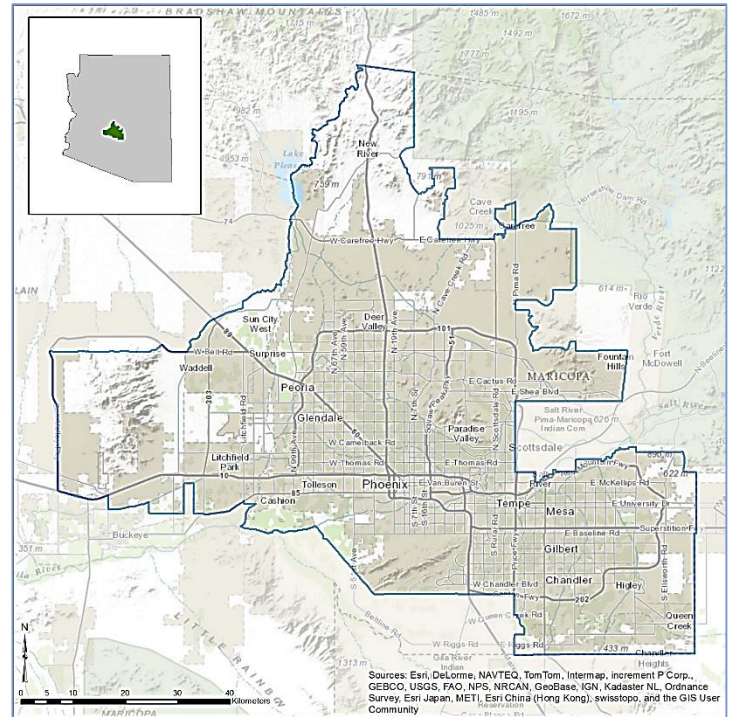# Phoenix, AZ and surrounding area

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 our website.

For selected U.S. communities, EnviroAtlas includes fine-scale maps and other information about existing and potential benefits from the local natural environment. This fact sheet highlights some of the many community data layers available.
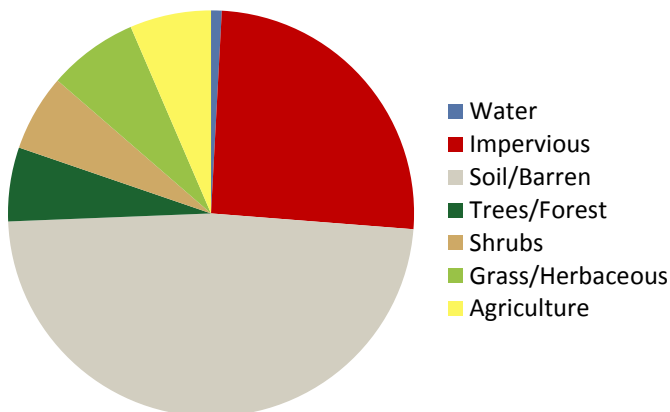
Background

Phoenix is the first EnviroAtlas community in an arid environment. It offers multiple opportunities to leverage existing research and community engagement activities, and had received poor air quality ratings that can be evaluated from a green infrastructure perspective. The EnviroAtlas boundary for the Phoenix area was determined using the 2010 Census definition of an Urban Area. It includes Phoenix, Mesa, and surrounding towns in Maricopa County. It also includes the territories of two Tribes—Salt River Pima-Maricopa, and the Yavapai Nation. The area measures 4,932 square kilometers, and encompasses 2,434 census block groups.

The Phoenix, AZ area is in the Sonoran Desert ecoregion. It

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

has a dry, sub-tropical desert climate with hot summers, mild winters and little precipitation. This area is vegetated with cacti and shrubs although there are many areas of intensive agriculture. The community has a very diverse economy and hosts 4 Fortune 500 companies. The largest employers include Banner Health, Wells Fargo, and Bank of America. The demographics of the Phoenix community area indicate 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."

Percent Land Cover in Community Area

- Water
- Impervious
- Soil/Barren
- Trees/Forest
- Shrubs
- Grass/Herbaceous
- Agriculture

Phoenix Area Demographics	
Total population	3,704,874
Under 13 years old	19.22%
Over 70 years of age	8.30%
Other than white/non-Hispanic	41.50%
Below twice the poverty level	31.21%

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Ecosystem Services Overview

In EnviroAtlas, ecosystem services are organized into seven benefit categories:

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

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

Access to Parks

Parks provide access to green space, encourage physical activity, and improve the livability and aesthetics of urban areas. Those who live closer to parks may be more likely to receive the multiple benefits associated with this proximity. In the interactive map's table of contents, park access layers can be found in the Recreation, Culture, and Aesthetics benefit category.
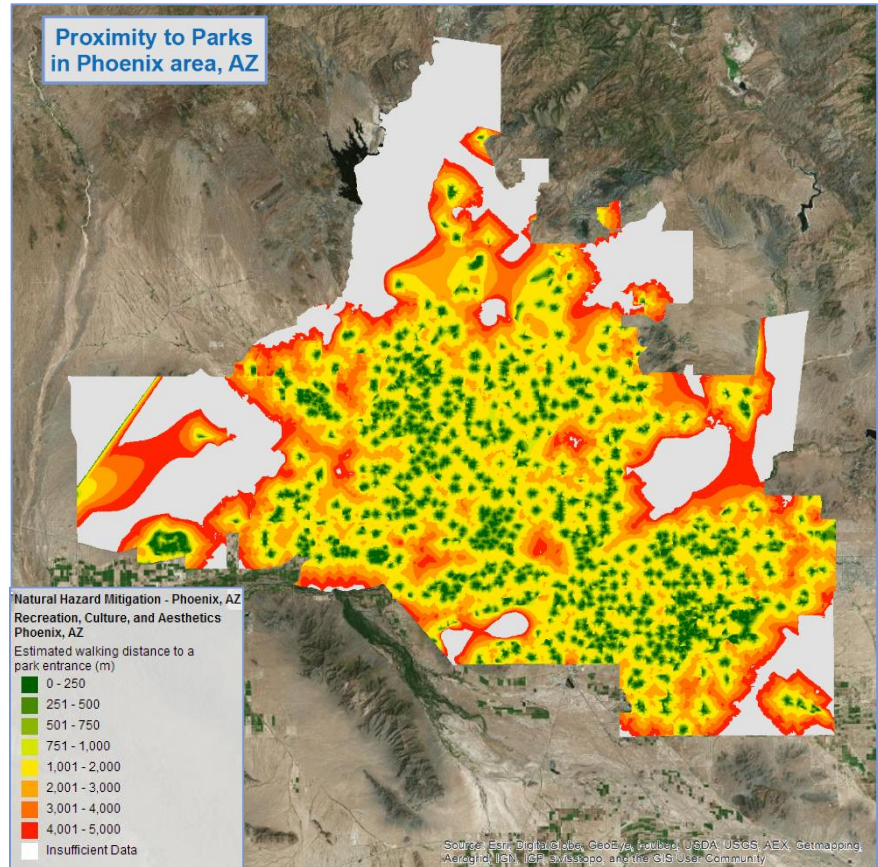
- An estimated 9 percent of the Phoenix area is located within easy walking distance (500 meters) of a park entrance (dark and medium green areas in figure above).
- An estimated 26 percent of the Phoenix area does not have a park entrance within 5 kilometers (grey areas in figure above).

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.

Proximity to Parks in Phoenix area, AZ

Natural Hazard Mitigation - Phoenix, AZ
Recreation, Culture, and Aesthetics
Phoenix, AZ
Estimated walking distance to a park entrance (m)

- 0 - 250
- 251 - 500
- 501 - 750
- 751 - 1,000
- 1,001 - 2,000
- 2,001 - 3,000
- 3,001 - 4,000
- 4,001 - 5,000
- Insufficient Data

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

- An estimated 58 percent of the Phoenix area population lives within 300 meters of a busy roadway.
- 52 percent of the estimated population lives within 300 meters of a roadway that has little to no tree coverage.

In addition to the Clean Air benefit category, near-road vegetation data layers can also be found under Biodiversity Conservation, and Recreation, Culture and Aesthetics in the interactive map's table of contents.

EnviroAtlas Tools and Features

- **EnviroAtlas Community Component**: data layers based on 1-meter land cover summarized to the block group scale.
- **EnviroAtlas National Component**: data layers based on 30-meter land cover summarized to the watershed scale.
- **EnviroAtlas Interactive Map**: go directly to the interactive map.
- **EnviroAtlas Fact Sheets**: Describe the project, each community, and each data layer in detail.
- **Eco-Health Relationship Browser**: An interactive relational tool that explores ecosystems, the services they provide, and benefits to human health and well-being.
- **Contact the EnviroAtlas Team**: Please contact us if you have any questions about EnviroAtlas.

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