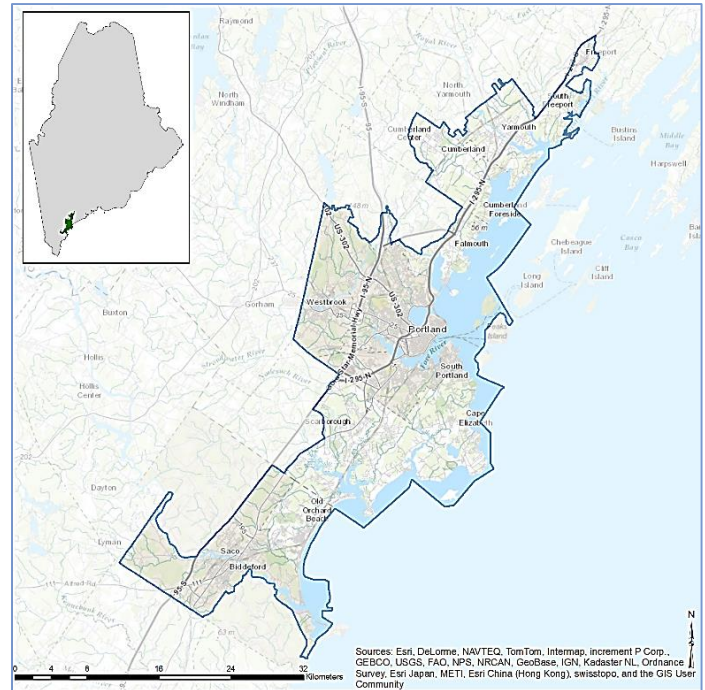# Portland, ME and surrounding area

Towns and cities rely on clean air, clean water, green space, and other natural amenities for economic sustainability and quality of life, yet their benefits are not always fully understood or considered in local decisions. EPA and its partners are producing EnviroAtlas to help communities better use environmental assets for public good.

EnviroAtlas includes an online interactive mapping application that anyone can use. The interactive map contains over 200 maps available for the U.S., as well as 100+ fine-scale maps for selected U.S. communities about existing and potential benefits from the local natural environment. The EnviroAtlas community component is based on 1-meter resolution land cover data. Information derived from these data is summarized by census block groups; more spatially explicit map layers are also provided. This fact sheet highlights some of the many community data layers available for the featured area of Portland, Maine.
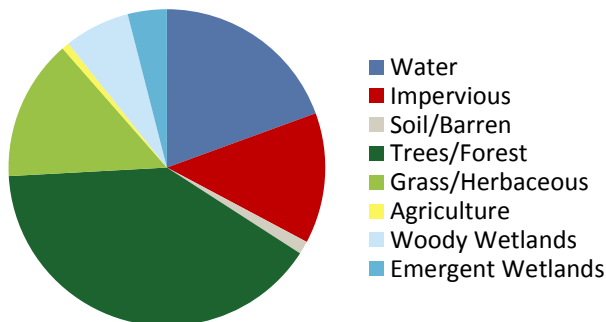
Background

The Portland, Maine area was chosen as the second EnviroAtlas community based on its inclusion as the research pilot for EPA's Community-Focused Exposure and Risk Screening Tool (C-FERST) and additional opportunities to leverage existing research and community engagement activities. It also has received high quality of life ratings that we wanted to evaluate from an ecosystem services perspective. The EnviroAtlas boundary for the Portland area was determined using the 2010 Census definition of an Urban Area. In addition to Portland, it includes portions of Biddeford and Yarmouth, as well as additional towns within York and Cumberland Counties.

Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

The Portland area measures 523 square kilometers, and encompasses 146 census block groups.

The Portland, Maine area is in the Northeastern Coastal ecoregion. It has a continental, humid climate with warm summers and severe winters. This area is vegetated with pine and mixed oak-pine forests, although much of the area has been converted to urban and suburban development. The community is home to Maine's largest port and historically had an economic emphasis on fishing and manufacturing. The leading industries today are service-based; the largest employers are the Maine Medical Center, life insurance carrier Unum Provident, and Mercy Hospital. The demographics of the Portland community area indicate

Percent Land Cover in Community Area

- Water
- Impervious
- Soil/Barren
- Trees/Forest
- Grass/Herbaceous
- Agriculture
- Woody Wetlands
- Emergent Wetlands

Portland Area Demographics 2010 Census	
Total population	191,292
Under 13 years old	13.78%
Over 70 years of age	10.85%
Other than white/non-Hispanic	10.17%
Below twice the poverty level	27.64%

that the potential exists for income and other disparities in the distribution of environmental assets. EnviroAtlas includes demographic maps that can help screen for potential health and well-being disparities resulting from disproportionate distribution of "green infrastructure.

Ecosystem Services Overview

In EnviroAtlas, the benefits humans receive from nature are grouped into seven categories that demonstrate the interconnectedness of these ecosystem services:

- Clean air
- Clean and plentiful water
- Natural hazard mitigation
- Climate stabilization
- Recreation, culture, and aesthetics
- Biodiversity conservation
- Food, fuel, and materials (data available only for communities with farm land)

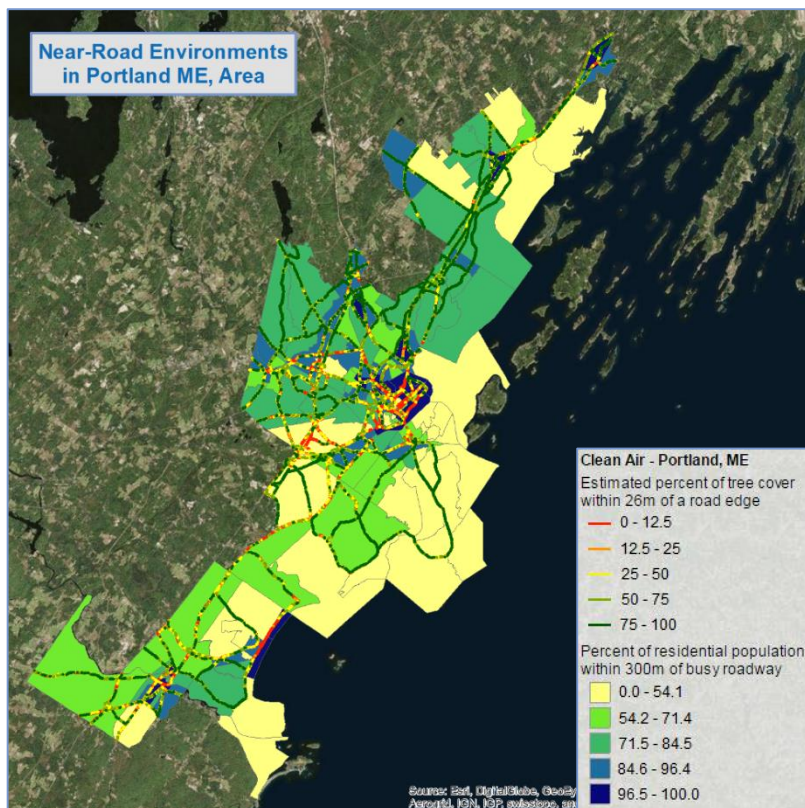Examples of some of the data included in EnviroAtlas are detailed below:

Green Space and Trees

Research indicates that physical and visual access to trees and other green space has positive physiological, cognitive, and emotional benefits. In the Portland community area:

- There are 1,800 square meters of green space per person.
- Almost 17,500 residents have less than 5 percent tree coverage within 50 meters of their home.
- There are 1,878,292 tons of carbon store in the local tree biomass, with an additional 53,980 tons sequestered annually.
- 1,111,724 kilograms of ozone are removed from the air by local tree biomass every year.

Near-Road Environments

Studies indicate that the capacity of trees to filter air may reduce the health impacts of vehicular pollution. In EnviroAtlas, you can find analyses of tree coverage near busy roads.

- An estimated 70 percent of the Portland area population lives within 300 meters of a busy roadway (yellow to blue block groups in the figure above)
- 53 percent of the estimated Portland population lives within 300 meters of a roadway that has little to no tree coverage (roadways indicated by red and orange lines in the figure above).

EnviroAtlas Tools and Features

- Learn more about and download EnviroAtlas data: https://www.epa.gov/enviroatlas/enviroatlas-data
- Search our data layers and access their fact sheets: https://www.epa.gov/enviroatlas/enviroatlas-dynamic-data-matrix
- Explore data for the Portland community area in our interactive mapping application: https://www.epa.gov/enviroatlas/enviroatlas-interactive-map
- Use our Eco-Health Relationship Browser to explore ecosystems, the services they provide, and their benefits to human health and well-being: https://www.epa.gov/enviroatlas/enviroatlas-eco-health-relationship-browser
- Contact us with questions about EnviroAtlas: https://www.epa.gov/enviroatlas/forms/contact-enviroatlas

EnviroAtlas combines maps, graphs, and other analysis tools, fact sheets, and downloadable data into an easy-to-use, web-based educational and decision-support tool. EnviroAtlas helps users understand the connections between the benefits we derive from ecosystem services and the natural resources that provide them. For more information, please visit www.epa.gov/enviroatlas.