



ACCESSING AND USING US GEOLOGICAL SURVEY WATER INFORMATION

ALICIA GEARWAR

April 30, 2022

Introduction

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Lake George High School 1994

Geoscience Bachelor of Science degree from Hobart & William Smith College 1998

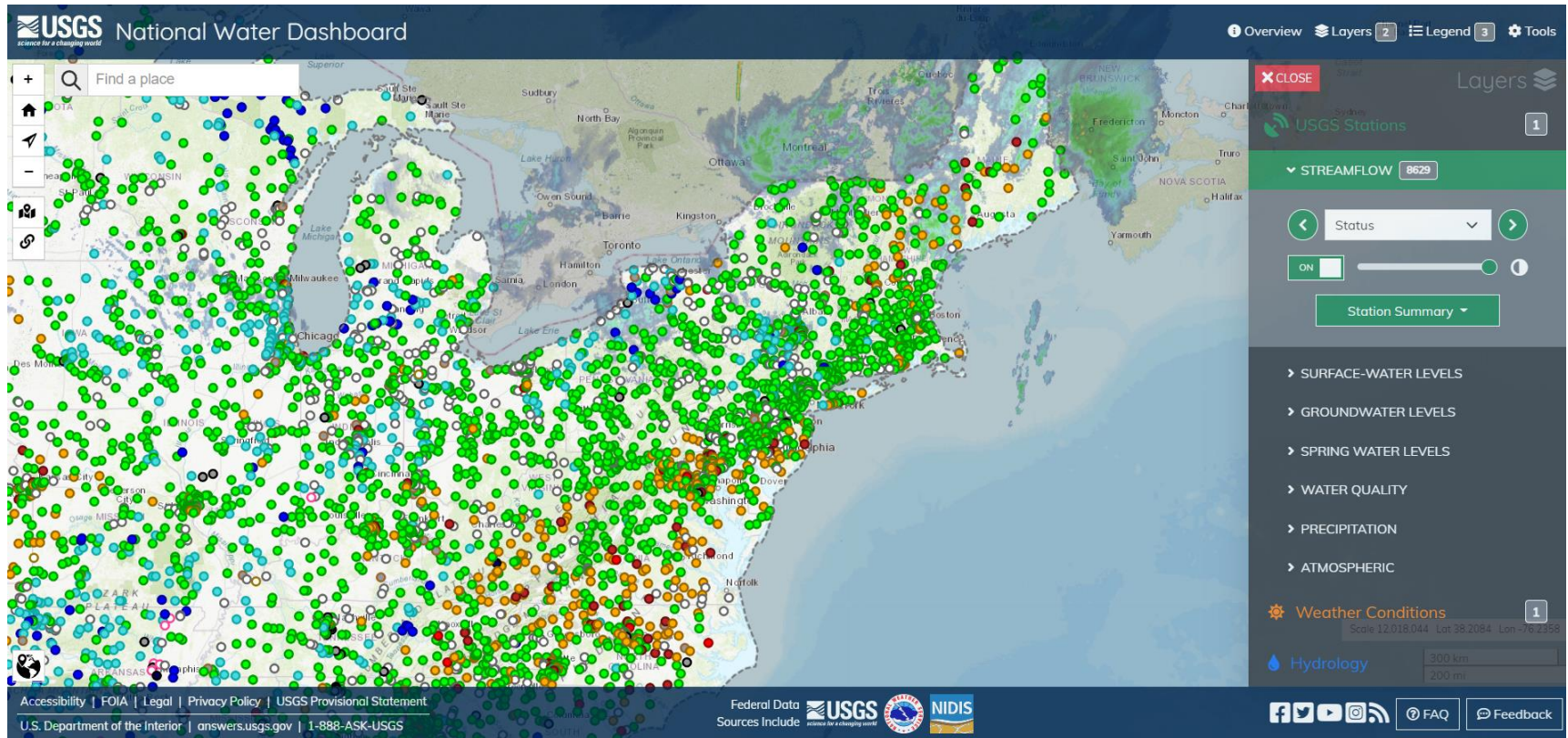
Warren County Soil & Water Conservation District 1996

Darrin Freshwater Institute 2001

Hydrologist with U.S. Geological Survey 2003

Water Data for the Nation

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<https://dashboard.waterdata.usgs.gov>

National Water Dashboard

Zoom into NY

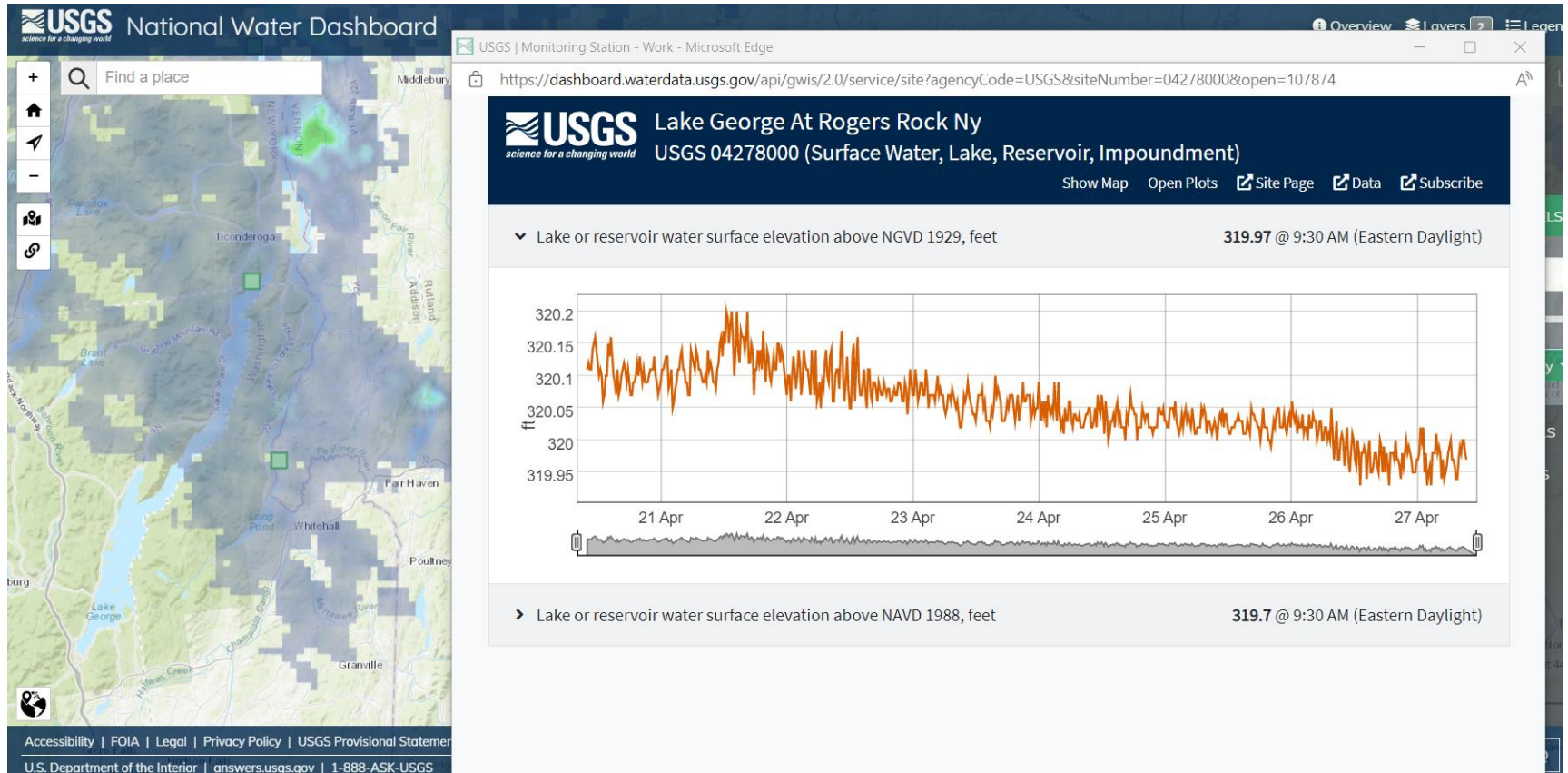
For lake and reservoir gages, click on Surface-water levels and select Lakes from drop-down

The screenshot displays the USGS National Water Dashboard interface. At the top left, the USGS logo and 'National Water Dashboard' text are visible. A search bar with the placeholder 'Find a place' is present. The main map area shows a topographic view of the Northeast United States, with numerous green square markers representing water gages. The 'Layers' panel on the right is open, showing 'USGS Stations' with a count of 1. Under 'SURFACE-WATER LEVELS' (723), a dropdown menu is set to 'Lakes'. Below this, there is an 'ON' toggle and a 'Station Summary' button. Other categories like 'GROUNDWATER LEVELS', 'SPRING WATER LEVELS', 'WATER QUALITY', 'PRECIPITATION', and 'ATMOSPHERIC' are listed but collapsed. At the bottom of the dashboard, there are links for 'Accessibility', 'FOIA', 'Legal', 'Privacy Policy', and 'USGS Provisional Statement', along with social media icons and a 'Feedback' button.

Click on square to access that gage's information

Lake George at Rogers Rock

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Click on Site Page for Monitoring Location Page

Click on Data for Data Inventory Page for site

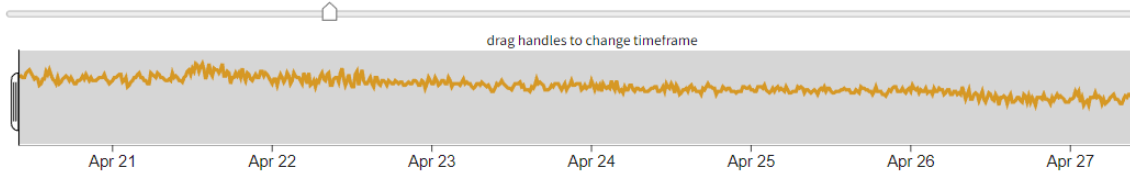
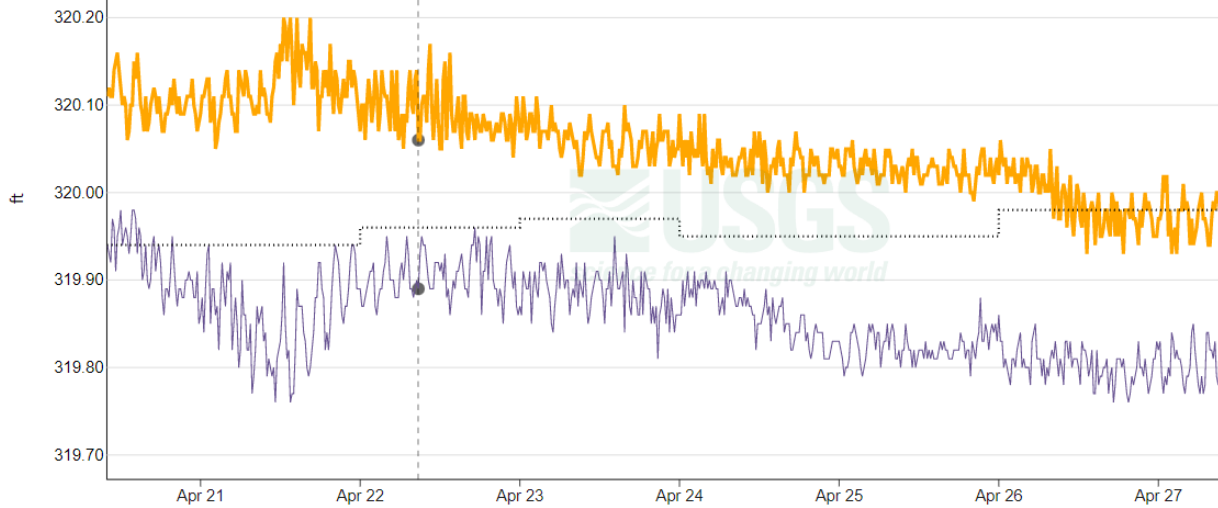
Click on Subscribe for Water Alert Subscription for this site

Monitoring Location Page

Lake or reservoir water surface elevation above NGVD 1929, ft ⓘ

320.06 ft - Apr 22, 2022 08:45:00 AM EDT

319.89 ft - Apr 22, 2021 08:45:00 AM EDT



Current: — Provisional
Last year: — Approved
Median: 1914 - 2022

- Compare to last year
- Display median

Monitoring Location Page cont.

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IMPORTANT Data may be provisional - [learn more](#)

Select Data to Graph

- Lake or reservoir water surface elevation above NAVD 1988, feet 2021-12-28 to 2022-04-27 ▼
- Lake or reservoir water surface elevation above NGVD 1929, feet 2007-10-01 to 2022-04-27 ▲
[Subscribe to Alerts](#)

Hydrograph data table(s) +



Datum Conversion – NGVD29 vs. NAVD88

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□ **Gage Datum and Elevation**

- The term "datum", such as used in the "Location" or "Gage" paragraphs in USGS publication and on Web pages, refers to the base, or 0.0 foot gage-height (stage), for a gage. The term datum is used when the base gage-height has been surveyed in from known benchmarks or with precision GPS. The datum or elevation will be reported to either NGVD of 1929 or NAVD of 1988, or to a different datum which is noted in the description of the gage.
- Datum of gage is NGVD of 1929 (levels by New York State Department of Public Works). To convert elevations to NAVD of 1988, subtract 0.27 ft.



Gage Equipment

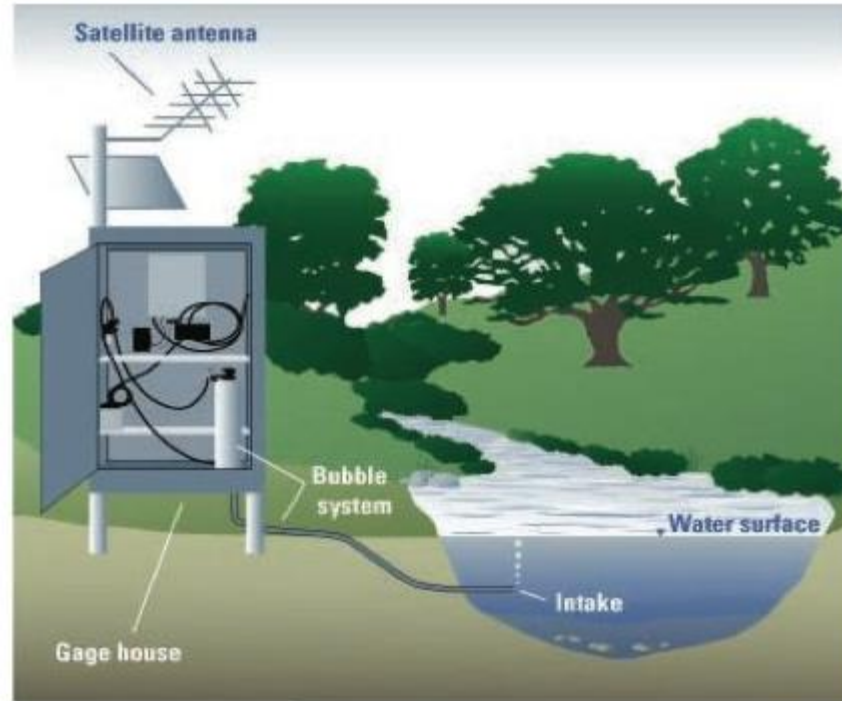


Figure 2. Diagram of a typical streamgage installation with equipment used to measure stream stage (by L.S. Coplin, U.S. Geological Survey).

Data Inventory Page

USGS 04278000 LAKE GEORGE AT ROGERS ROCK NY

Available data for this site

Lake Site

DESCRIPTION:

Latitude 43°48'29.3", Longitude 73°27'28.4" NAD83
Essex County, New York, Hydrologic Unit 04150408
Drainage area: 233 square miles
Datum of gage: 0.00 feet above NGVD29.

AVAILABLE DATA:

| Data Type | Begin Date | End Date | Count |
|--|-----------------------------------|------------|-------|
| Current / Historical Observations (availability statement) | 2007-10-01 | 2022-04-27 | |
| Daily Data | | | |
| Lake or reservoir water surface elevation above NGVD 1929, feet | 1913-09-01 | 2022-04-26 | 39626 |
| Daily Statistics | | | |
| Lake or reservoir water surface elevation above NGVD 1929, feet | 1913-09-01 | 2022-01-31 | 39541 |
| Monthly Statistics | | | |
| Lake or reservoir water surface elevation above NGVD 1929, feet | 1913-09 | 2022-01 | |
| Annual Statistics | | | |
| Lake or reservoir water surface elevation above NGVD 1929, feet | 1913 | 2022 | |
| Field/Lab water-quality samples | 1971-04-27 | 1971-04-27 | 1 |
| Water-Year Summary | 2005 | 2021 | 17 |
| Revisions | Available (site:1) (timeseries:0) | | |

OPERATION:

Record for this site is maintained by the USGS New York Water Science Center

Email questions about this site to [New York Water Science Center Water-Data Inquiries](#)

Historical Web Page

🔔 We're replacing this page with a [Next Generation Monitoring Location Page](#).

We're modernizing Water Data for the Nation delivery. [Find out what this means for you](#). This page will be discontinued Jan.1, 2023.

USGS 04278000 LAKE GEORGE AT ROGERS ROCK NY PROVISIONAL DATA SUBJECT TO REVISION

Available data for this site Time-series: Current/Historical Observations

🔒 [Click to hide station-specific text](#)

Funding for this site is provided by:

Central Rivers Power

Central Rivers Power

▼ Site Information

LOCATION.--Lat 43°48'28", long 73°27'30" referenced to North American Datum of 1927, Essex County, NY, Hydrologic Unit 04150408, on west shore about 500 ft north of Hooper's dock at Rogers Rock, and 0.4 mi west of Baldwin.

DRAINAGE AREA.--233 mi². at outlet at Ticonderoga.

PERIOD OF RECORD.--July 1913 to current year (daily gage heights prior to October 2003, elevations thereafter).

REVISIONS HISTORY.--WDR NY-87-1: Datum.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (levels by New York State Department of Public Works). To convert elevations to NAVD of 1988, subtract 0.27 ft. Prior to Nov. 4, 1929, nonrecording gages at several sites within a half mile of present site. Nov. 4, 1929 to Sept. 26, 1936, nonrecording gage at present site. Prior to October 2003, at datum 316.06 ft higher.

REMARKS.--Elevation of lake regulated by floodgates at Ticonderoga. Prior to October 1974, lake was regulated by powerplant wheel gate and floodgates. Lake George has been controlled by a dam at its outlet for more than 100 years. Area of water surface is 44 mi².

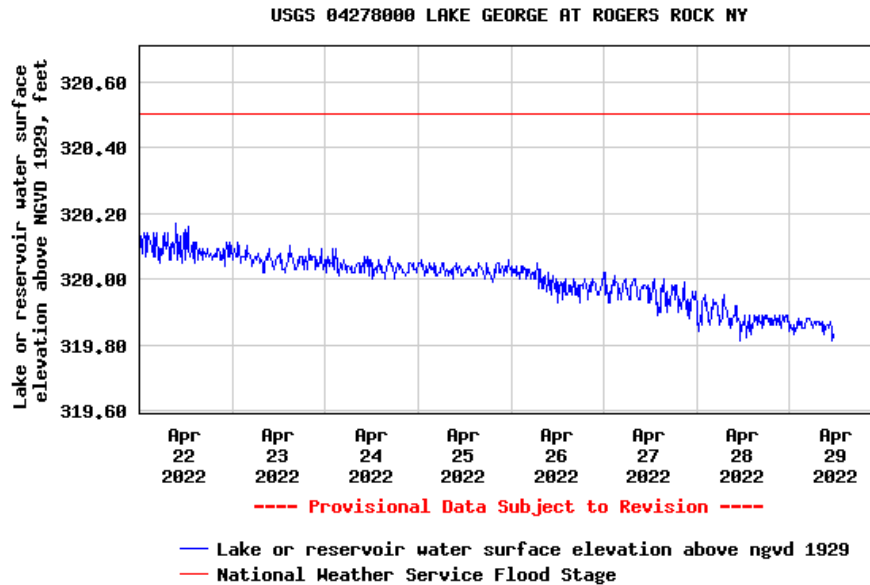
EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 321.15 ft, present datum, Apr. 9, 1936; minimum elevation, 316.70 ft, present datum, Dec. 20, 1941.

- ▶ **WaterNow** – get the latest gage data from your mobile phone or email.
- ▶ **WaterAlert** – get an email or text (SMS) alert based on your chosen threshold.

Historical Web Page cont.

Lake or reservoir water surface elevation above NGVD 1929, feet

Most recent instantaneous value: 319.82 04-29-2022 11:30 EST



Add up to 2 more sites and replot for "Lake or reservoir water surface elevation above NGVD 1929, feet"

[Add site numbers](#) Note

Enter up to 2 site numbers separated by a comma. A site number consists of 8 to 15 digits

GO

Create [presentation-quality](#) / [stand-alone](#) graph. Subscribe to [WaterAlert](#) P62614 107874 A(0)

See this graph on the [Monitoring Location Pages](#)

[+ Share this graph](#) | [f](#) [t](#) [e](#) [m](#)

NY Lakes and Reservoirs Table

Current Conditions for New York: Lakes and reservoirs -- 36 site(s) found

PROVISIONAL DATA SUBJECT TO REVISION

--- Predefined displays --- Group table by Select sites by number or name
 New York Lake and Reservoir Table -- no grouping -- go show sites on a map

[Customize table to display other current-condition parameters](#)

| Station Number | Station name | Date/Time | Lake or reser-voir elev-ation, NGVD, feet | Lake or reser-voir elev-ation, NAVD, feet | Gage height, feet | Lake or reser-voir elev-ation, IGLD, feet | Lake or reser-voir elev-ation, NYBCD, ft |
|--------------------------|--|-----------------|---|---|-------------------|---|--|
| 01304250 | LAUREL LAKE NEAR MATTITUCK NY NAVD88 | 04/27 09:45 EST | 6.58 | -- | -- | -- | -- |
| 01304705 | GEORGICA POND NEAR APAQUOQUE NY NAVD88 | 04/27 09:45 EST | 2.48 | -- | -- | -- | -- |
| 01314500 | INDIAN LAKE NEAR INDIAN LAKE NY | 04/27 09:45 EST | -- | 1.54 | -- | -- | -- |
| 01323500 | GREAT SACANDAGA LAKE AT CONKLINGVILLE NY | 04/27 10:00 EST | Eqp | Eqp | -- | -- | -- |
| 01330884 | SARATOGA LAKE AT STATE HWY 9P AT SARATOGA LAKE NY | 04/27 10:30 EST | 770.33 | 769.45 | -- | -- | -- |
| 01343900 | HINCKLEY RESERVOIR AT HINCKLEY NY | 04/27 10:00 EST | 203.64 | 203.05 | -- | -- | -- |
| 01350100 | HINCKLEY RESERVOIR AT HINCKLEY NY | 04/27 10:45 EST | -- | 1,223.69 | -- | -- | 1,225.05 |
| 01414750 | SCHOHARIE RESERVOIR NEAR GRAND GORGE NY | 04/27 10:15 EST | 1,130.47 | 1,129.87 | -- | -- | -- |
| 01423910 | PEPACTON RESERVOIR NEAR LEWBEACH NY [backup from radar] | 04/27 10:30 EST | -- | 1,279.21 | -- | -- | -- |
| 01435900 | PEPACTON RESERVOIR NEAR LEWBEACH NY [backup from radar] | 04/27 10:30 EST | -- | 1,279.18 | -- | -- | -- |
| 01499500 | CANNONSVILLE RESERVOIR NEAR KELSEY NY [backup from radar] | 04/27 10:30 EST | -- | 1,150.31 | -- | -- | -- |
| 01511000 | CANNONSVILLE RESERVOIR NEAR KELSEY NY [backup from radar] | 04/27 10:30 EST | -- | 1,150.29 | -- | -- | -- |
| 01521000 | NEVERSINK RESERVOIR NEAR NEVERSINK NY [backup from radar] | 04/27 10:45 EST | -- | 1,439.10 | -- | -- | -- |
| 01523000 | NEVERSINK RESERVOIR NEAR NEVERSINK NY [backup from radar] | 04/27 10:45 EST | -- | 1,439.13 | -- | -- | -- |
| 01523000 | EAST SIDNEY LAKE AT EAST SIDNEY NY | 04/27 10:00 EST | 1,140.32 | 1,139.91 | -- | -- | -- |
| 01523000 | WHITNEY POINT LAKE AT WHITNEY POINT NY | 04/27 10:00 EST | 973.02 | 973.32 | -- | -- | -- |
| 01523000 | ARKPORT RESERVOIR NEAR ARKPORT NY | 04/27 10:00 EST | 1,228.43 | 1,228.00 | -- | -- | -- |
| 01523000 | ALMOND LAKE NEAR ALMOND NY | 04/27 10:00 EST | 1,260.86 | 1,260.52 | -- | -- | -- |

https://waterdata.usgs.gov/ny/nwis/current/?type=lake&group_key=NONE

WATER ALERT

Subscription Form

The U.S. Geological Survey WaterAlert service sends e-mail or text (SMS) messages when [certain parameters](#), as measured by a USGS real-time data-collection station, exceed user-definable thresholds. The development and maintenance of the WaterAlert system is supported by the USGS and its partners, including numerous federal, state, and local agencies.

Real-time data from USGS gages are transmitted via satellite or other telemetry to USGS offices at various intervals; in most cases, 1 to 4 times per hour. Emergency transmissions, such as during floods, may be more frequent. *Notifications will be based on the data received at these site-dependent intervals.*

Site Info:

Number: 04278000
Name: LAKE GEORGE AT ROGERS ROCK NY
Agency: USGS
Transaction ID: PkdVn

Send Notification To:

[about this...](#)

- My mobile phone
 My email address

Notification Frequency:

[about this...](#)

- Hourly
Daily

All Available Parameter(s):

[about this...](#)

Recent value:

Elevation, lake/res, NGVD29, ft 320.08
Elevation, lake/res, NAVD88, ft 319.81

Alert Threshold Condition:

[about this...](#)

- Greater than (>)
 Less than (<)
 Outside a range (< or >)
 Inside a range (> and <)

Real-time value is greater than: ft

I have read and acknowledge the [Provisional Data Statement](#) and [Privacy Statement](#).

Submit

Reset

Cancel

About Water Data for the Nation

<https://waterdata.usgs.gov/nwis>

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



How Web Flags help the public understand our data



June 20, 2021

Bryce Redinger and Candice Hopkins



How Web Flags help the public understand our data

USGS Water Data are important to the public and help people to make critical decisions, but conditions in the field are often complicated to convey. Therefore, USGS hydrologic technicians apply web flags to convey gaps in data to the public so users understand unusual values or missing data.

Web flags are displayed graphically on monitoring location pages and can either be kept on data permanently or removed when data are reviewed and corrected. Here are some common web flags and some example reasons for their application. This list is not comprehensive and therefore does not include all possible web flags or all possible causes.

Web Flags Indicate Why No Data are Present

Discontinued

Definition

A station has been permanently or temporarily discontinued.

Example Causes

Contact Information

- Alicia Gearwar | Supervisory Hydrologist
- U.S. Geological Survey | New York Water Science Center
- 425 Jordan Road | Troy, NY 12180
- office: 518-285-5657 | mobile: 518-424-3411
 - agearwar@usgs.gov

Questions??