EPA
United States
Environmental Protection
Agency

EnviroAtlas Mini Training

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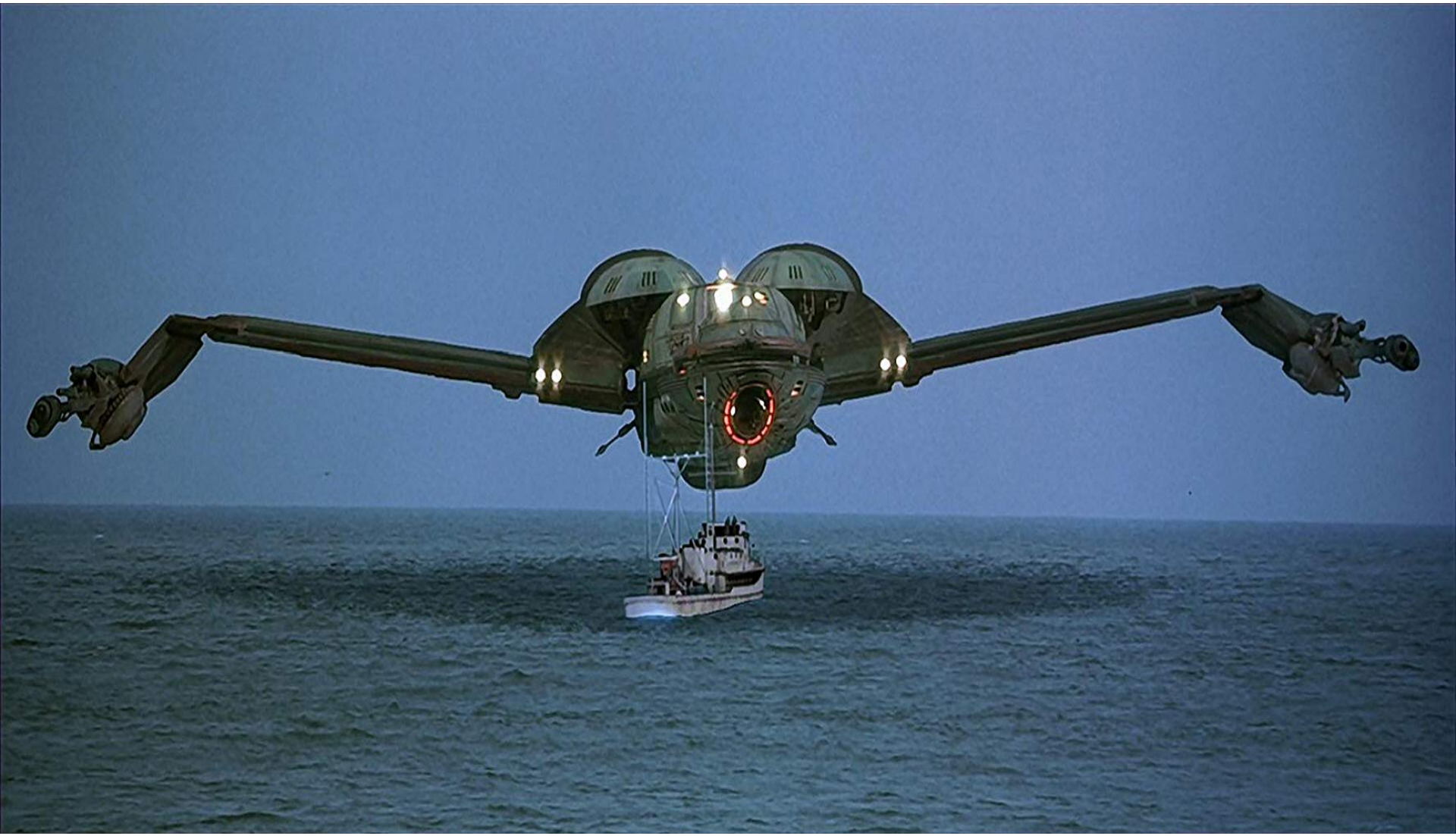
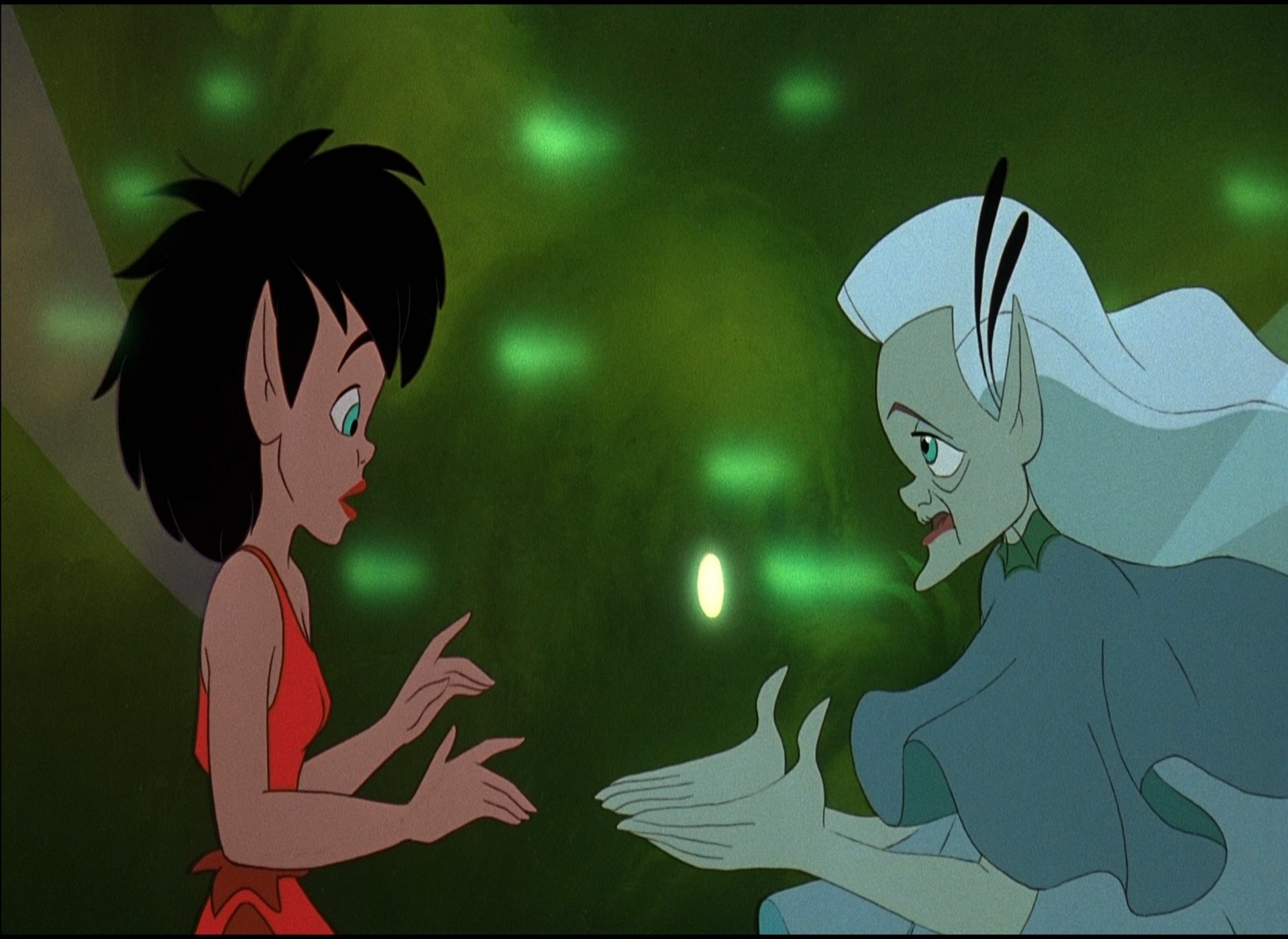



MANKIND WAS BORN ON EARTH. IT WAS NEVER MEANT TO DIE HERE.

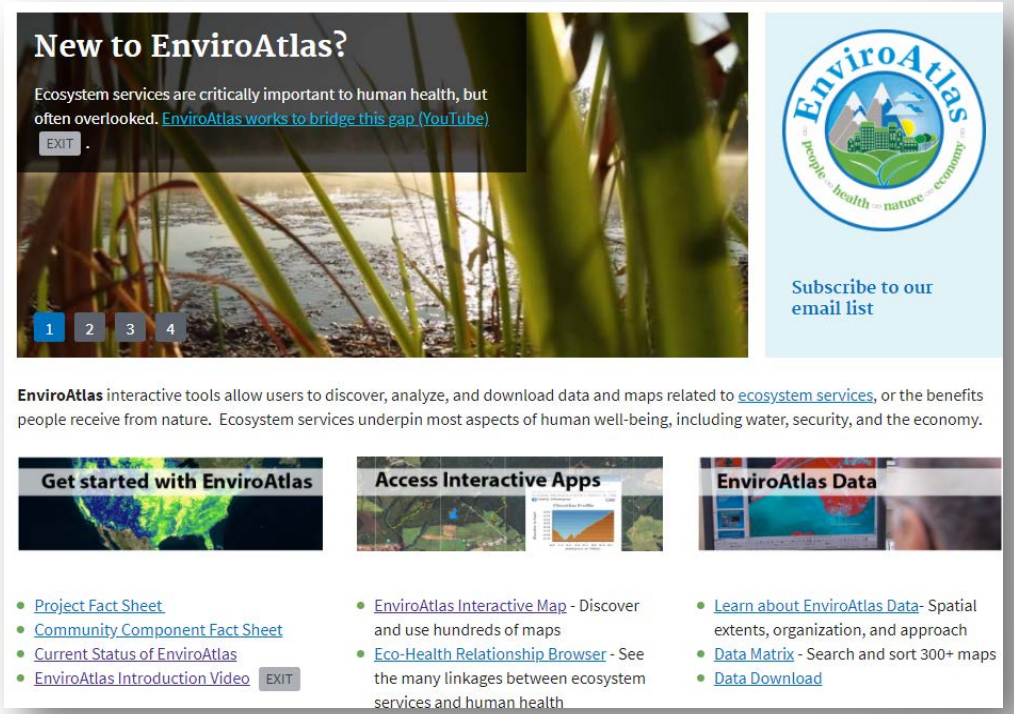


1915-6

EnviroAtlas

EnviroAtlas is an interactive, web-based tool that anybody can use to help inform decisions that impact the places where people live, learn, work and play.

- **geospatial data**
- **easy to use**
- **publicly accessible**



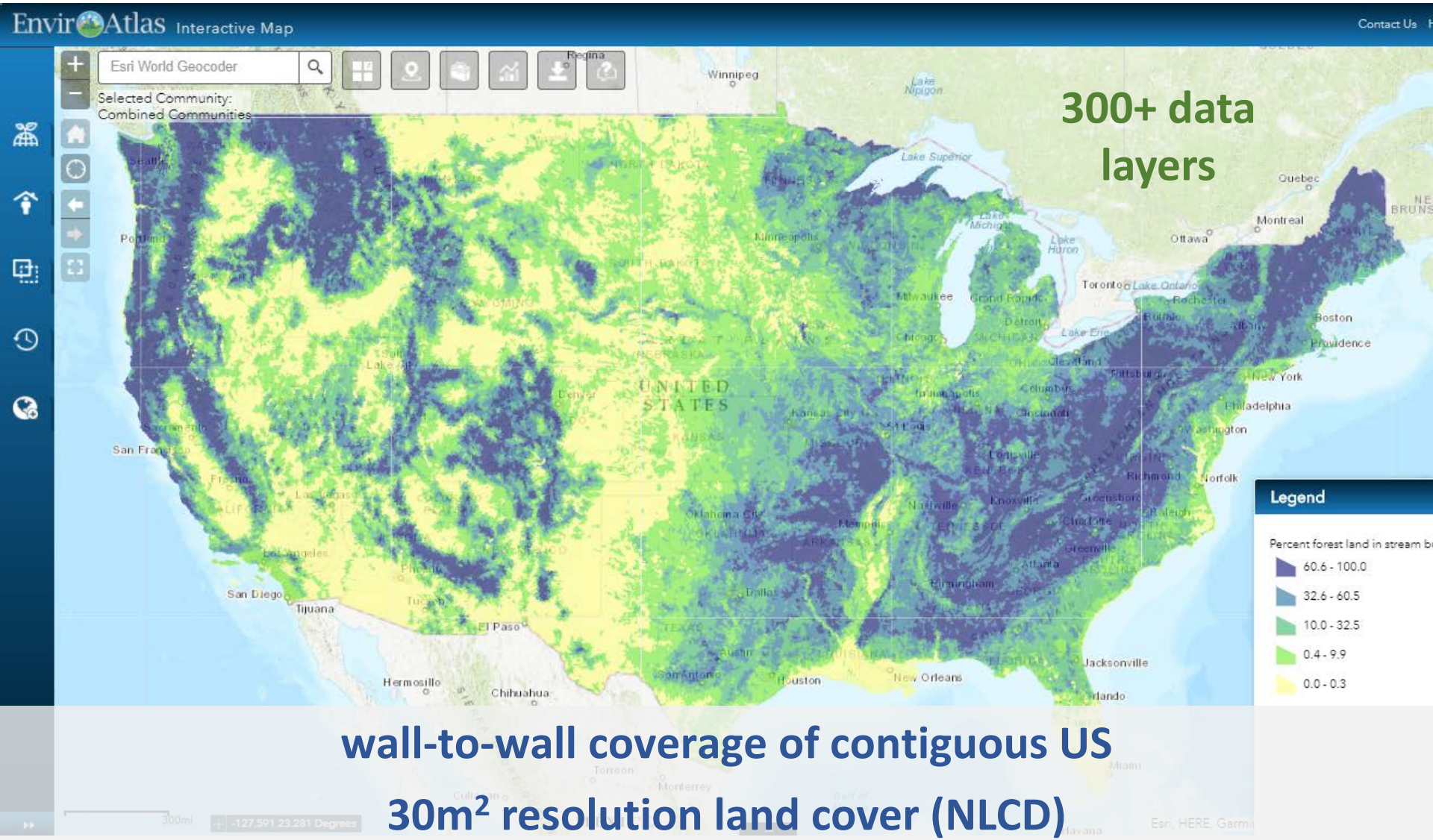
www.epa.gov/enviroatlas

Developed through cooperative effort amongst multiple Federal agencies and other organizations.

Released May 2014


Ecosystem Services Benefit Categories
Clean Air
Clean & Plentiful Water
Biodiversity Conservation
Food, Fuel & Materials
Natural Hazard Mitigation
Climate Stabilization
Recreation, Culture & Aesthetics

EnviroAtlas map is multi-extent: National

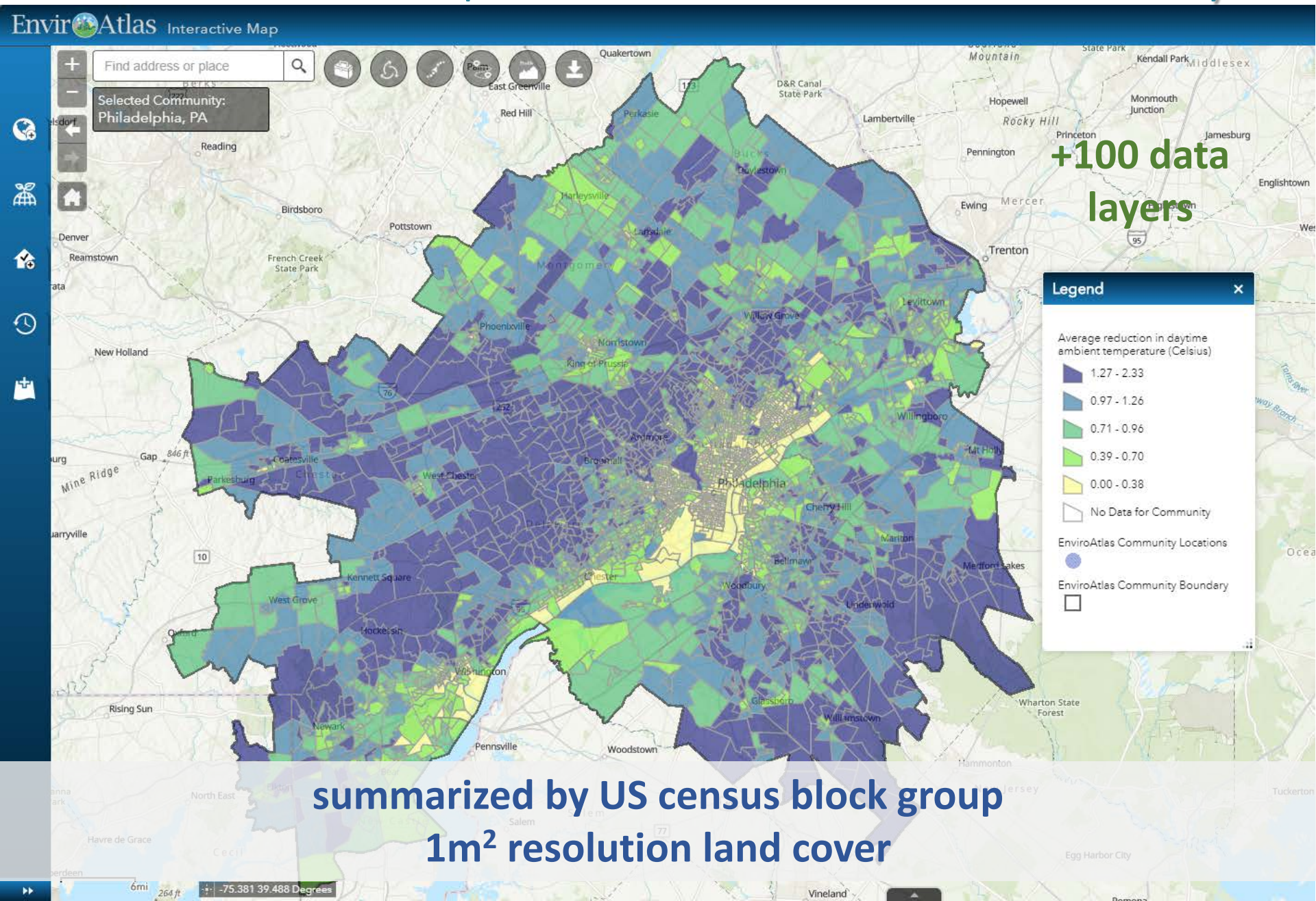


wall-to-wall coverage of contiguous US

30m² resolution land cover (NLCD)

summarized by medium-sized drainage basins (12-digit HUCs)

EnviroAtlas map is multi-extent: Community

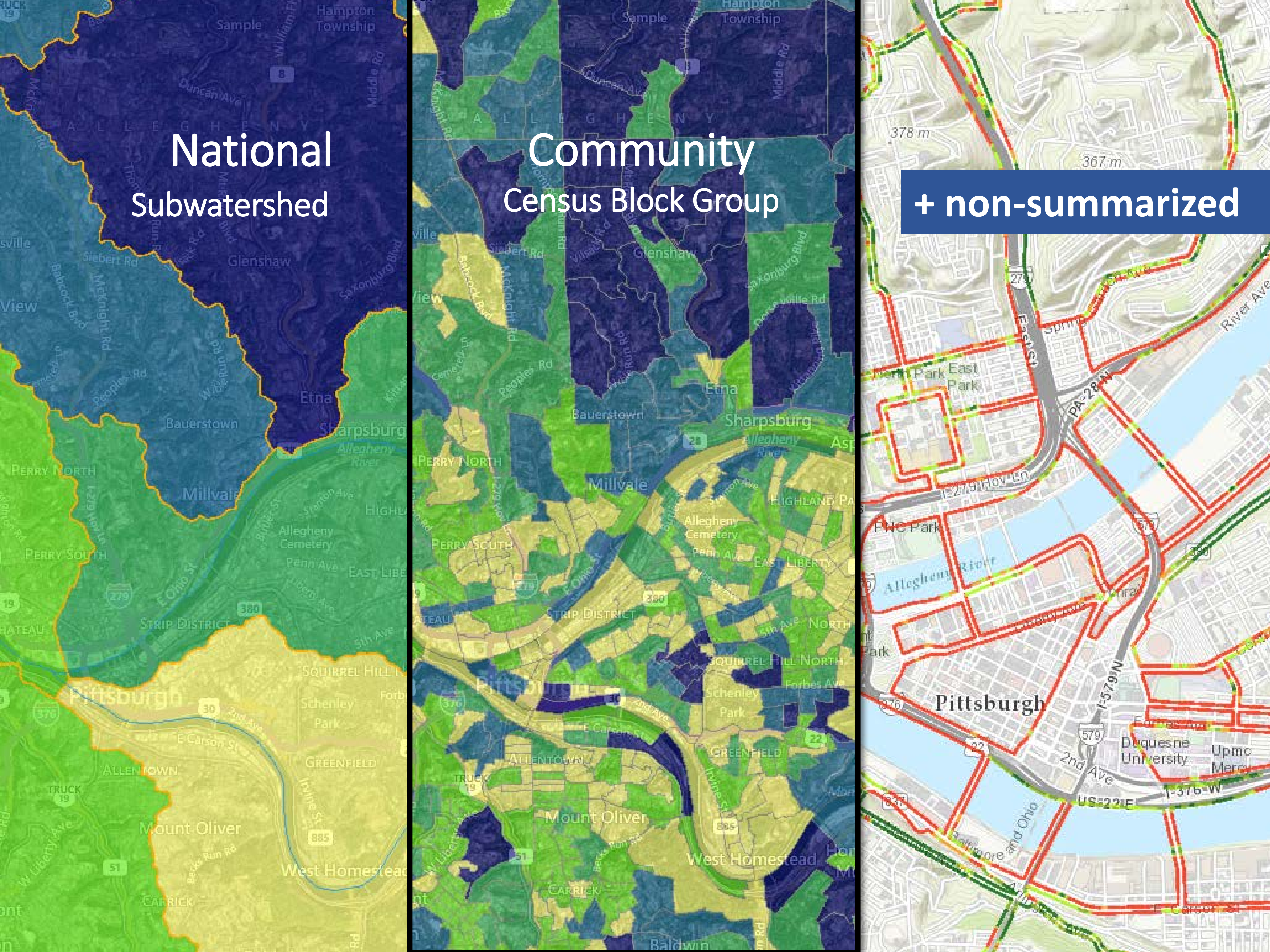


EnviroAtlas Communities

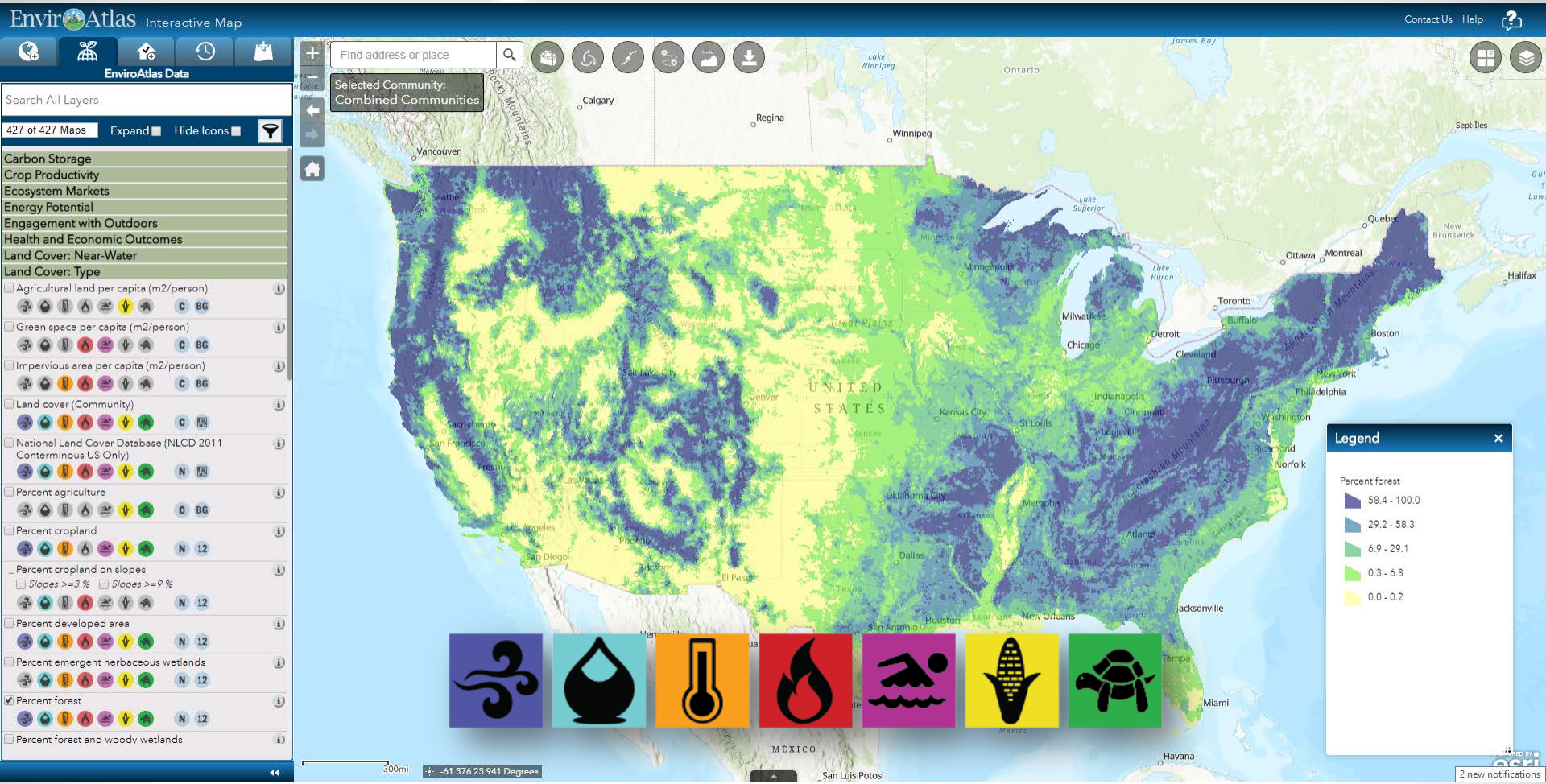
MidAtlantic Communities:

Baltimore, MD
Philadelphia, PA
Pittsburgh, PA
Virginia Beach/Williamsburg, VA
Washington, D.C. (coming soon)

950+ cities and towns centered on 27 U.S. urbanized community areas


National
Subwatershed
Community
Census Block Group
+ non-summarized

Access EnviroAtlas Data



[400+ indicators](#) of Ecosystem Goods and Services
Demographic and supplemental data

Analysis tools, Guides & More

- Mapping & analysis tools
- Fact sheets for all data layer
- Downloadable data
- User added data
- Web services
- GIS toolboxes
- Example use cases
- Guides for classroom & HIAs
- Eco-health Relationship Browser

EnviroAtlas

people • health • nature • economy

Fact Sheet

www.epa.gov/enviroatlas

Stream Length Impaired by Nutrients

This EnviroAtlas national map displays the length in kilometers of streams, coasts, canals, and other linear hydrographic features that are impaired by nutrients from the 303(d) list of impaired waters within each 12-digit hydrological unit (HUC).

Why are impaired streams important?

Stream impairments can be due to a wide variety of causes, including chemical pollutants, physical conditions such as siltation, or biological contaminants such as bacteria. This map shows waters that are impaired by nutrients, namely excesses in nitrogen and phosphorous. This process of nutrient enrichment (eutrophication) creates high productivity of aquatic plants and algae in aquatic ecosystems. Nutrient enrichment can occur naturally or human activity can accelerate it by increasing nutrient loading. Eutrophication can have serious impacts on ecosystems, human health, and the economy.

Though nitrogen and phosphorus are a natural part of stream ecosystems, they can have adverse effects in high concentrations. Excessive algal growth can damage fish gills, block sunlight from reaching other organisms, and reduce oxygen levels in water, killing plants and animals and reducing biodiversity in streams and lakes. Blue-green algae can produce chemicals that are toxic to humans and animals, known as biotoxins or cyanotoxins.[1] Algae can also produce unpleasant smells, clog fishing nets, make it harder to treat water for drinking, and make streams less suitable for fish spawning.[2] When nutrients from streams make their way to the ocean, they can cause similar harm there and create "dead zones."[3] Eutrophication can reduce opportunities for tourism and recreation, harm fishing industries and the seafood supply, and make drinking water more expensive to

Photo: Eric Vance/USEPA

Nitrogen in the atmosphere can travel hundreds of kilometers[4] and be deposited in the soil and water through atmospheric deposition, the transfer of gases and particles from the atmosphere to the earth's surface.

Section 303(d) of the Clean Water Act requires states to identify impaired waters, which are waters that do not support state-designated uses, such as fishing, irrigation, industrial uses, or drinking water supply, due to pollution or other impairments. The states must then establish Total Maximum Daily Loads (TMDLs), which cap the amount of each pollutant allowed in the water body based on its use. The TMDL sets a load limit in order for the water body to meet water quality standards and then divides the load into allowable contributions from point and nonpoint sources.

How can I use this information?

The map, Stream Length Impaired by Nutrients, provides information about the length of streams and other waters

Eco-Health Browser

Evidence-based linkages between human health and ecosystem services.

30+ Health Outcomes

6 Ecosystem Services

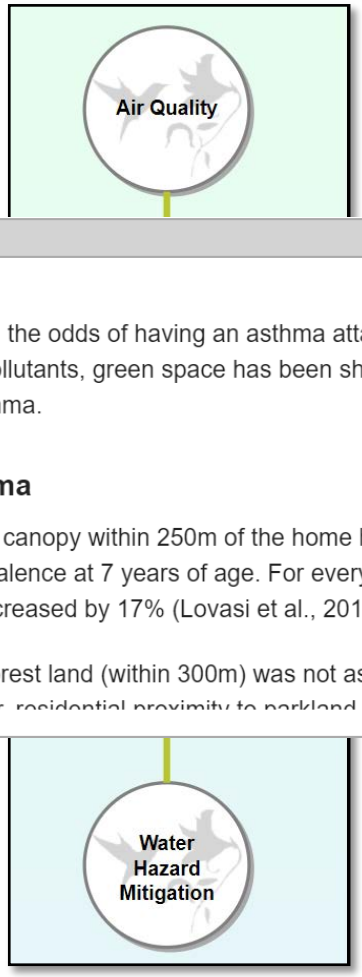
5 Ecosystems

ecosystems **providing** a service

ecosystem services **impacting** a health outcome

700+ scientific articles

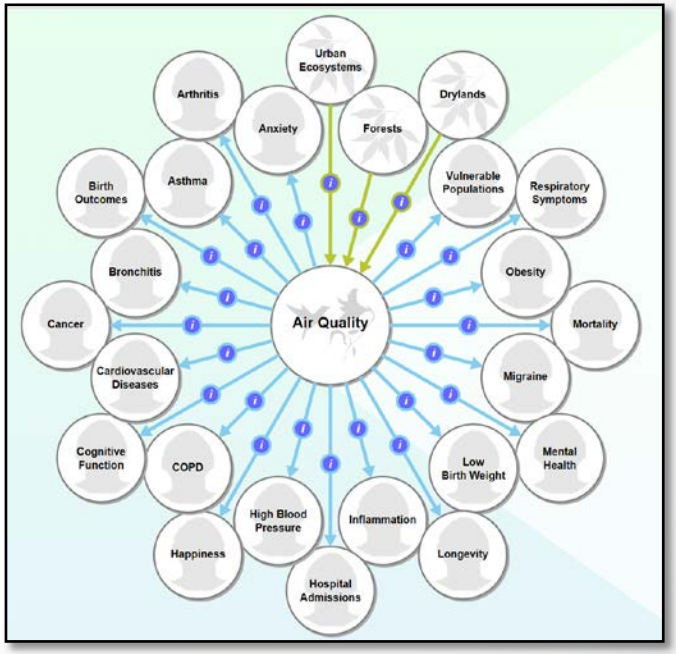
Eco-Health Browser



30+ Health Outcomes

6 Ecosystem Services

5 Ecosystems

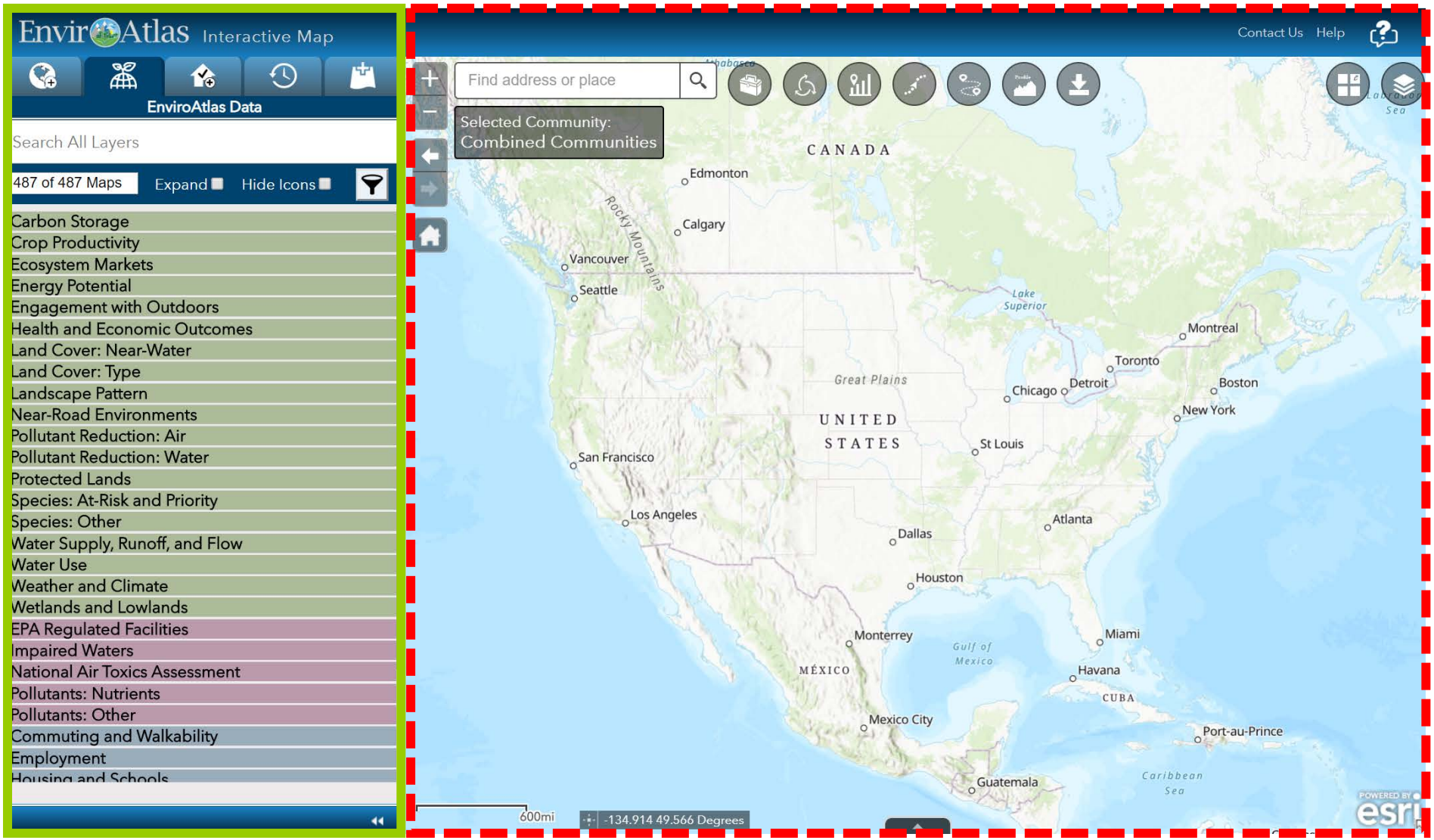


Evidence-based linkages between human health and ecosystem services.

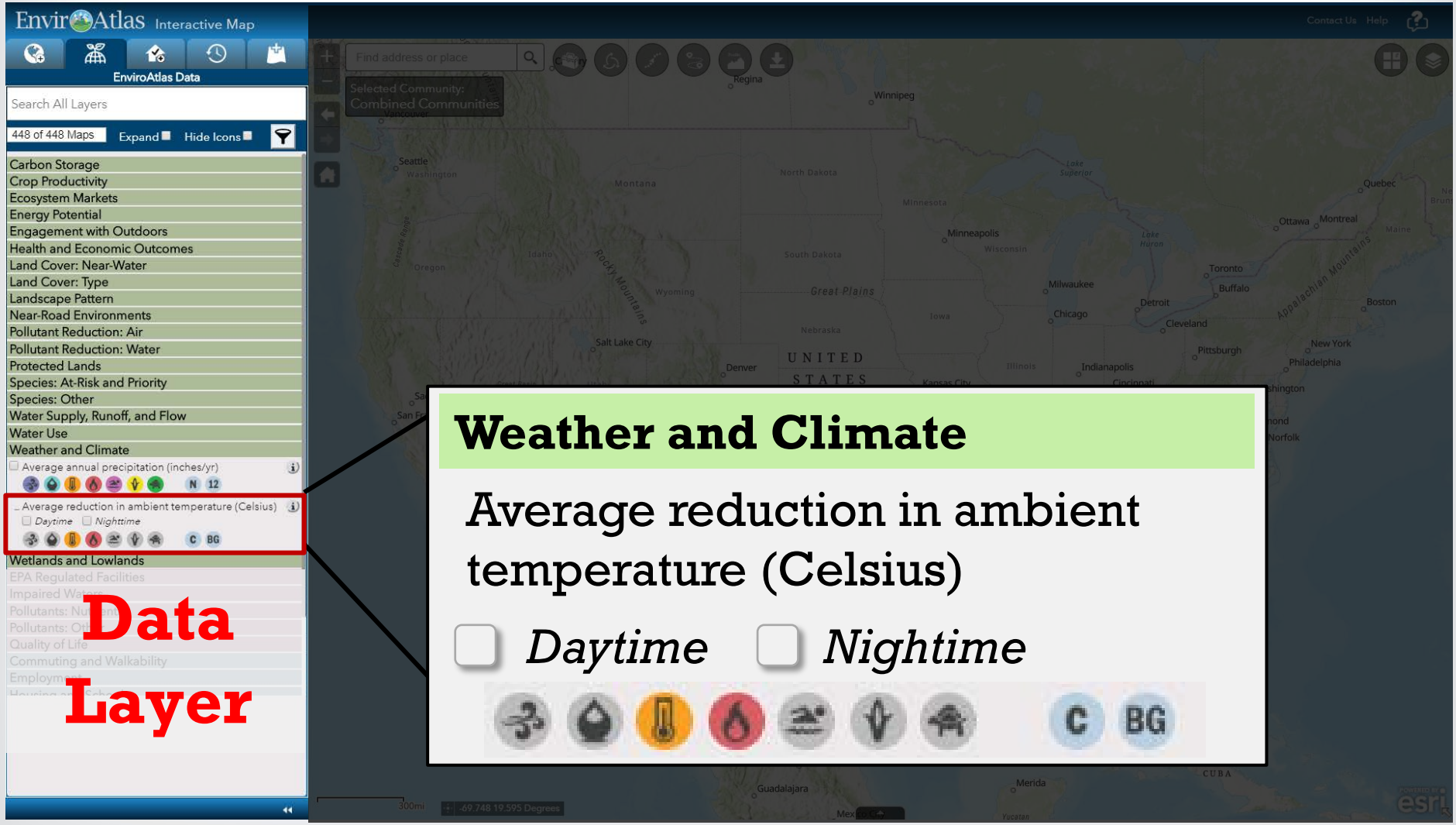
INTERACTIVE MAP

EnviroAtlas Data Panel

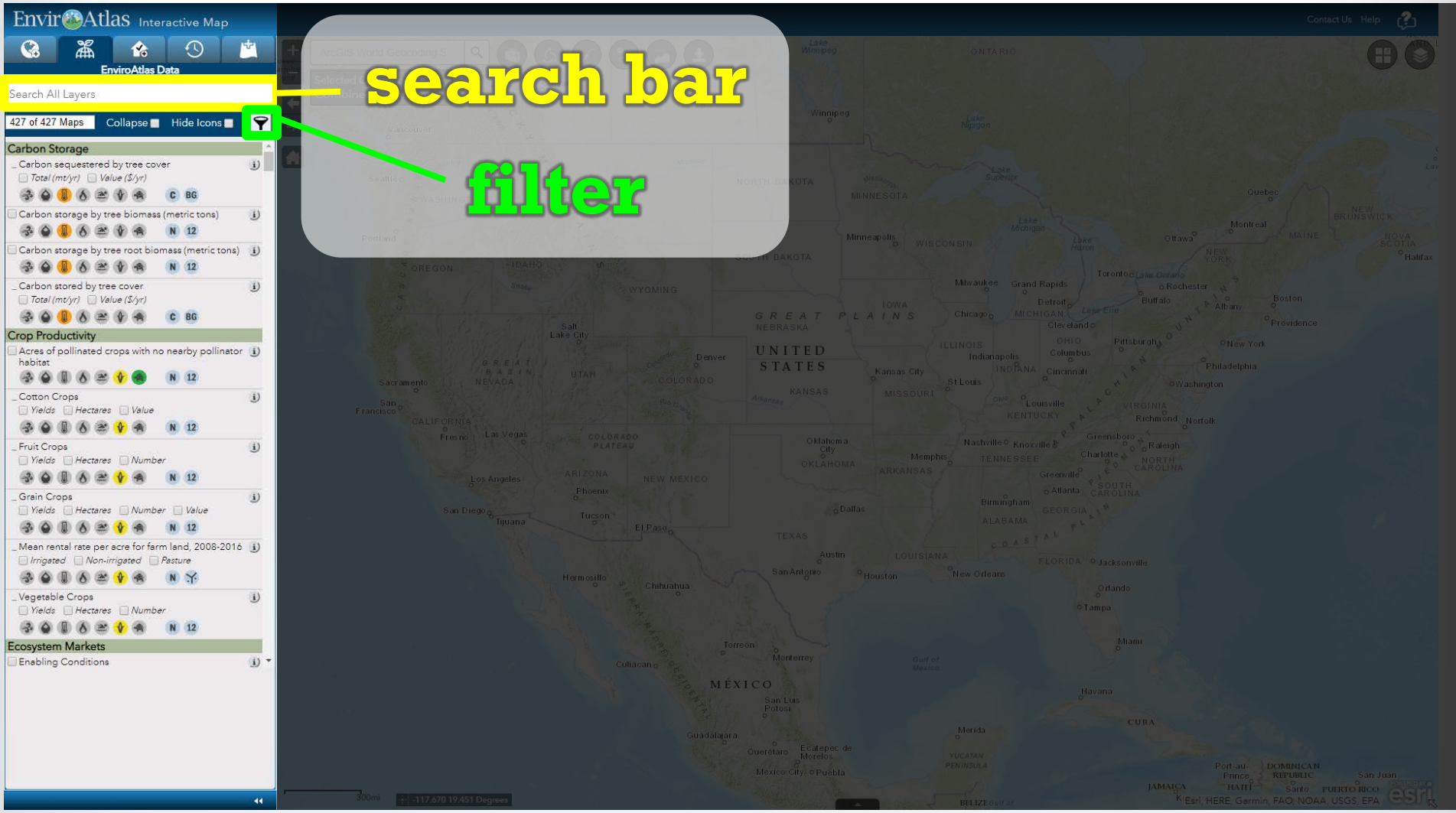
Interactive Map



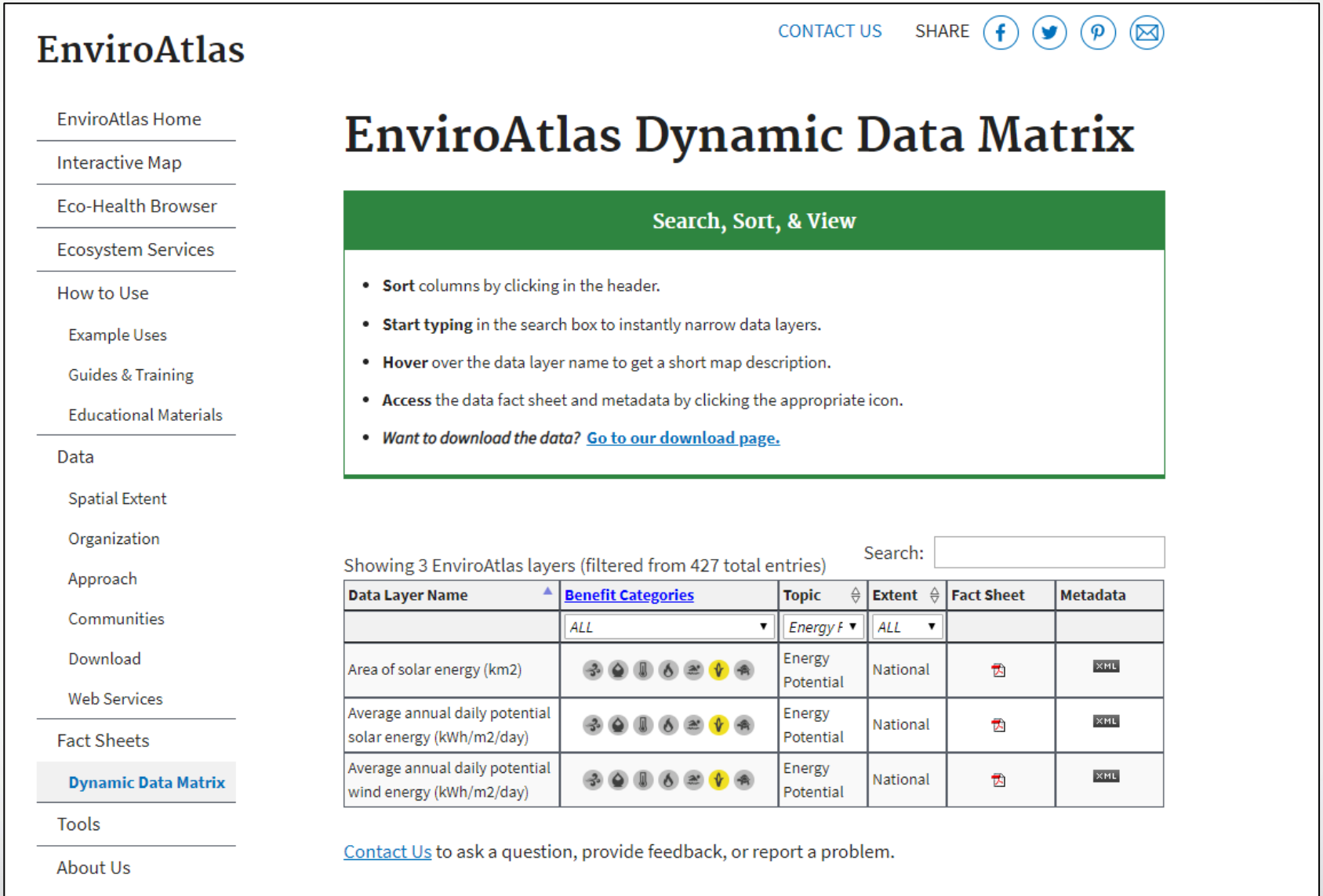
Data Layer Tab



Searching for Data



Searching for Data



EnviroAtlas

CONTACT US SHARE

- EnviroAtlas Home
- Interactive Map
- Eco-Health Browser
- Ecosystem Services
- How to Use
  - Example Uses
  - Guides & Training
  - Educational Materials
- Data
  - Spatial Extent
  - Organization
  - Approach
  - Communities
  - Download
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- Fact Sheets
  - Dynamic Data Matrix
- Tools
- About Us

EnviroAtlas Dynamic Data Matrix

Search, Sort, & View

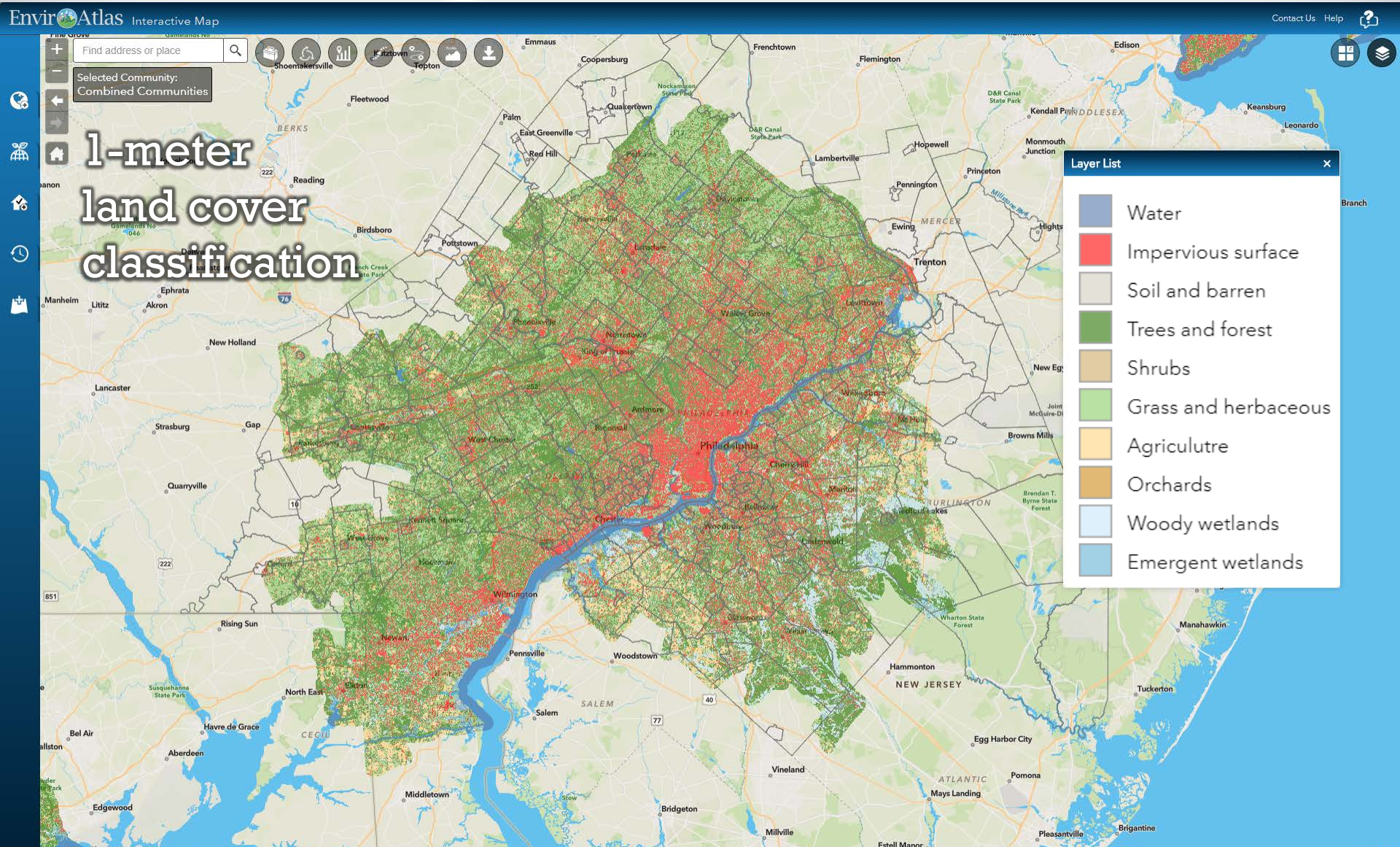
- **Sort** columns by clicking in the header.
- **Start typing** in the search box to instantly narrow data layers.
- **Hover** over the data layer name to get a short map description.
- **Access** the data fact sheet and metadata by clicking the appropriate icon.
- ***Want to download the data?*** Go to our download page.

Showing 3 EnviroAtlas layers (filtered from 427 total entries) Search:

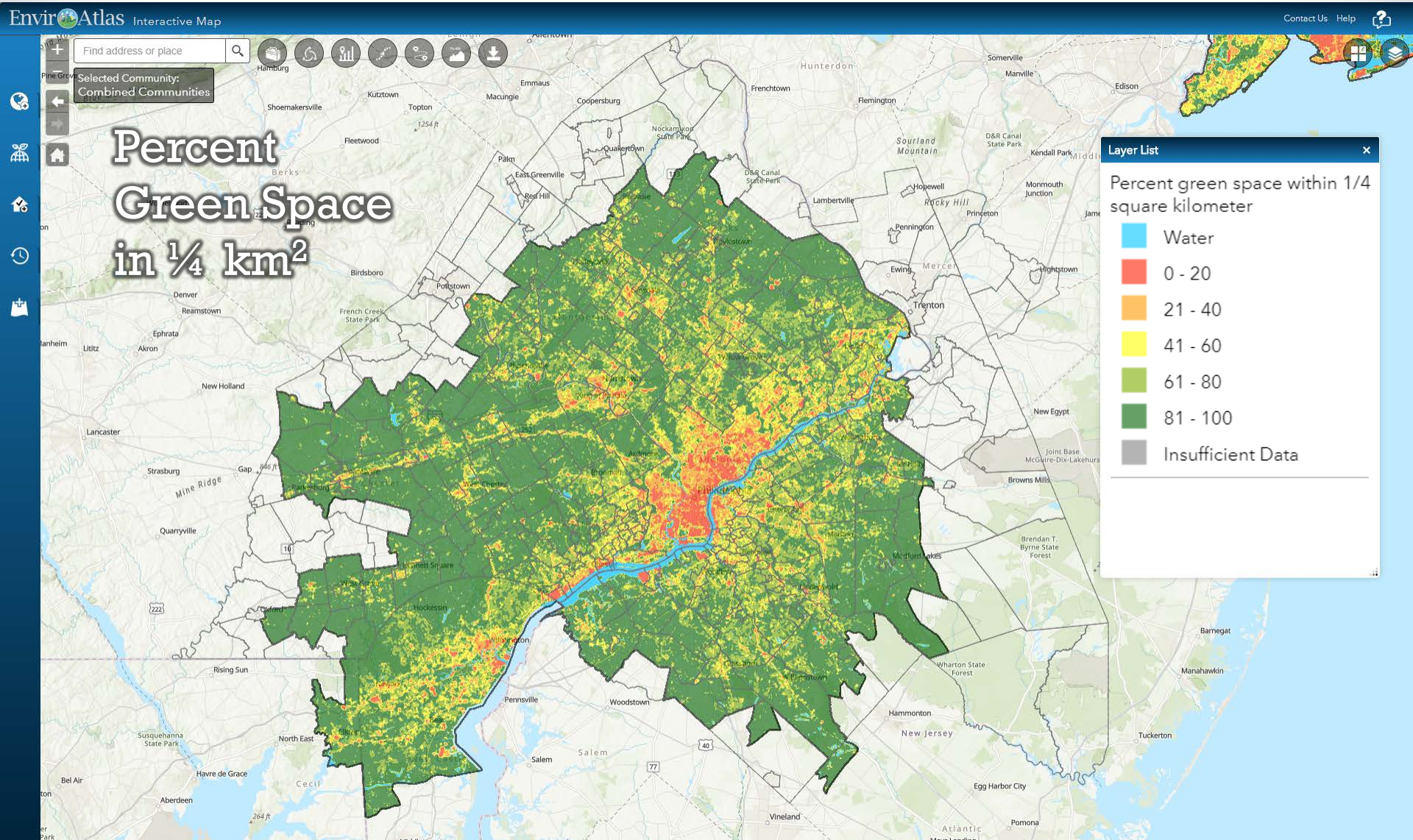
Data Layer Name	Benefit Categories	Topic	Extent	Fact Sheet	Metadata
	ALL	Energy F	ALL		
Area of solar energy (km2)		Energy Potential	National		XML
Average annual daily potential solar energy (kWh/m2/day)		Energy Potential	National		XML
Average annual daily potential wind energy (kWh/m2/day)		Energy Potential	National		XML

Contact Us to ask a question, provide feedback, or report a problem.

Land Cover

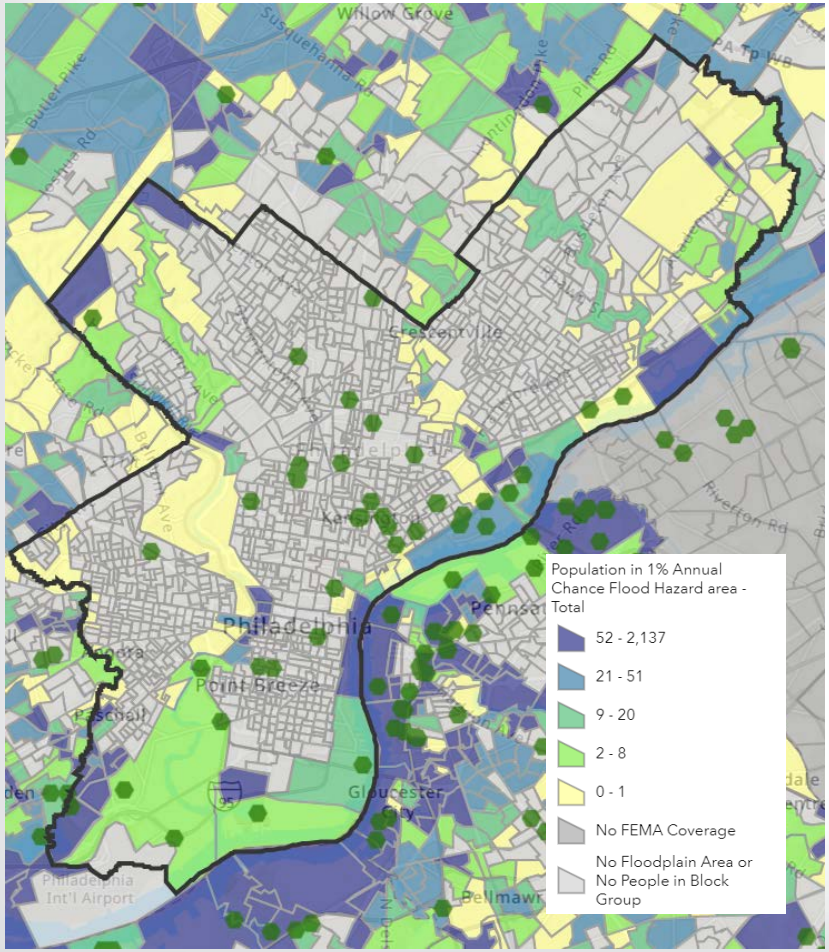

EnviroAtlas Interactive Map
Contact Us
Help
Find address or place
Selected Community:
Combined Communities
1-meter
land cover
classification
Layer List
Water
Impervious surface
Soil and barren
Trees and forest
Shrubs
Grass and herbaceous
Agriculutre
Orchards
Woody wetlands
Emergent wetlands
Philadelphia
Trenton
Wilmington
Reading
Lancaster
Atlantic City
NEW JERSEY

Green Space

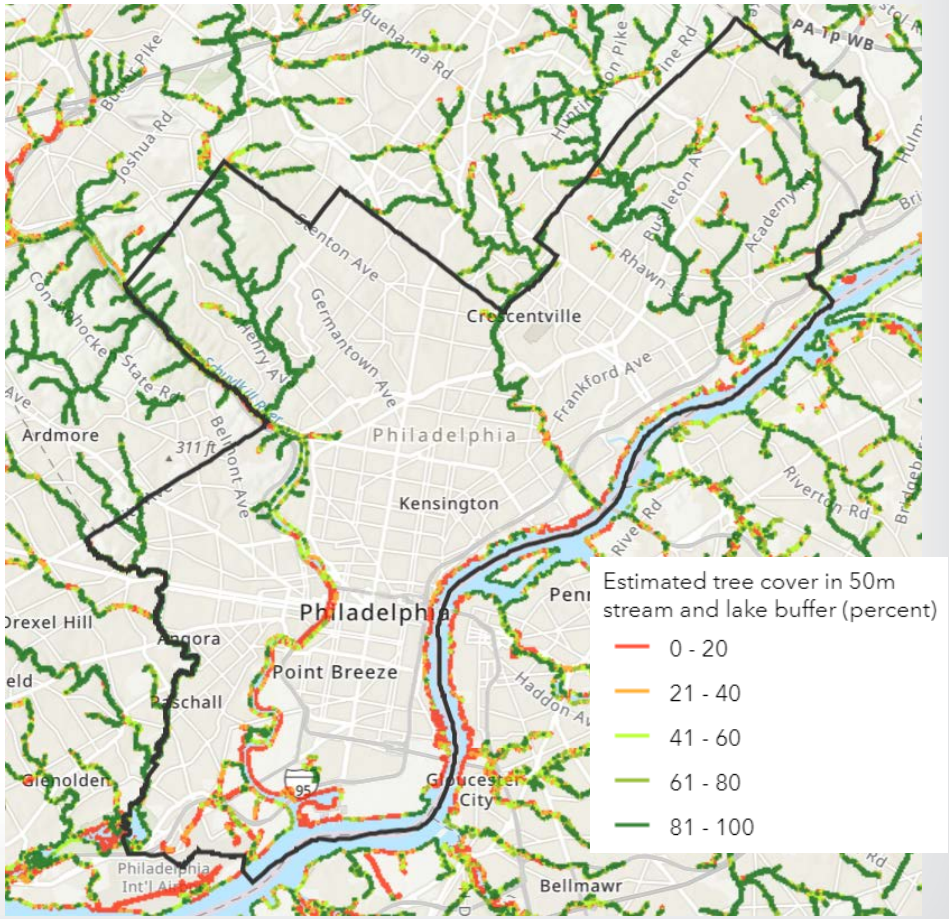

EnviroAtlas Interactive Map
Contact Us
Help
Find address or place
Selected Community:
Combined Communities
Percent Green Space in ¼ km²
Layer List
Percent green space within 1/4 square kilometer
Water
0 - 20
21 - 40
41 - 60
61 - 80
81 - 100
Insufficient Data

Population at Risk

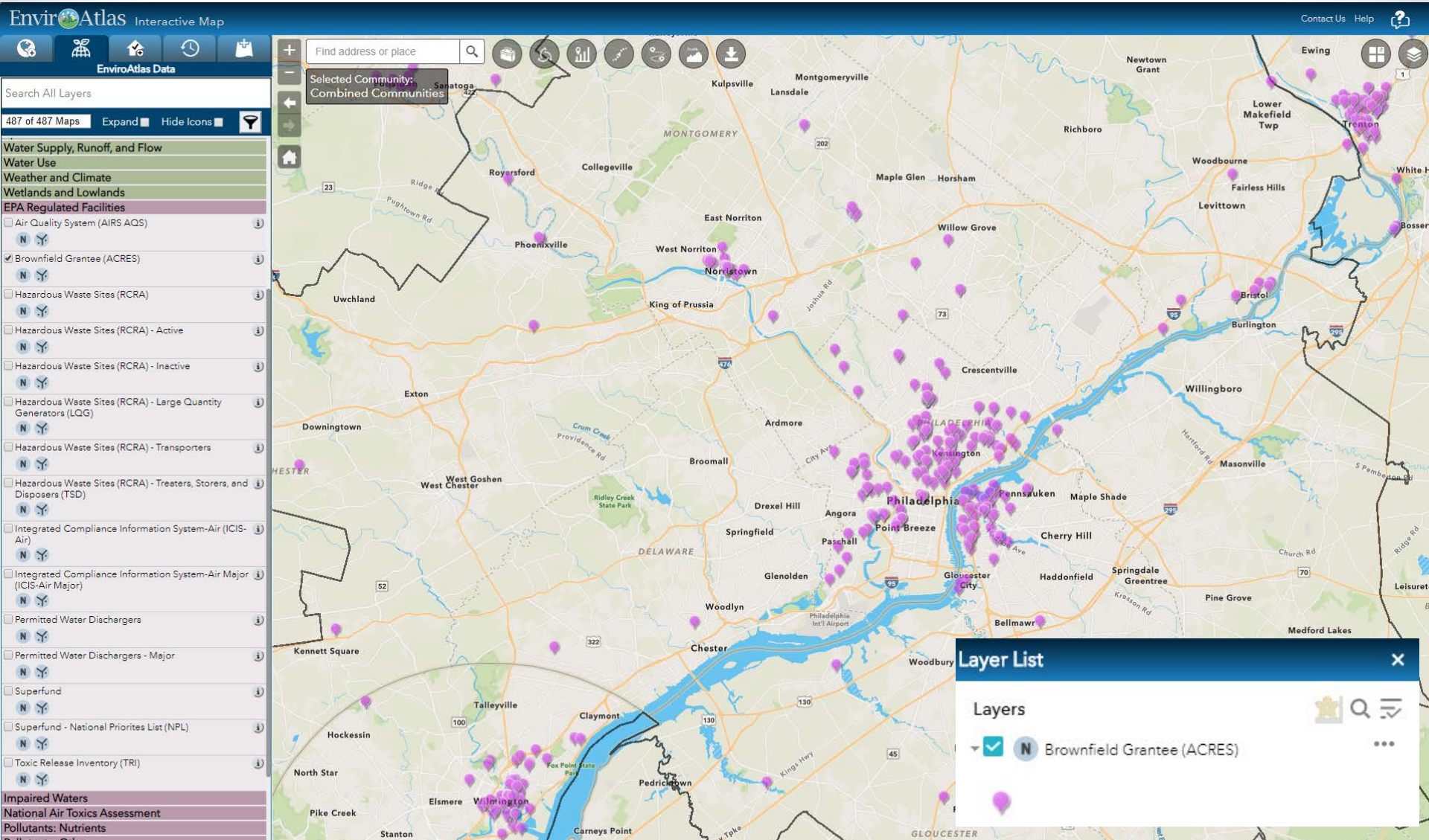
Population in Flood Hazard Area, Superfund Sites overlayed



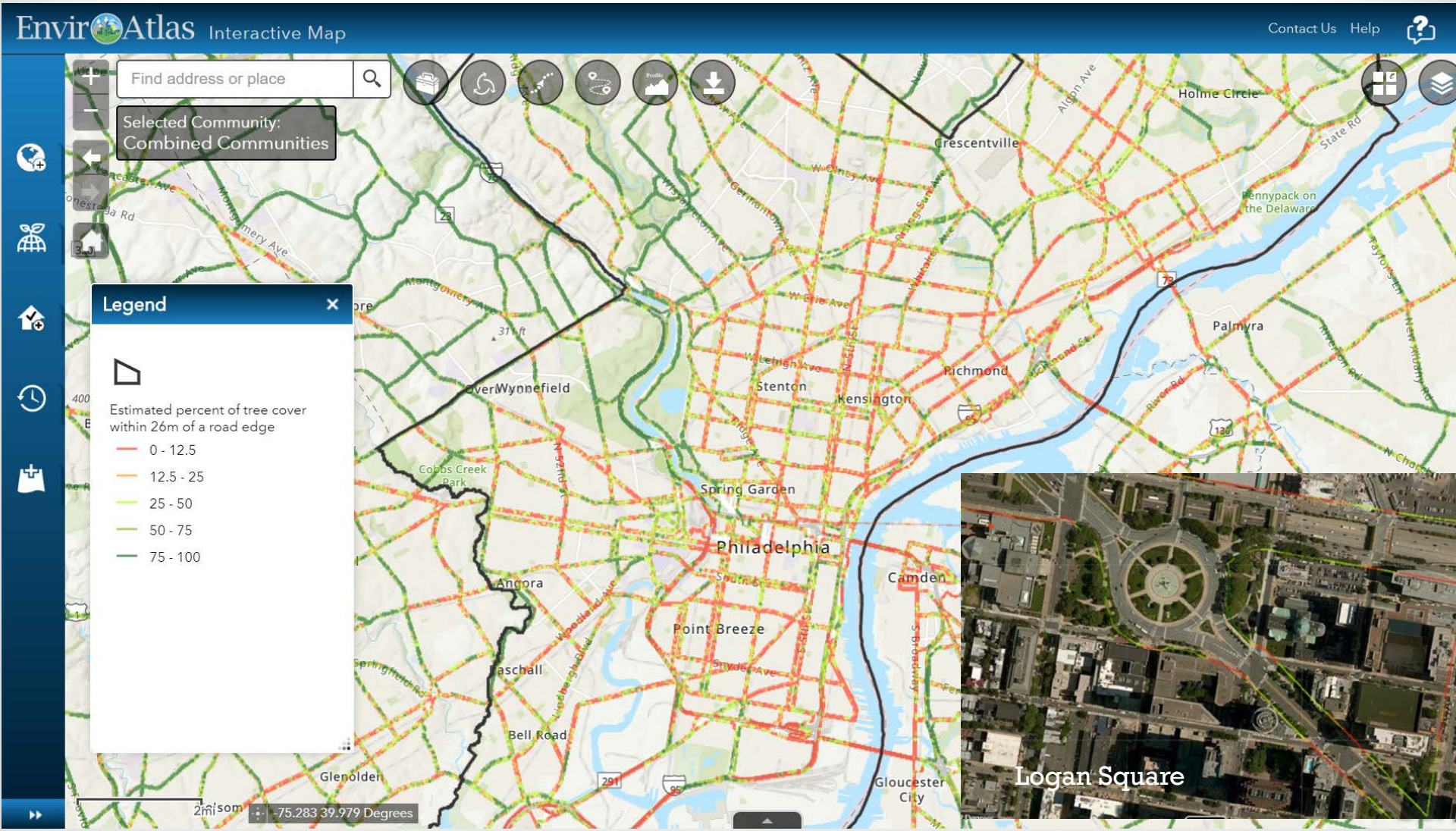
Estimated tree cover in 50m stream/lake buffer



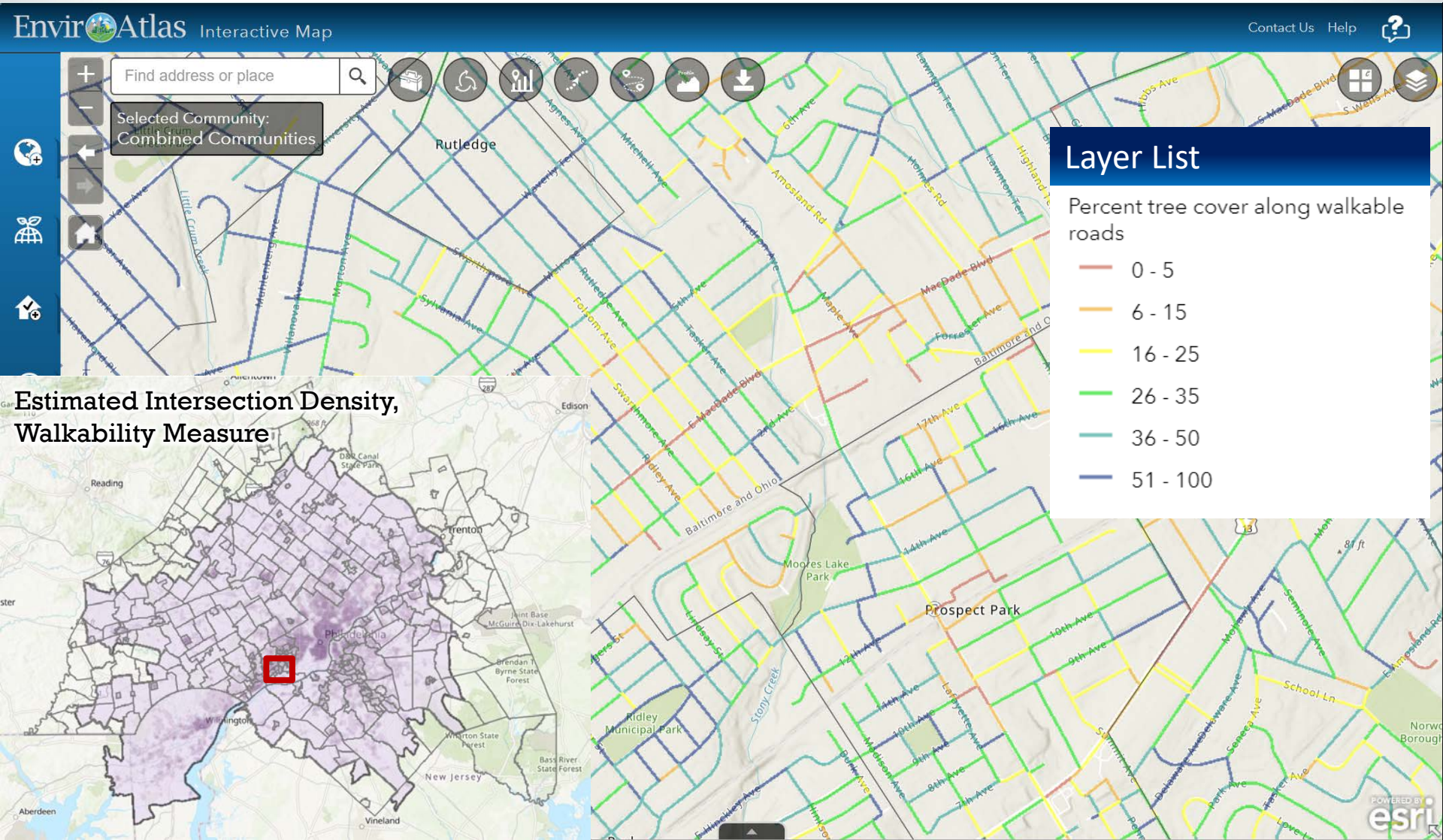
EPA Regulated Facilities



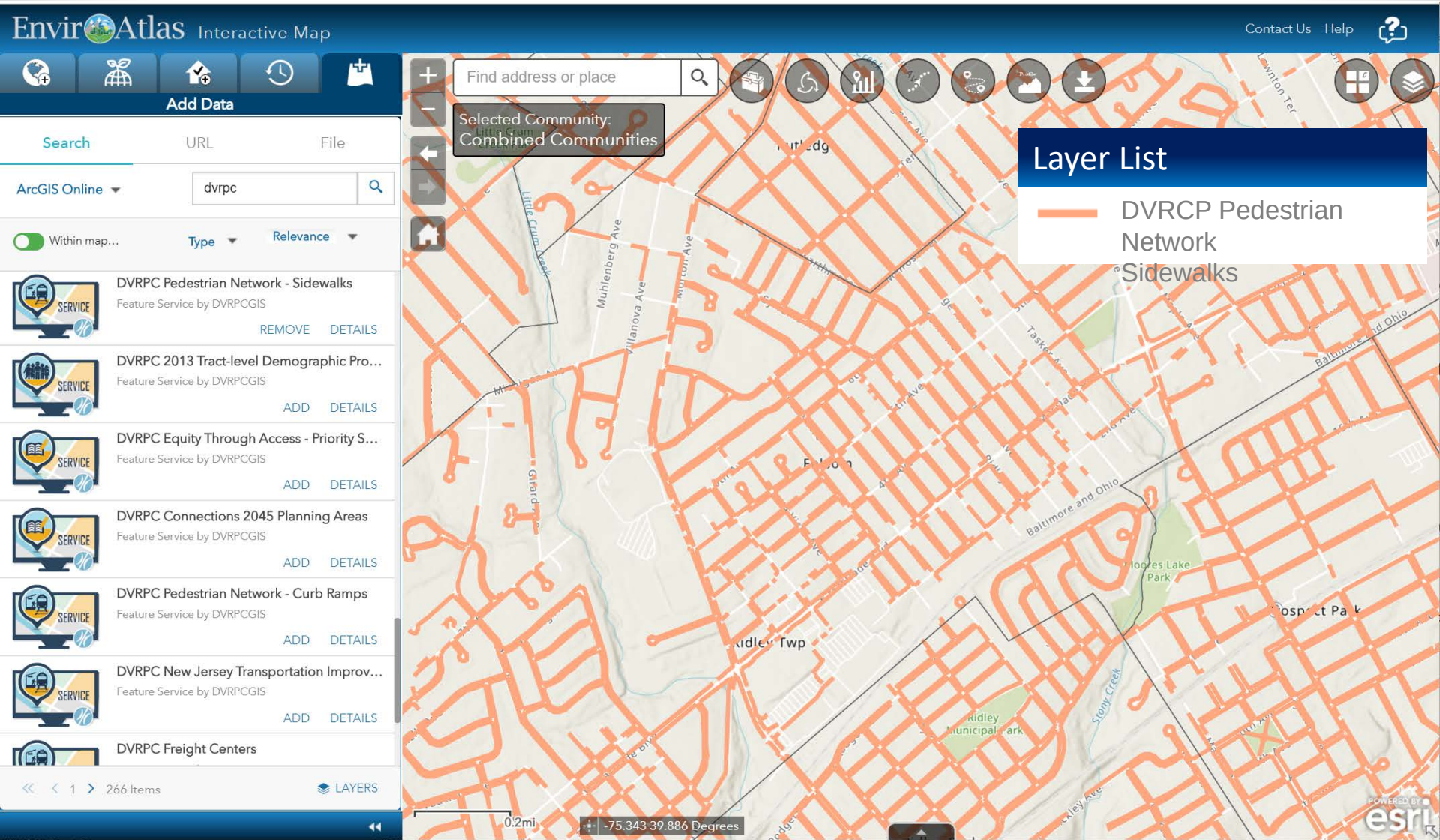
% Tree Cover Near Busy Roads



Walkability

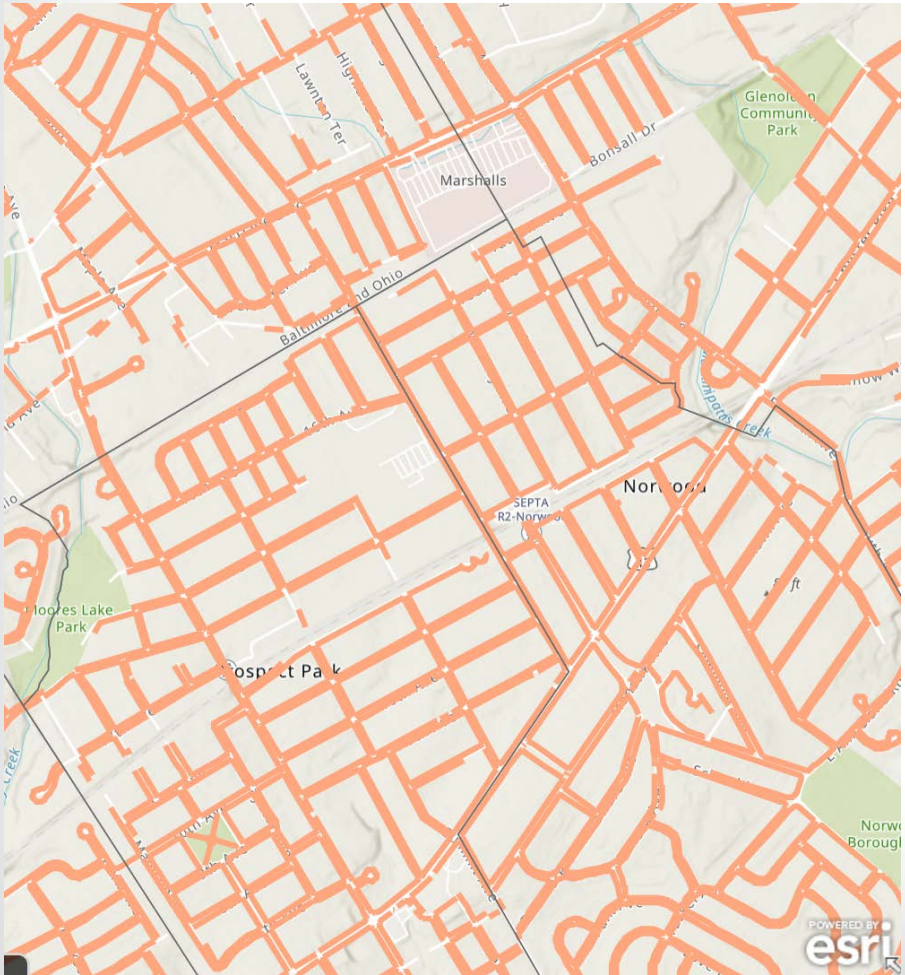


Walkability

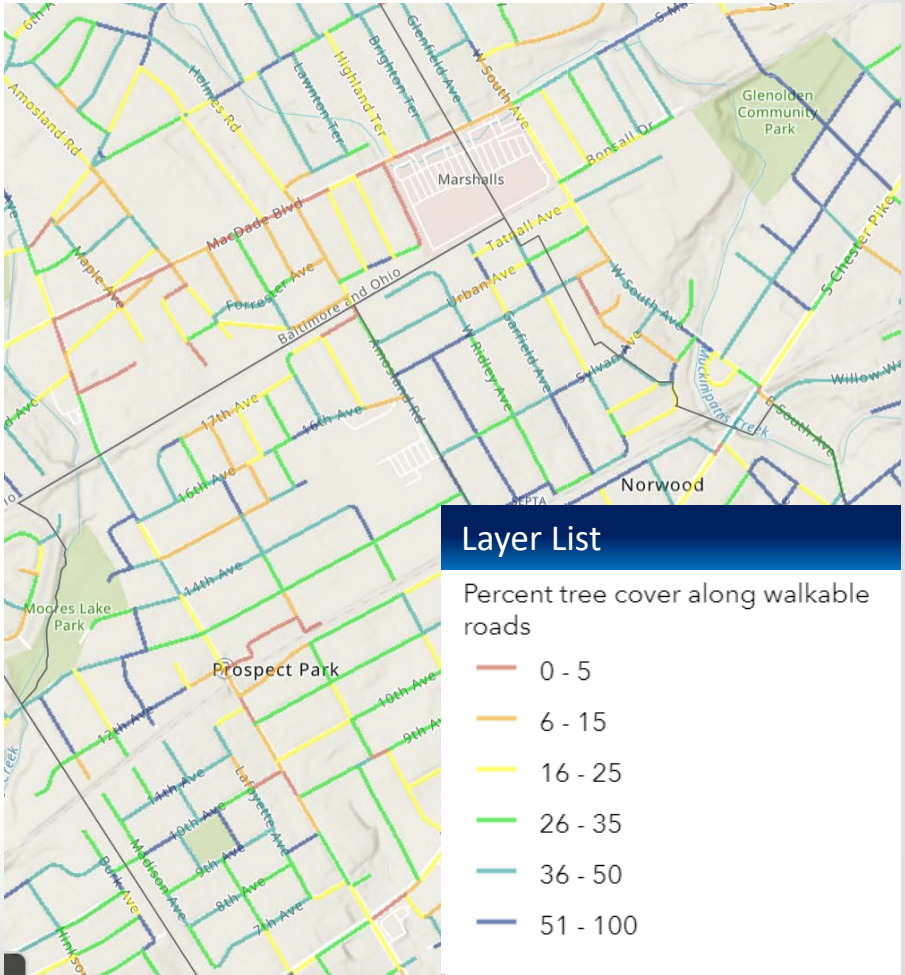


Walkability

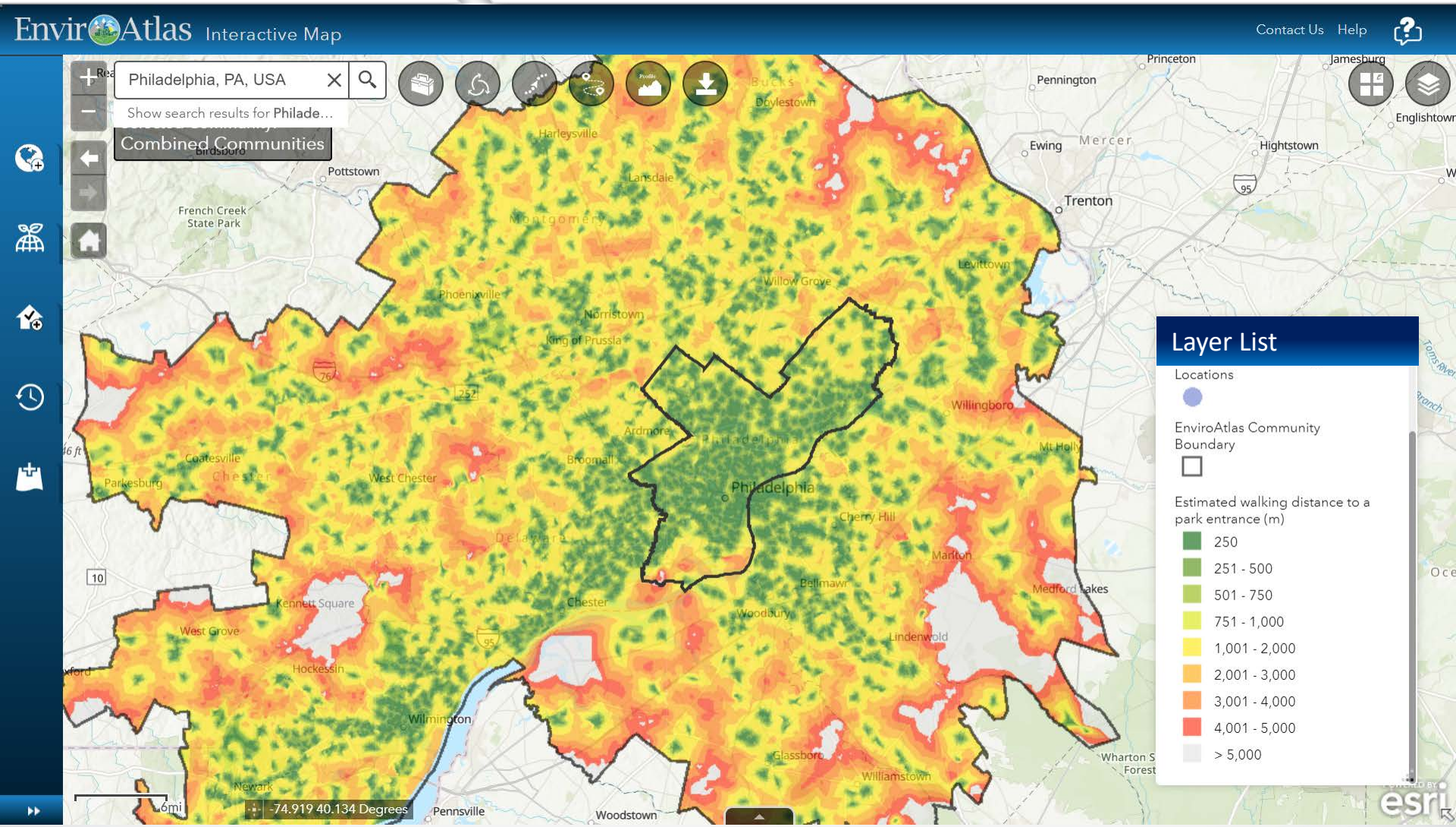
DVRPC Pedestrian Network: Sidewalks



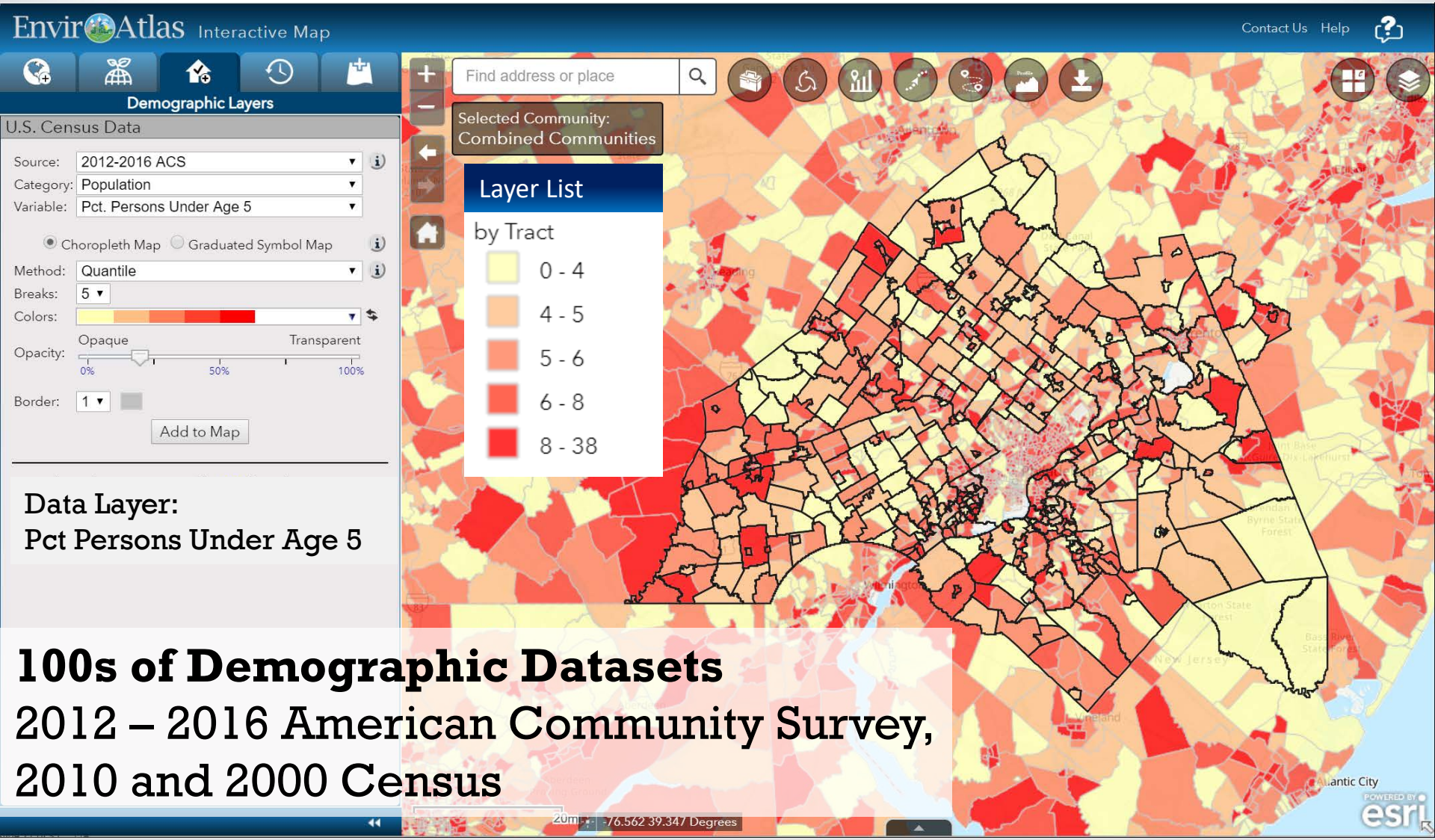
Percent Tree Cover Along Walkable Roads



Walkability to Parks



Demographic Data Tab

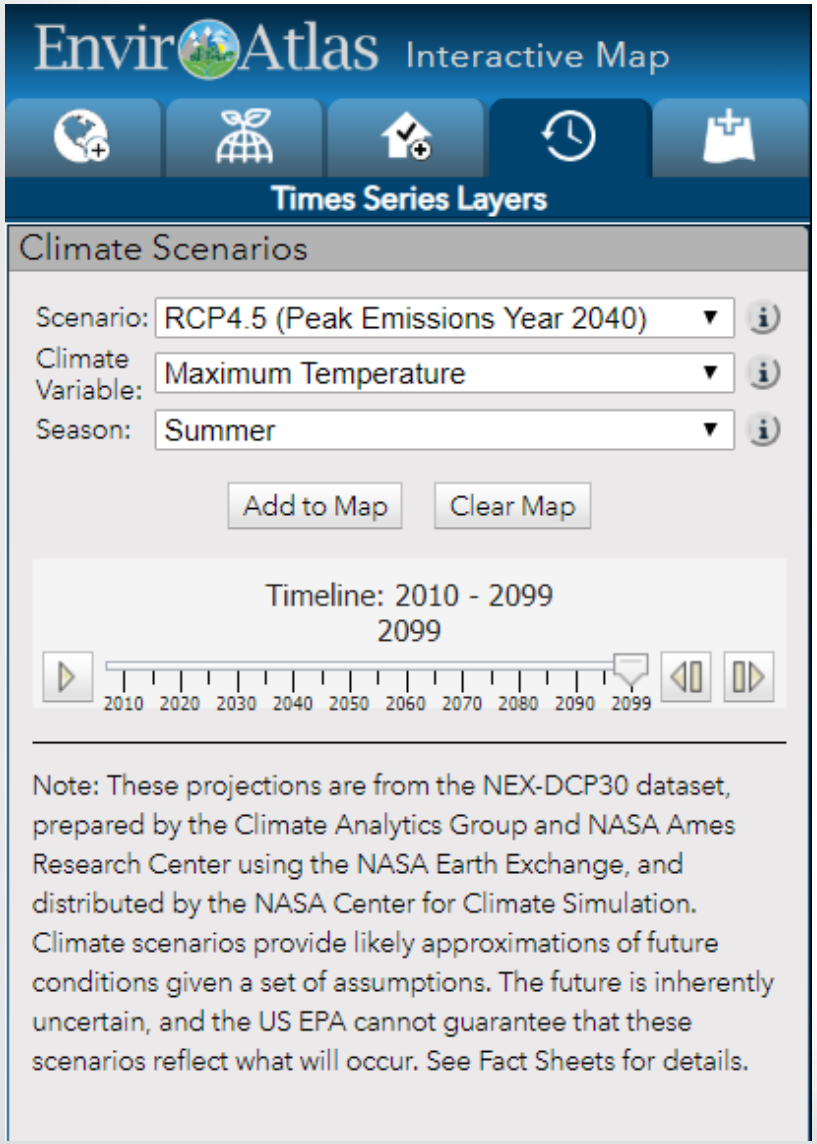


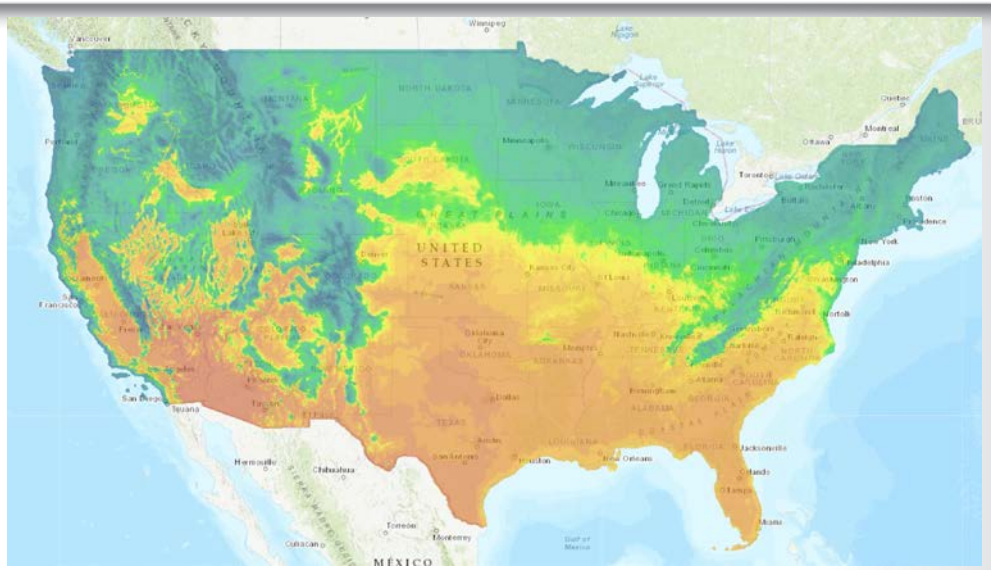
Data Layer:
Pct Persons Under Age 5

100s of Demographic Datasets

2012 – 2016 American Community Survey,
2010 and 2000 Census

Time Series Tab

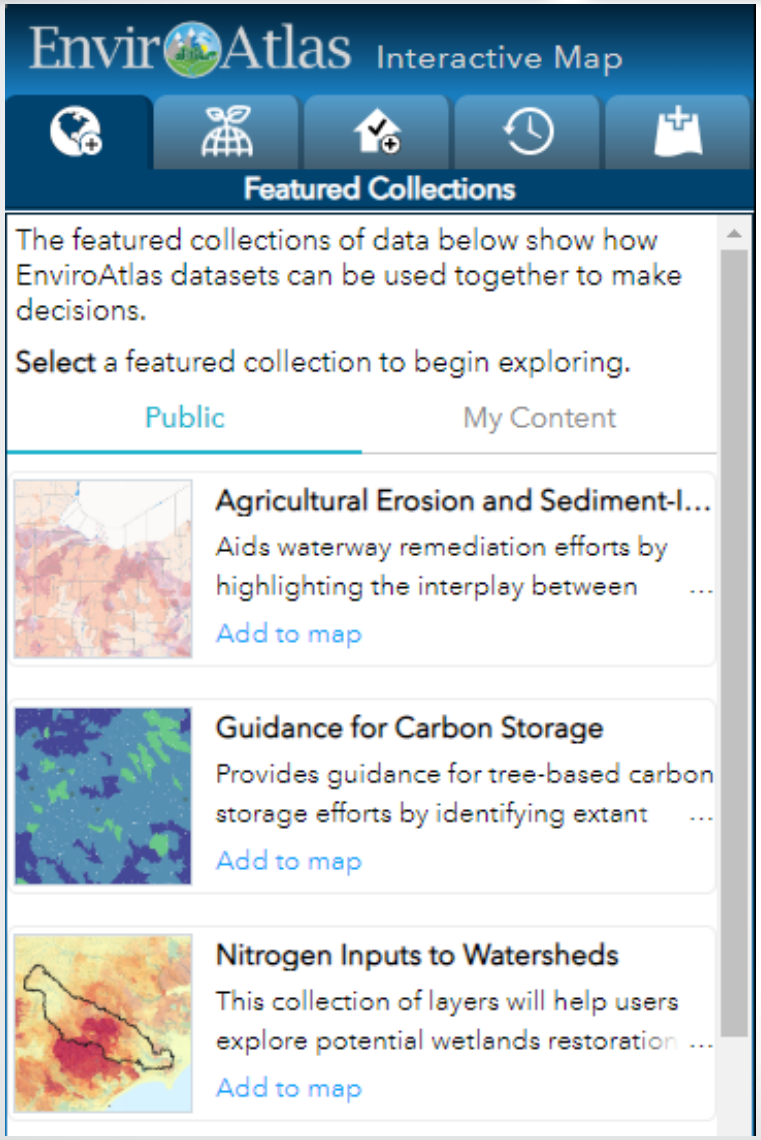




Climate scenarios based on:

- Emissions scenario
- Climate variable
- Season

Featured Collections Tab



prepackaged data layers, shows how EnviroAtlas datasets can be used together to make decisions

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