EnviroAtlas: Using Web Services

www.epa.gov/enviroatlas

Why are web services important?

1. All EnviroAtlas data layers are available as web services. This means that users can display EnviroAtlas maps in other online or desktop applications without having to download the data.
2. Users can bring known web services into the EnviroAtlas Interactive Map to display them with EnviroAtlas data layers.
3. Using web services, EnviroAtlas can display relevant maps from other data sources in its Interactive Map. This lets us bring in useful information such as EPA Impaired Waters data and

In this quick web services guide, we'll show you how to do items 1 and 2 above.

1. How to use EnviroAtlas web services in other online applications

EnviroAtlas web services can be accessed from the Interactive Map

1. Click on the three dots to the right of a layer name in the Layer List .
2. Select *Access Web Service.*

ArcGIS REST Services Directory

Login | Get Token

Home > services > National > National2016_master (MapServer) > Big game hunting recreation demand (day trips per year)

Help | API Reference

JSON

Layer: Big game hunting recreation demand (day trips per year) (ID: 13)

Name: Big game hunting recreation demand (day trips per year)

Display Field: HUC_12

Type: Feature Layer

Geometry Type: esriGeometryPolygon

Description: <A href="https://edg.epa.gov/metadata/catalog/search/resource/details.page? uuid=%7Bed43f10b-cf7f-4e09-b54e-33b1e4517b6d%7D">Full Metadata</A> This map illustrates the number of day trips per year demanded for big game hunting by individuals over the age of 18 within each subwatershed (12-digit HUC) for 2010-2011.

Definition Expression: N/A

Copyright Text: EnviroAtlas

Default Visibility: false

MaxRecordCount: 1000

Supported Query Formats: JSON, AMF, geoJSON

Min Scale: 0

Max Scale: 0

Supports Advanced Queries: true

Supports Statistics: true

Has Labels: false

Can Modify Layer: true

Can Scale Symbols: false

EnviroAtlas web services are organized into multiple folders based on the data type and when they were created.

You can navigate back to the full map service to get grouped layers. It will show (Map Server) at the end.

National/National2016_master (MapServer)

In this example, we'll start at the MapServer level. Select how you want to view the map service.

Currently, EnviroAtlas web services work best in ArcGIS.com and desktop GIS.
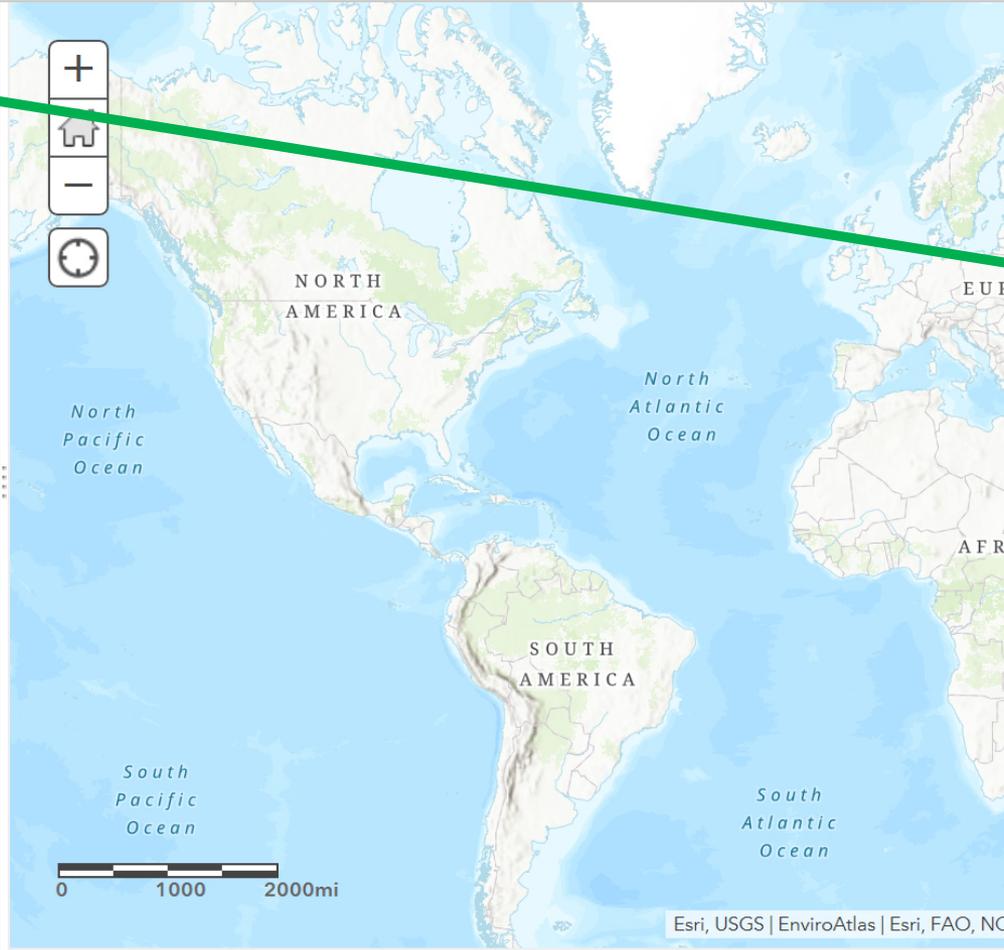
We will go through an example using ArcGIS.com.
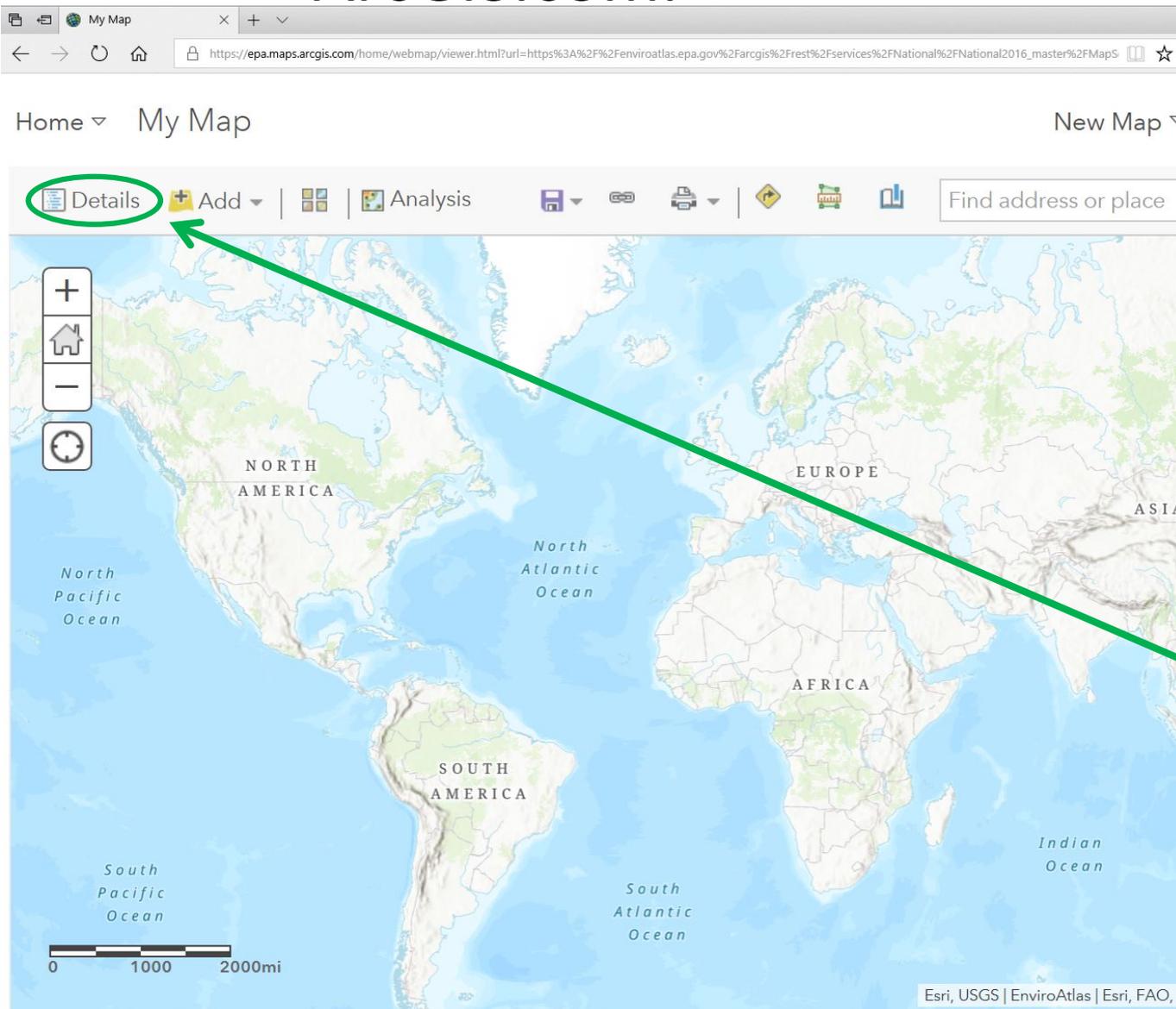
When you first open the map service in ArcGIS.com, none of the layers are turned on.

To turn on the layers, you need to open the map **Details**.

Once the map **Details** tab is open, click on **Show Contents of Map**.

Click on the name of the MapServer to expand the Table of Contents.

As you can see, no layers are currently turned on.
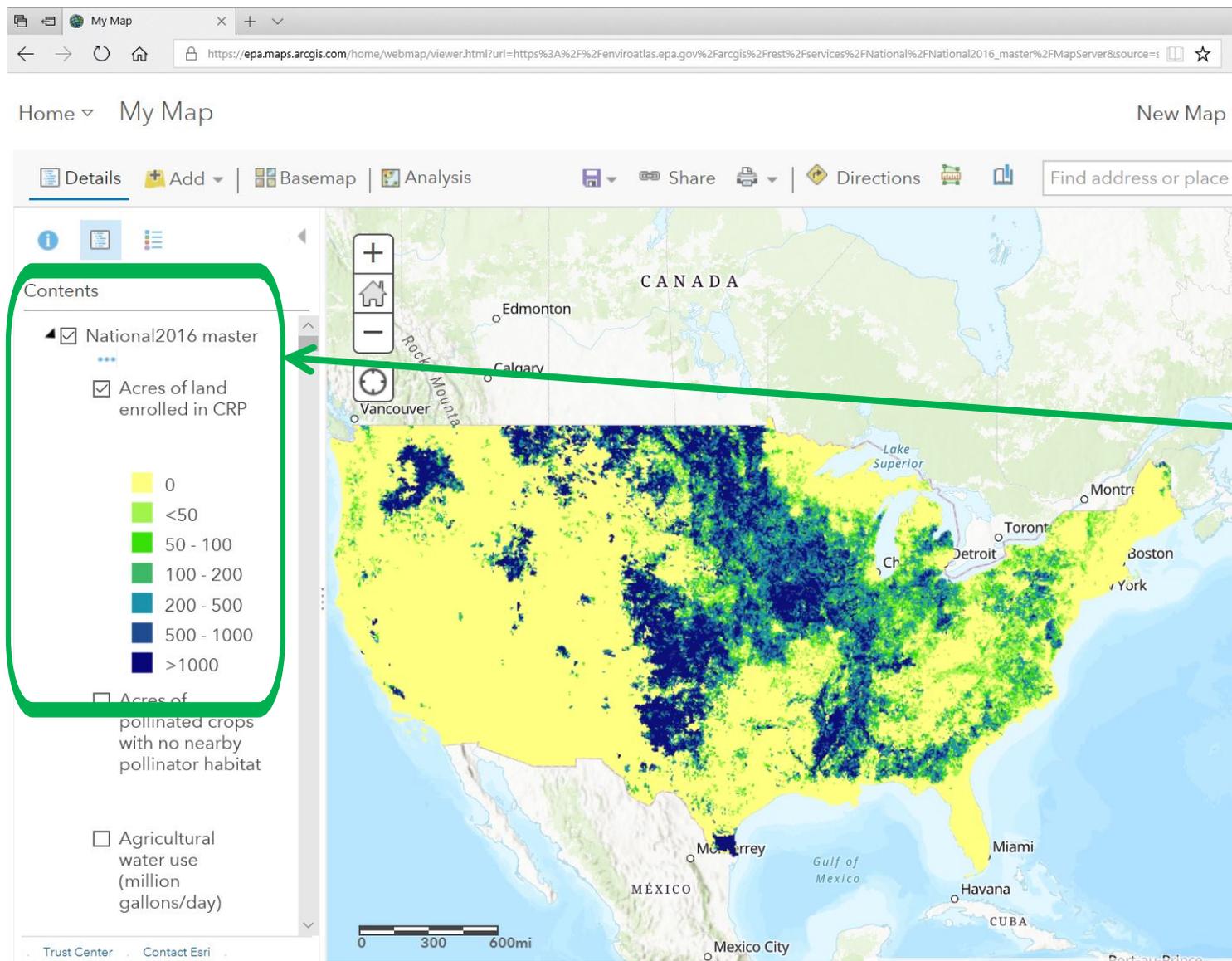
Select a layer to view.

Make sure to check all the levels of the table of contents that lead to your layer. Otherwise, the layer cannot display.

Click the layer name to view the legend.

Select the "Add" button to view additional data with your current map.

As an example, lets add another map service to this map.

To do this, select **Add Layer from Web**.

Riparian (MapServer) — × + ∨

← → ↻ ⌂ 🔒 https://www.fws.gov/wetlands/arcgis/rest/services/Riparian/MapServer

Home > services > Riparian (MapServer)

JSON | SOAP | WMS

Riparian (MapServer)

View In: ArcGIS JavaScript   ArcGIS Online map viewer   Google Earth   ArcMap   ArcGIS Explorer

View Footprint In: ArcGIS Online map viewer

Service Description: This data set represents the extent, approximate location and type of riparian habitats in areal extent of riparian habitats as defined by A System For Mapping Riparian Areas in the United States (USFW the National mapping program because of the limitations of aerial imagery as the primary data source used to c complexity of the riparian data the riparian data only display at 1:250,000 scale and greater. For wetland inform

Map Name: Layers

Legend

All Layers and Tables

Dynamic Legend

Dynamic All Layers

Layers:

- Riparian (0)
- Riparian Mapping Areas (1)

Description: This data set represents the extent, approximate location and type of riparian habitats in the wes of riparian habitats as defined by A System For Mapping Riparian Areas in the United States (USFWS 2009). Ce mapping program because of the limitations of aerial imagery as the primary data source used to detect riparia riparian data the riparian data only display at 1:250,000 scale and greater. For wetland information visit www.f

Copyright Text: U.S. Fish and Wildlife Service, National Standards and Support Team, wetlands_team@fws.go

Spatial Reference: 102100 (3857)

Single Fused Map Cache: false

Initial Extent:

    XMin: -145.4116661796265
    YMin: 35.16462115009984
    XMax: -46.27135381303533
    YMax: 57.313139652989676
   Spatial Reference: 102100 (3857)

Full Extent:

    XMin: -1.3302787955400001E7
    YMin: 3675659.403499998
    XMax: -1.05058023078E7

For this example, we will use map services provided by the **U.S. Fish and Wildlife Service**

To add the Riparian layer to the EnviroAtlas map of Acres of land enrolled in CRP, **Copy the entire url address** of the MapServer.
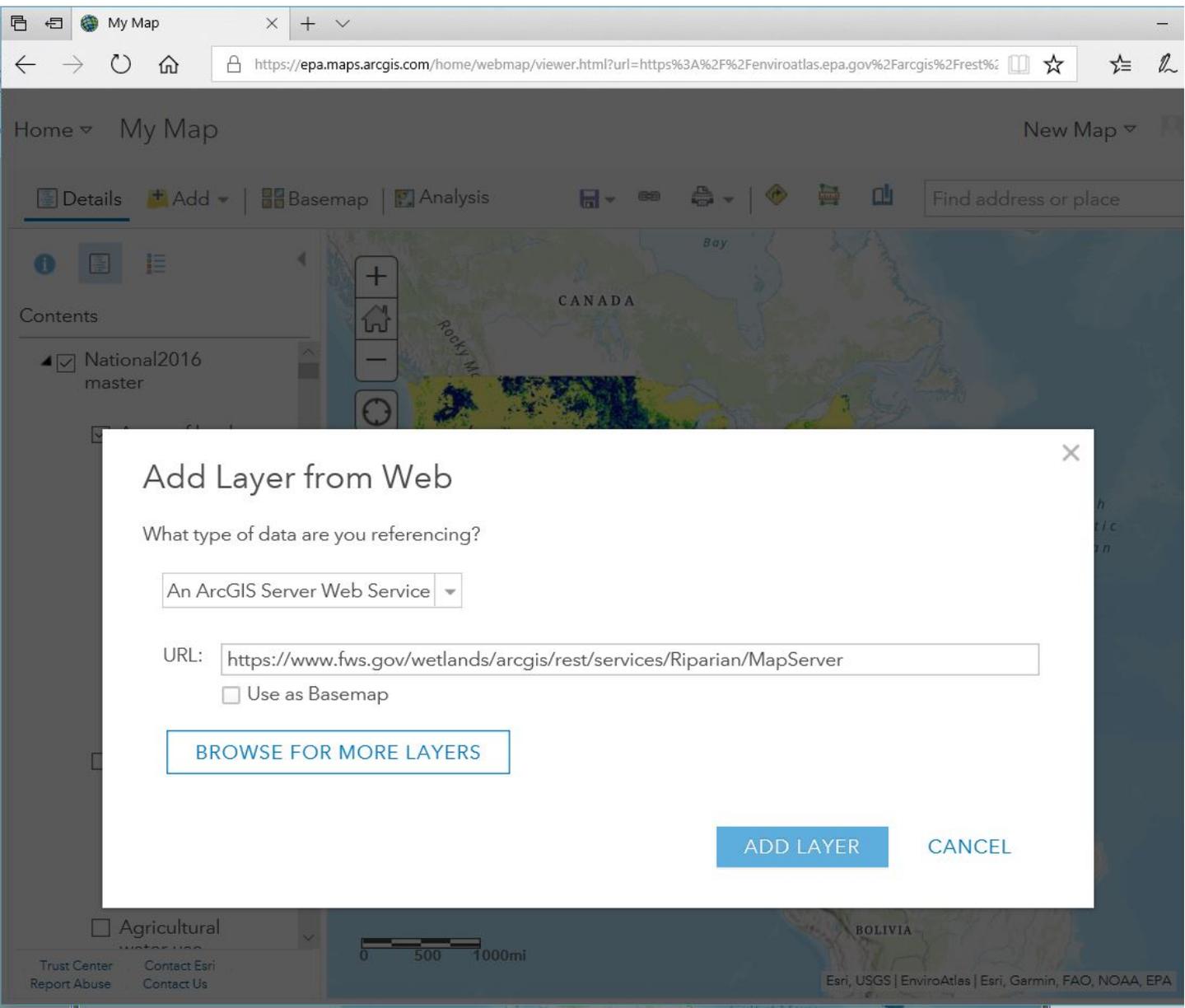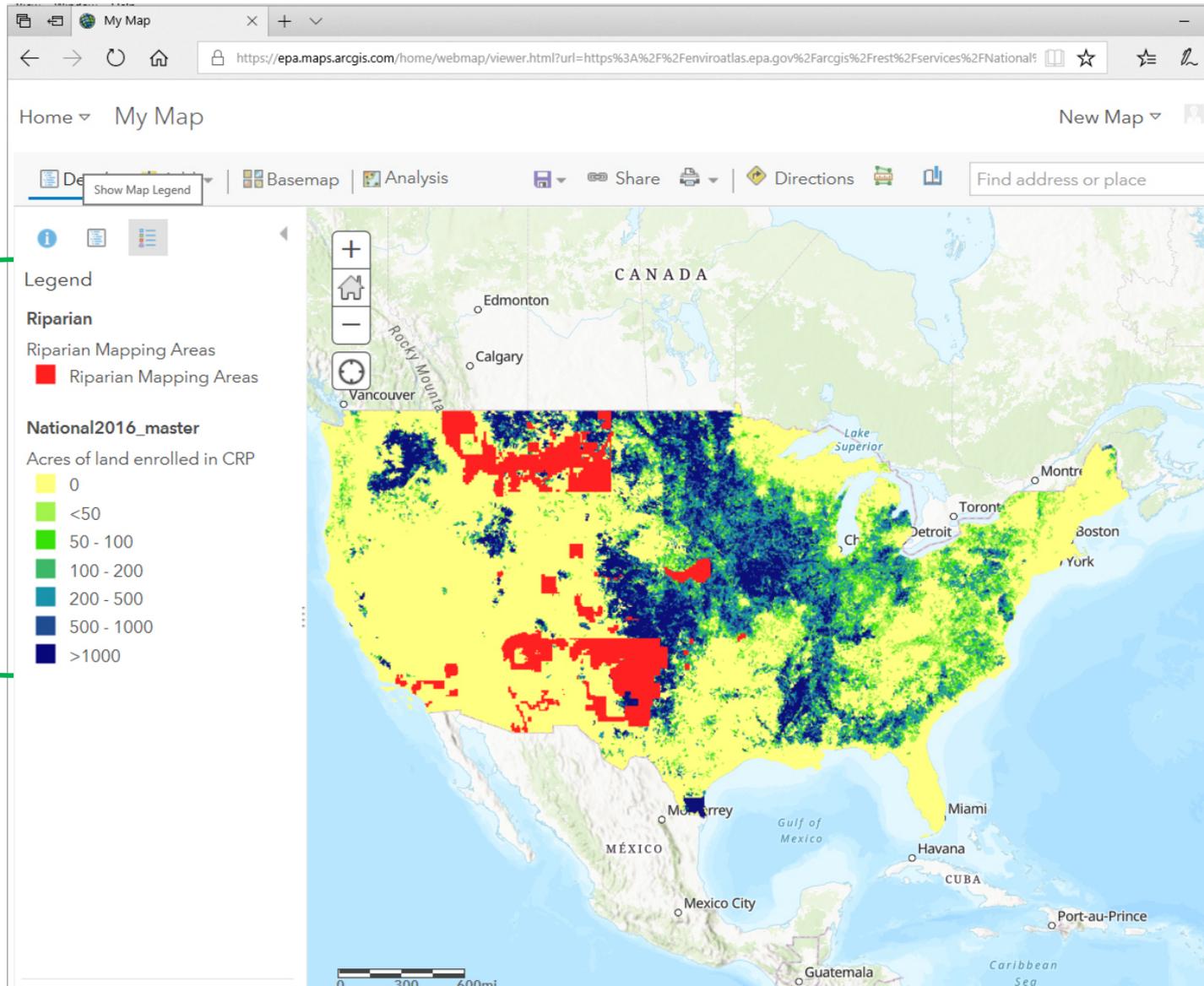
Paste the url for the Riparian MapServer into the "**Add Layer from Web**" box.
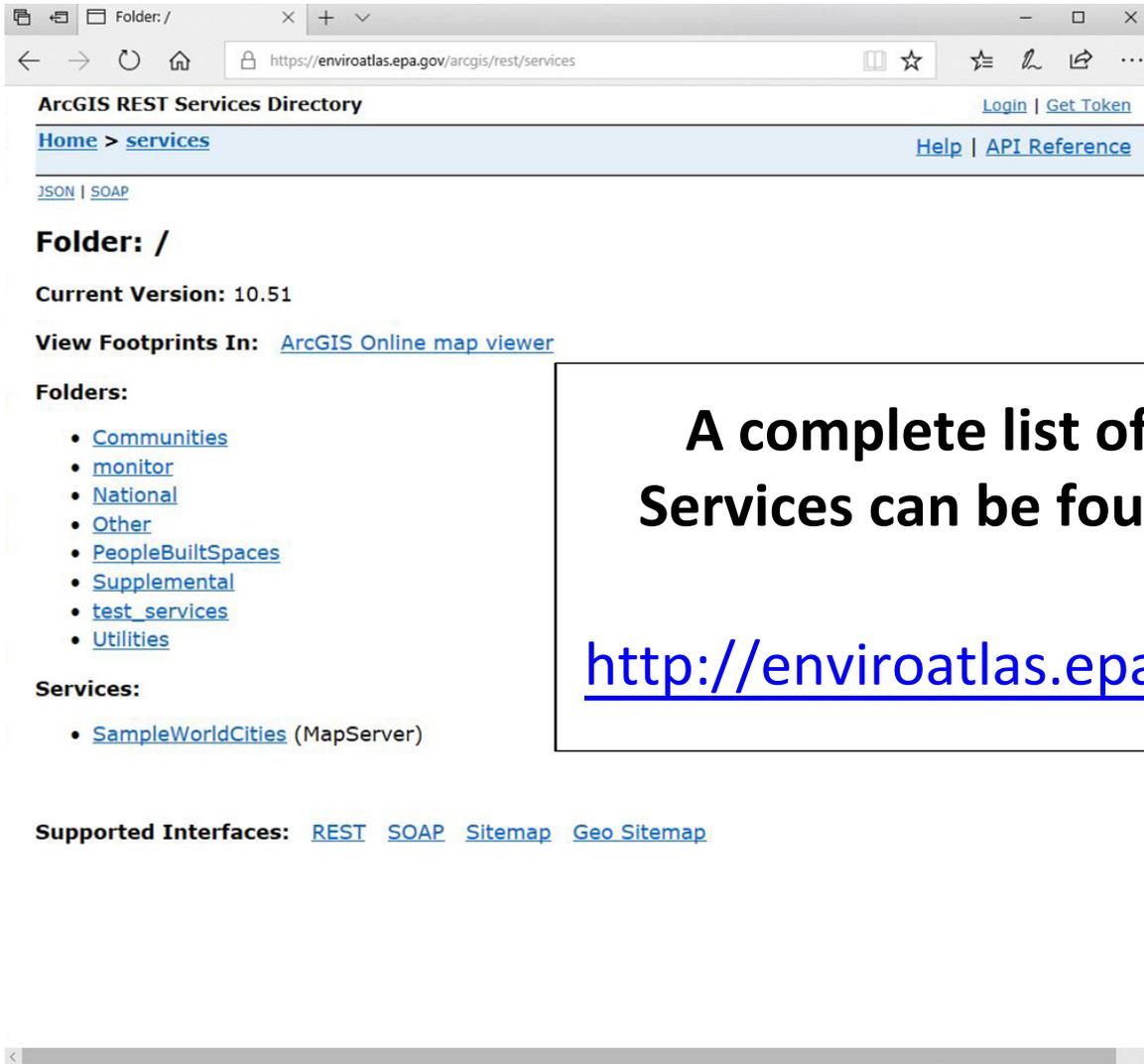
Click **Add Layer**.
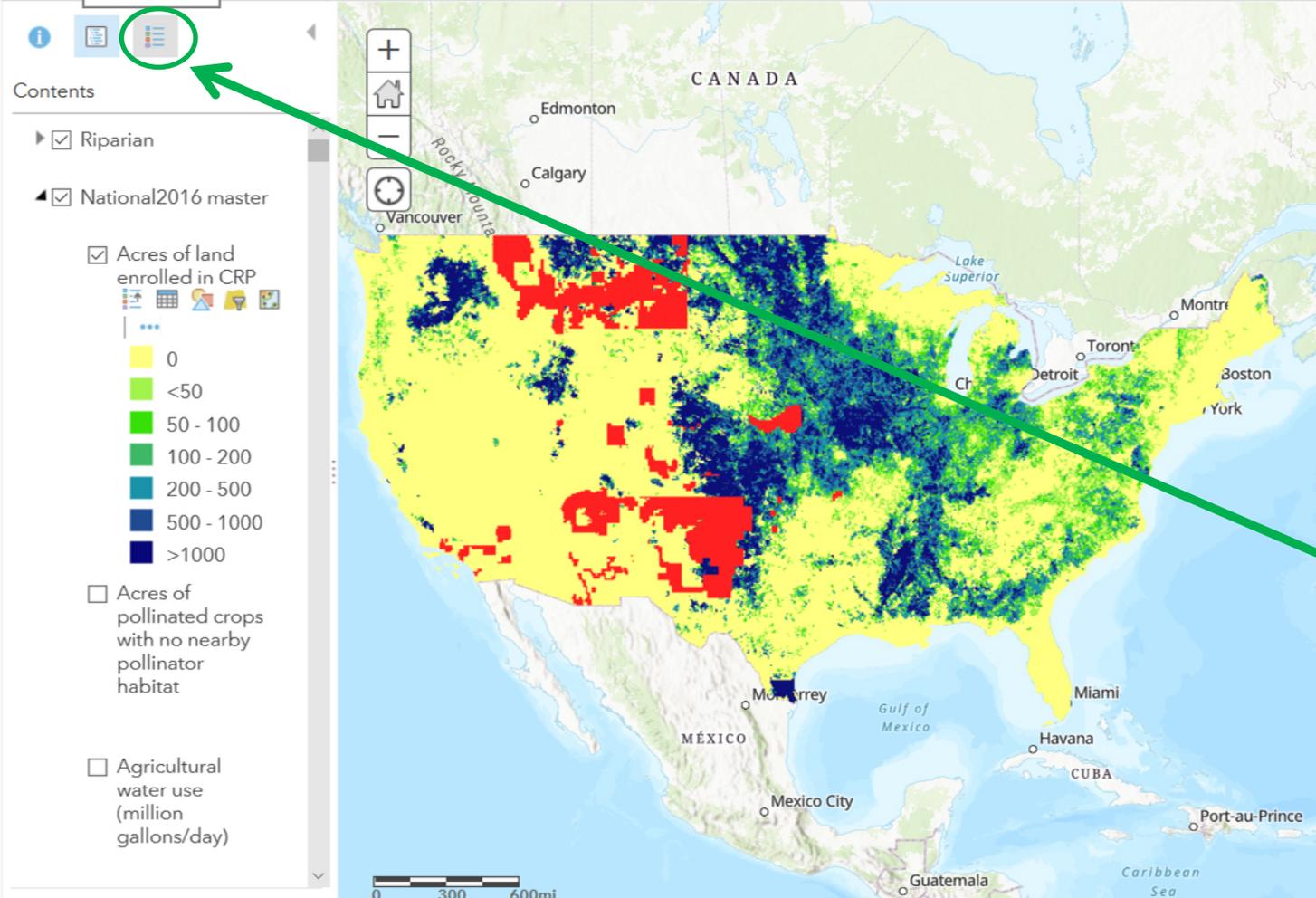
Once the layer has been added to the map, it will show up in the map table of contents.

To view the legend, click **Show Map Legend**.

The legend shows all the layers that are turned on from the various map servers.

For a desktop GIS, you would use a process similar to the one just shown.
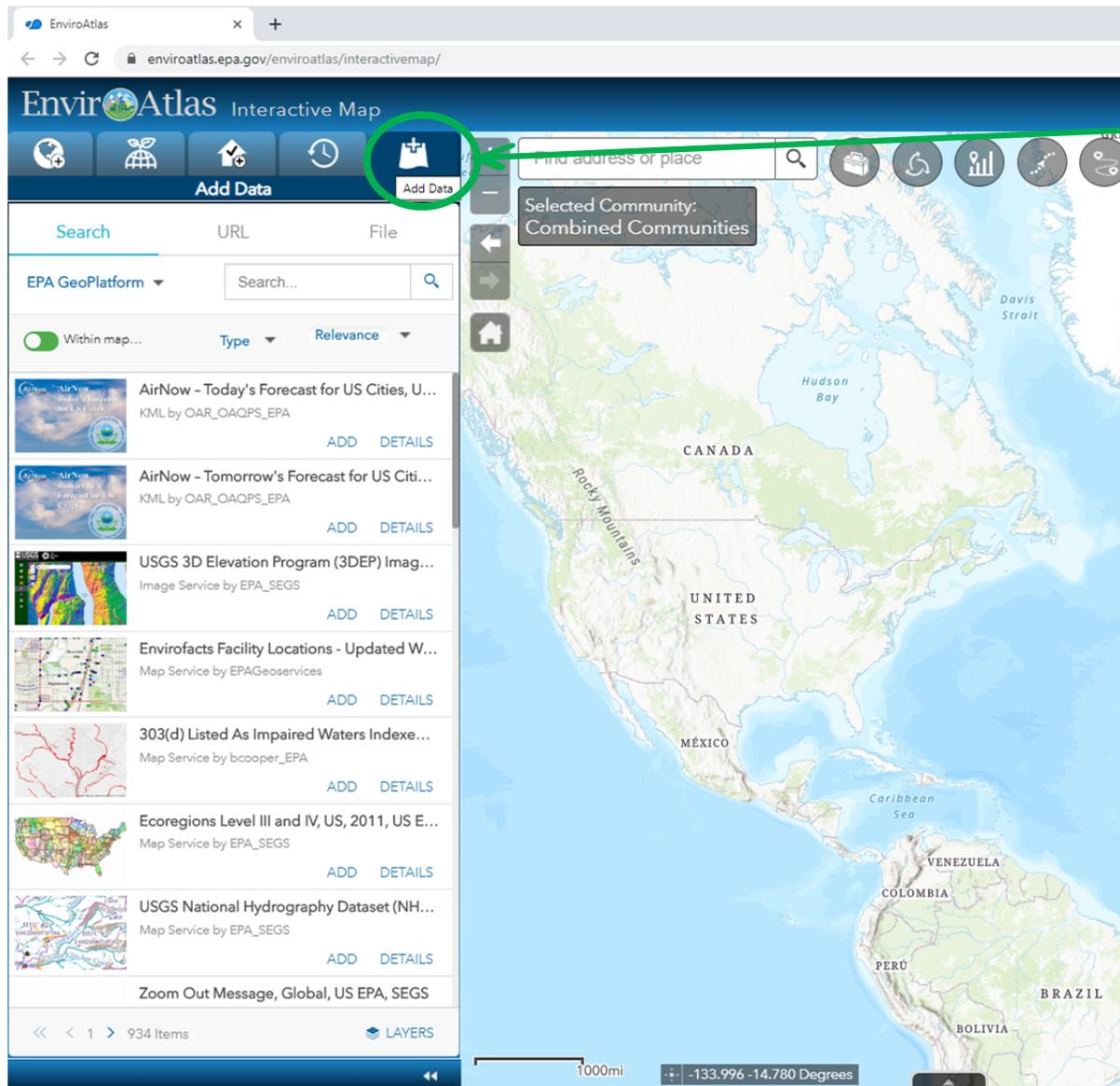

A complete list of the EnviroAtlas Web Services can be found at the following url:

http://enviroatlas.epa.gov/arcgis/rest/services

Next we'll show how EnviroAtlas users can bring in external web services and use their own data in the EnviroAtlas Interactive Map.

First, open the EnviroAtlas Interactive Map: https://enviroatlas.epa.gov/enviroatlas/interactivemap/
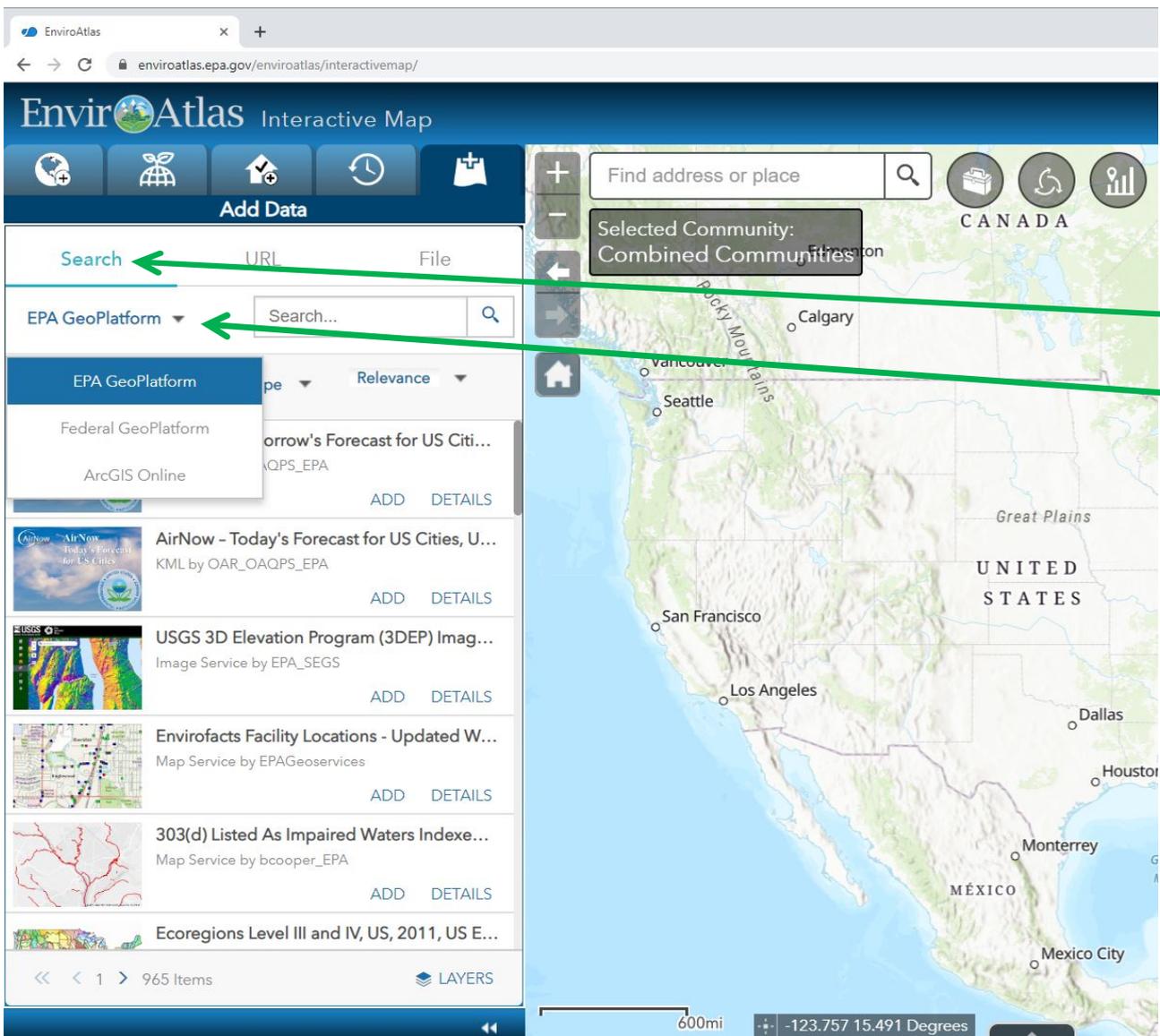

The **Add Data** function allows users to easily bring outside data into the EnviroAtlas mapping application.

Users can **search** for and **add** available web services, input a known **URL**, or **add** their own local data.

Note: Data added to the Interactive Map are available only for that map session and are not saved in EnviroAtlas.

To search for data and add data to the map:

1. Click the **Search** link

2. Click the **arrow** next to **EPA GeoPlatform** and select from the drop-down menu which platform you want to search

    a. **EPA Geoplatform** -Content provided by EPA

    b. **Federal GeoPlatform** - Content from the Federal Government

    c. **ArcGIS online** - Largest, most content options

3. Type in your **search** term and hit enter or the spyglass (search) to explore available layers

4. Click **ADD** next to the layer you want to add to the map

Note: It is up to the user to validate the credibility of data sources brought in from outside EnviroAtlas

In this example, the added AirNow dataset can be seen on the map.

If you no longer need a map, use the **Remove** option.

Adding web services from a URL (like the previous ArcGIS online example) and **uploading your own local data** are also available from the *Add Data* tab.