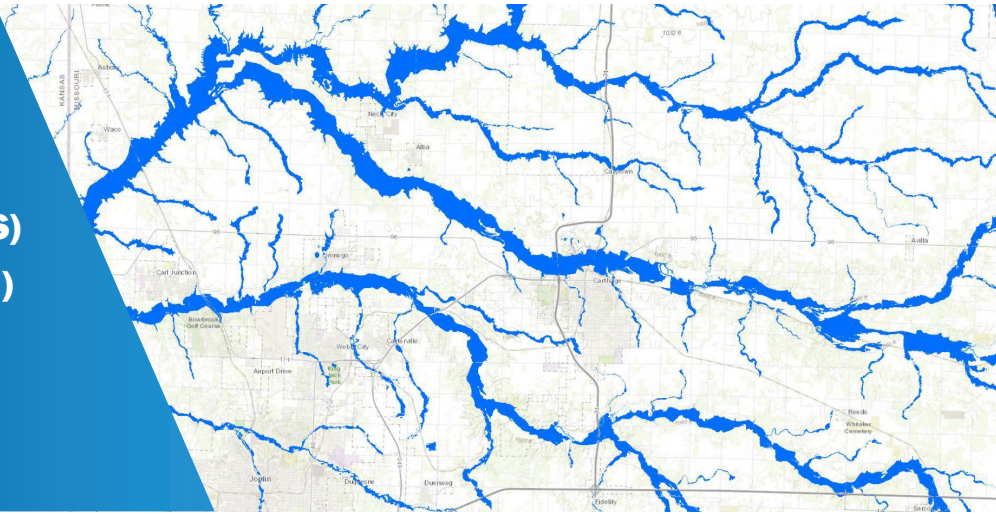




National Weather Service (NWS) Flood Inundation Mapping (FIM) Application Programming Interface (API) Access Instructions



The National Weather Service (NWS) Flood Inundation Mapping (FIM) services can be accessed through an Application Programming Interface (API) by going to the link provided below. This direct access to the FIM services is separate from the visualization of these services as provided via the [NWS National GIS Map Viewer](#).

<https://maps.water.noaa.gov/server/rest/services>

These services are disseminated and made available by the Enterprise Geographic Information System (EGIS) capabilities of the NWS Hydrologic Visualization and Information Services (HydroVIS) system. The HydroVIS EGIS capabilities are an implementation of Esri's ArcGIS Enterprise software. The API endpoints can be used to integrate the NWS FIM services into your own Web or GIS application. The API endpoints can also be used to extract specific FIM relevant data from the services.

Following the link above, one will find that the public HydroVIS services are organized into folders as seen in Figure 1. These services span two NWS product/service lines: the National Water Center (NWC) Visualization Services and the NWS FIM Services. This document provides information focused on access to the FIM Service. The <http://www.weather.gov/owp/operations> page has more information on the NWC Visualization Services, and also includes reference and other information on the FIM Services.

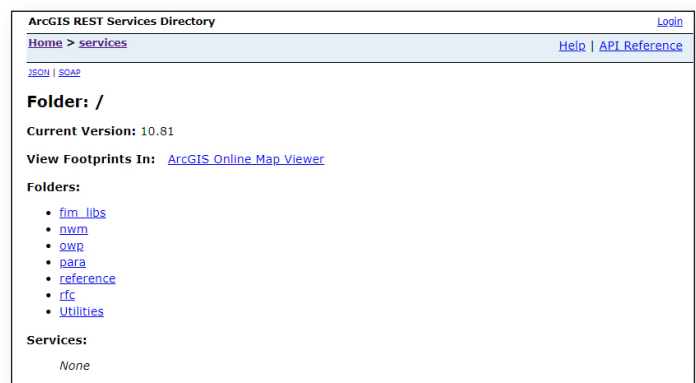


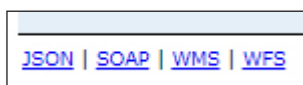
Figure 1: Folder structure for NWC Visualization Services and NWS FIM Services found at <https://maps.water.noaa.gov/server/rest/services>.

The NWS FIM services can be found in two folders: nwm and rfc (“nwm” stands for National Water Model and “rfc” stands for River Forecast Center). The FIM derived from the NWM Analysis and Assimilation configuration and from the 5-day NWM forecast can be found in the “nwm” folder. The FIM derived from the 5-day RFC forecast can be found in the “rfc” folder. A subset listing of services within the “nwm” folder can be seen in Figure 2.



Figure 2: Subset of services found in the “nwm” folder.

In addition to accessing the NWS FIM data via Esri’s APIs, one can also leverage the Open Geospatial Consortium (OGC) standard interfaces as well. In particular, via the Map Server interfaces linked above, one can find a link to the OGC Web Map Service (WMS) interface and the OGC Web Feature Service (WFS) interface in the upper left hand corner of the individual service endpoints.



For more information on the OGC WMS interface, please visit the [OGC WMS website](#).

For more information on the OGC WFS interface, please visit the [OGC WFS website](#).

The links below can be used to directly access the three NWS FIM services. Provided below are the mapping service APIs and the feature service APIs for each. Please visit Esri’s developer documentation for more information on [mapping service queries](#) and [feature service queries](#).

- [nwm/ana_inundation_extent \(Map Server interface\)](#)
- [nwm/ana_inundation_extent \(Feature Server interface\)](#)
- [nwm/mrf_gfs_5day_max_inundation_extent \(Map Server interface\)](#)
- [nwm/mrf_gfs_5day_max_inundation_extent \(Feature Server interface\)](#)
- [rfc/rfc_based_5day_max_inundation_extent \(Map Server interface\)](#)
- [rfc/rfc_based_5day_max_inundation_extent \(Feature Server interface\)](#)