

Building a Greenway: Using EnviroAtlas in the Classroom

Guidance for accessing EnviroAtlas maps

This is a quick guide for using the EnviroAtlas Interactive Map to access the **Building a Greenway Case Study** maps.

- **Proposed trail network and points**
- **Percent population over 64 years old** (*National Layer*)
- **Percent green space** (*Community Layer for Tampa, FL*)
- **Estimated walking distance to a park entrance** (*Community Layer for Tampa, FL*)
- **Tampa, FL land cover classification** (*Community Layer for Tampa, FL*)
- **Natural land cover connectivity** (with water as background) (*National Layer*)
- **Residential population not within 500m of a park entrance** (*Community Layer for Tampa, FL*)
- **Pedestrian-oriented street intersection density** (*National Layer*)
- **Percent households below the U.S. poverty level** (*National Layer*)
- **Percent tree cover** (*Community Layer for Tampa, FL*)
- **Estimated tree cover in 50m stream buffer** (*Community Layer for Tampa, FL*)
- **Dasymetric allocation of population** (*National Layer*)
- **Business address vacancy rate** (*National Layer*)
- **Percent of workers who bike or walk to work** (*National Layer*)



These materials are part of EPA Report #EPA/600/R-16/006.

Start by going to www.epa.gov/enviroatlas

www.epa.gov/enviroatlas

This is the EnviroAtlas home page.

Use this page as a starting point for accessing all background information and resources in EnviroAtlas.

To get to the mapping application, click on the linked name **EnviroAtlas Interactive Map**.

The **Eco-Health Relationship Browser** is another tool you may want to check out.

It provides literature from an extensive review on the connection between the environment and human health outcomes, in an easy-to-use tool.

EnviroAtlas

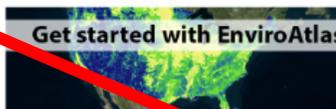
New Communities Available

Fine-scale community data are now available for Philadelphia, Salt Lake City, and Sonoma County, CA. [Learn more about EnviroAtlas Communities.](#)



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Human health and well-being are closely tied to the environment, which provides benefits such as clean water, clean air, and protection from natural hazards. Chemical and non-chemical stressors can impact the environment's ability to provide these benefits, also known as ecosystem goods and services. EnviroAtlas provides geospatial data, easy-to-use tools, and other resources related to ecosystem services, their stressors, and human health.



- [Project Fact Sheet](#)
- [Community Component Fact Sheet](#)
- [Current Status of EnviroAtlas](#)
- [EnviroAtlas Introduction Video](#)



- [EnviroAtlas Interactive Map](#) - Discover and use hundreds of maps
- [Eco-Health Relationship Browser](#) - See the many linkages between ecosystem services and human health



- [Learn about EnviroAtlas Data](#)- Spatial extents, organization, and approach
- [Data Matrix](#) - Search and sort 300+ maps
- [Data Download](#)



[https://www.epa.gov/enviroatlas/
enviroatlas-interactive-map](https://www.epa.gov/enviroatlas/enviroatlas-interactive-map)

From this page, you can access the Interactive Map by clicking on the **Launch the Map** image.

This page also provides useful background information and resources, including a User's Guide for the Interactive Map and its tools.

EnviroAtlas

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

Web Services

Fact Sheets

Dynamic Data Matrix

Tools

About Us

Frequent Questions

Project Status

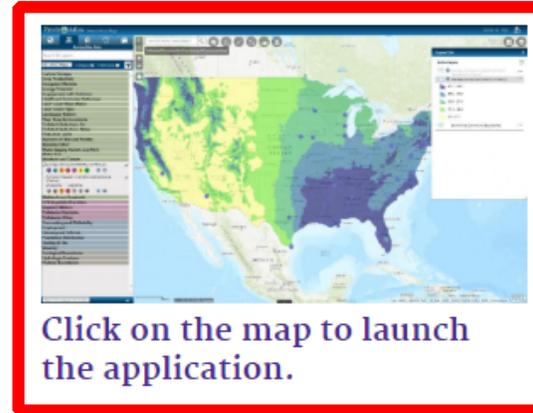
Publications

Related Links

EnviroAtlas Interactive Map

What's New?

- **Discover Data** | All EnviroAtlas data are available in one tab for ease of discovery.
- **Universal Search** | Search all EnviroAtlas data, including *people and built spaces and boundaries*, from a single tab.
- **Featured Collections** | Clusters of data that highlight different environmental decision-making scenarios.
- **Save Your Session** | Users can save sets of EnviroAtlas maps and retrieve them later in their browser, or download map sets and share with others.
- **Demographic Widget** | Hundreds of demographic variables from the ACS 2011- 2015 and 2010 Census available by county, census tract, and census block group.
- **Add Data** | Easily add your own data or known web services to the map.
- **Updated HUC Navigator** | Identify upstream or downstream watersheds within the stream network.
- **Updated Tour** | All new features are covered. Select *Tour* from the Map home screen.



Learn about the Interactive Map and EnviroAtlas Data

- [EnviroAtlas Data Organization](#)
- [Interactive Map User's Guide](#)
- [Dynamic Data Matrix](#)
- [EnviroAtlas Communities](#)
- [Example Uses of EnviroAtlas Data](#)



- EnviroAtlas Data
- Search All Layers
- 427 of 427 Maps
- Expand
- Hide Icons
- Carbon Storage
- Crop Productivity
- Ecosystem Markets
- Energy Potential
- Engagement with Outdoors
- Health and Economic Outcomes
- Land Cover: Near-Water
- Land Cover: Type
- Landscape Pattern
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- Pollutant Reduction: Air
- Pollutant Reduction: Water
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- Vacancy
- Ecological Boundaries
- Hydrologic Features
- Political Boundaries

Find address or place

Selected Community:
Combined Communities

The Interactive Map “splash screen” will appear. There are a few options here, but for using the Greenway Case Study, click **“Learn: Get Started with examples.”**

Welcome Disclaimer

Welcome! The EnviroAtlas Interactive Map is a discovery and analysis tool for hundreds of data layers relating to ecosystem services, biodiversity, people, and the built environment.

Choose an option to continue

Tour

Show me how to use the map

Learn

Get started with examples

Explore

Discover data on my own

By using the EnviroAtlas interactive map, you acknowledge the limitations outlined in our [disclaimer](#).

Featured Collections

The featured collections of data below show how EnviroAtlas datasets can be used together to make decisions.

Select a featured collection to begin exploring.

Public My Content

Agricultural Erosion and Sedimentation
 Aids waterway remediation efforts by highlighting the interplay between erosion and sedimentation.

[Add to map](#)

Building a Greenway: A Case Study
 This interdisciplinary learning module promotes student discovery using GIS.

[Add to map](#)

CEHI Supplemental WebMap
 This map illustrates block group level Community EcoHealth Index (CEHI) scores.

[Add to map](#)

Guidance for Carbon Storage
 Provides guidance for tree-based carbon storage efforts by identifying extant carbon storage.

[Add to map](#)

Nitrogen Inputs to Watersheds
 This collection of layers will help users explore potential wetlands restoration.

[Add to map](#)



Featured Collections will appear along the left panel. Select the one that says, **“Building a Greenway: A Case Study.”**

EnviroAtlas provides the same maps for multiple communities. All of the maps in the **“Building a Greenway: Case Study”** are from the Tampa, FL community.



















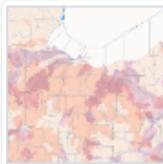
Featured Collections

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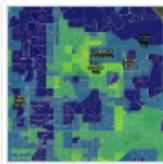
Select a featured collection to begin exploring.

Public

My Content



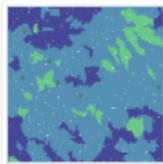
Agricultural Erosion and Sediment-I...
Aids waterway remediation efforts by highlighting the interplay between eros ...
[Add to map](#)



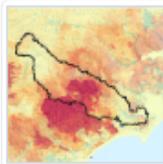
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This interdisciplinary learning module promotes student discovery using ...
[Add to map](#)



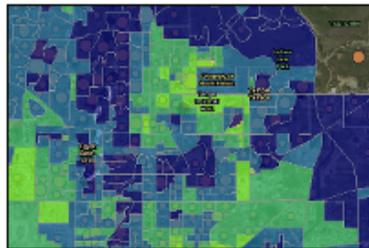
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[Add to map](#)



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[Add to map](#)



Building a Greenway: A Case Study

by [enviroatlas](#) EPA

Last Updated: Mon May 20 2019

This interdisciplinary learning module promotes student discovery using available maps and data, engaging students to be collaborative decision-makers in a greenway planning process.

[Add to map](#)

[View in GeoPlatform](#)

Description:

Summary

This map collection is part of the [Building a Green Way: Case Study lesson module](#), intended for secondary education, undergraduate, and community programs. The included map layers apply to actual greenway planning initiatives and can be used across the United States in real-world situation.

In the hypothetical case study, funding to complete a pilot section of a greenway has been granted to a city Parks and Recreation Department. The proposed pilot section is being presented to the city council for review and approval. Numerous data and maps were used in determining the Parks and Recreation Department's selection and are included in the proposal. The reader is

A description of the **“Building a Greenway: Case Study”** will pop-up.

Feel free to read the **Description** for more information and see the available map layers.

When ready, click **“Add to Map.”**



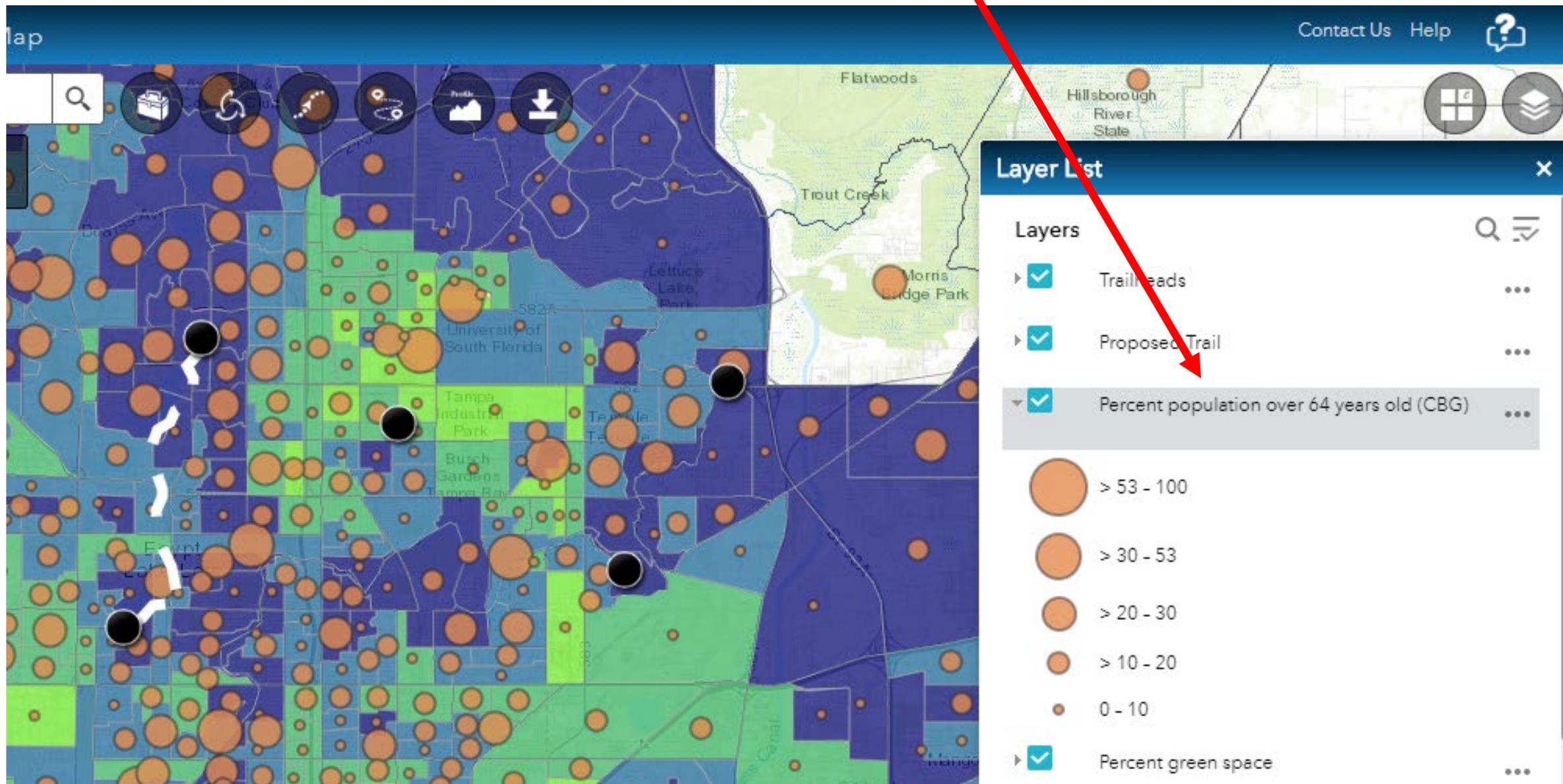
The Map will populate with certain layers selected.

On the right side, in the **Layer List**, you can check or uncheck layers to make them visible or not visible on the map.

To make more room for the maps, **minimize the Featured Collections.**

The screenshot displays the EnviroAtlas Interactive Map interface. At the top, the title "EnviroAtlas Interactive Map" is visible, along with navigation icons and the EPA logo. A search bar at the top center contains the text "Find address or place". Below the search bar, a "Selected Community: Tampa, FL" label is present. The main map area shows a grid of colored polygons (blue, green, yellow) and numerous orange circles of varying sizes, representing data layers. On the left side, the "Featured Collections" sidebar is visible, listing several collections with "Add to map" buttons. On the right side, the "Layer List" sidebar is open, showing a list of layers with checkboxes. The "Layers" section includes: Trailheads (checked), Proposed Trail (checked), Percent population over 64 years old (CBG) (checked), Percent green space (checked), Percent tree cover (unchecked), Percent of residential population not within 500m of a park entrance (unchecked), Pedestrian-oriented street intersection density (unchecked), Percent households below poverty level (CBG) (unchecked), Business address vacancy rate for 2014 (unchecked), Percent of workers who bike or walk to work (unchecked), Reference_Boundaries (checked), NHDPlusV21_EA (unchecked), and Natural Land Cover Connectivity (MSPA 30m edge width) (unchecked). A red box highlights the "Featured Collections" sidebar, and a red arrow points to a minimize button at the bottom of this sidebar.

To view the Legend for a specific map layer, such as “Percent population over 64 years old,” click the name of the layer in the Layer List.



If you would like to change the basemap to show different information such as underlying imagery or

roads, click the icon.



You can choose any of the basemaps shown in the **Basemap Gallery**.

Basemap Gallery

Topographic

Bing Maps Aerial

Bing Maps Hybrid

Bing Maps Road

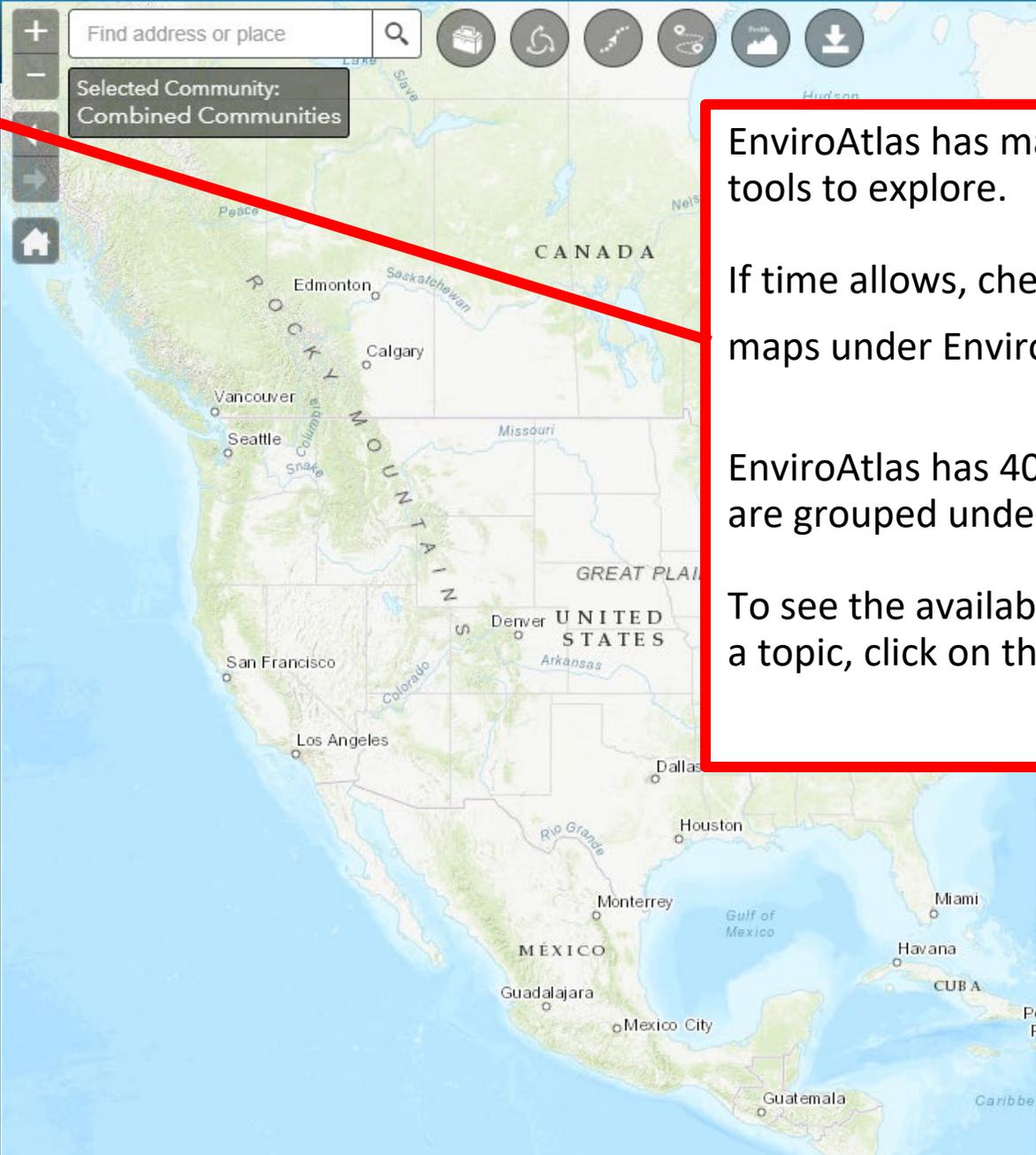
Imagery

Imagery with Labels

Light Gray Canvas

EnviroAtlas Data

- Search All Layers
- 427 of 427 Maps Expand Hide Icons
- Carbon Storage
 - Crop Productivity
 - Ecosystem Markets
 - Energy Potential
 - Engagement with Outdoors
 - Health and Economic Outcomes
 - Land Cover: Near-Water
 - Land Cover: Type
 - Landscape Pattern
 - Near-Road Environments
 - Pollutant Reduction: Air
 - Pollutant Reduction: Water
 - Protected Lands
 - Species: At-Risk and Priority
 - Species: Other
 - Water Supply, Runoff, and Flow
 - Water Use
 - Weather and Climate
 - Wetlands and Lowlands
 - EPA Regulated Facilities
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 - Employment
 - Housing and Schools
 - Population Distribution
 - Quality of Life
 - Vacancy
 - Ecological Boundaries
 - Hydrologic Features
 - Political Boundaries



EnviroAtlas has many more maps and tools to explore.

If time allows, check out additional maps under EnviroAtlas Data.

EnviroAtlas has 400+ map layers that are grouped under topics.

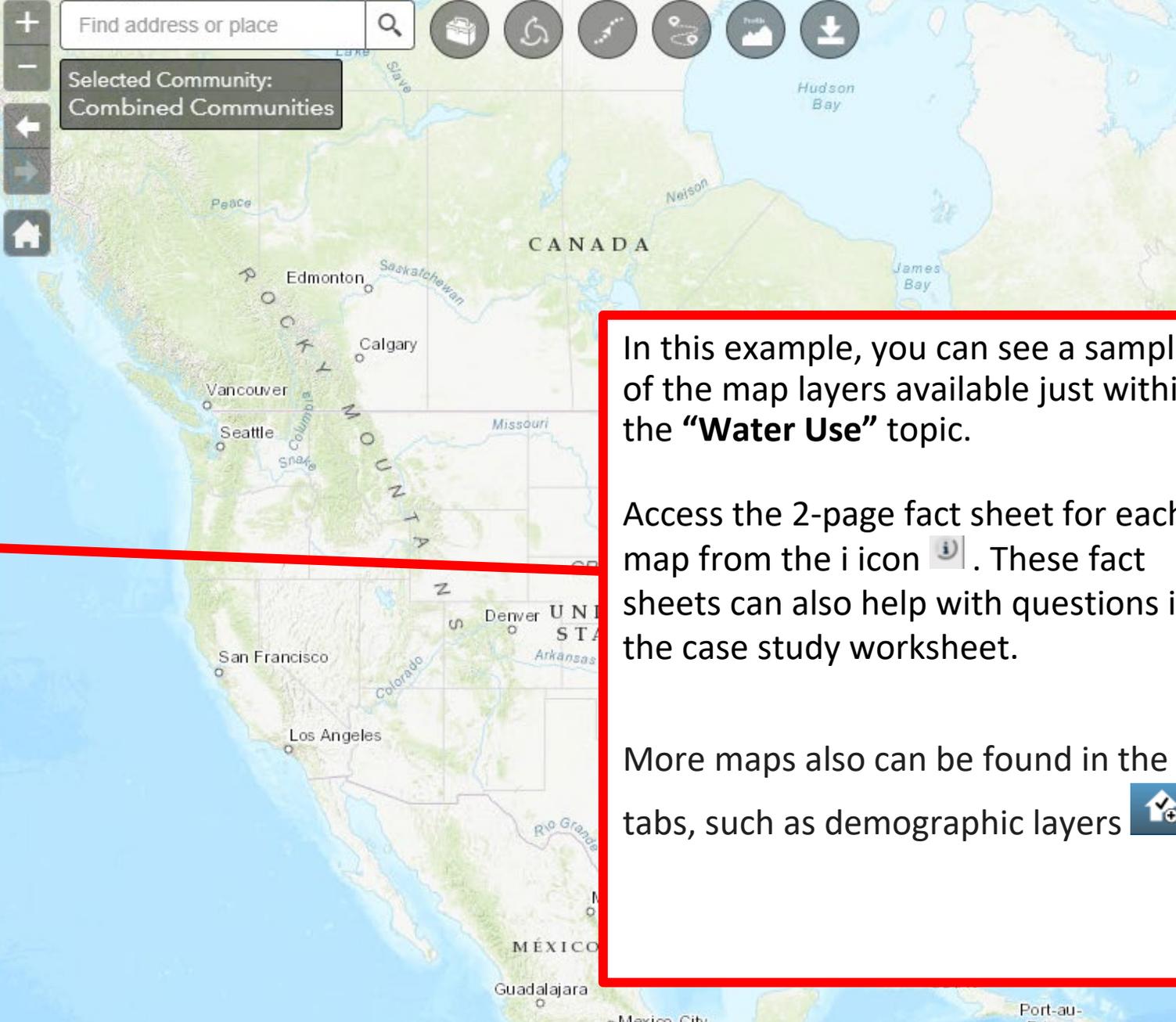
To see the available map layers within a topic, click on the topic name.

EnviroAtlas Data

Search All Layers

427 of 427 Maps Expand Hide Icons

- Health and Economic Outcomes
- Land Cover: Near-Water
- Land Cover: Type
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- Near-Road Environments
- Pollutant Reduction: Air
- Pollutant Reduction: Water
- Protected Lands
- Species: At-Risk and Priority
- Species: Other
- Water Supply, Runoff, and Flow
- Water Use**
- Agricultural water use (million gallons/day) N 12
- Daily domestic water use (x1000 gal/day) C BG
- Domestic water use (million gallons/day) N 12
- Industrial water use (million gallons/day) N 12
- Thermoelectric water use
- Withdrawal Consumption N 12
- Weather and Climate
- Wetlands and Lowlands
- EPA Regulated Facilities



In this example, you can see a sample of the map layers available just within the **“Water Use”** topic.

Access the 2-page fact sheet for each map from the **i** icon. These fact sheets can also help with questions in the case study worksheet.

More maps also can be found in the other tabs, such as demographic layers.

Check out EnviroAtlas Analysis Tools to find out more about elevation, water flow, and ecosystem services in a geographical area of interest.

The screenshot displays the EnviroAtlas Interactive Map interface. At the top, the title "EnviroAtlas Interactive Map" is visible, along with "Contact Us" and "Help" links. A search bar on the left contains the text "Find address or place". Below the search bar, a dropdown menu shows "Selected Community: Combined Communities". A toolbar at the top of the map area contains several icons, with the 5th icon (a profile line) highlighted by a red box. A red arrow points from the text box above to this icon. The map shows a geographical area of California, with a blue line representing an elevation profile from San Francisco to the Sierra Nevada mountains. A red 'X' marks a specific point on the profile. An "Elevation Profile" window is open on the right, showing a graph of "Elevation in Feet" versus "Distance in Miles". The graph shows a peak of 10,249 feet at approximately 200 miles. A green box highlights a value of +10,475 feet at the marked point. The window also includes a "Measure" tab, "Profile Result" information, and options for "Profile Information", "Clear", and "Prepare Download...".

This example shows the Elevation Profile tool, accessible by clicking the 5th icon at the top of the map.



Other resources and additional guidance can be found on the EnviroAtlas website:
www.epa.gov/enviroatlas

Start with our tutorial videos for more in-depth guidance on using the Interactive Map
<https://www.epa.gov/enviroatlas/enviroatlas-training-and-education>

We want to hear from you!

Contact us at enviroatlas@epa.gov to let us know how you are using the case study or if you need further assistance.