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Philadelphia Water Department and the Drought Watch Declaration in the Delaware River Basin

Wednesday November 23, 2016—The Delaware River Basin Commission (DRBC) has declared a drought watch for the entire Delaware River basin following a review of existing conditions. A drought watch implements a series of policies designed to preserve reservoir storage in anticipation of extended dry conditions, and utilizes the saved reservoir storage to maintain a high quality, low salinity, drinking water supply to Philadelphia and all utilities and industrial water users along the main branch of the Delaware River.

The Philadelphia Water Department is not experiencing adverse water quality or water supply issues related to the conditions associated with a drought watch. Since the summer, the Philadelphia Water Department, regional environmental agencies and partners have closely monitored streamflow and reservoir levels in the Delaware River basin amid below-average precipitation. As of November, there is an approximate six inch deficit in annual average precipitation.

If the basin does not receive precipitation in the next few weeks, the DRBC may declare a drought warning and ultimately a drought. The multiple phases of drought declarations (watch, warning and drought) enable policy makers to implement incremental changes in reservoir policies and out-of-basin water diversions based on changes in hydrological conditions. The Philadelphia Water Department closely works with the DRBC and the Pennsylvania Department of Environmental Protection (PADEP) to refine and assess the protection of the Philadelphia drinking water supply during all phases of drought declaration.

During dry weather conditions like those currently being experienced in much of the Delaware River Basin, the DRBC policies conserve regional reservoir storage to maintain regional water supply reliability. In the reaches downstream of Trenton, the river naturally becomes saltier closer to the Delaware Bay. Low streamflow conditions observed during drought shift the mixing zone between fresh and saline water, often referred to as the salt line, from locations near Delaware to locations closer to Philadelphia. In order to keep the salt line below drinking water intakes in Philadelphia, New Jersey, and the many industrial intakes along the Delaware River, the drought management policies adjust the release of water from upstream reservoirs to maintain specific streamflow objectives at Trenton.

Due to lower than average precipitation in recent months, the salt line in the Delaware River is farther upstream than it would be under normal conditions. The salt line, however, is not currently in a position to impact drinking water intakes in Philadelphia. While the salt line may yet move farther upstream towards Philadelphia if conditions worsen, Philadelphia's water intake remains at a safe distance from the higher salinity water.

The Philadelphia Water Department has confidence in policies implemented by the DRBC. Decades of planning and scientific investigations performed by the DRBC, the Philadelphia Water Department and

other basin partners have simulated that the reservoirs in the basin are capable of protecting the Philadelphia drinking water intake from severe salinity intrusion, even during a repeat of the worst drought in regional modern history, which was experienced in the 1960s.

The DRBC and the Philadelphia Water Department continue to monitor Delaware River reservoirs, streamflow and the location of the salt line. A full statement from the DRBC on current conditions is available [here](#).

For more information, see the **Frequently Asked Questions** below.

Q: Why is the salt line 19 miles farther upstream than it normally is at this time of year?

A: The location of the salt line is an indication of below average precipitation that the region has experienced during the summer and fall of 2016. When this occurs, water with higher salinity from the Delaware Bay moves farther upstream.

Q: Does PWD support DRBC's operation to boost river flows with reservoir releases?

A: PWD has confidence in the streamflow objectives at Trenton and the policies that have been developed by the DRBC and basin states to best protect our drinking water supply. The Delaware River watershed provides drinking water for 15 million people, and a coalition of water providers collaborate to ensure that this shared resource is protected.

Q: How many reservoirs help to maintain sufficient flows in the Delaware River watershed?

A: There are seven reservoirs in Pennsylvania and three reservoirs in New York that work together to maintain high water quality at Philadelphia and for drinking water suppliers located along the Schuylkill and Delaware Rivers.

Q: What does it mean when a DRBC drought watch is declared?

A: A drought watch is intended to alert government agencies, public water suppliers, water users and the public regarding the onset of conditions indicating the potential for future drought-related water conservation. The focus during a drought watch is on increased monitoring, awareness and preparation for response if conditions become worse. **Following a drought watch designation, the Pennsylvania Department of Environmental Protection may recommend residents voluntarily reduce water usage by five percent.** If dry conditions in the Delaware River basin persist, it may lead to a DRBC drought warning declaration.

Q: What happens if the DRBC declares a drought warning?

A: A drought warning would call for further voluntary conservation by businesses and residents in the Delaware River Basin. **Following a drought watch designation, the Pennsylvania Department of Environmental Protection may recommend residents voluntarily reduce water usage by 10-15 percent.** The DRBC streamflow objective at Trenton also decreases during a drought warning to conserve water in the reservoirs upstream of Philadelphia, and reservoir releases are made to protect Philadelphia from salinity intrusion.

Q: What is the Delaware River Basin Commission (DRBC)?

A: The DRBC is a federal/interstate government agency responsible for managing the water resources within the 13,539 square-mile Delaware River Basin without regard to political boundaries. The five commission members are the governors of the basin states (Delaware, New Jersey, New York, and Pennsylvania) and the commander of the U.S. Army Corps of Engineers' North Atlantic Division, who represents the federal government.