

## Haystax Map Layer Tips

### Map Layers

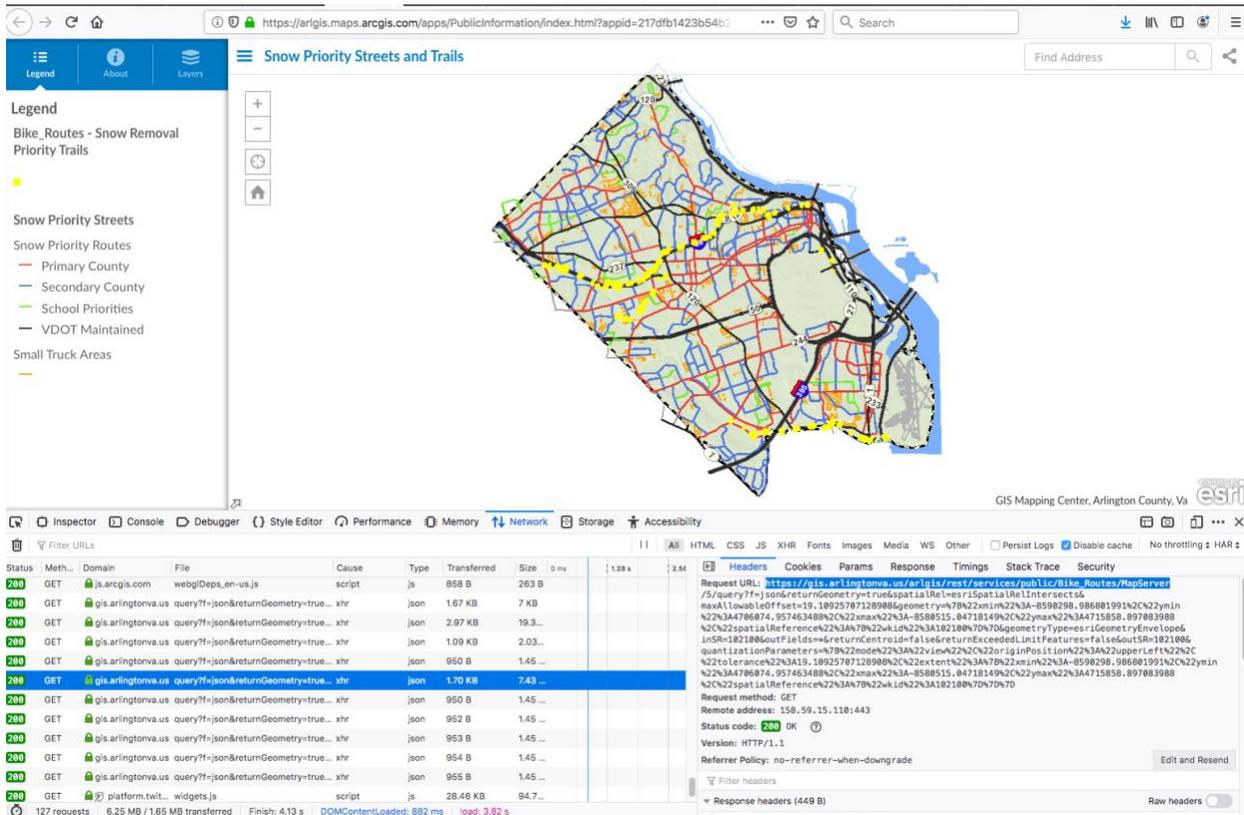
You may come across Maps that include interesting map layers that would be helpful to include in Haystax, such as the following one:

Arlington, VA - Snow Priority Streets and Trails

<https://arlgis.maps.arcgis.com/apps/PublicInformation/index.html?appid=217dfb1423b54b21a885091305a03679>

That URL is an actual Map user interface and cannot be directly added to Haystax. You can however sometimes inspect the network traffic when the Map user interface loads to try to detect specific backend map layers that can be added to Haystax.

1. In Firefox, go to Tools -> Web Developer -> Toggle tools to activate the dev toolbar at the bottom.
2. Select the "Network" tab and reload the page.
3. Rows will fill in in the Network tab. Look for any rows that include "query?=". These are typically backend map layer queries. Click on one these rows and look at the "Headers" information on the right. The "Request URL" will contain the backend map layer. Copy the beginning of the Request URL value (up to and including the /Mapserver part) and load that URL in your browser.
  - a. Example from below screenshot:  
[https://gis.arlingtonva.us/argis/rest/services/public/Bike\\_Routes/MapServer](https://gis.arlingtonva.us/argis/rest/services/public/Bike_Routes/MapServer)



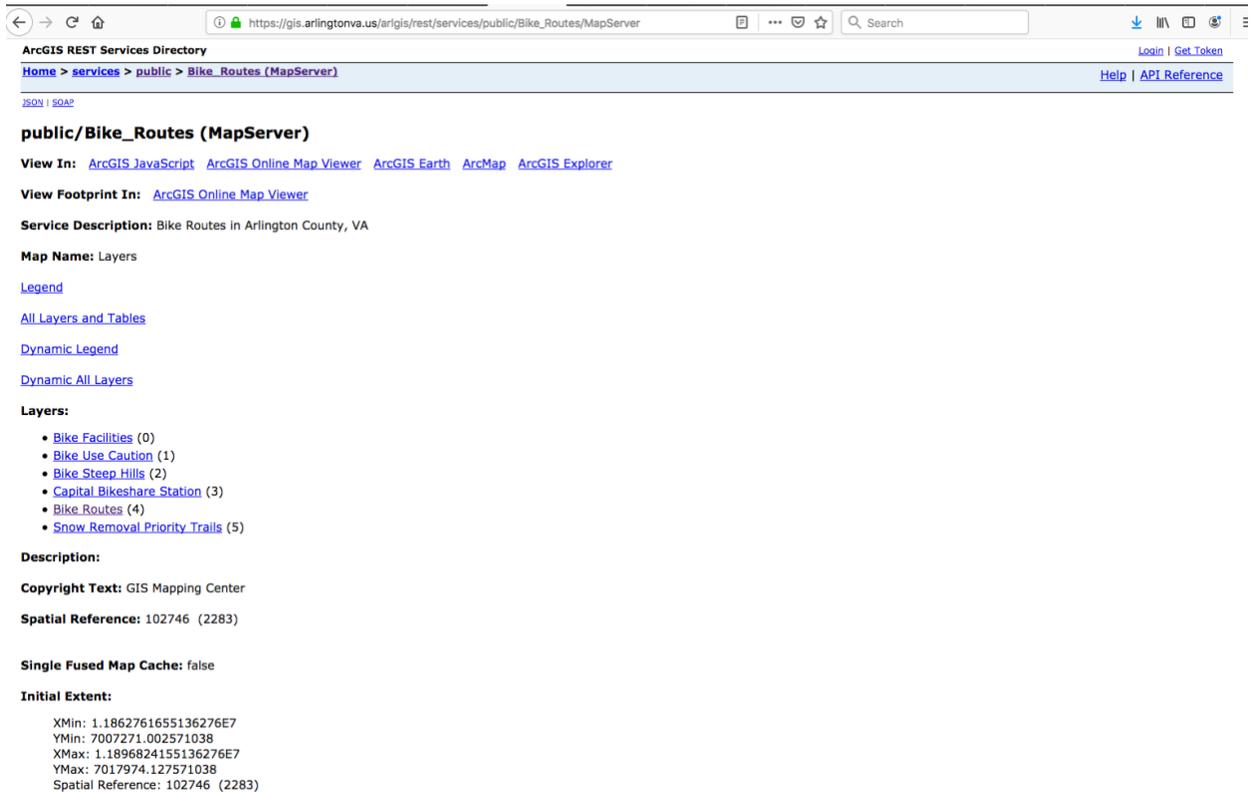
The screenshot shows an ArcGIS web application titled "Snow Priority Streets and Trails" for Arlington County, VA. The map displays various layers including Bike\_Routes, Snow Removal Priority Trails, Snow Priority Streets, and Snow Priority Routes. The browser's developer console is open, showing a list of network requests. The selected request is a GET request to the following URL:

```
https://gis.arlingtonva.us/arcgis/rest/services/public/Bike_Routes/MapServer/5/query?f=json&returnGeometry=true&spatialReference=4326&where=1=1&outFields=*&returnFormat=json
```

The console also shows the response headers for this request, including the status code (200 OK) and the Referrer Policy (no-referrer-when-downgrade).

You will see the ArcGIS REST Services Directory containing the map service and its data layers. These are raw map services and data layers that can be added to Haystax.

[https://gis.arlingtonva.us/arcgis/rest/services/public/Bike\\_Routes/MapServer](https://gis.arlingtonva.us/arcgis/rest/services/public/Bike_Routes/MapServer)



The screenshot shows a web browser window displaying the ArcGIS REST Services Directory for the service `public/Bike_Routes/MapServer`. The page title is "public/Bike\_Routes (MapServer)". It includes navigation links for "Home", "services", "public", and "Bike\_Routes (MapServer)". There are also links for "JSON | SOAP", "Login | Get Token", and "Help | API Reference". The main content area lists the service name, view options (ArcGIS JavaScript, ArcGIS Online Map Viewer, ArcGIS Earth, ArcMap, ArcGIS Explorer), footprint link, description ("Bike Routes in Arlington County, VA"), map name ("Layers"), legend link, and links for "All Layers and Tables", "Dynamic Legend", and "Dynamic All Layers". A list of layers is provided: "Bike Facilities (0)", "Bike Use Caution (1)", "Bike Steep Hills (2)", "Capital Bikeshare Station (3)", "Bike Routes (4)", and "Snow Removal Priority Trails (5)". Other details include "Description:", "Copyright Text: GIS Mapping Center", "Spatial Reference: 102746 (2283)", "Single Fused Map Cache: false", and "Initial Extent:" with coordinates: "XMin: 1.1862761655136276E7", "YMin: 7007271.002571038", "XMax: 1.1896824155136276E7", "YMax: 7017974.127571038", and "Spatial Reference: 102746 (2283)".

Now, you can pick & choose specific map layers and add them to Haystax as an ESRI Map Service or ESRI Feature Service.

You can also truncate the URL to the main `/public` directory (to see all available Map Services):  
<https://gis.arlingtonva.us/arlgis/rest/services/public>

### **How to decide whether to use an ESRI Map Service or ESRI Feature Service map layer type in Haystax:**

#### ESRI Map Service

- Good for displaying line or polygon based data as overlays
- Can bundle together multiple source map layers into single Haystax layer
- What you see is what you get (it uses the colors and symbology as defined by the ESRI server; you cannot modify the colors or symbology)

Example ESRI Map Service:

- Name: Arlington Bike Routes
- URL: [https://gis.arlingtonva.us/arlgis/rest/services/public/Bike\\_Routes/MapServer](https://gis.arlingtonva.us/arlgis/rest/services/public/Bike_Routes/MapServer)
- Opacity: 100%
- Layers: 4
- Token: (blank)
- Permissions: Tenant

### Edit layer ✕

Type **ESRI Map Service** ▼

Name

URL

Opacity  100%

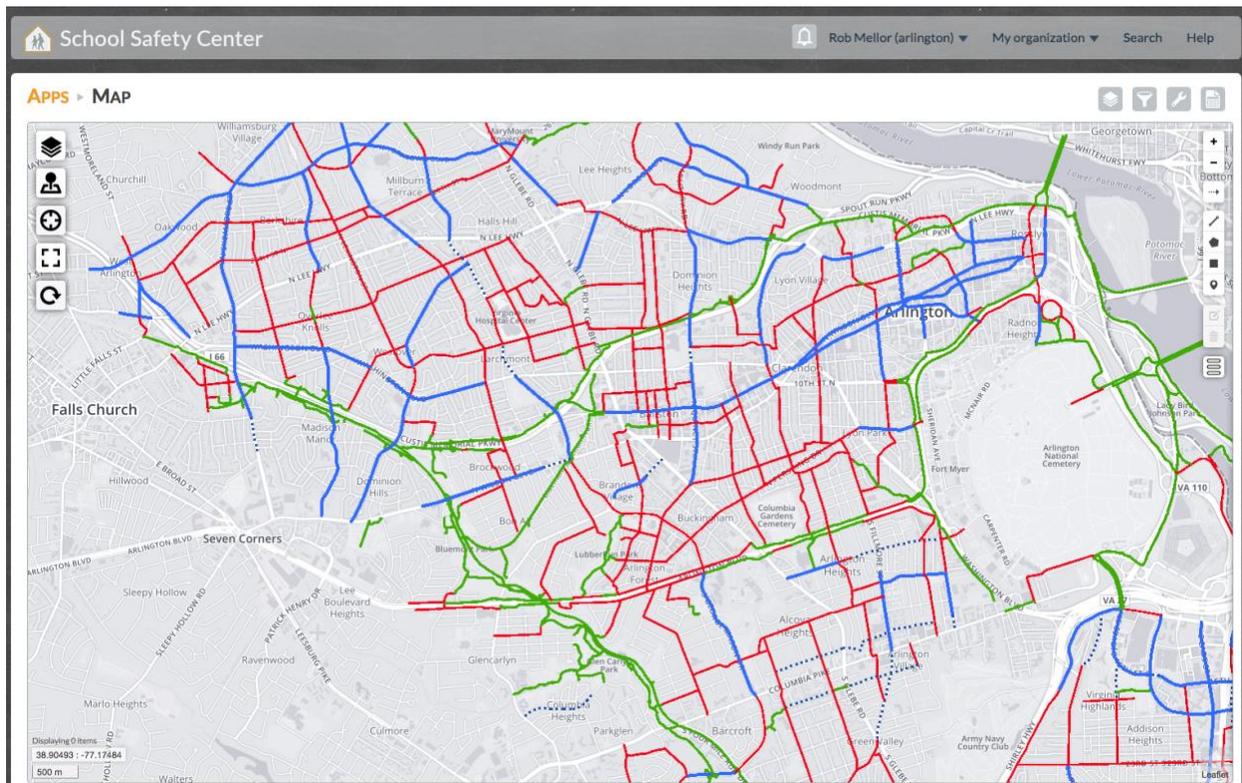
Layers

Token

Permissions  **Add** • ?

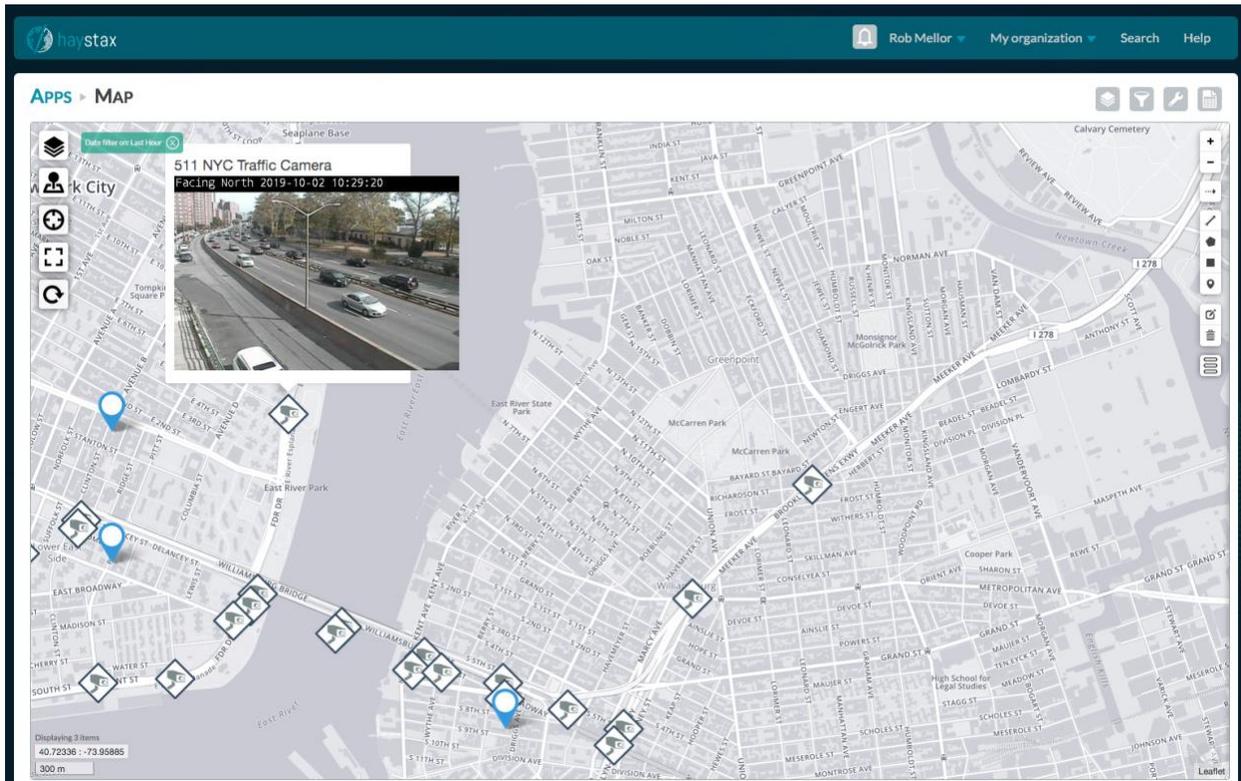
Tenant <arlington> 

**Cancel** **Edit layer**



### ESRI Feature Service

- Good for point-based data that may contain information you want users to click into to see
- Can control the icon that gets used (simply paste in a web link to a PNG file)
- Can control the information presented in each item's pop-up and it can include actual values from the source data record
- Good example is a camera layer that incorporates publicly available traffic camera URLs into the pop-ups



Example ESRI Feature Service:

NYC Cameras

URL: <https://gis.dsbox.com/ArcGIS/rest/services/NYPublic/MapServer/1>

Opacity: 100%

Pop-up format: `<font size = "4">511 NYC Traffic Camera</font size><br>`

Zoom level: County

Icon: [https://rac.dsbox.com/icons/article\\_camera.png](https://rac.dsbox.com/icons/article_camera.png)

Token: (omitted from this document)