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science for a changing world

WATER DATA FOR THE NATION (WDFN)

Northeast Regional Climate Center
May 28, 2026 Webinar

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New England Water Science Center

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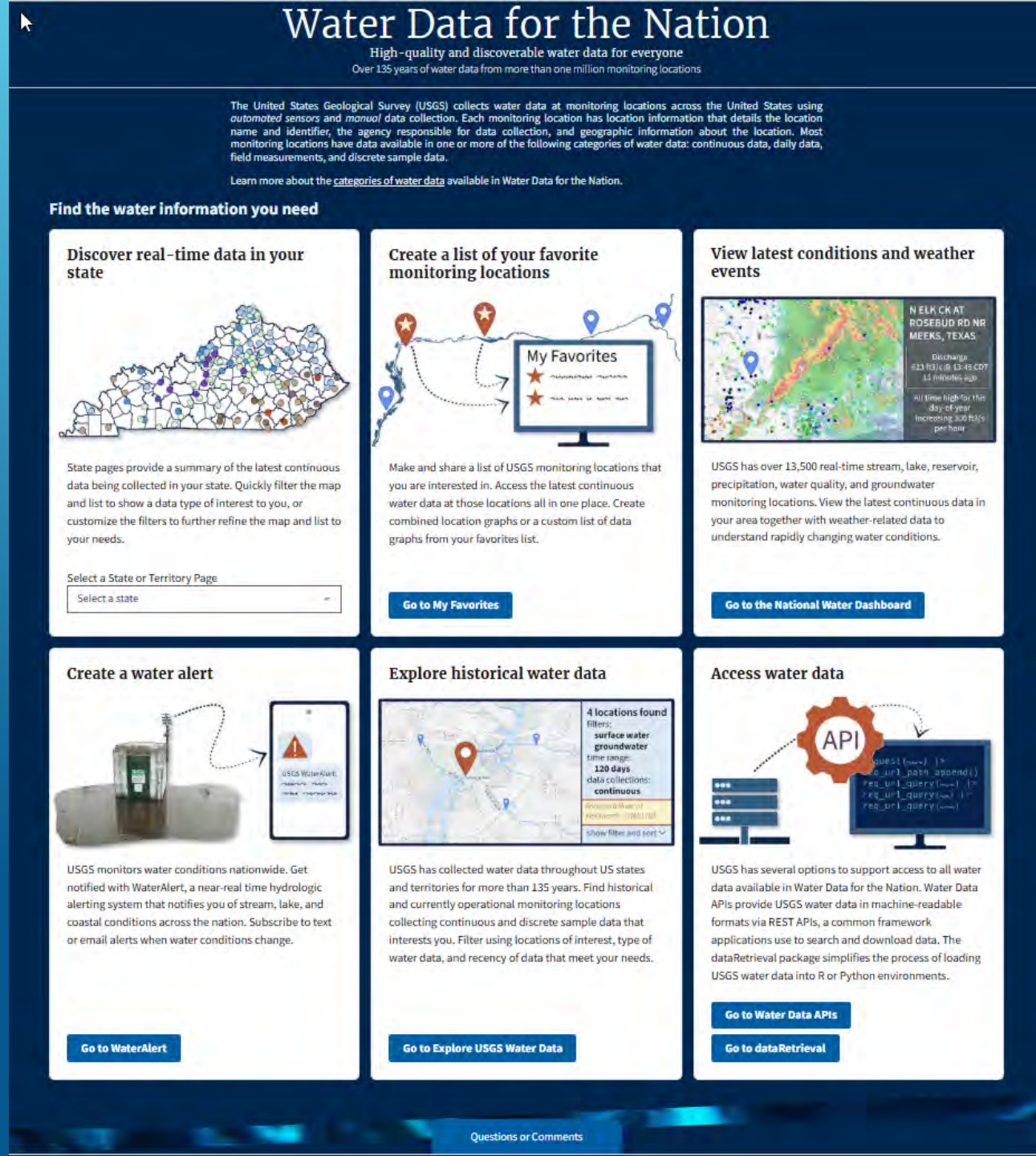
U.S. Geological Survey



WATER DATA FOR THE NATION - WDFN

https://waterdata.usgs.gov/

- USGS WDFN replaced USGS WaterWatch and Water Quality Watch on Feb. 26, 2026
- Groundwater Watch was previously discontinued

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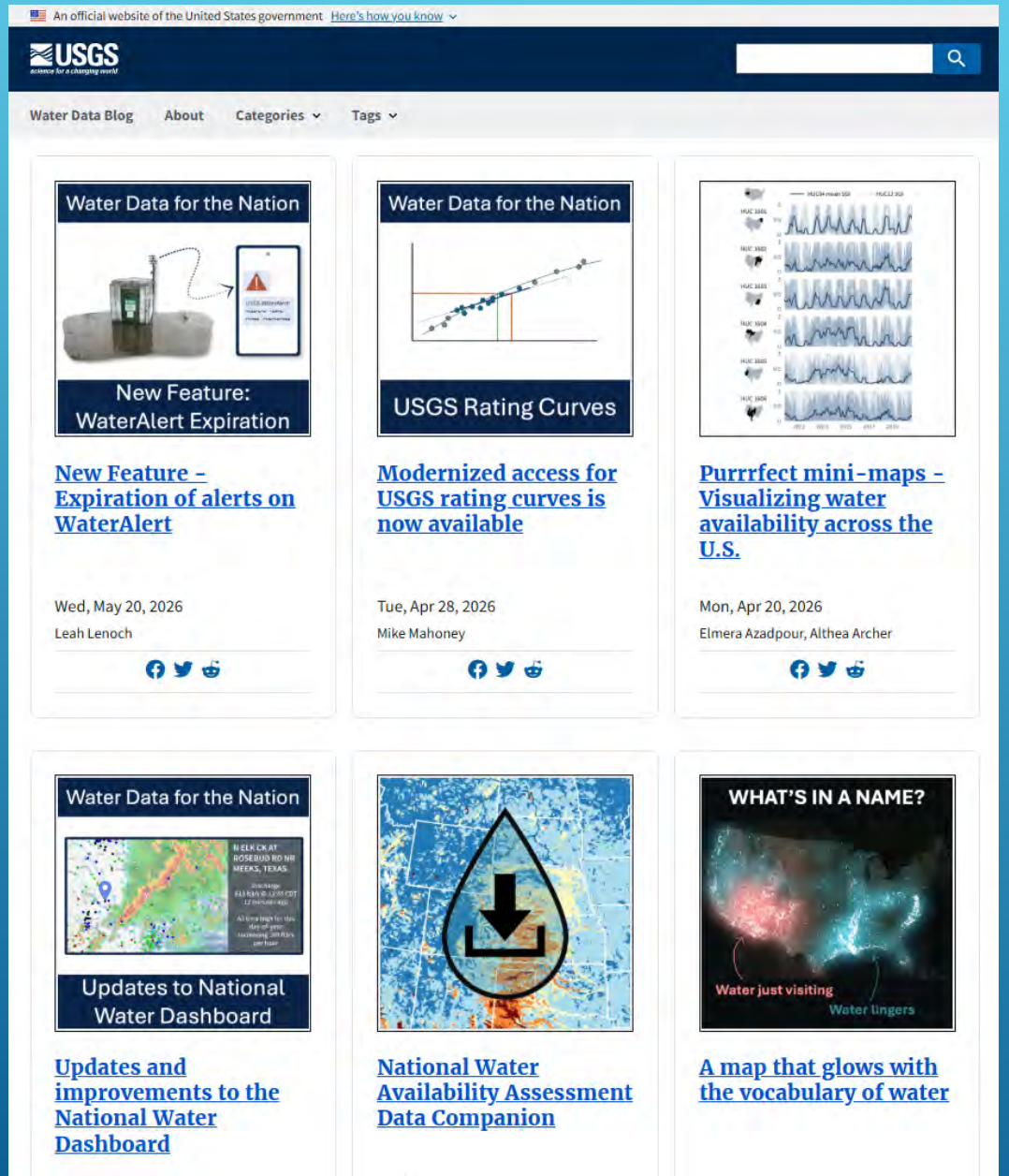
WATER DATA BLOG



https://waterdata.usgs.gov/blog/

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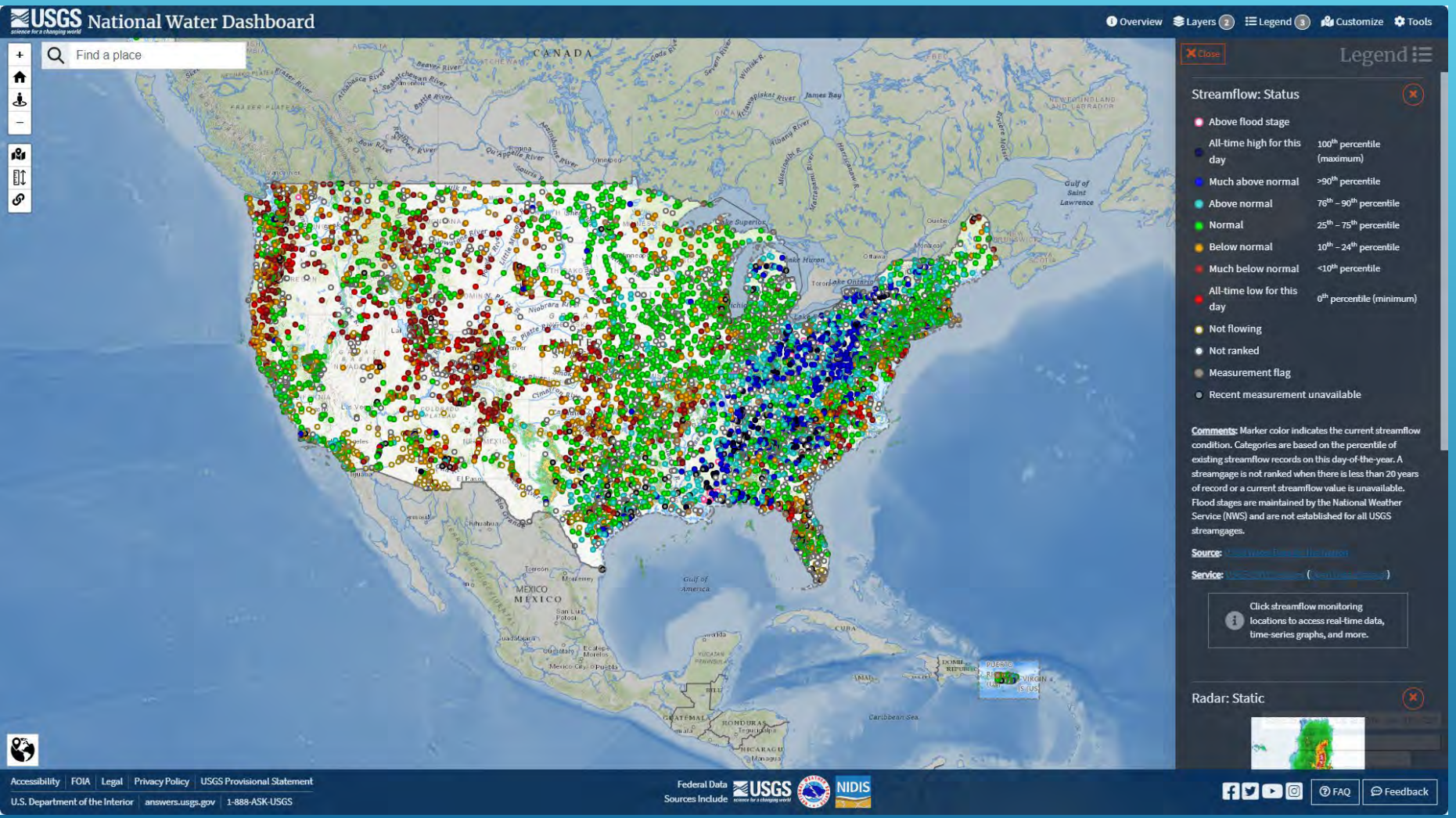
NATIONAL WATER DASHBOARD



https://dashboard.waterdata.usgs.gov/app/nwd/en/

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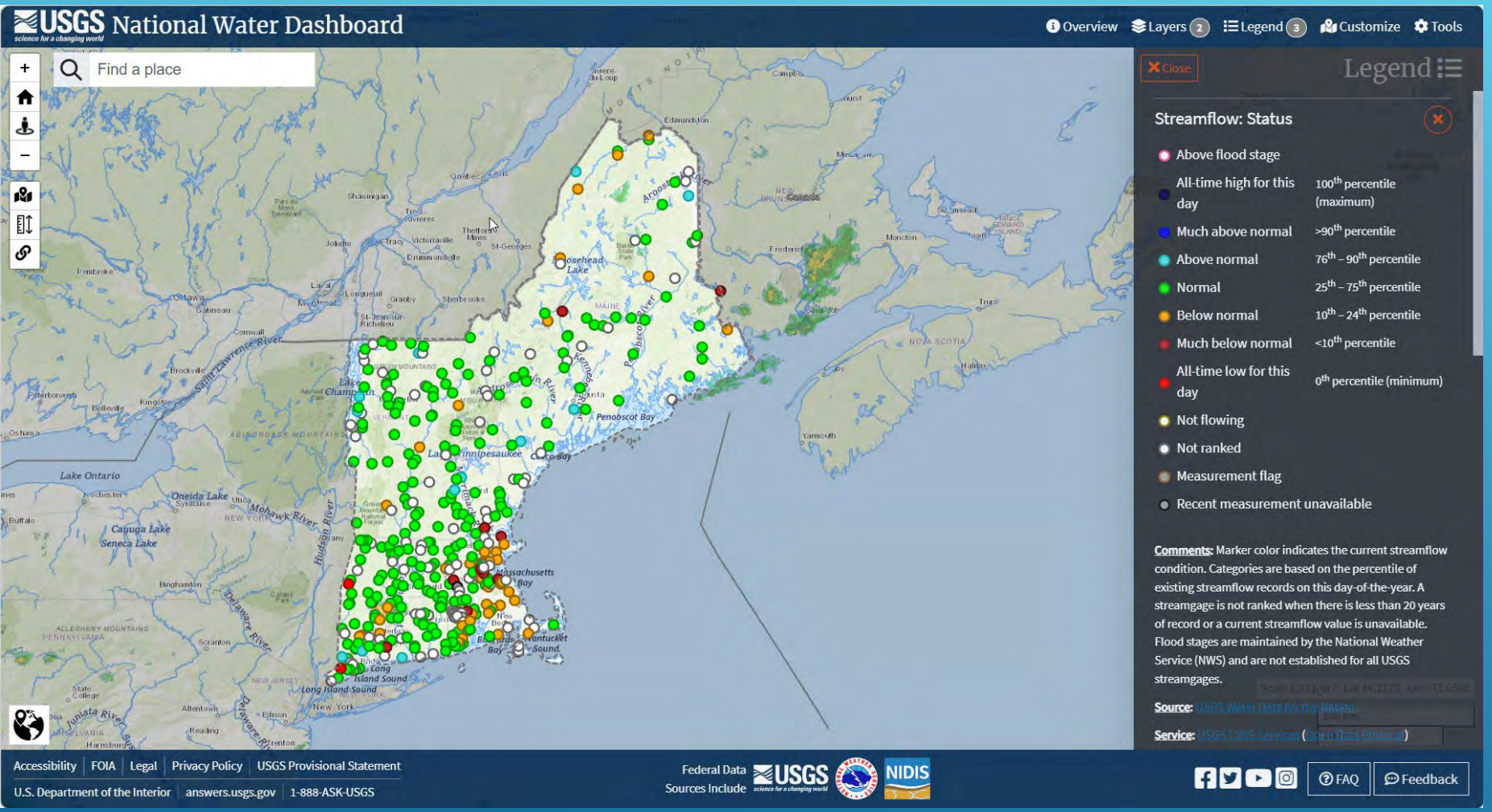
NATIONAL WATER DASHBOARD



https://dashboard.waterdata.usgs.gov/app/nwd/en/?aoi=wsc-newengland

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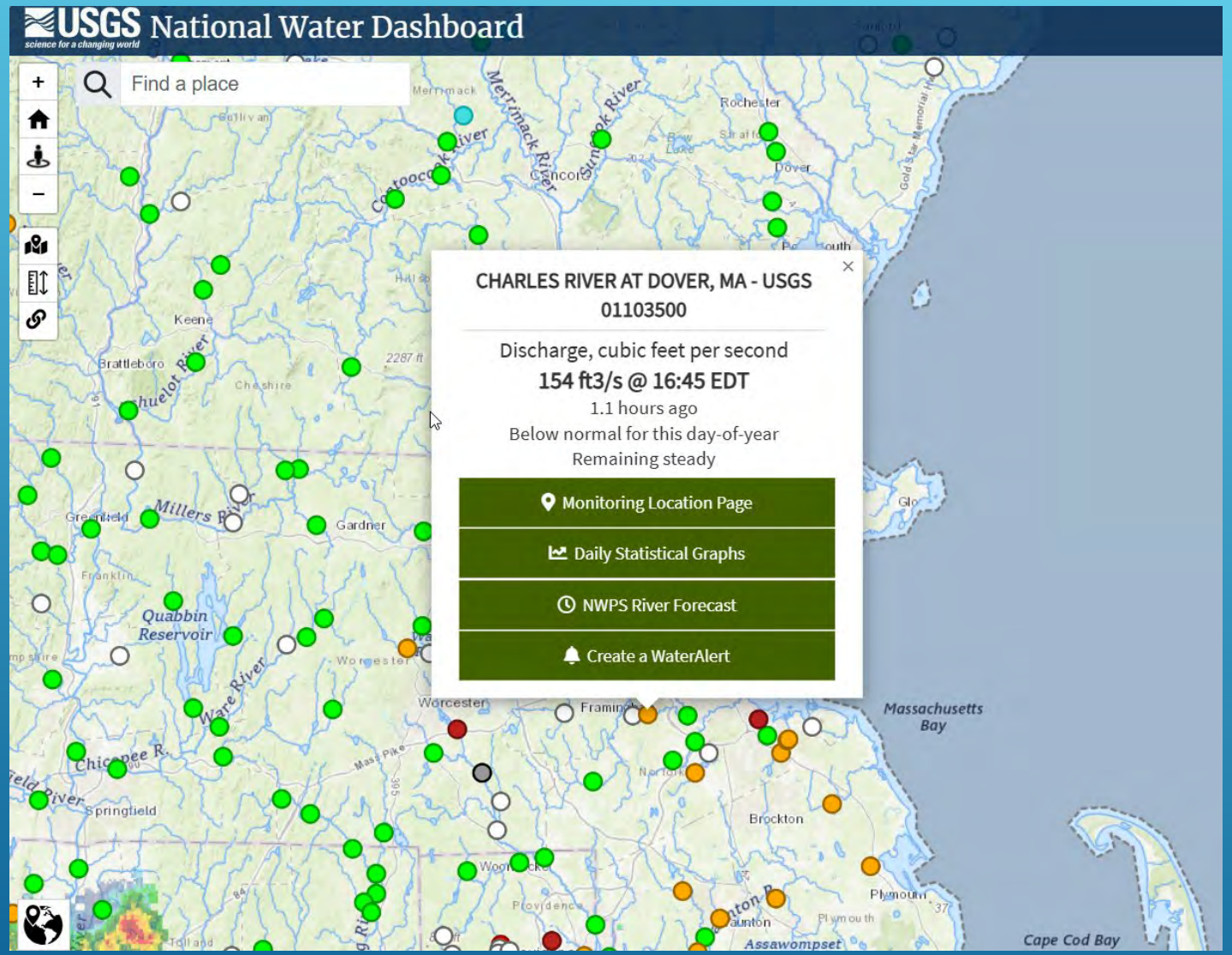
NATIONAL WATER DASHBOARD



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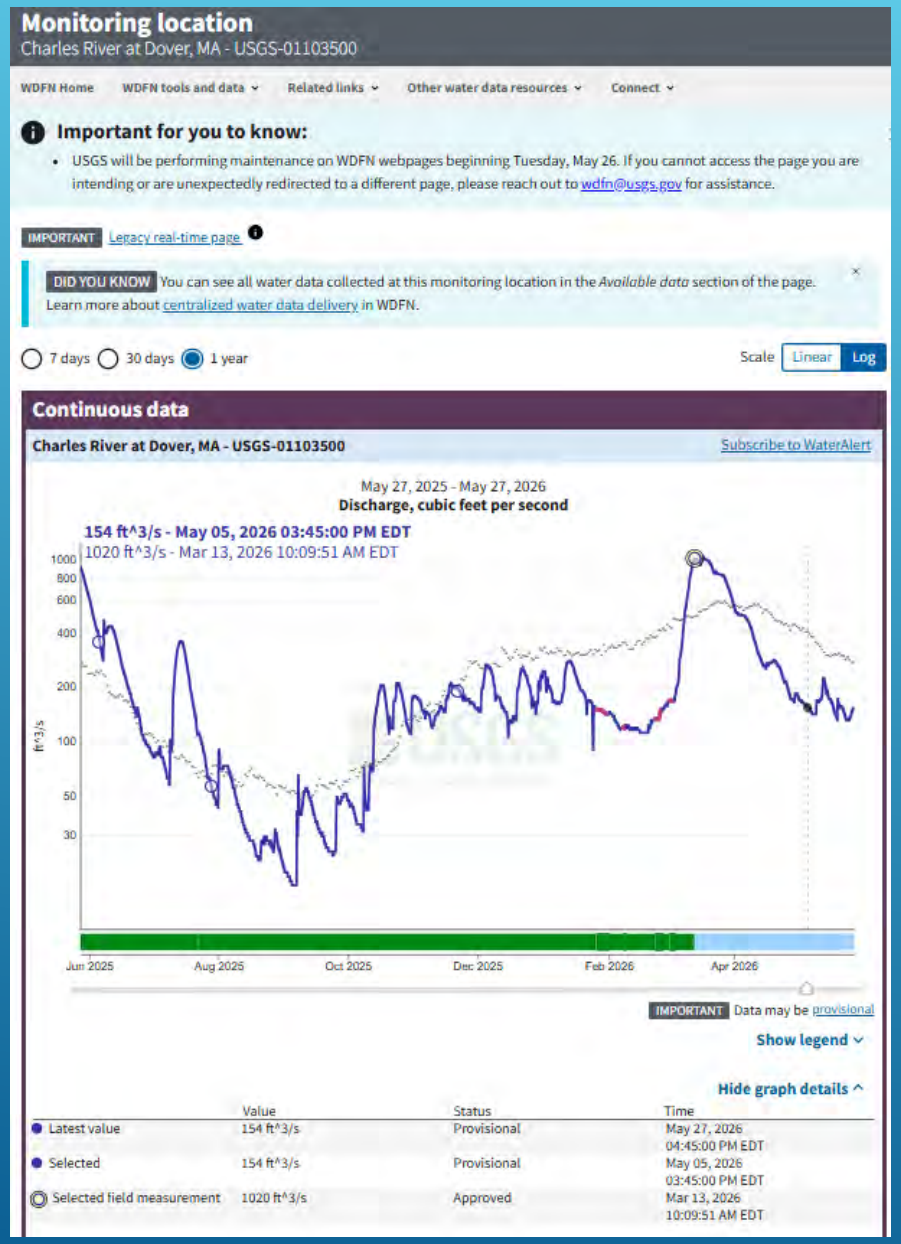
NATIONAL WATER DASHBOARD



https://waterdata.usgs.gov/monitoring-location/USGS-01103500/#period=P365D&dataTypeId=continuous-00060-0&showMedian=true&showFieldMeasurements=true

Instantaneous data plots can not exceed 3 years where as daily data can be plotted for the entire period of record

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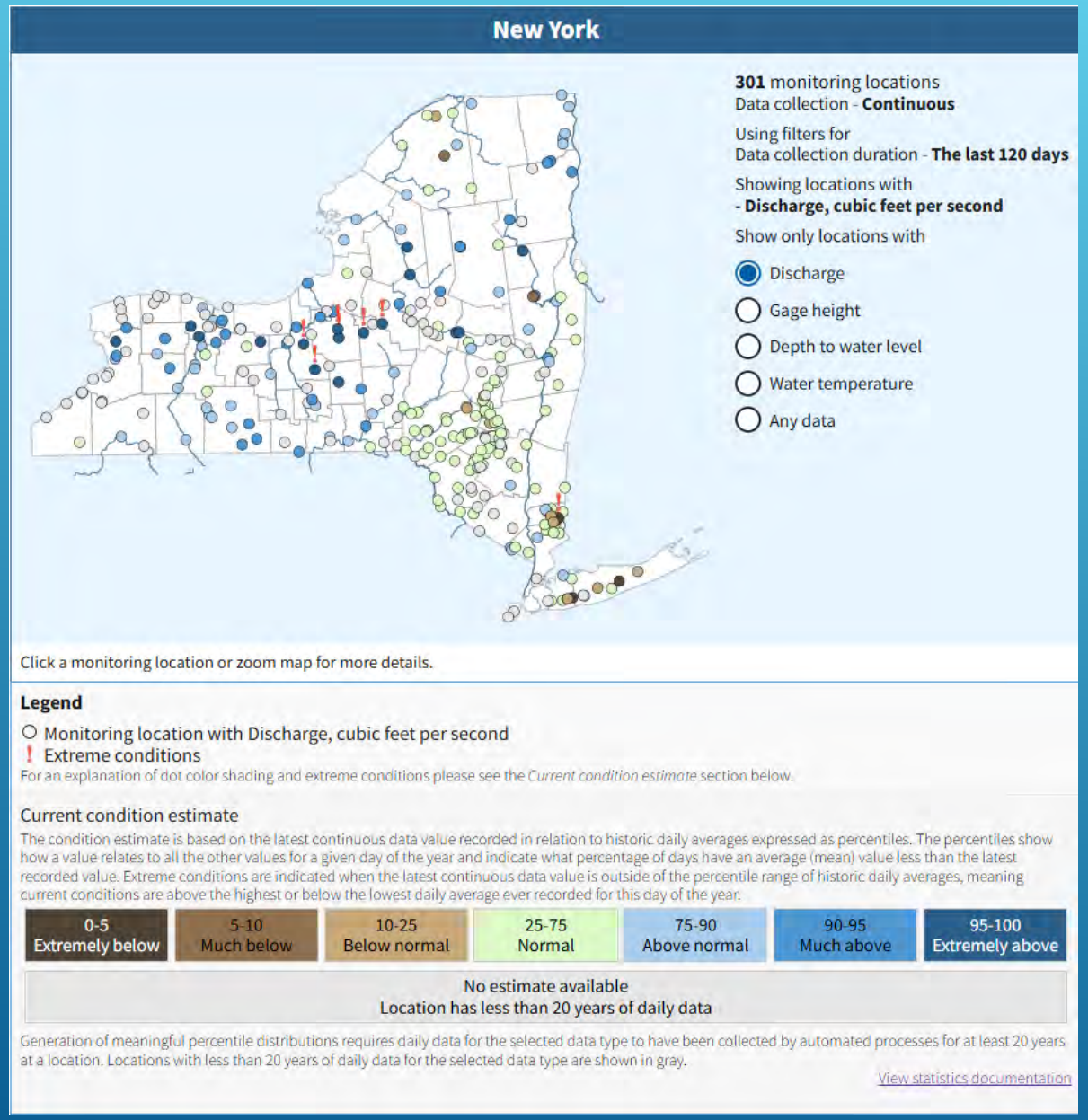
WATER DATA FOR A STATE



https://waterdata.usgs.gov/state/New%20York/

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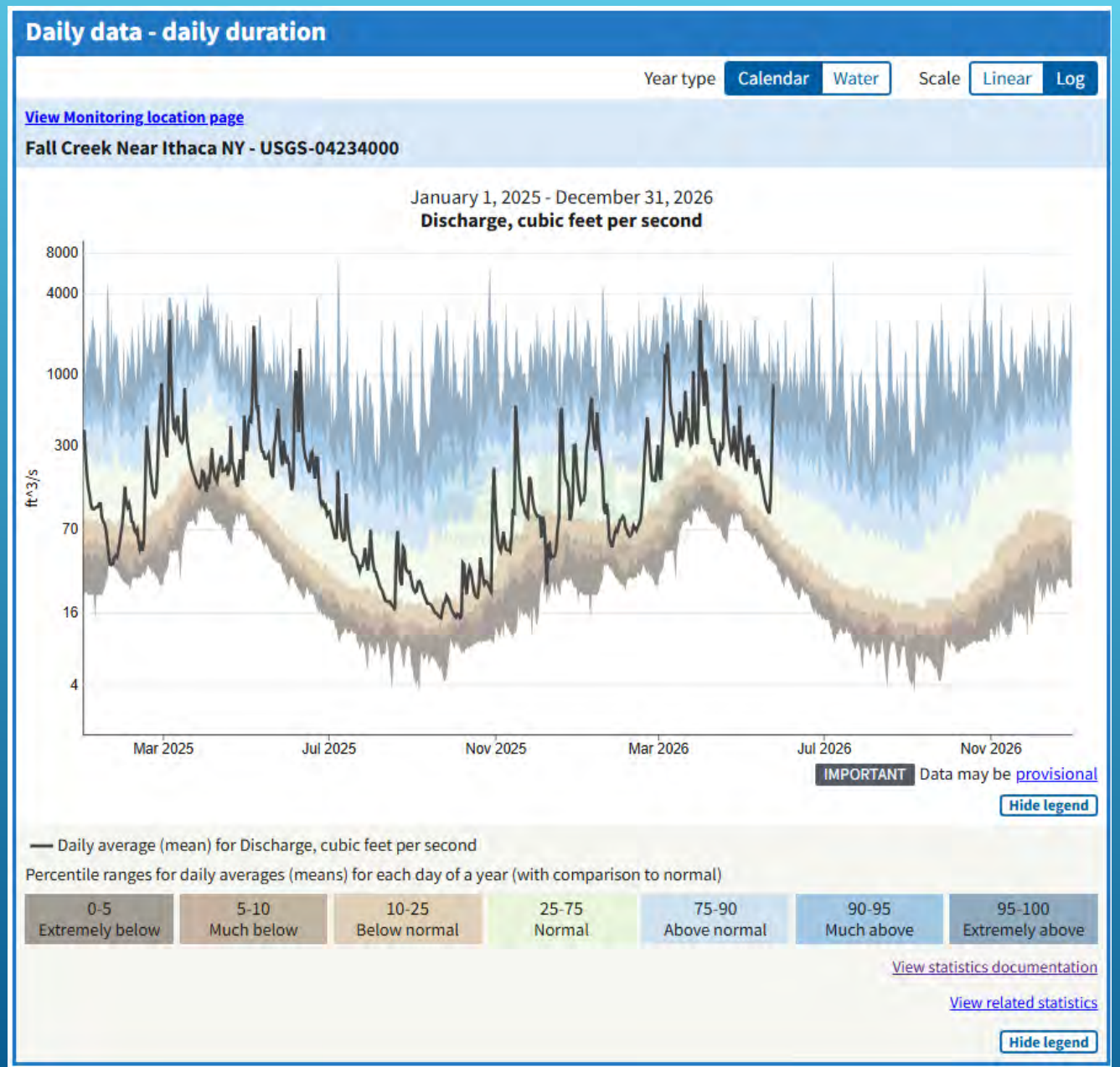
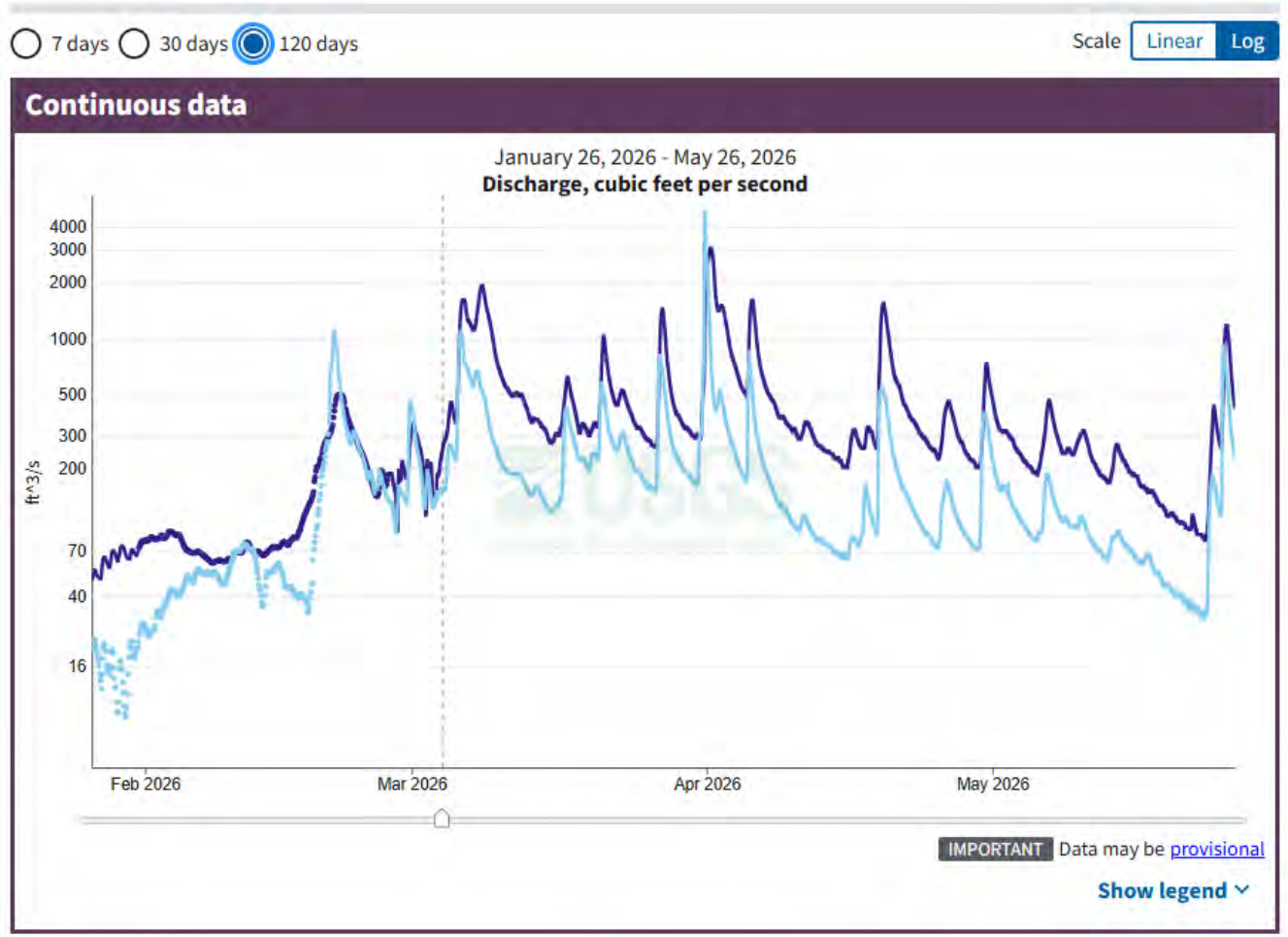
WATER DATA FOR A STREAMGAGE



https://waterdata.usgs.gov/monitoring-location/USGS-04234000/statistical-graphs/

WATER DATA FOR MORE THAN ONE STREAMGAGE



Selected values

Location	Value	Status	Time
Fall Creek Near Ithaca NY - USGS-04234000	251 ft^3/s	Approved	Mar 04 06:00 AM EST
Salmon Creek Near Ludlowville NY - USGS-0423401815	156 ft^3/s	Approved	Mar 04 06:00 AM EST

https://waterdata.usgs.gov/combined-location-graph/#locationId=USGS-04234000&locationId=USGS-0423401815&parameterCode=00060&period=P120D

USGS WATER DATA OGC API'S

USGS Water Data OGC APIs

These APIs provide OGC-compliant interfaces to USGS water data, letting you download continuous sensor measurements, discrete field measurements, metadata about monitoring locations, and more.

geospatial data api hydrology USGS

Available endpoints

View all the endpoints available on this website.

Latest continuous

This endpoint provides the most recent observation for each time series of continuous data. Continuous data are collected via automated sensors installed at a monitoring location. They are collected at a high frequency and often at a fixed 15-minute interval.

Latest continuous endpoint

Continuous values

Continuous data are collected via automated sensors installed at a monitoring location. They are collected at a high frequency and often at a fixed 15-minute interval. Depending on the specific monitoring location, the data may be transmitted automatically via telemetry and be available on WDFN within minutes of collection, while other times the delivery of data may be delayed if the monitoring location does not have the capacity to automatically transmit data.

Continuous values endpoint

Daily values

Daily data provide one data value to represent water conditions for the day. Throughout much of the history of the USGS, the primary water data available was daily data collected manually at the

Latest daily values

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APIs provided by:

US Geological Survey - Water Data for the Nation
https://waterdata.usgs.gov

Documentation

API reference - Swagger UI.

Long form documentation and tutorials.

Questions? Comments?

Contact us at this link with any questions or feedback about these APIs.

Citation information

Data provided by this service is US Government work in the public domain.

If you use our data in a publication, please cite your usage following the citation templates at this link.

https://api.waterdata.usgs.gov/ogcapi/v0/

USGS STATISTICAL SOFTWARE PACKAGES

Statistical software packages

WDFN computational tools are utilized by code developers performing analyses or building simple dashboards (e.g. “shiny apps” in R or “dash apps” in Python). All software packages are hosted in USGS GitHub repositories and are available for download from source or using package managers. We’ve got three main tools that can be used on the client side to access and analyze water information in similar patterns to WaterWatch.

`dataRetrieval` provides general USGS water data access including daily values data. It’s available in three languages: python, R, and Julia.

- https://waterdata.usgs.gov/blog/wdfn-stats-delivery/
- https://github.com/usgshttps://github.com/
- https://github.com/DOI-USGS/dataRetrieval

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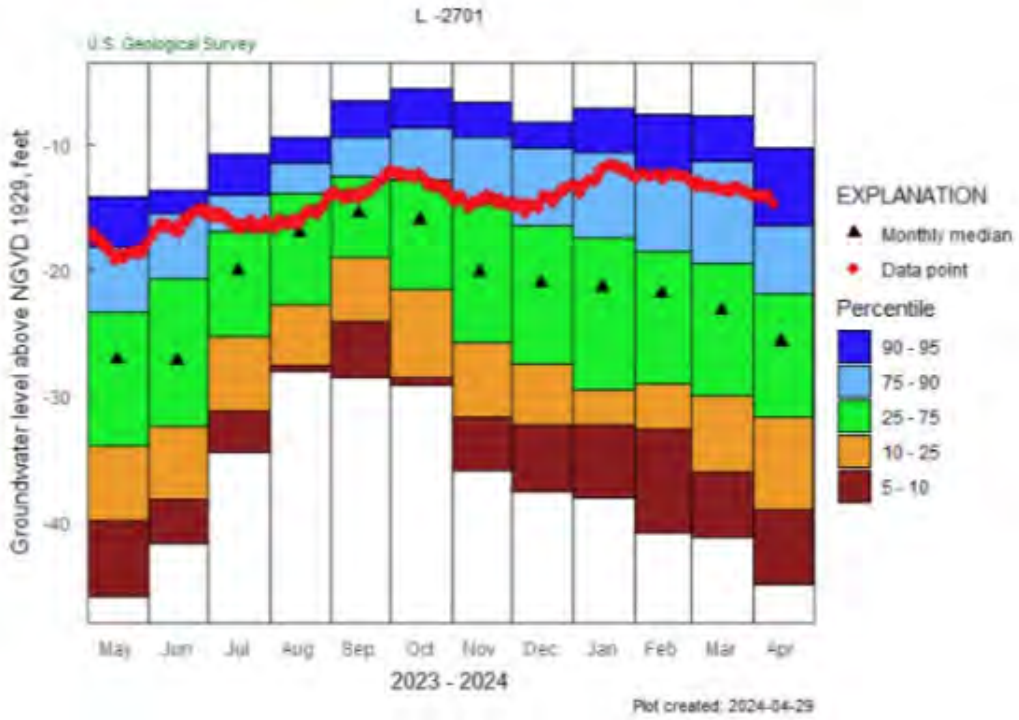
USGS STATISTICAL SOFTWARE PACKAGES

The Hydrologic Analysis Package (HASP) enables you to retrieve groundwater level and groundwater quality data, aggregate these data, plot them, and generate basic statistics. For example, the monthly frequency plot pairs the daily groundwater level with monthly statistics. Functions are available to customize the plots or to access the underlying statistics which can be used to power custom groundwater analysis.



A monthly frequency plot created using HASP

https://github.com/DOI-USGS/HASP

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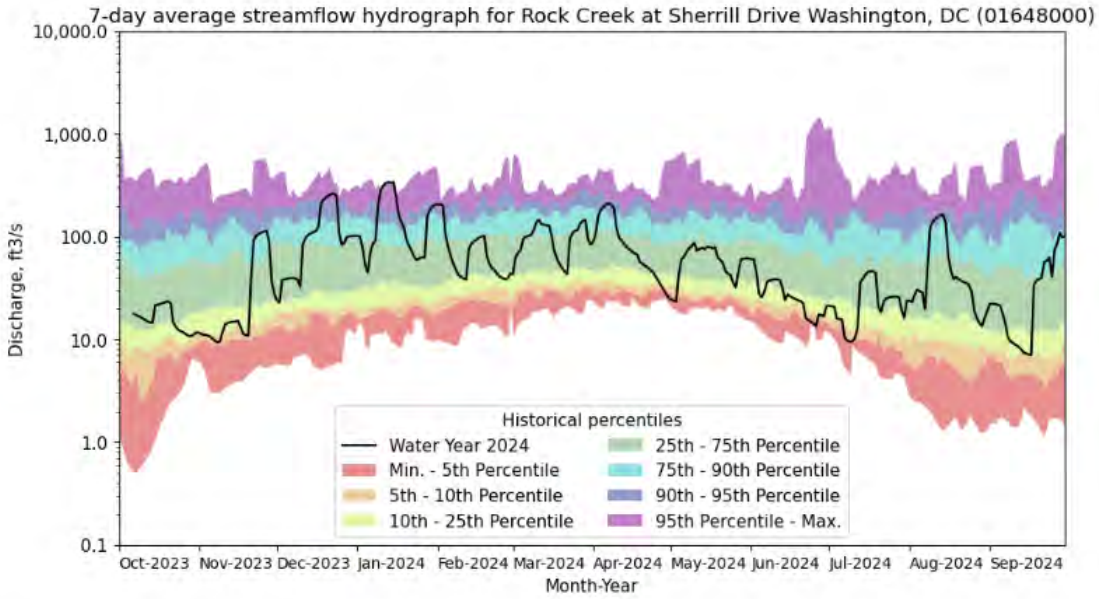
USGS STATISTICAL SOFTWARE PACKAGES

The Hydrologic Surface Water Analysis Package (`hyswap`) is a new library that performs common statistical calculations on surface water data, such as rolling n-day averages, percentiles, and exceedance probabilities. It also contains basic plotting functions that produce flow duration curves, cumulative hydrographs, raster hydrographs, and streamflow hydrographs. For example, the image below depicts a streamflow duration hydrograph for water year 2024 at a single monitoring location using rolling 7-day averages. The colorful envelopes surrounding the hydrograph represent the different percentile ranges using the built-in "Rainbow" palette: you can choose from a couple built-in palettes or use your own.

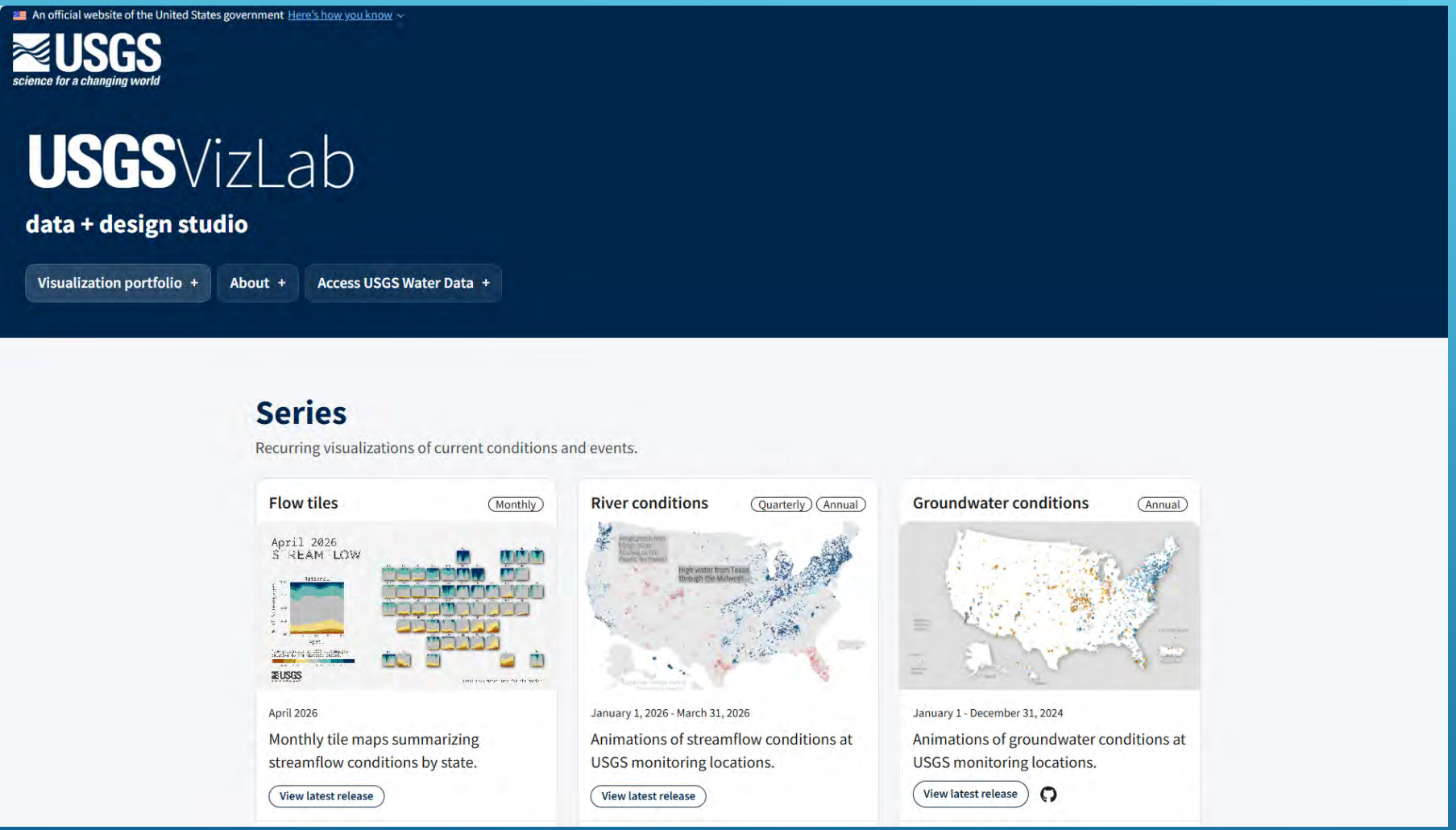


A streamflow duration hydrograph created with `hyswap`

Similar to `HASP` , `hyswap` documentation includes a suite of tutorials including simple examples for each graph or function. There are also more complicated example workflows showing how to do things like estimate the runoff for one or more HUC8s. You can read this blog post to learn more about using `hyswap` .

- https://doi-usgs.github.io/hyswap/#
- https://doi-usgs.github.io/hyswap/examples/index.html#
- https://waterdata.usgs.gov/blog/introducing-hyswap/

USGS VIZLAB



https://water.usgs.gov/vizlab/index.html

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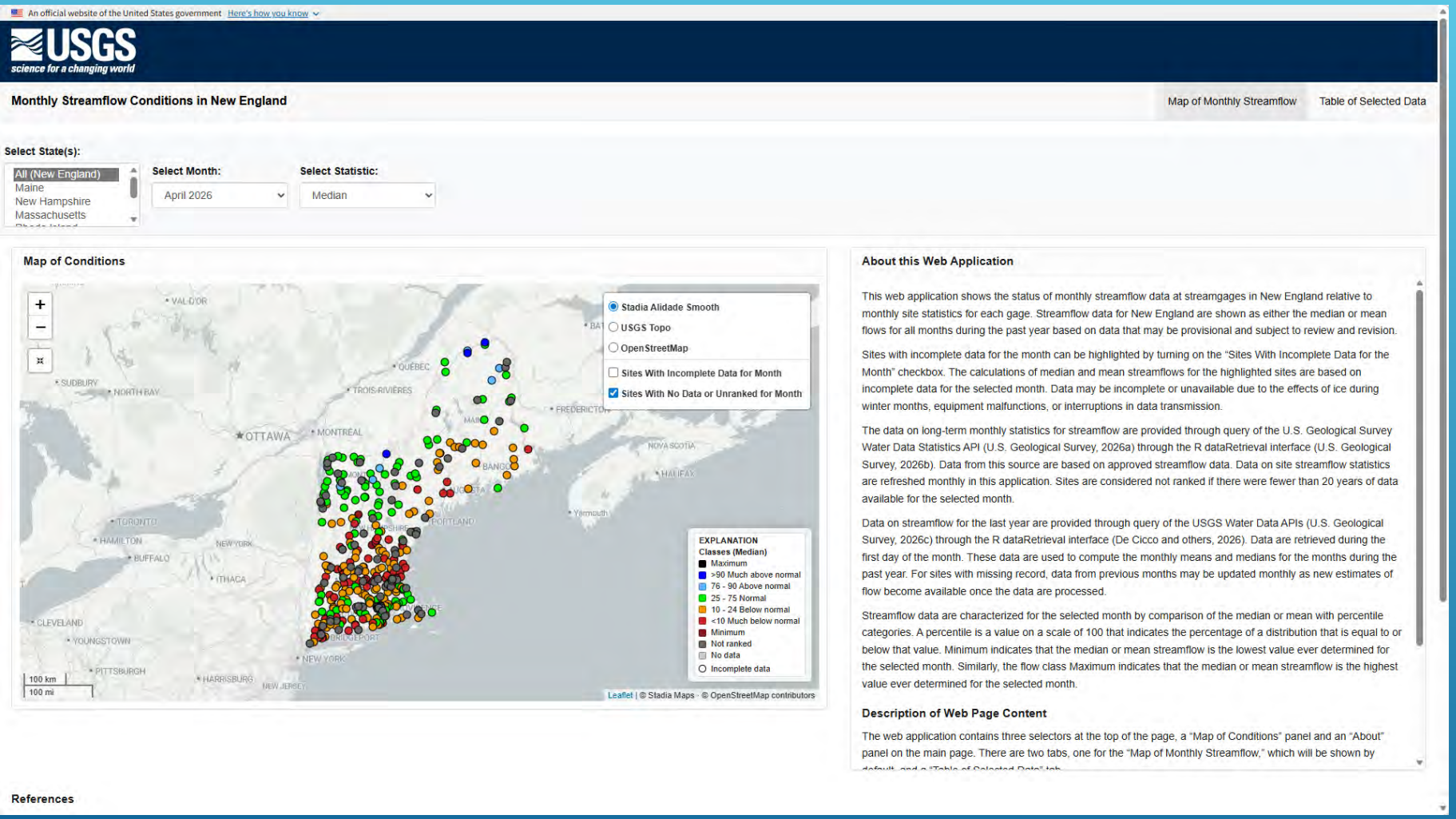
R-SHINNY APPS – MONTHLY STREAMFLOWS



https://rconnect.usgs.gov/NEWENG_monthly/

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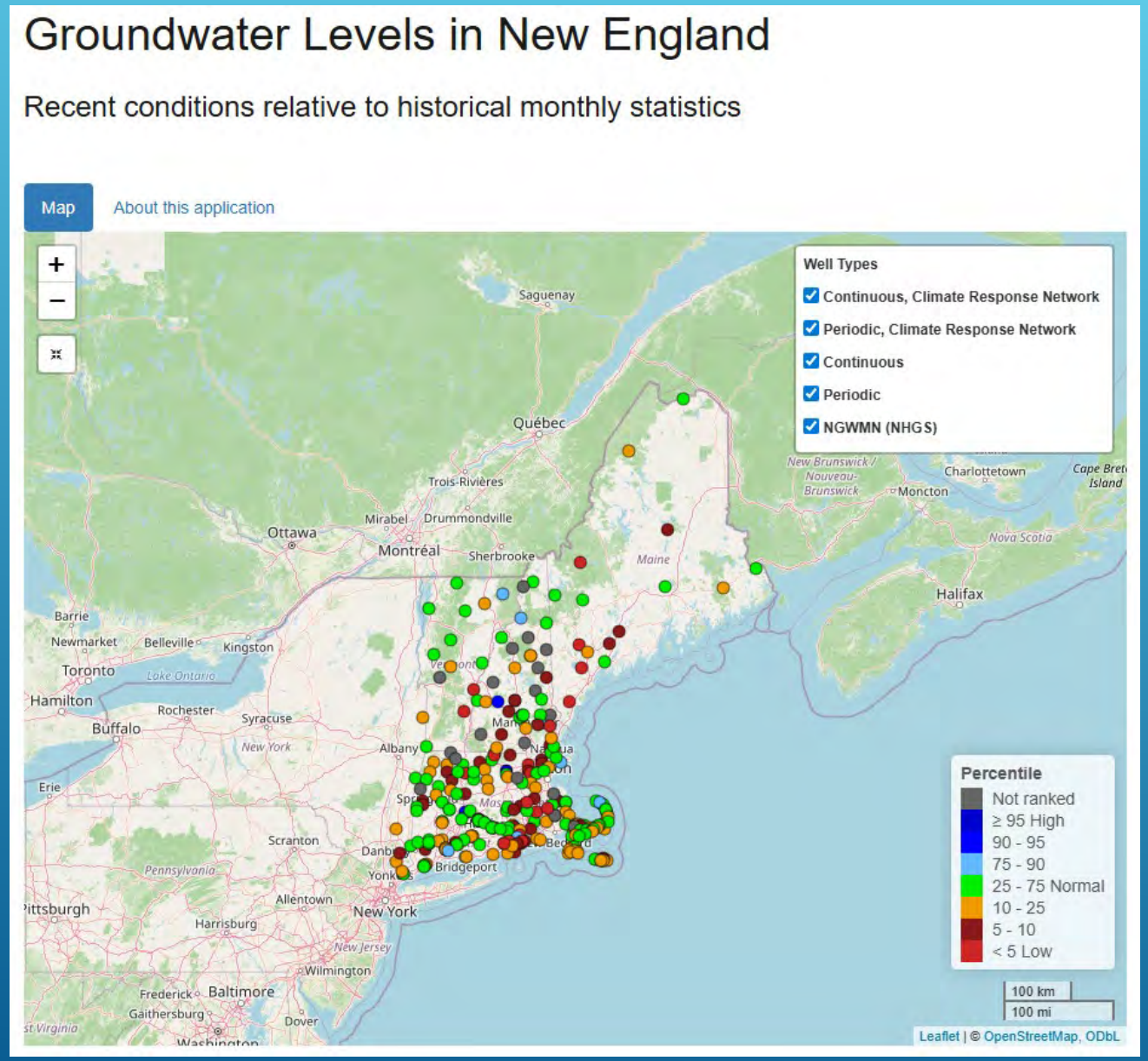
R-SHINNY APPS – GROUNDWATER LEVELS



https://newengland.water.usgs.gov/web_app/GWW/GWW.html

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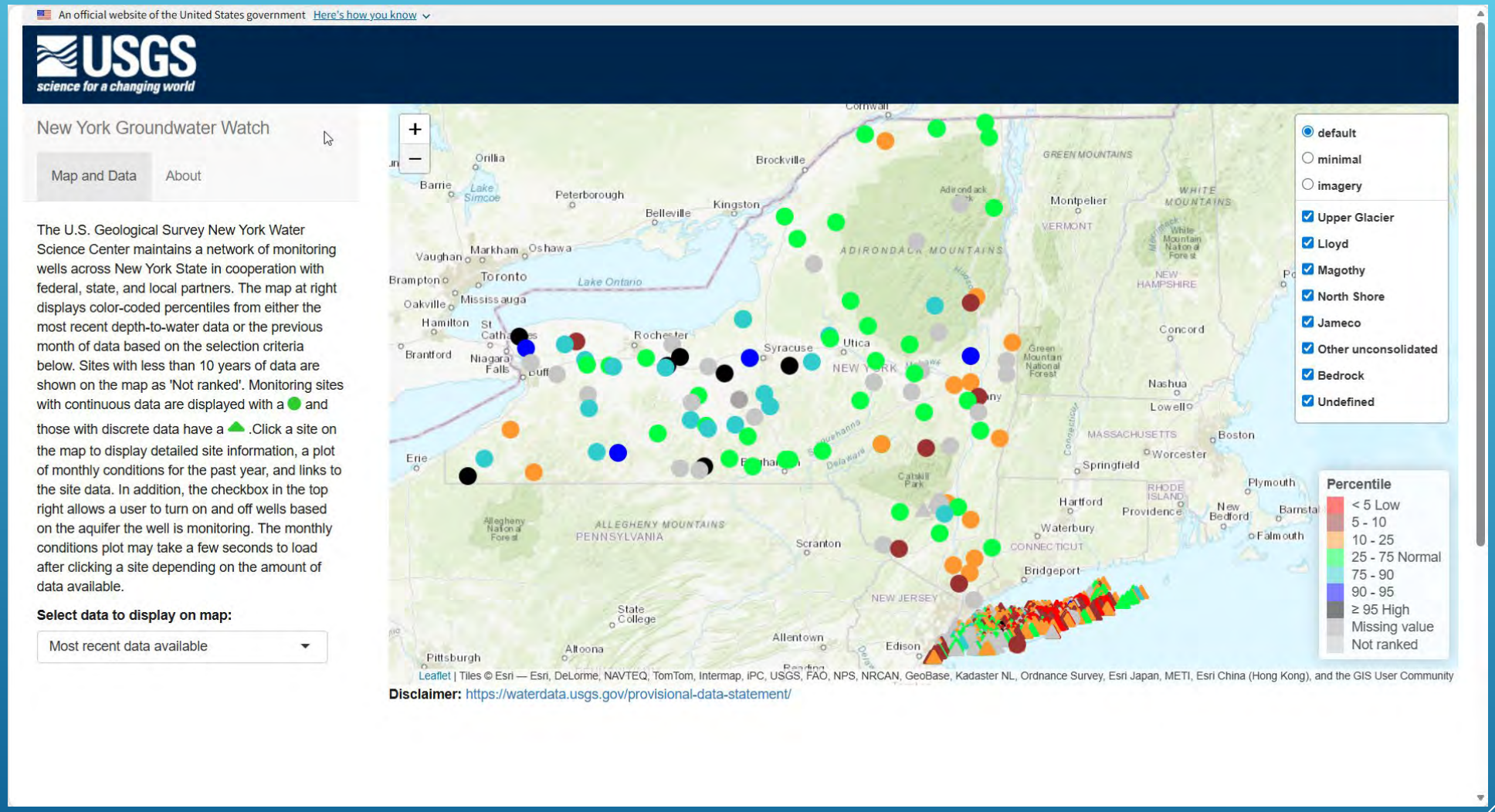
R-SHINNY APPS – GROUNDWATER LEVELS



https://rconnect.usgs.gov/content/99cc8726-7baa-45af-a5bd-bced25ff82db/

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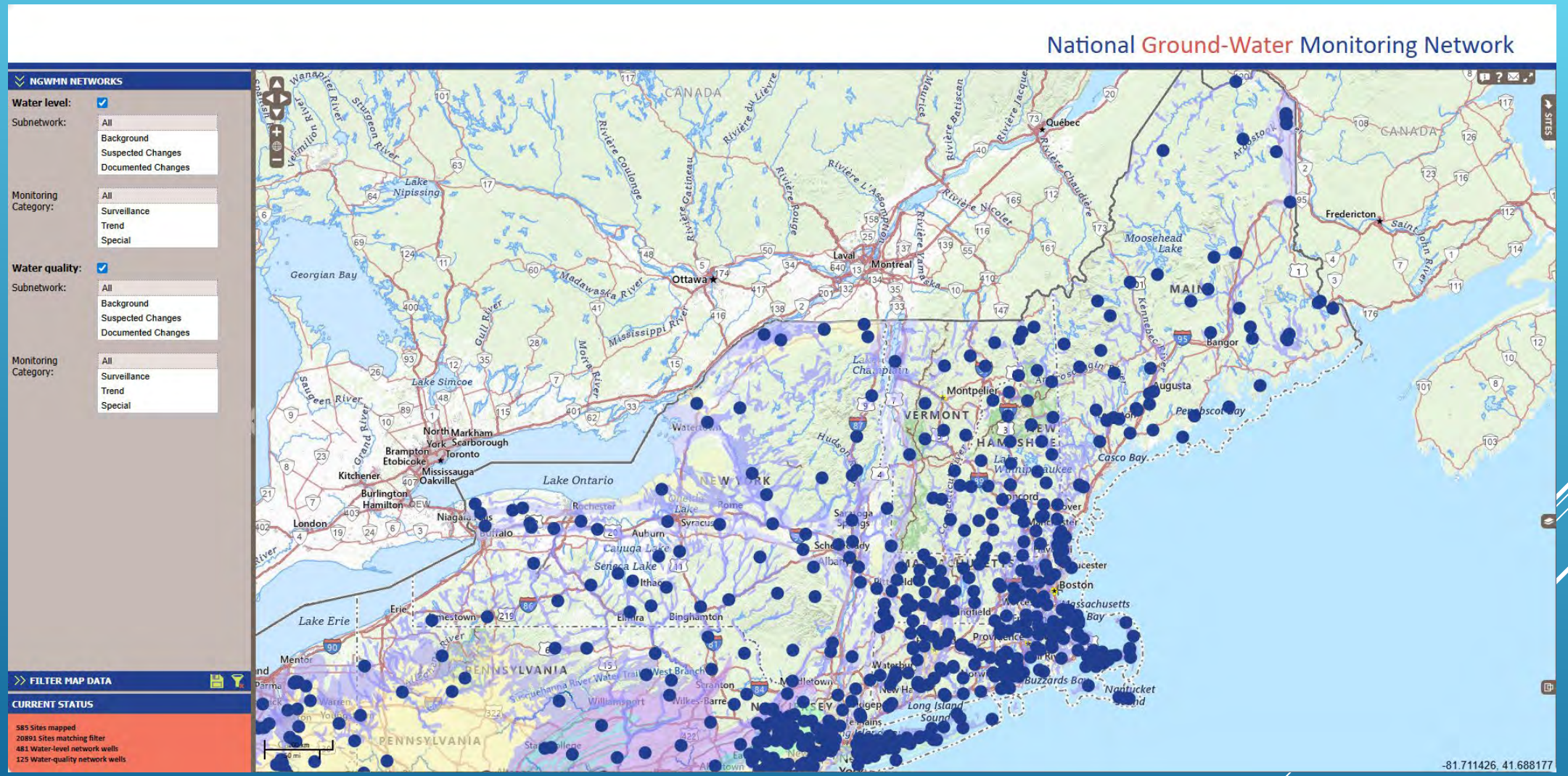
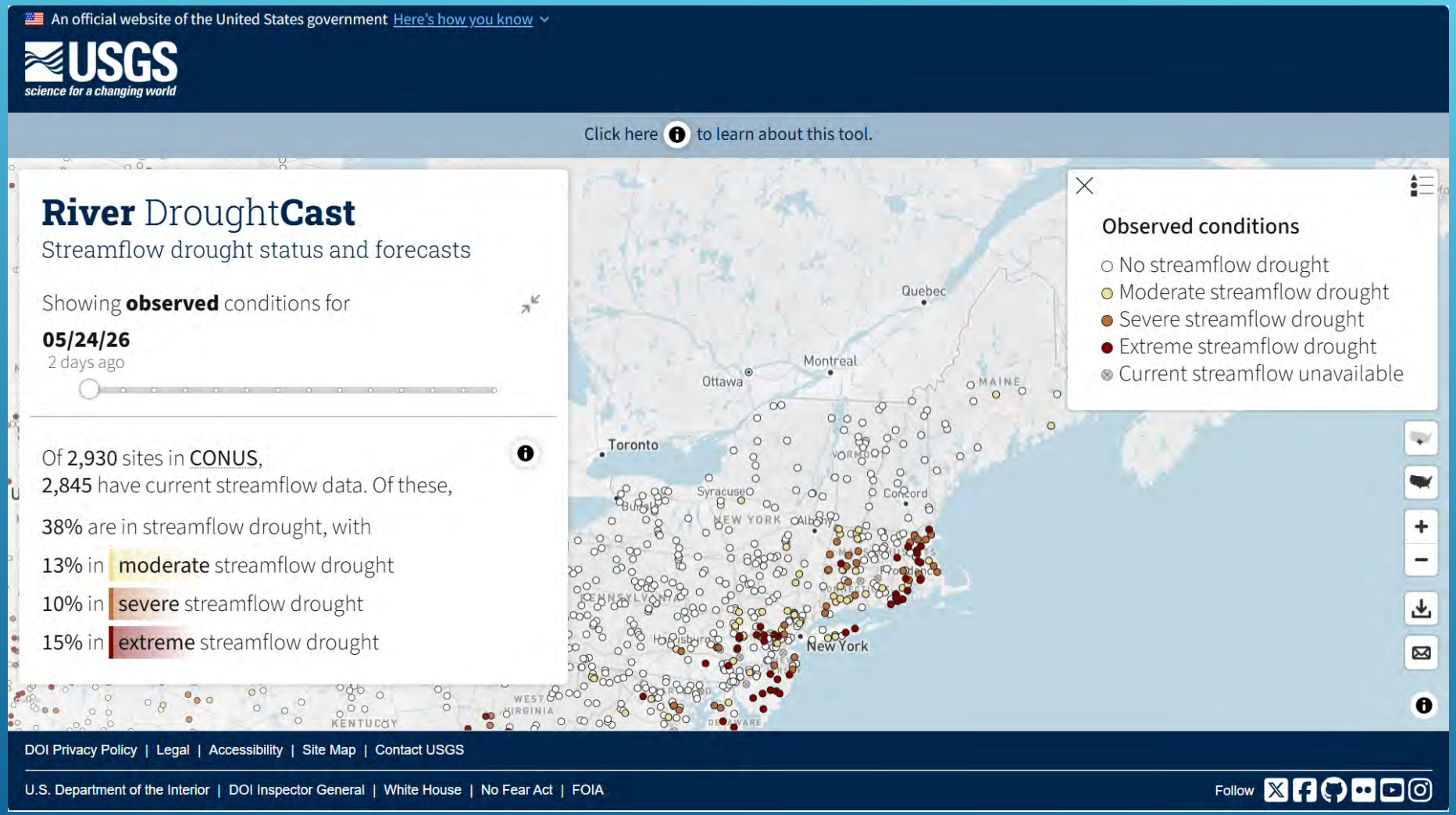
NATIONAL GROUND-WATER MONITORING NETWORK



https://www.usgs.gov/apps/ngwmn/index.jsp

RIVER DROUGHTCAST



https://water.usgs.gov/vizlab/streamflow-drought-forecasts/

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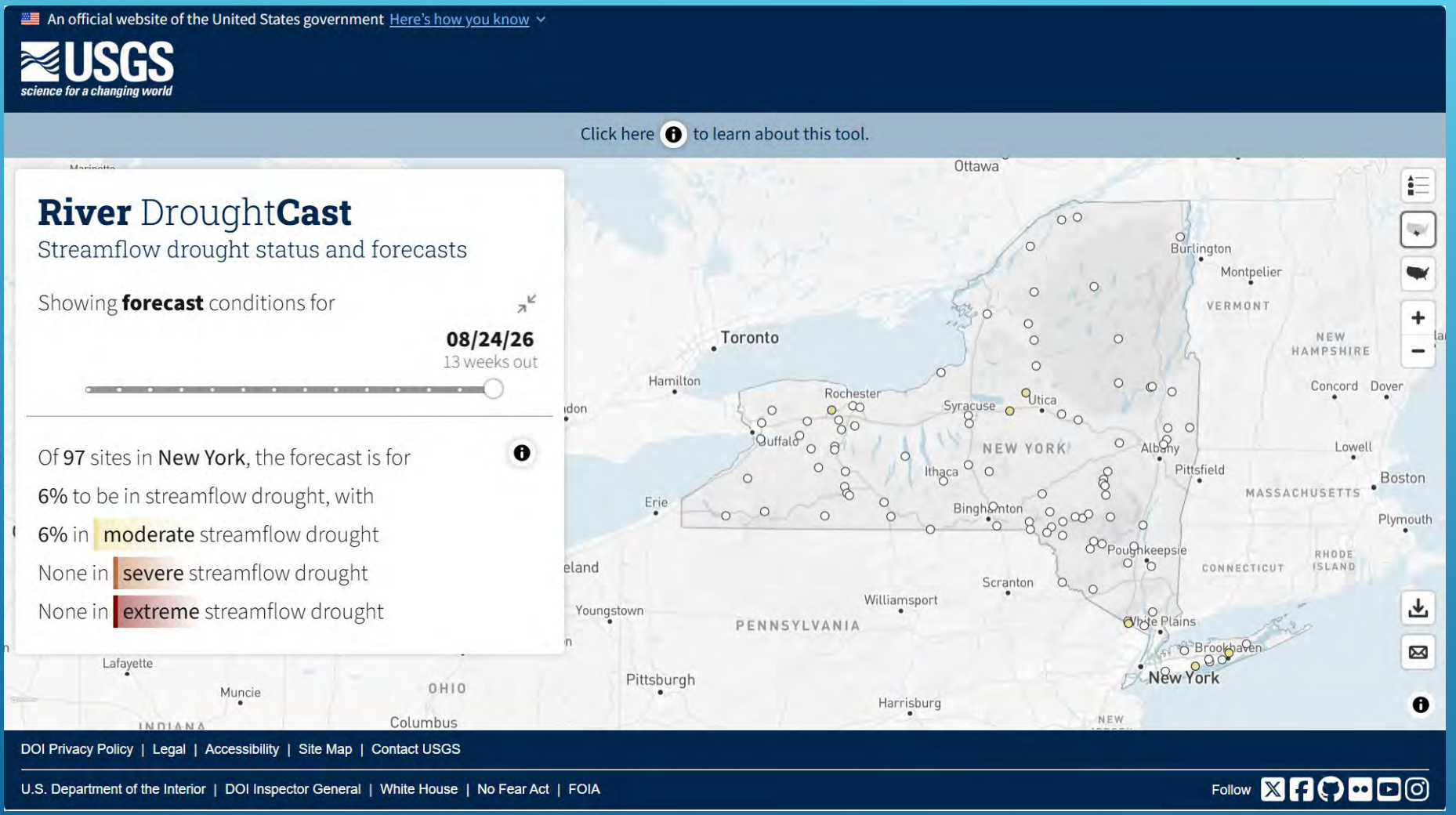
RIVER DROUGHTCAST – BY STATE



https://water.usgs.gov/vizlab/streamflow-drought-forecasts/?extent=New+York#5.63/42.797/-75.809

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