EnviroAtlas

Connecting People, Health, Nature, and Economy

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What is EnviroAtlas?

An online decision support tool giving users ability to view, analyze, and download information related to ecosystem services (nature's benefits) for the US

- Geospatial indicators and indices of the supply, demand, and benefits/beneficiaries of ecosystem services

- Drivers of change

- Reference data (e.g., boundaries, land cover, soils, hydrography, impaired water bodies, wetlands, demographics, community design)

- Analytic and interpretive tools

What are Target Outcomes of EnviroAtlas?

1) Boost "Environmental Intelligence"

2) Increase Community Empowerment

3) Improve Understanding of Public Health and Well-Being

4) Jumpstart Innovation by Providing Data

Types of Information in EnviroAtlas

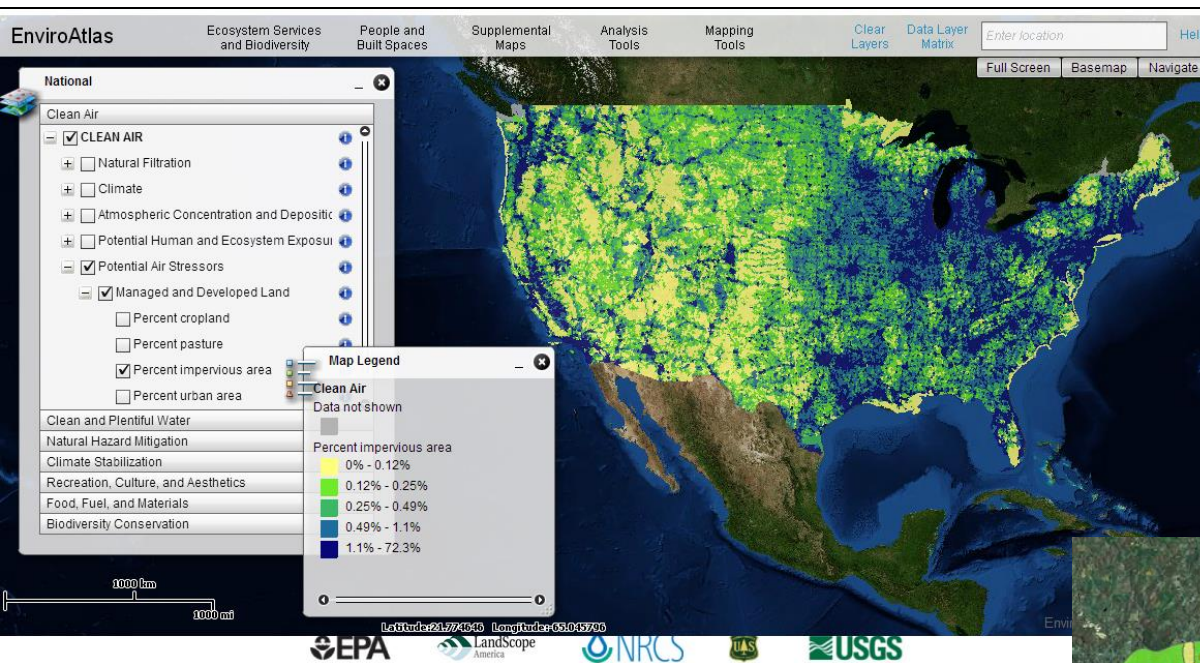- **Summary maps: census block-group / 12-digit HUC**

- **Pixel-level maps: 1m and 30m resolution**

- **"Heat" maps: landcover density and intensity**

- **Supplemental maps: road and stream networks, etc.**

- **Analysis tools**

- **Additional information/ references**
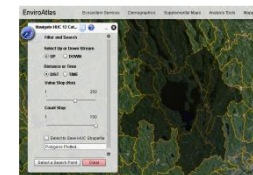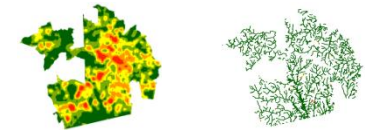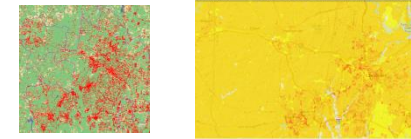
# What is General Status of EnviroAtlas?

Number of Data Layers in Each Category	Clean Air	Clean & Plentiful Water	Natural Hazard Mitigation	Climate Stabilization	Recreation, Culture, & Aesthetics	Food, Fuel, & Materials	Biodiversity Conservation	Total
National	21	47	19	12	97	56	100	**161**
Community	31	39	30	19	37	2	26	**94**

The EnviroAtlas is multi-scaled

- National: Wall-to-wall coverage for coterminous US; summarized by drainage basins (12-digit HUCs)

- Community: High resolution component for 50 cities, summarized to US Census Blocks.
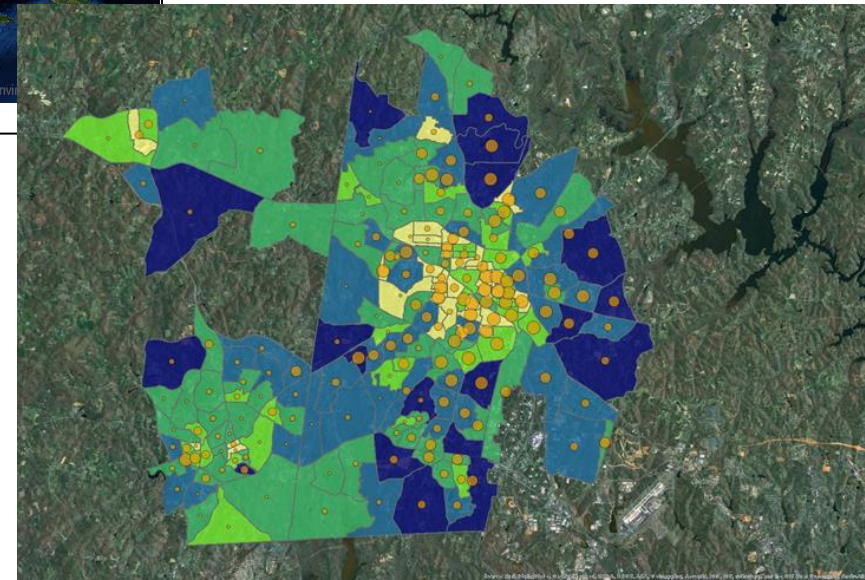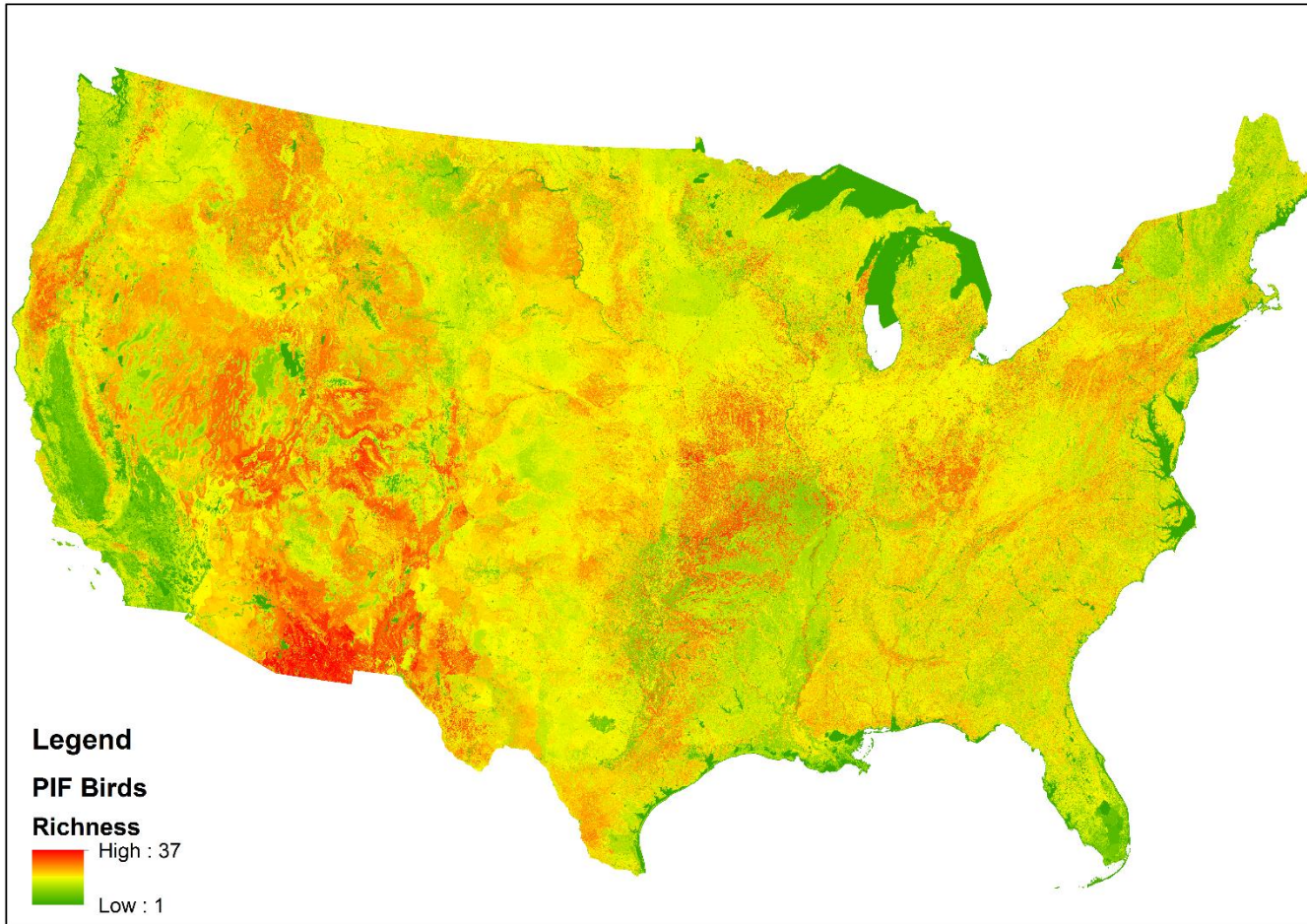
Example of Benefit Categories:
Biodiversity Conservation

- USGS GAP individual species models

- Brainstorming-- USGS, FWS, & EPA

- Developed working indicators

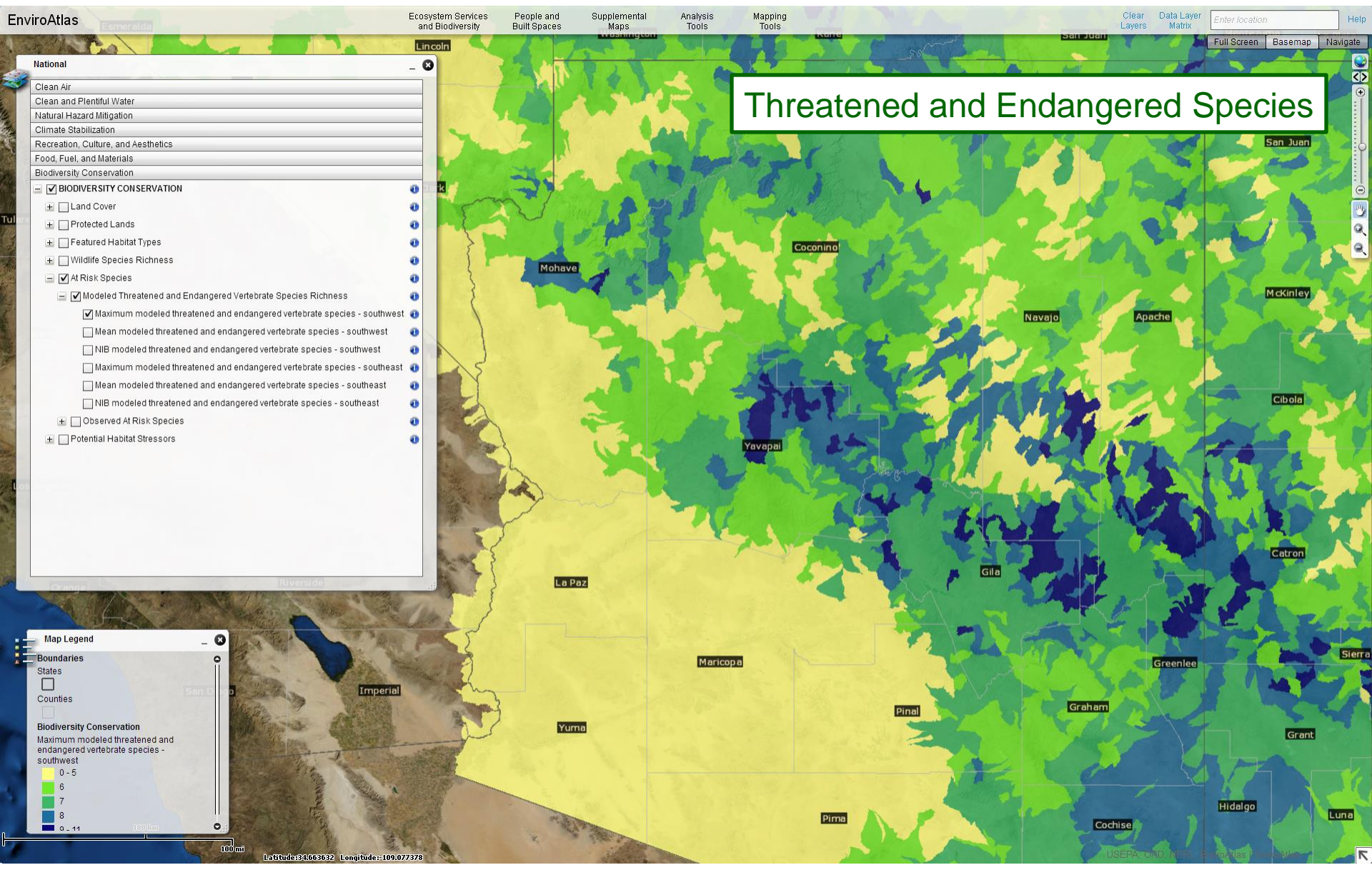- Multiple stakeholder workshops

- Series of maps for EnviroAtlas

Legend

Birds (Conservation Concern)

Richness

High : 28

Low : 1

**Birds of Conservation Concern
State of Birds 2011**

0 110 220   440   660   880
Miles

Coordinate System: Albers
Central Meridian: 96°0'0"W
1st Std Parallel: 29°30'0"N
2nd Std Parallel: 45°30'0"N
Latitude of Origin: 23°0'0"N
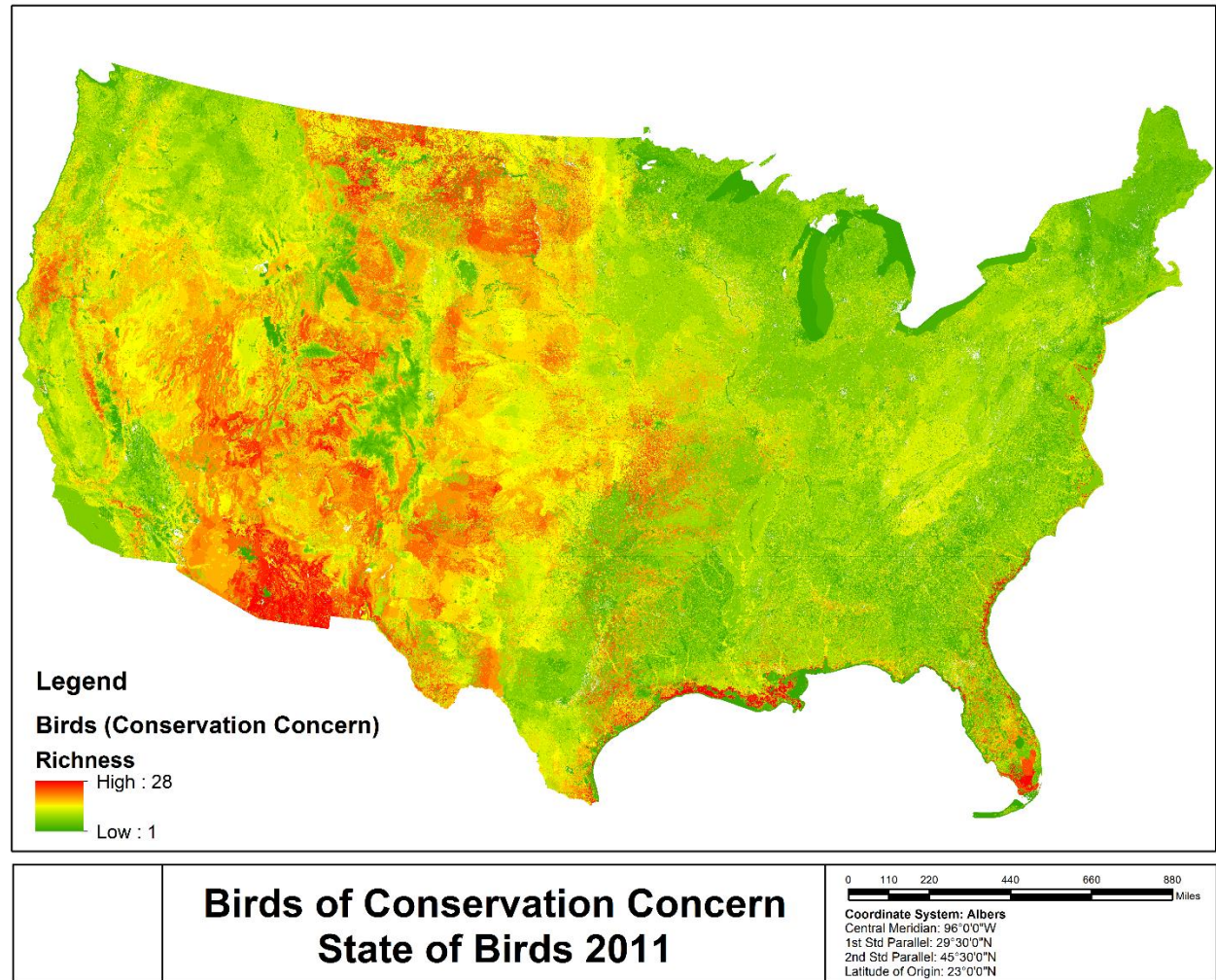
KEEPING COMMON SPECIES COMMON

Example Benefit Categories:
Biodiversity Conservation

Legend

PIF Birds

Richness

High : 37

Low : 1

PIF Species

Coordinate System: Albers
Central Meridian: 96°0'0"W
1st Std Parallel: 29°30'0"N
2nd Std Parallel: 45°30'0"N
Latitude of Origin: 23°0'0"N

0   110   220   440   660   880
Miles

Example Benefit Categories:
Biodiversity Conservation

Example Benefit Categories:
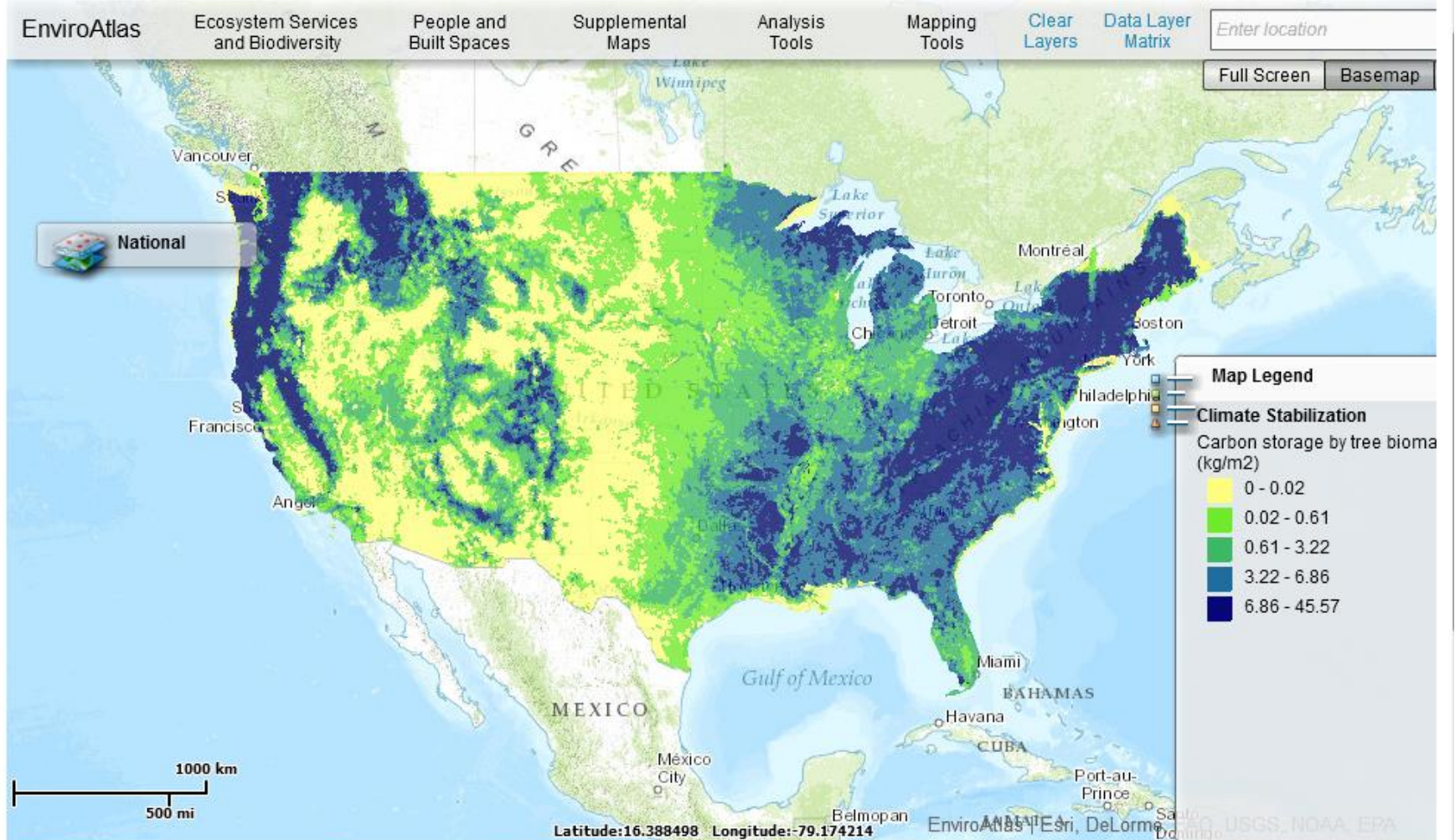## Biodiversity Conservation

Landscape fragmentation
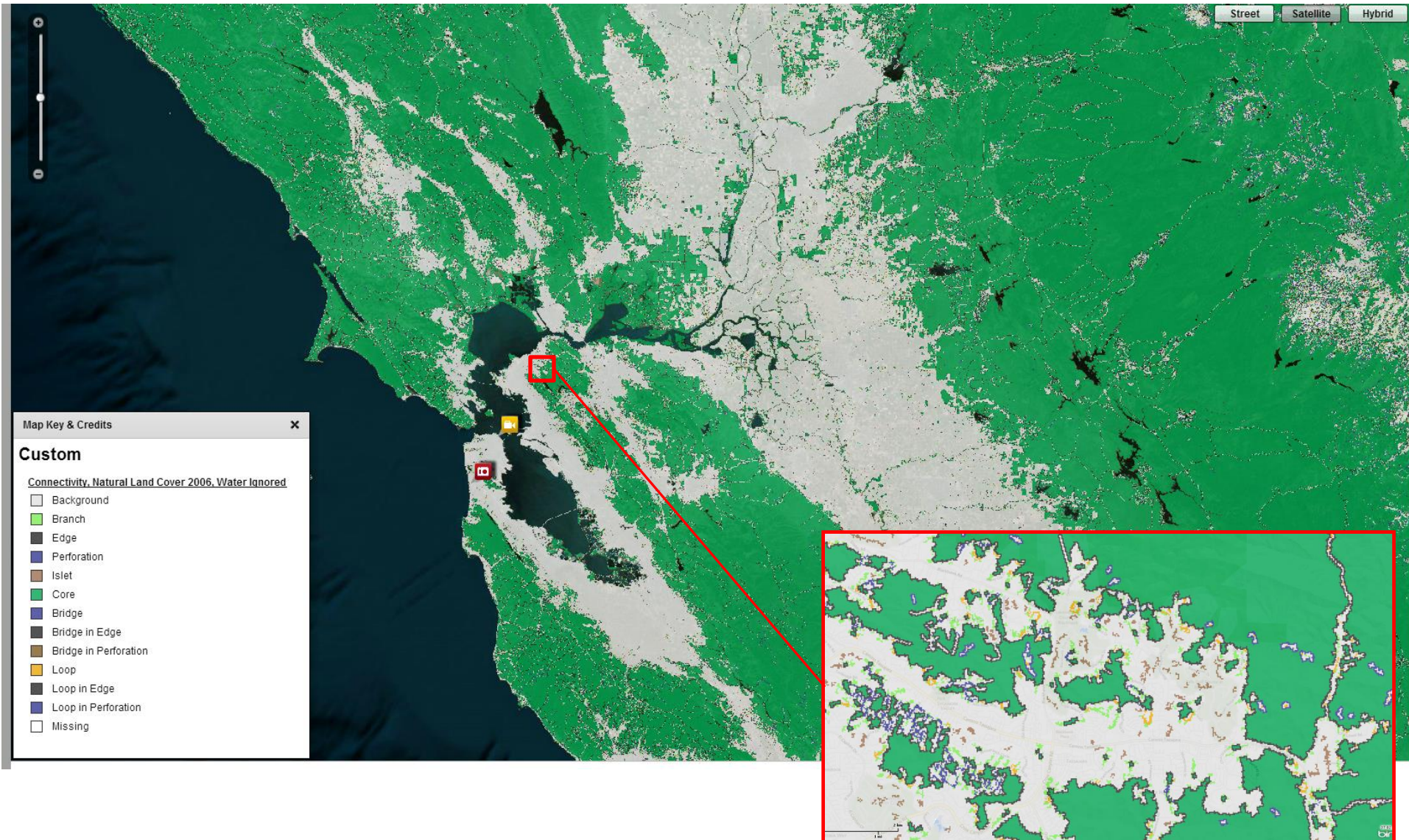
Example Benefit Categories:
Food, Fuel, and Materials

Example Benefit Category:
Climate Stabilization

Based on National Biomass and Carbon Dataset 2001 – Woods Hole

Example Benefit Category – Clean Water
Stream length impaired by metals (from 303d list)
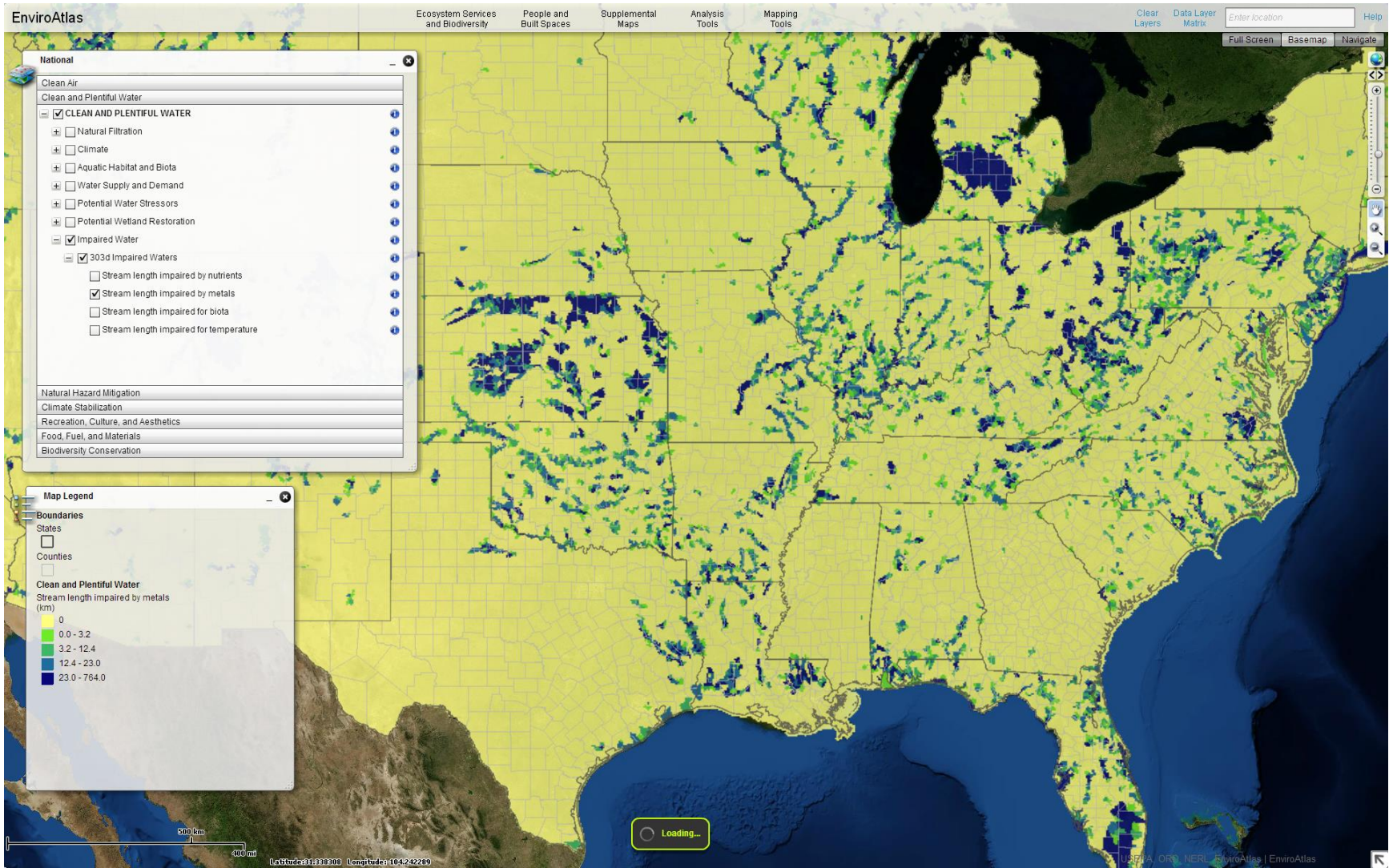
Example National Data Layer
Percent Potentially Restorable Wetlands

Map Legend

Biodiversity Conservation

Percent potentially restorable wetlands

- 0%
- 1% - 2%
- 3% - 7%
- 8% - 22%
- 23% - 100%
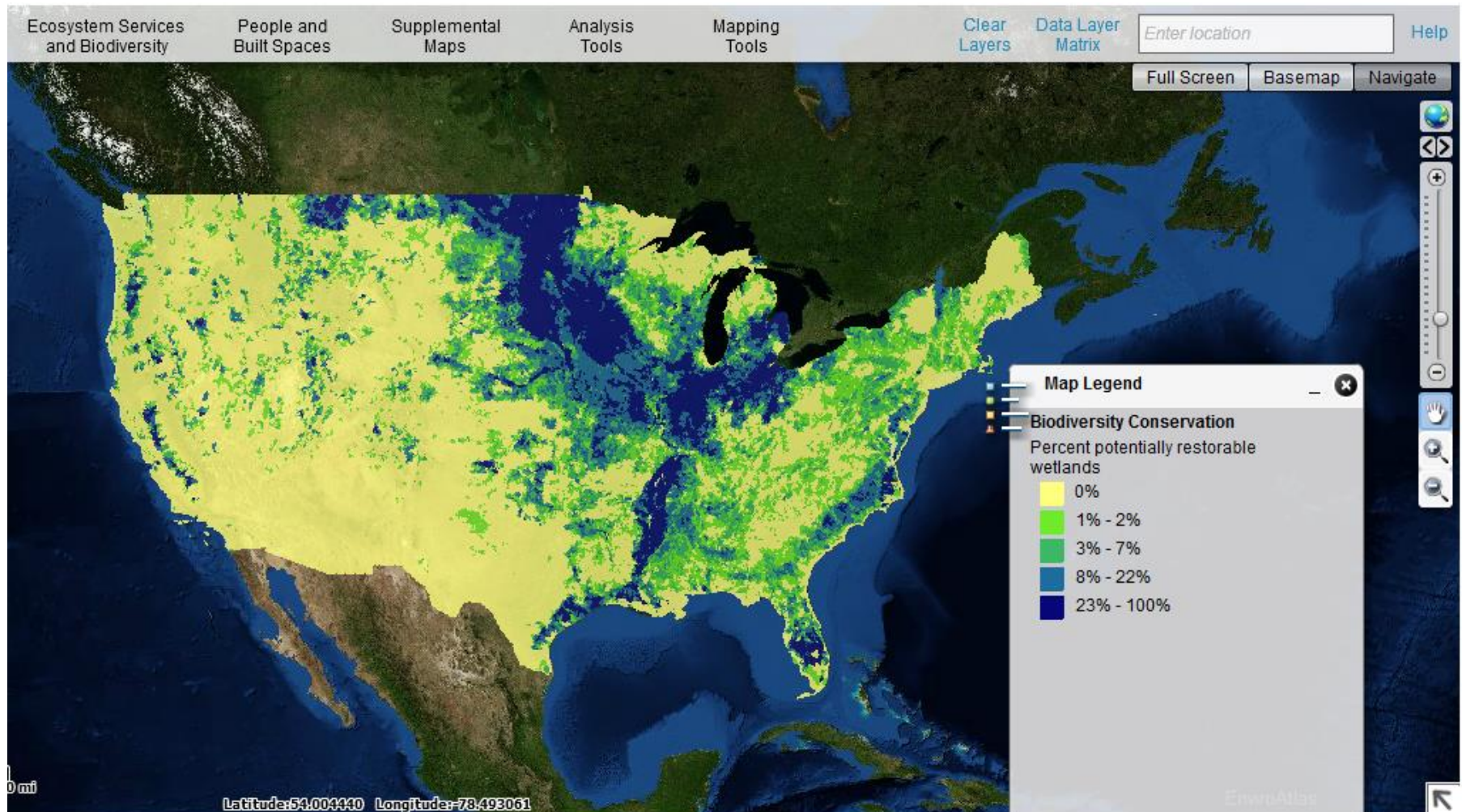
Communities – Phoenix, NC
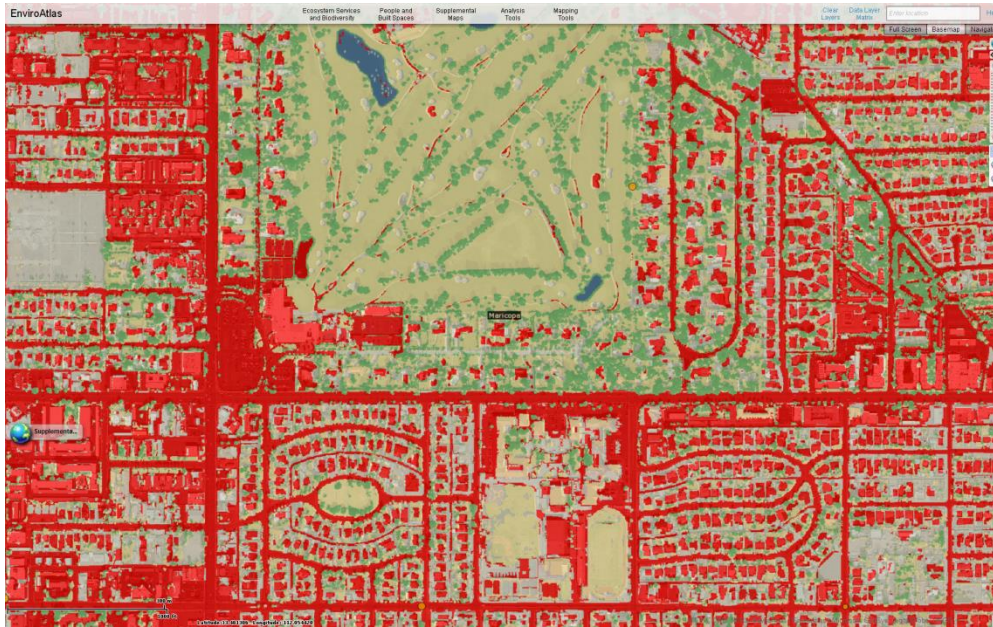
Begins with 1 meter land cover classification
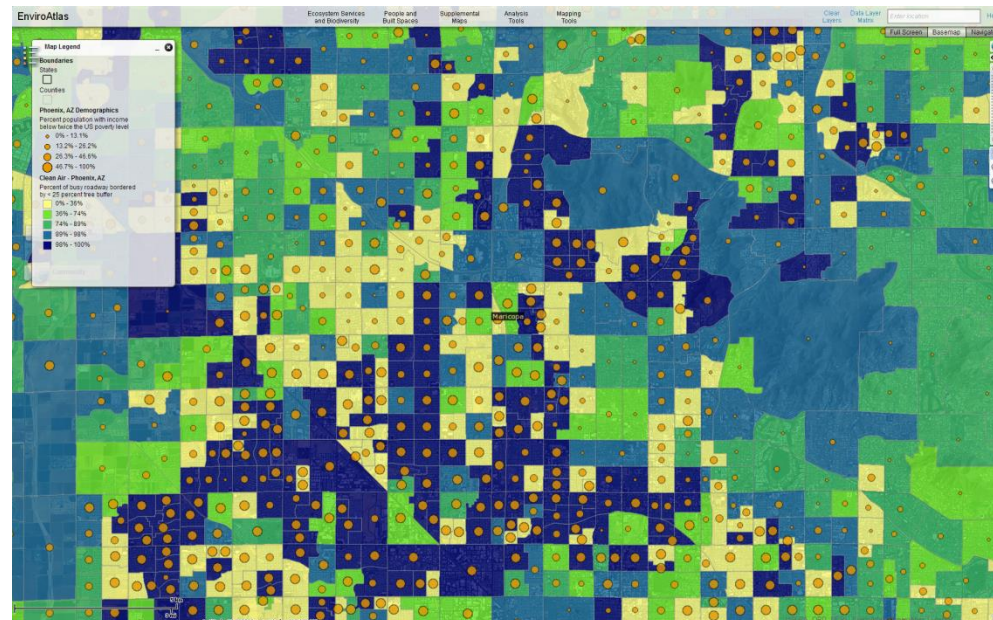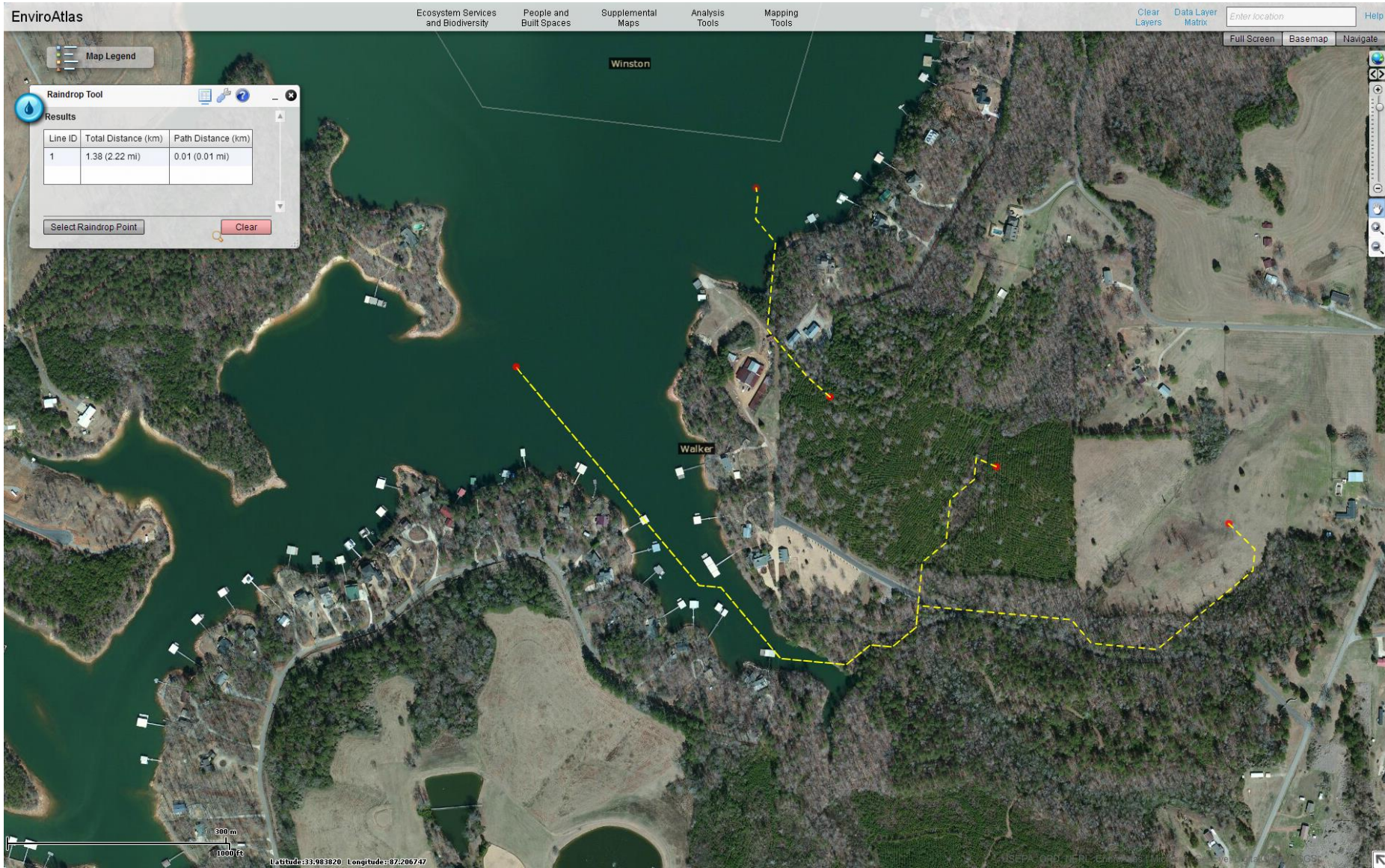
Allows for examination of ecosystem services and socio-economic data

We partner with USFS to evaluate tree cover within communities and the health related benefits.

Analytic tools within EnviroAtlas: Raindrop tool

Analytic tools within EnviroAtlas: Elevation Profiles

Future Climate Scenarios
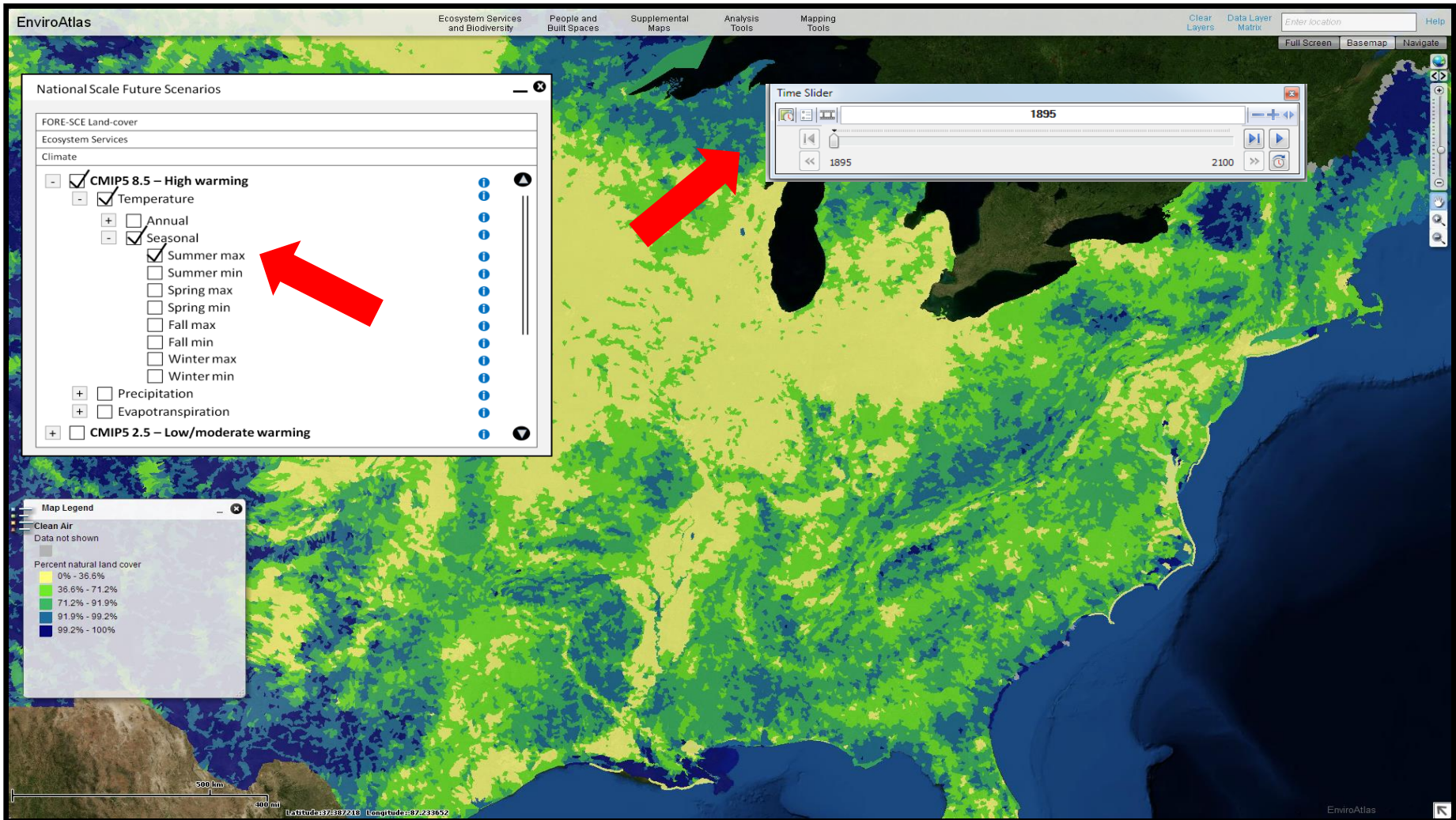
Climate change analysis tools:

Many Opportunities to Collaborate with EnviroAtlas

Spatial Analysis Tools

Spatially explicit indicators

Use of data and tools to develop "Use Cases"

Interoperability with other Tools

Non Spatial Tools

- Clean air
- Clean and plentiful water
- Biodiversity conservation
- Food and raw materials
- Natural hazard mitigation
- Climate stabilization
- Recreation, culture, and aesthetics
- Linkages between ecosystems and human health

EnviroAtlas Spatially Explicit data & Tools

Project Charter to 2019

Thank You

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ENVIROATLAS available at:
http://enviroatlas.epa.gov/EnviroAtlas/