Updates May 2015

EnviroAtlas

enviroatlas.epa.gov/enviroatlas

Connecting ecosystems, people, and well-being

EnviroAtlas turns one year old

EnviroAtlas officially turned 1 year old on May 7, 2015. Since its public release, there have been many updates to EnviroAtlas tools, content, and functionality as EnviroAtlas continues to evolve and grow. In December 2014, EnviroAtlas was announced as the ecosystem services resource hub of the Ecoinformatics-based Open Resources and Machine Accessibility (EcoINFORMA) initiative.

EcoINFORMA is aimed at expanding the availability and interoperability of Federal and non-Federal biodiversity, ecosystems, and ecosystem services information for use by researchers, the public, and government decision-makers. It was recommended by the President's Council of Advisors on Science and Technology (PCAST).

EnviroAtlas is also featured in toolkit.climate.gov and provides data for climate.data.gov.

What's new in EnviroAtlas?

The number of EnviroAtlas users continues to grow as different groups find new uses for EnviroAtlas data.

- In addition to high traffic in our interactive map, data downloads have exceeded 20,000.
- Downloads of the national metrics tables account for roughly a third of all downloads.
- Users can access data via our map, as a web service, or download here: <u>enviroatlas.epa.gov/en-</u> viroatlas/datadownload/index.html.

Uses for EnviroAtlas

Though we are not aware of all projects in which EnviroAtlas tools and data are being used, here are a few that we have been made aware of:

- Potentially restorable wetlands data used in conservation and restoration efforts in the Gulf Coast Plains.
- Data used by EPA Office of Water for watershed recovery potential.
- Eco-Health Relationship Browser used in Cincinnati Health Dept. staff HIA training, and in HIA graduate course at University of Florida.

Dasymetric Toolbox update

The EnviroAtlas Dasymetric Toolbox was updated in April 2015. The new version contains bug fixes related to broken links within the included models and minor code changes that should speed processing. Version 2 of the toolbox can be found at enviroatlas/Tools/Dasymetrics.html.

Dasymetric mapping is a geospatial technique that uses additional information such as land cover types to spatially distribute census data to more accurately reflect where people may live.



Dasymetric mapping

Tampa, FL: Left image shows a map of population by block group based solely on census data. Right image shows dasymetric allocation of population.

EnviroAtlas communities

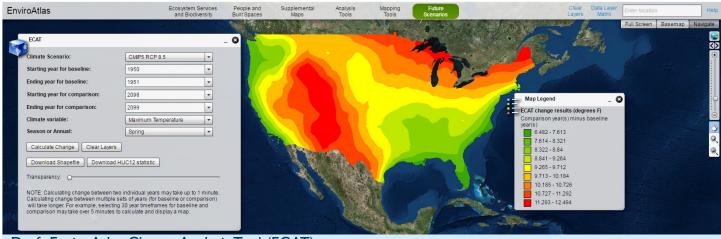
EnviroAtlas now has fine-scale data for 12 communities. Since December 2014, the following new EnviroAtlas communities, including roughly 90 indicators per community, have been added:

- Fresno, California
- Green Bay, Wisconsin
- · New Bedford, Massachusetts
- · Paterson, New Jersey
- · Portland, Oregon
- · Woodbine, Iowa

Other updates

- New historic places data layer for all communities.
- Users can now bring in a map from elsewhere on the internet into the interactive map via the Add Map Service option in mapping tools.





Draft EnviroAtlas Change Analysis Tool (ECAT)
Showing change in spring max temperature from years 1950-51 projected out to 2099 using the CMIP5 RCP 8.5 scenario.

EnviroAtlas publications

Look for two new EnviroAtlas journal articles that have been accepted for publication.

- <u>Translating Big Data into Big Climate Ideas</u>.
 Solutions. Vol 6, No. 1.
- EnviroAtlas: A New Geospatial Tool to Foster Ecosystem Services Science and Resource Management. Ecosystem Services. Vol 14, pp 45 - 55.

Coming soon

Educational case study

Building a Greenway: Using EnviroAtlas in the Classroom is a case study that has been developed for educational use. We solicited input from teachers and educators to ensure that the case study would be easy to use in an educational setting.

The case study is currently being piloted and will be available for download from our website by September 1, 2015.

Additional data

The following data will be coming soon:

- Smart Location Database metrics ex. intersection density, employment diversity
- Metrics calculated using new 2011 NLCD
- · National recreation demand layers

We are also in the process of updating all national metrics to the 12-digit HUC boundaries used in the NHD Plus version 2 dataset.



Functionality and tools

We are always working to enhance functionality and develop new tools. Though planned for release at a slightly later date, be on the lookout for these two climate-related tools:

- Climate scenario tool
- EnviroAtlas Change Analysis Tool (ECAT) (draft pictured above)

These tools use downscaled CMIP5 data and will include variables such as:

- Min/Max Temperature
- Precipitation
- Potential Evapotranspiration (will also be available via NASA Earth Exchange)

EnviroAtlas website update

We are currently performing a major update to the EnviroAtlas website that will result in significant changes in the design and layout. Expect to see a brand new website by October 1. All key sections of the website will still be available in the new version.

EnviroAtlas is a collection of interactive tools and resources that provides data, research, and analysis on the relationships between nature, people, health, and the economy.

Tweet us @EPAresearch and use #EnviroAtlas.

