



Global Warming and the Loss of Clean Water Act Protections

What Happened to the Clean Water Act?



Twin Mallards, Bill Houghton

For more than thirty-five years, the Clean Water Act has served to protect America's wetlands and other waters from pollution and destruction. Over this time, much progress has been made. The number of waters unfit for basic uses such as fishing and swimming has declined from approximately 70% to slightly over 40%. Also, wetland losses have slowed dramatically. But despite this progress, **global warming now presents an unprecedented threat to our wetlands and other waters.** To make matters worse, at a time when the protections of the Clean Water Act are needed most, Supreme Court rulings and administration fiats have weakened protections dramatically. The Administration must act swiftly to restore basic protections for our waters so that they and the species that depend on them have a fighting chance to survive global warming.

The Impacts of Global Warming on Water Resources

Science and recent events tell us that many of the most immediate and severe impacts of global warming will affect water resources. Global warming will affect and is already impacting water resources in dramatic ways. Global warming will change the hydrologic cycle. This means more rain and less snow, decreased snow-pack and faster snowmelt, shifts in precipitation patterns, shifts in seasonal precipitation, and changes in evaporation rates.

Global warming means more droughts and more floods. Already, we are seeing unprecedented droughts in the Southeast and a prolonged drought in many parts of the West. In the Midwest, communities dealt with heavy losses from two 500 year floods in a recent fifteen year time frame.

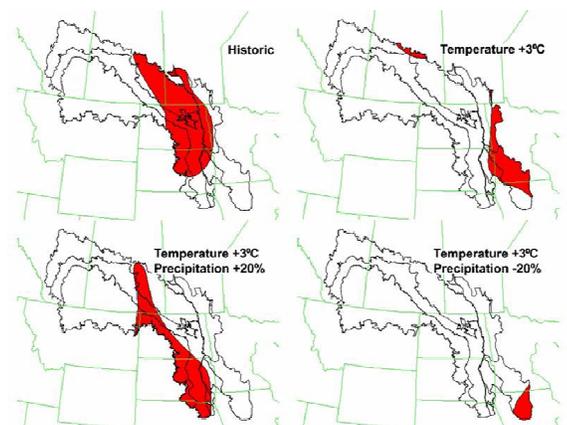
In addition to changes in hydrologic cycles, global warming presents a host of other perils to our waters:

- **Temperature increases** threaten habitat and will make existing pollution more acute. In fact, the Environmental Protection Agency has forecast that the number of "impaired" waters – or waters that fail to meet basic water quality standards for uses like swimming, fishing and drinking – will increase because of global warming even if pollution levels remain stable.
- More **invasive species** will infest more waters.
- **Cold water fisheries and species** are under threat.
- **Many wetland types** – including geographically "isolated" wetlands like vernal pools, and prairie potholes which provide some of America's most productive duck and waterfowl habitat – will dry up and decrease greatly in number.
- Coastal waters face threats from **rising sea levels, salt water intrusion, and more intense and more frequent hurricanes and storm surges.** Indeed, EPA has estimated that a five to seven foot rise in sea-levels could mean the loss of 30-80% of coastal wetlands.

Global warming threatens to dramatically reduce the available waterfowl habitat in the productive Prairie Pothole Region depending on temperature and precipitation changes.



Photo Credit: USFWS



The Need to Protect Existing Waters



Top: Flooding in Cedar Rapids, IA, USGS
Bottom: Vegetation Drought, USGS

In the face of these dire threats, the need to protect existing waters has never been greater. Wetlands, streams, lakes and other waters fill immensely important functions that are vital as aquatic systems contend with the stress of global warming. For instance, wetlands and streams:

- **Store water**, acting as sponges during flood periods, and flow reserves during drought. A study has shown that wetlands lost in the Upper Mississippi River basin had the capacity to store the flood waters of the devastating 1993 Midwest flooding.
- **Retain and filter pollutants**, and reduce runoff and resulting erosion and sedimentation that occur during intense storms.
- **Provide cool sources of water during hot periods**, helping cold water species survive during hotter weather.
- **Provide habitat and migration corridors for species** to move in times of changing weather and temperature.
- **Protect against storm surges**, in the case of coastal wetlands.
- **Act as “sinks” for global warming gases**, and also as emitters of these gases when drained or destroyed.
- **Provide opportunities for water resources to migrate** (when protected), as water types shift northward, up slope, or inland due to global warming.

The Threats to Wetlands and Streams

Given the threats from global warming, we cannot afford to write off important waters that will be vital in allowing species and entire ecosystems to adapt and survive. But that is exactly what is occurring. As a result of two contentious Supreme Court decisions that turned on legalistic hairsplitting over the use of the word “navigable” to define protected waters – the 2001 split decision in *SWANCC* and the 2006 fractured ruling in *Rapanos* – and two agency fiats interpreting those decisions, basic federal water protections are weaker than they have been in a generation. **Currently, the confusing state of the law has courts and agency officials tied in knots while valuable waters go unprotected and the potential losses are staggering:**

- **At least 20% of wetlands in the lower 48 states are no longer being federally protected** against destruction and pollution because they are considered to be “isolated.” These include vital wetlands like prairie potholes, vernal pools and playa lakes, which EPA has recognized as “key resource type[s]” that need to be protected in the face of global warming.
- **At least 53-59% of stream miles in the lower 48 states**, as well as their nearby wetlands, are also threatened with a loss of Clean Water Act protections because they do not flow year round.

Now, with overwhelming science telling us broad protections are more needed than ever because of global warming, the Administration must act to restore these fundamental protections.

To protect America’s Waters, the Administration should restore Clean Water Act protections by affirming and clarifying the EPA and Corps of Engineers’ definition of “Waters of the United States.”

For almost a decade, Congress has failed to enact legislation restoring the historic scope of the Clean Water Act. **To protect the Nation’s waters, EPA and the Corps of Engineers should revise their definition of “Waters of the United States” to restore and clarify Clean Water Act protections, including for so-called “isolated wetlands,” in a manner consistent with both law and science.** A successful rulemaking will restore protections for millions of wetland acres and stream miles, and will place these restored protections on a much more secure legal and scientific foundation.



For more information contact:

Jan Goldman-Carter
Wetlands and Water Resources Counsel
goldmancarterj@nwf.org
www.nwf.org/waters

Jim Murphy
Wetlands and Water Resources Counsel
jmurphy@nwf.org