



NEW YORK STATE WATER RESOURCES INSTITUTE

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Waters of the United States (WOTUS): a comment on the science behind the rule

On February 28th, 2017 the President issued an Executive Order on "Restoring the Rule of Law, Federalism, and Economic Growth by Reviewing the 'Waters of the United States' Rule." In response, the Environmental Protection Agency, Department of Army, and Army Corps of Engineers are proposing a rule to rescind the Clean Water Rule and re-codify regulatory text from prior to 2015.

Here we **comment on and support the science review** that accompanied the 2015 WOTUS rule. While this issue has created controversy and confusion, much of what we know about the connectivity of streams and wetlands to downstream waters is well founded in scientific theory and observation. Examples of such connectivity and its impact on our communities here in New York can be readily found. As a neutral broker of information with respect to water resource science and management, the NY Water Resources Institute seeks to inform elected officials and decision makers on issues of state and national importance. This comment is not a policy statement. Rather, it is an invitation to discuss a complex issue with a baseline of common scientific understanding.

Below we highlight well-supported conclusions from the 2015 EPA Science Review and Synthesis. Beside each conclusion are examples of stream and wetland connectivity to downstream waters in the context of New York State.

ALL TRIBUTARIES IMPACT DOWNSTREAM WATERS

REPORT CONCLUSIONS

- The smallest tributaries, known as headwater streams, make up 53% of our nation's river systems and serve as important water supplies.
- Whether introduced in tributaries or in the main river, persistent contaminants travel downstream.
- Headwater streams are critical for wildlife and recreation.

NEW YORK STATE EXAMPLES

- Streams in the Catskill Mountains supply 90% of New York City's drinking water.
- PFOSs introduced to tributaries were found in the City of Newburgh drinking water supply. PCBs introduced to the Hudson have been found in New York Harbor.
- 65% of the historical native trout ranges in New York State are headwater streams.

FLOODPLAIN WATERS IMPACT THE MAIN CHANNEL

REPORT CONCLUSIONS

- Floodplain wetlands reduce flood pulses to downstream waters by temporarily storing water.
- Floodplain wetlands retain sediment and nutrients attached to sediments, such as phosphorus.
- Floodplain wetlands provide important habitat and support recreational activities.

NEW YORK STATE EXAMPLES

- During Tropical Storm Irene, floodplain wetlands prevented severe damage in parts of New York, such as along Moodna Creek in Orange County.
- Floodplain wetlands save New York City the costs of managing algal blooms and dredging sediment to maintain drinking water reservoir functionality.
- Over 250,000 migratory waterfowl stop-over in western New York wetlands fed by Oak Orchard Creek.

About the New York State Water Resources Institute:

The mission of the New York State Water Resources Institute (WRI) is to increase awareness of emerging water resource issues in New York State and beyond. Through a combination of federal and state funding, WRI conducts and funds original research, provides guidance to practitioners and agencies through outreach, and provides scientific advice and commentary to local and state policy makers.

For more information or to discuss this important issue, please contact WRI Director Todd Walter at 607.254.7163 or nyswri@cornell.edu.