DROUGHT WATCH AND WARNING FACT SHEET

Background

Drought stages are calculated using the State Drought Index, which evaluates whether several drought indicators have reached critical thresholds. New York Department of Environmental Conservation (DEC) experts track and evaluate drought conditions based on stream flows, lake and reservoir storage levels, and groundwater levels. These factors, and the duration of the dry period, season, and other information such as past and forecasted precipitation, weather patterns, and local conditions, are used by DEC to evaluate drought conditions across the state.

Drought Watch – A watch is the first of four levels of State drought advisories -- watch, warning, emergency, and disaster. A Drought Watch is intended to give advanced notice of a developing drought. At this stage, the public is encouraged to conserve water. Public water purveyors and industries are urged to update and begin to implement individual drought contingency plans. No mandatory restrictions are in place under a Drought Watch. DEC is responsible for declaring a Drought Watch or Warning status.

Drought Warning – A warning is the second stage of the four levels of State drought advisories. A Drought Warning is a notice of impending and imminent severe drought conditions. A Drought Warning declaration includes enhanced public outreach and awareness and increased voluntary water conservation measures. Public water supply purveyors and industries are urged to continue to implement local drought contingency plans. Federal, State, and local water resources agencies are notified to prepare for emergency response measures.

Detailed information on drought stage determination is described in the New York State Drought Management Coordination Annex.

What are the requirements for a Drought Warning?

Under a Drought Watch or Warning the State does not mandate statewide water use restrictions; the public is encouraged to voluntarily conserve water.

Under a Drought Warning, local agencies have discretion to initiate mandatory restrictions according to local codes or local drought plans. Local public water suppliers may require conservation measures, depending upon needs and conditions. While there are no mandatory statewide water use restrictions, during a Drought Warning State agencies prepare for continued and potentially worsening drought conditions as defined in the Annex.

Current Conditions

Current drought conditions can be viewed on the DEC website: https://dec.ny.gov/environmental-protection/water/water-quantity/current-drought-conditions.

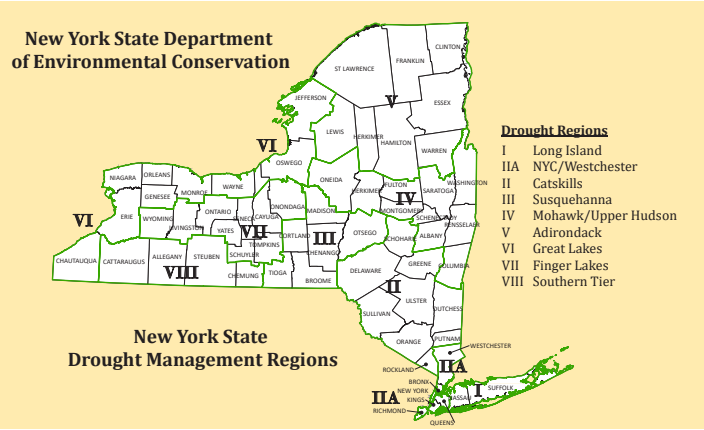
New York's drought advisories are intended primarily for guidance to public and private water suppliers and withdrawals. If you are experiencing a water shortage, please contact your water supplier, local agricultural extension, or local health department.

Potential Impacts to Affected Sectors and Recommended Actions

Certain sectors have the potential to be impacted by drought conditions. The following provides general information regarding the potential impacts and recommended actions in response to drought conditions. Drought Management Task Force agencies, including DEC, are available to provide technical assistance and guidance to affected water users.

Agriculture

Agricultural activities may be impacted by drought conditions, including crop production and livestock. During the growing season, drought can have a significant impact on crop health and yield. After crops are harvested, drought has minimal potential short-term impacts on crop production.



Watering systems for livestock may be impacted during drought conditions, no matter the time of year. Just as livestock water consumption increases in warm months, livestock water consumption increases in colder weather to meet the energy demands of keeping warm. It is recommended that on-farm water supplies are monitored regularly and concerns are communicated with county emergency management and local Soil and Water Conservation Districts. Further resources and support may be provided by the local Cornell Cooperative Extension Disaster Education Network and the New York State Department of Agriculture and Markets (AGM).

Water Supply

Droughts may present significant impacts to water supply systems such as loss of overall supply, loss of water pressure, poor water quality, increased customer demand, and increased operating costs caused by responses to drought impacts.

It is recommended that water suppliers in drought-affected areas assess water levels in lakes, reservoirs and other surface water sources, assess water levels in groundwater wells, assess the operational condition of backup supplies, alternate supplies, and interconnections, develop or update drought emergency plans and water conservation programs, prepare water conservation outreach for customers, and review and update contact information for local emergency management agencies and priority water users.

For public water suppliers reliant on the New York City reservoir system, contact the New York City Department of Environmental Protection.

Ecosystems

Drought conditions can impact ecosystems, both aquatic and terrestrial. Reduced stream flows can impact the health of aquatic life. Decreased precipitation impacts terrestrial plants and animals through reduced plant growth. DEC monitors overall statewide hydrological conditions, stream flows, and groundwater levels on a regular basis. DEC's Division of Water works to protect ecosystem health through the inclusion of passby flow, reservoir release, source water monitoring, observation wells/piezometers, and other related conditions in DEC-issued environmental permits. Additionally, DEC Division of Fish and Wildlife programs are responsible for habitat management and protection through permit reviews, development of protective permit conditions, compliance inspections, and the identification and mapping of regulated habitats.

Navigation and Transportation

Drought conditions can impact water levels on rivers and other waterways. Low water levels may impact transportation operations. New York State agencies monitor water levels and modify operations when necessary to maintain appropriate levels.

Drought conditions increase the risk of wildfires. Smoke from these fires can severely affect roadway visibility, impacting travel conditions. Transportation agencies continually monitor and assess roadway conditions to ensure public safety. Roadway messaging is activated through Variable Message Boards (VMS) as needed to inform motorists of conditions and potential hazards. As conditions warrant, roadway closures may be necessary to ensure the safety of all motorists.

Energy and Manufacturing

Energy production and manufacturing operations that rely on water may be impacted by drought conditions. The Drought Management Task Force monitors drought conditions, communicates information, and coordinates with affected communities. It is recommended that appropriate vigilance on fire prevention at outdoor work sites be emphasized regularly.

Planning and Preparedness

New York State communities typically have access to abundant water supplies to provide for agricultural, recreational, industrial, medical, residential and, most importantly, drinking water needs.

In 2021, Governor Hochul, by Executive Order No. 6: Continuation, and Expiration of Prior Executive Orders, ordered the continuation of Executive Order No. 116 originally issued on January 7, 2002. The Executive Order called for the reconstitution of the State Drought Management Task Force to coordinate State drought response activities and assist localities.

The State's Drought Management Coordination Annex identifies State and local actions to address drought preparedness and response. Through coordinated preparedness and response efforts, the impact of drought conditions on communities and commerce can be reduced. This Annex provides the framework for the implementation of strategies and actions that will reduce the vulnerability to drought conditions by taking pre-incident mitigation actions or reduce the untoward impacts of a drought by coordinating relief efforts.

Drought preparedness includes two activities: the monitoring and evaluation of climatological and hydrological conditions in New York for early awareness of a potential drought; and the implementation of short- and long-term options for programs and projects to minimize drought impacts. Drought preparedness requires an active coordinated effort by public and private entities at all levels - local, State, and Federal.

Local conditions and impacts to water systems can vary. The public can contact their local water system for information about drought preparedness, impacts, and response notices and activities. Additional tips for the public on water conservation can also be found in each water systems Annual Water Quality Report (AWQR). Water system contact information and AWQR can be accessed using the Know Your NY Water website or water systems own websites.

Drought Management Coordination Annex:

Drought Warning & Watch – Public and Local/Water Suppliers should increase voluntary water conservation activities:

- Actions for Local agencies and water suppliers:
  - Make supply projections for predicting future drought effects.
  - Expand and enforce leakage detection and repair programs.
  - Intensify voluntary water conservation efforts

- Water Conservation Tips for the public:
  - Reuse water collected in rain barrels, dehumidifiers, or air conditioners to water plants;
  - Use a broom, not a hose, to clean driveways and sidewalks;
  - Fix leaking pipes, fixtures, toilets, hoses, and faucets;
  - Wash only full loads of dishes and laundry;
  - Take shorter showers or fill the bathtub only part way;
  - Install water saving plumbing fixtures;
  - Don't run the tap to make water hot or cold; and
  - Wash cars less frequently.

For more information visit https://dec.ny.gov/environmental-protection/water/water-quantity/drought and Water Use & Conservation - NYSDEC.

Private Water Wells

For water wells that may be affected by drought, please see the information and links below. Contact a registered water well contractor to discuss appropriate options for your individual situation.

- Check that the well is dry due to drought and no other issues. Sometimes the solution is quite simple, like a broken valve or electrical issue. The only way to definitively tell if a well is dry is to measure the water level in the well.

- Conserve water year-round to help prevent the effects of drought on water wells.

- Consider adding a water storage tank to help get through dry periods.

- Clean or redevelop existing wells.

- Deepen existing wells or drill a new well. If drilling a new well, properly decommission the old well to protect groundwater quality.