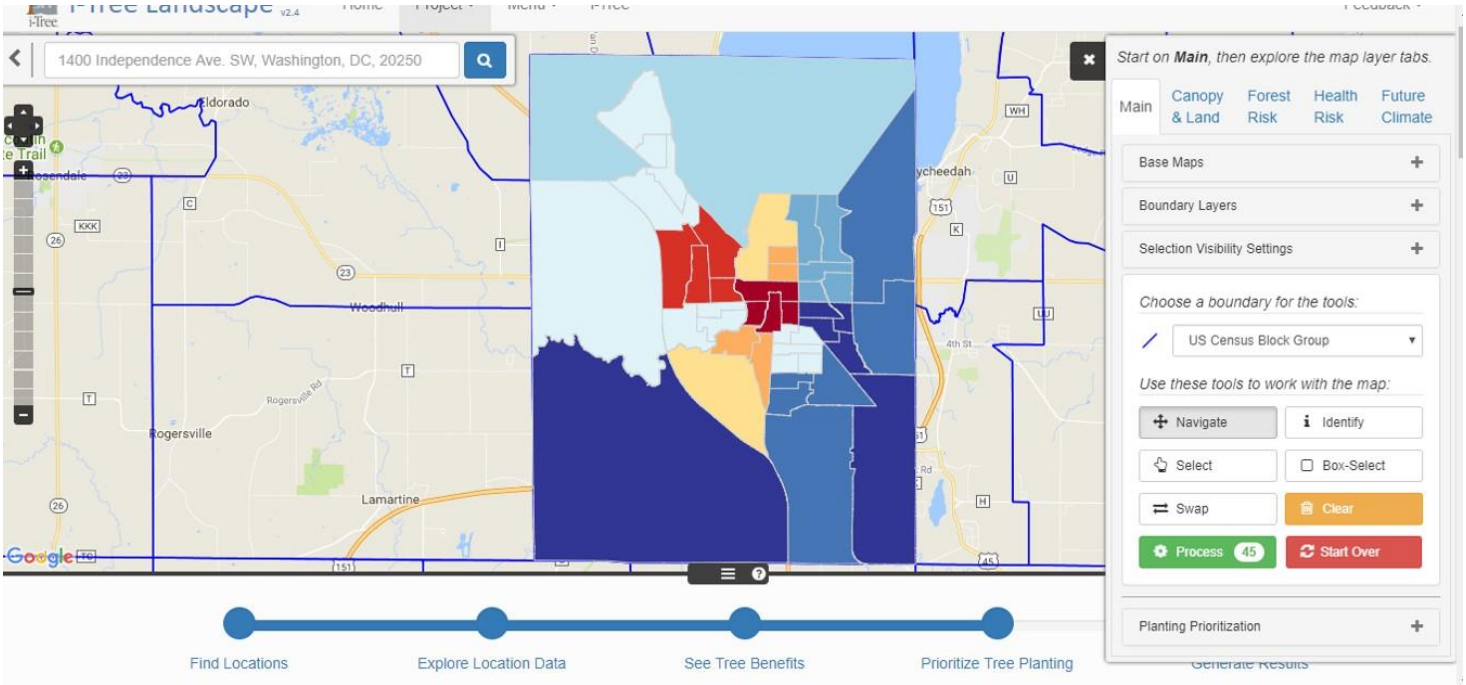
Step 8: In this section, you can set priorities for tree planting locations. What this entails is selecting different sets of information to guide your planting decisions. For example, you can seek areas that have high population density, low tree canopy and high levels of ozone pollution. First, select a color scheme. Next, you can click a "Common Scenario" to produce a commonly sought set of information (like high density, low canopy, high planting space availability).



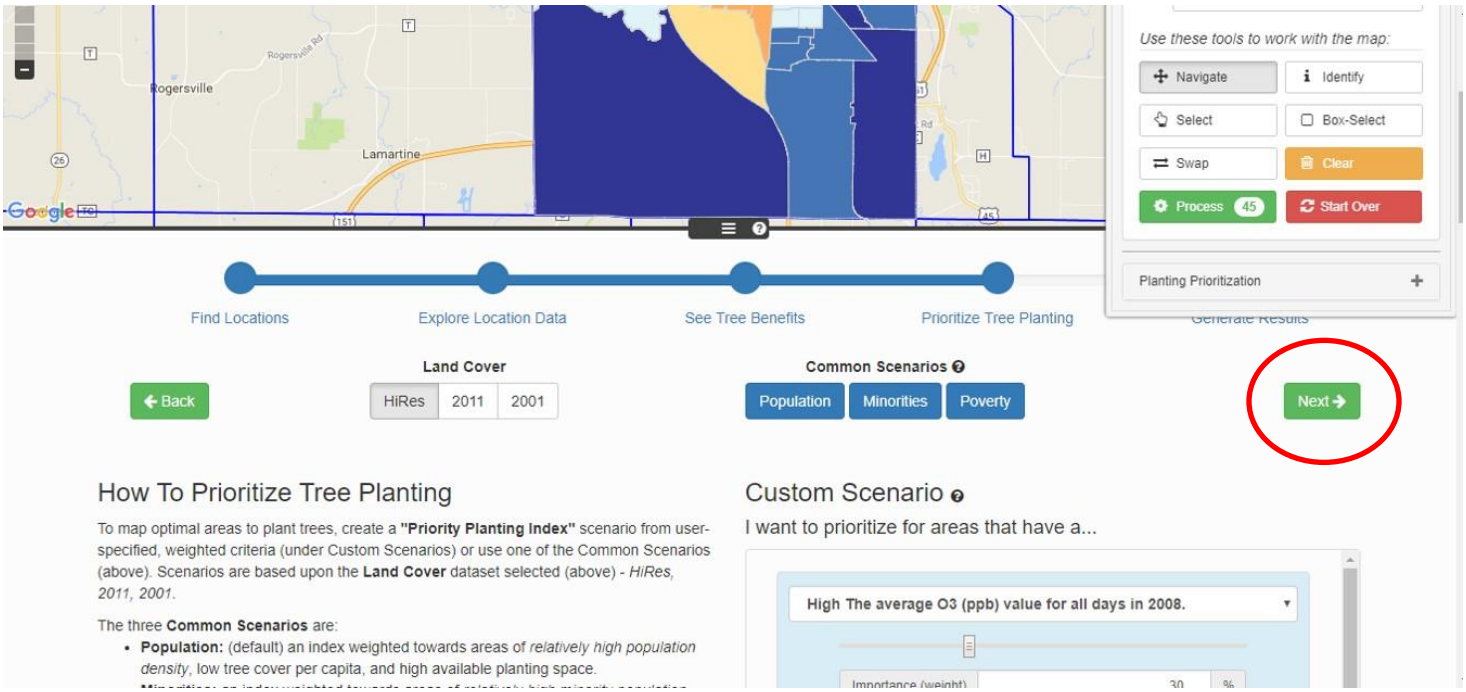
Step 9: Instead of a common search, you can customize the scenario. In the example below, high ozone was selected as a layer of information to help prioritize planting location. Each time the scenario changes, click "Update Map Display" for the map to reflect your changes.



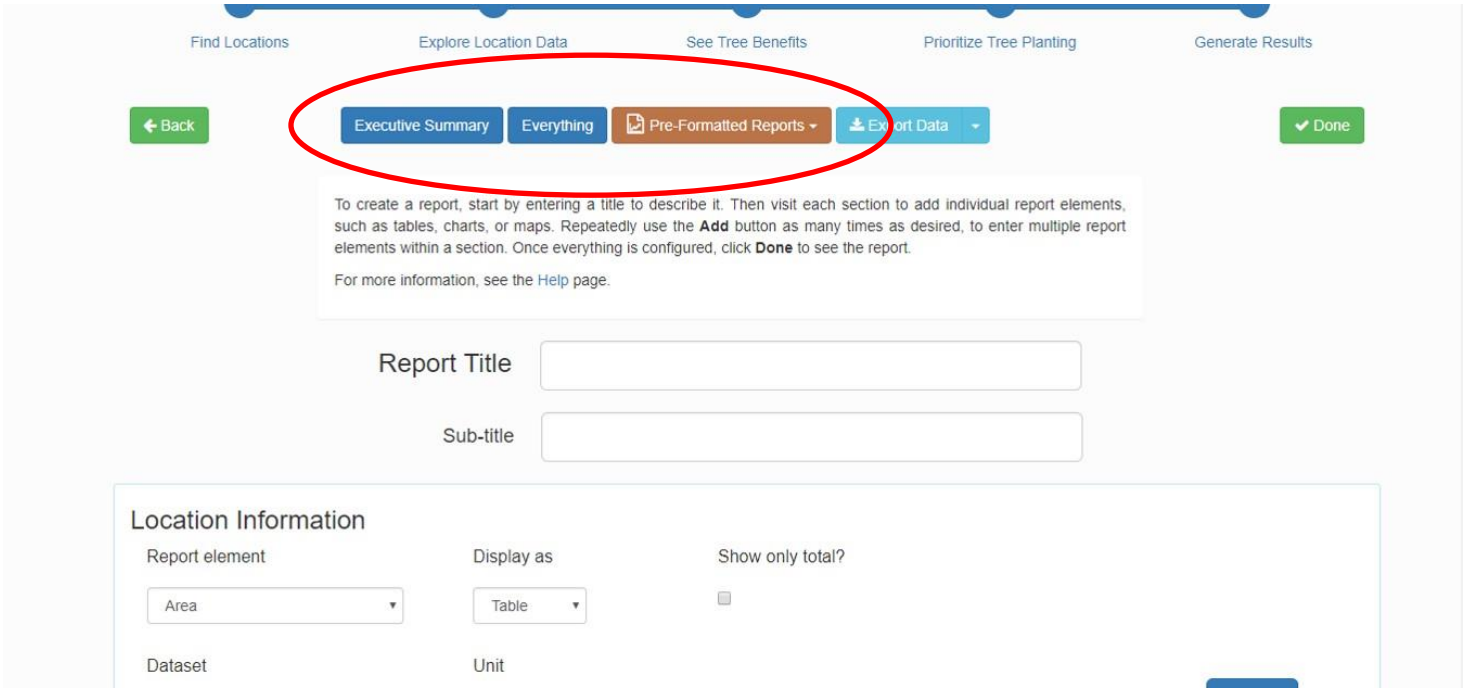
Step 10: The map reflects the updated scenario, showing areas of Fond du Lac (in red) where there is a balance of low tree canopy, high population density and high ozone levels.



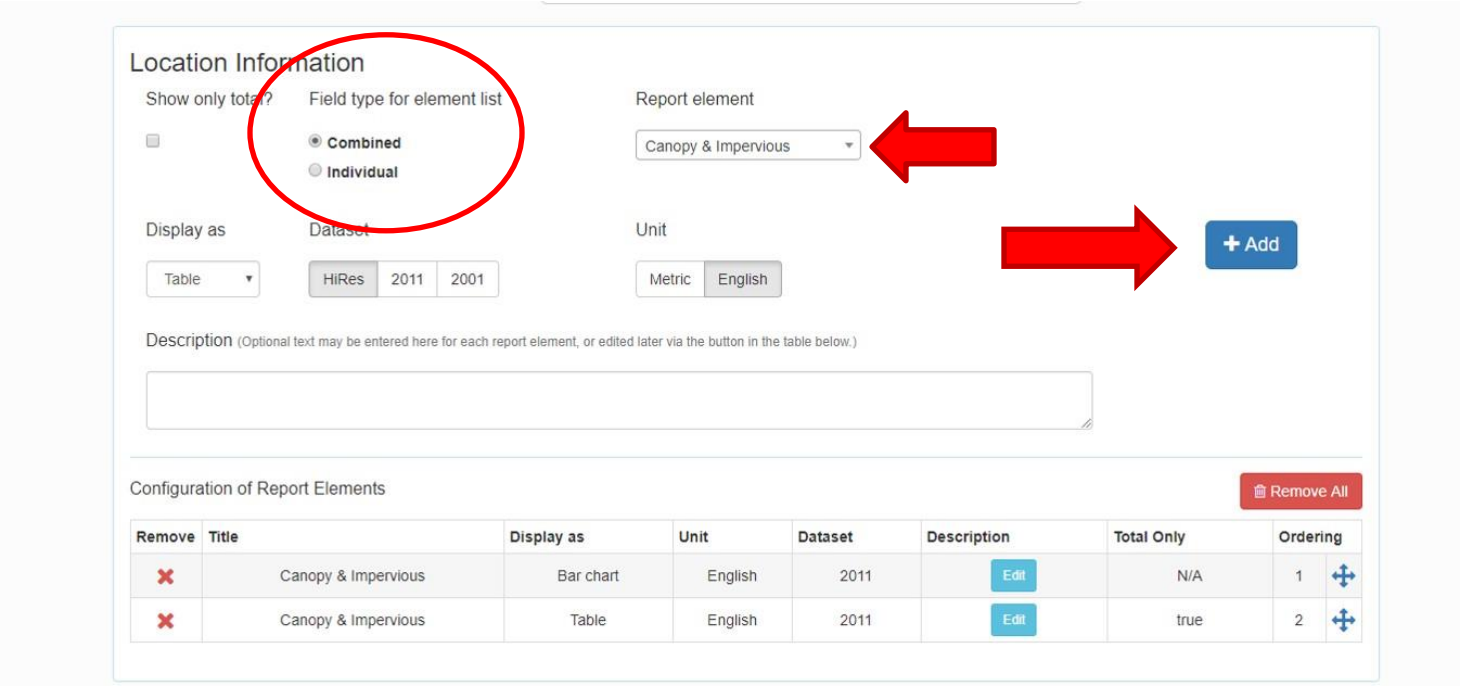
Step 11: Click "Next" to move on to create reports.



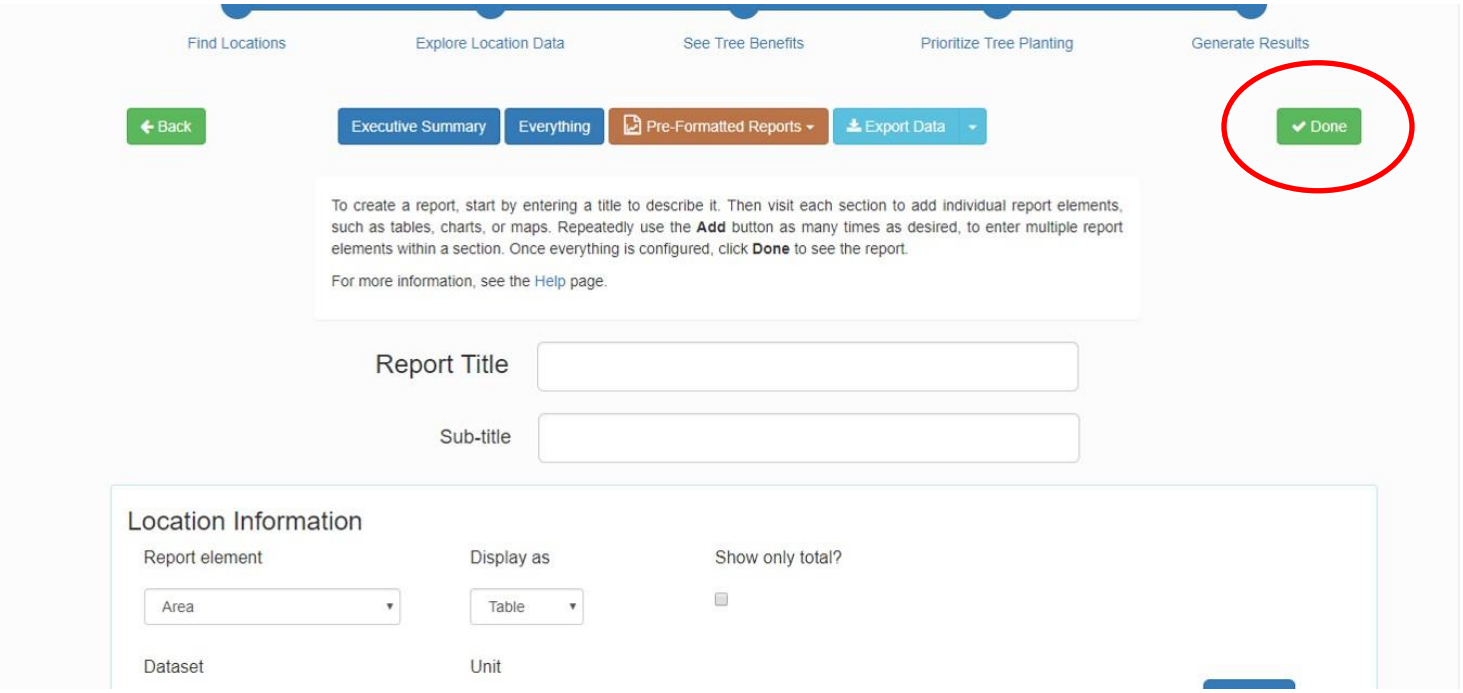
Step 12: Navigate through and fill out information for the report generator. If you want to use a common report structure, click "Executive Summary", "Everything" or one of the options within "Pre-Formatted Reports".



Step 13: If you want to customize the report, scroll down to the different sections (Location Information, Tree Benefits, Planting Prioritization). When in a section, select "Combined" if you want data related to a certain dataset (e.g. "Canopy and Impervious"). Select "Individual" if you are just interested in one piece of information rather than it lumped together (e.g. only interested in the acreage of tree canopy). You then select your information of choice under "Report element". When those and other criteria are selected, choose "Add".



Step 14: Then scroll back up to the top and select "Done" to produce a report.



Step 15: Copy and paste the report into a spreadsheet or word document.

Location Information

Canopy & Impervious (High Resolution UTC)

	Area		Canopy		Impervious		Plantable Space	
	acre	%	acre	%	acre	%	acre	%
Selection Total:	31,309.8	100.00	1,630.4	5.24	5,346.8	20.48	19,130.1	73.26

Tree Benefits

Air Pollutants (High Resolution UTC)

	CO		NO_2		O_3		$PM_{2.5}$		SO_2		PM_{10*}	
	$/yr	lb/yr	$/yr	lb/yr	$/yr	lb/yr	$/yr	lb/yr	$/yr	lb/yr	$/yr	lb/yr
Selection Total:	207.0	515.4	967.0	10,738.3	43,900.0	56,089.9	88,156.0	2,754.0	56.0	1,796.8	15,170.0	8,748.2

Hydrology Quantity (High Resolution UTC)

	Transpiration (MG/yr)	Rainfall Interception (MG/yr)	Avoided Runoff (MG/yr)	Avoided Runoff ($/yr)
Selection Total:	206.7	112.2	14.2	127,124.0