

# #1 SUSQUEHANNA RIVER

NEW YORK, PENNSYLVANIA, MARYLAND

**THREAT: NATURAL GAS EXTRACTION**

**AT RISK: CLEAN DRINKING WATER**

## Summary

One of the longest rivers in America, the Susquehanna River provides over half of the freshwater to the Chesapeake Bay and drinking water to six million people. Unfortunately, the river is threatened by natural gas development, which requires millions of gallons of water per well, produces dangerous toxic waste, and threatens clean water and the river's health. Unless Pennsylvania, New York, and the Susquehanna River Basin Commission announce a complete moratorium on water withdrawals and hydraulic fracturing until the issuance and enforcement of comprehensive, highly protective regulations for natural gas development, public health and drinking water will be at risk.

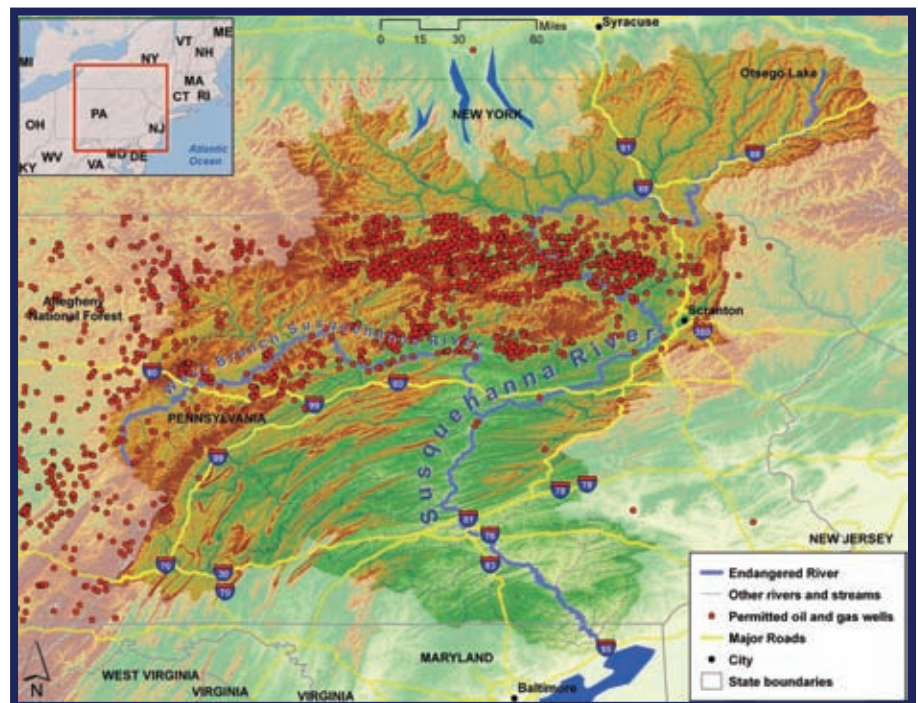
## The River

The Susquehanna River drains 27,500 square miles, and provides drinking water to six million people. Long regarded as one of the best smallmouth bass fisheries in the country, the Susquehanna is believed to be one of the most ancient rivers on earth. The Susquehanna's many tributaries have been home to native brook trout populations since the last Ice Age, and scores of communities and businesses depend on the river for drinking water, commerce, hydropower generation, and recreational boating.


## The Threat

The Susquehanna River and its tributaries flow over the Marcellus Shale region, a rock formation underlying much of New York and Pennsylvania, containing vast reserves of natural gas. The rush to develop this abundant resource has come fast and furious, without consideration of the potential cumulative impacts to clean water, rivers, and human health.

The seriousness of the threat to the entire Susquehanna watershed cannot be overstated. Industry estimates indicate the potential for 400,000 wells across the Marcellus Shale – a number that would require, conservatively, 1.5 times the annual flow of the Susquehanna River to sustain. As part of the hydraulic fracturing (or 'fracking') process to extract natural gas, massive amounts of water are withdrawn from rivers and streams. Many of the



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streams being used for Marcellus Shale water withdrawals provide critical habitat for trout – a concern, especially during summer months when stream flows are already low.

The water is then mixed with sand and toxic chemicals and pumped underground to fracture the shale under extreme pressure. A portion of that highly toxic, highly saline, and potentially radioactive wastewater will return to the surface, and requires specialized treatment, but at this time, only a limited number of wastewater treatment facilities have the capacity to handle it. Already, spills from trucks hauling wastewater, leaks from lined fluid holding pits, and cracked well casings have contaminated private water wells. The potential for future environmental and public health catastrophes along the Susquehanna will only increase when considering the number of new wells projected, and the amount of toxic wastewater produced.



PHOTOS: DON WILLIAMS

### What Must Be Done



While Pennsylvania and New York have been working to improve clean water safeguards for natural gas development, they fall short of adequately protecting the water supply for millions of Americans. It is the responsibility of these states, along with the Susquehanna River Basin Commission (SRBC), to analyze all of the potential cumulative impacts that could result from natural gas extraction, and ensure proper regulations are in place and capable of being enforced before development is allowed to continue. Pennsylvania, New York, and the SRBC must issue a complete moratorium on all water withdrawals for natural gas extraction and the use of hydraulic fracturing until regulations are implemented and enforced that will protect the health of the river and the people who use it.

Likewise, the U.S. Congress must take responsibility for the health of citizens across the nation and remove all exemptions from federal environmental legislation for oil and gas development. This industry must be subject to the same safeguards and oversight as other industries. Removing these exemptions and requiring full disclosure of the chemicals used in hydraulic fracturing would be a major step towards protecting the health of Americans across the country for generations to come.



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