



DROUGHT FACTS

- Drought declarations are typically made by the States in response to persistently dry conditions, reduced water supplies, and diminished surface water and groundwater resources,
- The extended drought of the mid-1960s remains the drought of record in the Susquehanna River Basin. Severe droughts occurred in 1980-81, 1985, 1991-92, 1995, 1998-99, 2001-03, and 2016.
- Pennsylvania averages 42 inches of rainfall a year. The driest year was 1930 with only 28.9 inches of precipitation. The driest consecutive 5-year interval was 1962-1966.



On average, severe drought occurs once every decade in the Susquehanna River Basin. Most recently, the basin suffered a drought in eight of the twenty years during the 1990s and 2000s.

Across the Mid-Atlantic region, future droughts are projected to develop more rapidly and potentially be more intense because of higher temperatures, changing precipitation patterns, and loss of soil moisture.

In response to potential increased drought occurrences, SRBC is evaluating monitoring protocols, encouraging water recycling and conservation, and working to enhance reliability of water supplies.

For more information:

SRBC Drought Information at <https://www.srbc.net/our-work/programs/planning-operations/drought.html>

National Integrated Drought Information System - <https://www.drought.gov>

PA Drought Information - <https://www.dep.pa.gov/Business/Water/PlanningConservation/Drought/Pages/default.aspx>

Managing Droughts

in the Susquehanna River Basin

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Cover photo: 2009 drought at George B. Stevenson Dam in Cameron County, Pa.

Drought Planning



Droughts can take many forms and impact us all differently. Farm crops suffer. Wildfires can burn out of control. Low streamflows harm aquatic ecosystems. Public water supplies may fall short of demand, while commercial, industrial and recreational business operations may be disrupted.

Because droughts are difficult to forecast with accuracy, SRBC and its partners carefully plan ahead. The Commission’s “Drought Coordinating Committee” includes technical staff from its member jurisdiction agencies. They monitor precipitation deficits, stream flows, groundwater levels, soil moisture, and reservoir storage to determine the overall status of hydrologic conditions in the basin.

These indicators are used to establish the level of drought and include: drought watch, drought warning, and drought emergency. Each of these indicators may prompt relevant actions necessary to protect water resource availability.

Drought Level	Water Use Reduction
Drought Watch	5- 10% Voluntary
Drought Warning	10- 15% Voluntary
Drought Emergency	15- 25% Mandatory

Citizen Action

Only under drought emergencies are water use restrictions mandatory for nonessential water uses (e.g., landscape watering, washing cars, filling swimming pools).

Under all levels, public water systems and some industries activate water conservation plans that are tailored to their individual water sources.

Six parameters are monitored for drought conditions: precipitation deficits, stream flow, groundwater levels, soil moisture, reservoir storage information, and reported public water supply problems.

While the basin’s states have the lead role in making drought declarations, SRBC works to coordinate uniform and appropriate responses across jurisdictional boundaries. SRBC has the ability and authority to declare a drought emergency if necessary to meet water resource needs within the Susquehanna River Basin. Under a drought emergency declaration, SRBC may implement mandatory restrictions on nonessential water uses through partner enforcement agencies.

WATER CONSERVATION TIPS

Source: PA DEP

- Skip the car wash
- Run the dishwasher and washing machine less often
- Water your garden in the cooler evening or morning hours
- Water your lawn only if necessary
- Check for and repair household leaks
- Set up a rain barrel to be ready to repurpose rain when it does fall

SRBC Drought Activities

In light of a severe drought in 1977, SRBC began developing drought emergency response and water conservation strategies. Current management activities include:

- Delineating areas of water supply shortage.
- Working with public water suppliers and self-supplied industries to implement drought contingency plans.
- Requiring low flow protection measures in affected streams. Some water use projects regulated by SRBC have passby flow requirements — a prescribed quantity of stream flow that must be allowed to pass a specific point downstream from a withdrawal. During a drought, low flow conditions may trigger the withdrawal to temporarily cease.

Dashboard

Project Status Summary

Trigger Passby: 22

Project is operating under water use restrictions. CU Mitigation: 4

Watch Passby 8

Hydrologic conditions are approaching restricted operating levels. CU Mitigation 0

Normal Passby 44

Project is operating normally with no water use restrictions. CU Mitigation 41

Stay informed about changes in hydrologic conditions in the basin. SRBC’s Hydrologic Conditions Monitor displays the status of passby and water use mitigation projects.

- Under drought emergencies, adjusting water allocation approvals to achieve water conservation goals.
- Releasing water from upstream reservoirs which alleviates low flow stream conditions and offsets downstream water use. SRBC coordinates operations at federal, state and local reservoirs in the basin.