

TO PROVIDE FOR A STUDY BY THE NATIONAL ACADEMY OF SCIENCES OF  
POTENTIAL IMPACTS OF CLIMATE CHANGE ON WATER RESOURCES AND  
WATER QUALITY

---

JUNE 4, 2008.—Ordered to be printed

---

Mr. OBERSTAR, from the Committee on Transportation and  
Infrastructure, submitted the following

R E P O R T

[To accompany H.R. 5770]

[Including cost estimate of the Congressional Budget Office]

The Committee on Transportation and Infrastructure, to whom was referred the bill (H.R. 5770) to provide for a study by the National Academy of Sciences of potential impacts of climate change on water resources and water quality, having considered the same, report favorably thereon without amendment and recommend that the bill do pass.

PURPOSE OF THE LEGISLATION

H.R. 5770 provides for a study by the National Academy of Sciences of potential impacts of climate change on water resources and water quality.

BACKGROUND AND NEED FOR LEGISLATION

In February 2007, the Intergovernmental Panel on Climate Change (“IPCC”) declared that evidence of atmospheric warming is “unequivocal”. The IPCC also stated with “very high confidence” that human activities have resulted in global climate change, and more specifically, global warming. The IPCC defines climate change as “any change in climate over time, whether due to natural variability or as a result of human activity.” The results of this change may result—and to a degree has already been observed—in sea level rise, increased hurricane and storm activity, and changed precipitation patterns resulting in more frequent floods and droughts, among other impacts.

Climate change could negatively impact the nation’s water resources as well as its water infrastructure. The Federal Government’s interagency climate research program, the U.S. Global Change Research Program, has stated:

In many cases and in many locations, there is compelling scientific evidence that climate changes will pose serious challenges to our water systems.

Increased evaporation of surface water and decreased precipitation in some areas can lead to drought, as well as a higher concentration of contaminants in surface water. Increased precipitation and extreme weather events can lead to increased runoff and contamination of surface water as well as an increase in waterborne disease outbreaks.

A 2001 study in the American Journal of Public Health showed that between 1948 and 1994, 68 percent of all waterborne-disease outbreaks in the United States occurred after rainfall events that ranked in the top 20 percent of all precipitation events by the amount of water deposited. Climate change is anticipated to result in a higher frequency of extreme wet weather events in some areas. Sea level rise will result in increased saltwater intrusion into coastal aquifers and water supply intakes in rivers. Warmer water temperatures can result in increased microbial and algal growth in surface water and water distribution systems. Warmer winter temperatures and earlier springs can result in decreased snow-pack and earlier runoff from snow melt. Uncertainty does exist as to the specific location, timing, and magnitude of these anticipated impacts.

In its draft National Water Program Strategy: Response to Climate Change, the Environmental Protection Agency's ("EPA") Office of Water indicates that warmer air temperatures will result in warmer water. Warmer water will result in declining levels of dissolved oxygen, increased incidences of hypoxia (low oxygen levels result in harm or death of aquatic species), more harmful algal blooms, and changed toxicity of some pollutants. In sum, EPA finds that, even if pollution levels remain stable, the number of waters recognized as "impaired" is likely to increase.

Today, there is considerable debate whether existing statutory authorities for protecting water quality, including whether the Federal Water Pollution Control Act ("Clean Water Act") National Pollutant Discharge Elimination System ("NPDES") permits, are adequate to address the challenges posed by climate change.

#### SUMMARY OF THE LEGISLATION

##### *Section 1. Study of potential impacts of climate change on water resources and water quality*

Subsection (a) calls for the Administrator of the U.S. Environmental Protection Agency to enter into an agreement with the National Academy of Sciences for the Academy to prepare a study on potential impacts of climate change on water resources and water quality. The study will consist of two parts.

Subsection (a)(1) requires the study to look at the potential impacts of climate change on the hydrology and water quality of the nation's watersheds and water resources.

Subsection (a)(2) requires the study to identify the scientific consensus, assumptions, and uncertainties regarding climate change predictions; assess the effects of climate change on State and Federal implementation of the Clean Water Act; identify steps that EPA and States should take to assess emerging information on the

impacts of climate change on water resources and water quality with regard to implementation of the Clean Water Act, as well as appropriate responses they should take to meet the requirements of the Clean Water Act (including the maintenance of water quality standards and adequate stream flow for wetlands and aquatic resources); and recommend legislative or regulatory changes to address and adapt to the impacts of climate change in order to meet the goals of the Clean Water Act.

Subsection (b) requires the Administrator to submit a report to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Environment and Public Works of the Senate based on the findings of the National Academy of Sciences study.

Subsection (c) authorizes \$1,500,000 to be appropriated to carry out the requirements of this Act.

#### LEGISLATIVE HISTORY AND COMMITTEE CONSIDERATION

The Committee on Transportation and Infrastructure held two hearings on climate change and energy independence in 2007. On May 11, 2007, the Committee held a hearing, entitled “Administration Proposals on Climate Change and Energy Independence”. On May 16, 2007, the Committee held a hearing, entitled “Climate Change and Energy Independence: Transportation and Infrastructure Issues”.

On June 13, 2007, Chairman James L. Oberstar introduced H.R. 2701, the “Transportation Energy Security and Climate Change Mitigation Act of 2007”. Section 704 of this Act included a similar study on the potential impacts of climate change on water resources and water quality. On June 20, 2007, the Committee held a markup of H.R. 2701, during which section 704 of H.R. 2701 was modified by a compromise amendment. On June 20, 2007, H.R. 2701 was ordered reported favorably to the House by voice vote.

On July 30, 2007, Speaker of the House Nancy Pelosi introduced H.R. 3221, the “New Direction for Energy Independence, National Security, and Consumer Protection Act”. This legislation incorporated section 704 of H.R. 2701, as ordered reported by the Committee on Transportation and Infrastructure, as section 8703 of H.R. 3221. On August 4, 2007, the House passed H.R. 3221. However, this section was not included in the final version of P.L. 110-140, the “Energy Independence and Security Act of 2007”.

On April 10, 2008, Representative John Hall introduced H.R. 5770. H.R. 5770 is modeled on the climate change study provision contained in H.R. 2701 and H.R. 3221.

On May 7, 2008, the Subcommittee on Water Resources and Environment met to consider H.R. 5770. The Subcommittee approved H.R. 5770 and favorably recommended it to the Committee on Transportation and Infrastructure by voice vote.

On May 15, 2008, the Committee on Transportation and Infrastructure met in open session, and ordered H.R. 5770 reported to the House by voice vote with a quorum present.

#### RECORD VOTES

Clause 3(b) of rule XIII of the House of Representatives requires each committee report to include the total number of votes cast for and against on each record vote on a motion to report and on any

amendment offered to the measure or matter, and the names of those members voting for and against. There were no recorded votes taken in connection with consideration of H.R. 5770 or ordering it reported. A motion to order H.R. 5770 reported favorably to the House was agreed to by voice vote with a quorum present.

#### COMMITTEE OVERSIGHT FINDINGS

With respect to the requirements of clause 3(c)(I) of rule XIII of the Rules of the House of Representatives, the Committee's oversight findings and recommendations are reflected in this report.

#### COST OF LEGISLATION

Clause 3(c)(2) of rule XIII of the Rules of the House of Representatives does not apply where a cost estimate and comparison prepared by the Director of the Congressional Budget Office under section 402 of the Congressional Budget Act of 1974 has been timely submitted prior to the filing of the report and is included in the report. Such a cost estimate is included in this report.

#### COMPLIANCE WITH HOUSE RULE XIII

1. With respect to the requirement of clause 3(c)(2) of rule XIII of the Rules of the House of Representatives, and 308(a) of the Congressional Budget Act of 1974, the Committee references the report of the Congressional Budget Office included in the report.

2. With respect to the requirement of clause 3(c)(4) of rule XIII of the Rules of the House of Representatives, the performance goals and objective of this legislation is to authorize a study to be undertaken by the National Academy of Sciences to assess the potential impacts of climate change on water resources and water quality, and provide recommendations for any necessary statutory or regulatory changes to the Clean Water Act as a result of climate change impacts, to meet the goals of the Clean Water Act.

3. With respect to the requirement of clause 3(c)(3) of rule XIII of the Rules of the House of Representatives and section 402 of the Congressional Budget Act of 1974, the Committee has received the enclosed cost estimate for H.R. 5770 from the Director of the Congressional Budget Office:

U.S. CONGRESS,  
CONGRESSIONAL BUDGET OFFICE,  
*Washington, DC, May 22, 2008.*

Hon. JAMES L. OBERSTAR,  
*Chairman, Committee on Transportation and Infrastructure,  
House of Representatives, Washington, DC.*

DEAR MR. CHAIRMAN: The Congressional Budget Office has prepared the enclosed cost estimate for H.R. 5770, a bill to provide for a study by the National Academy of Sciences of potential impacts of climate change on water resources and water quality.

If you wish further details on this estimate, we will be pleased to provide them. The CBO staff contact is Leigh Angres.

Sincerely,

ROBERT A. SUNSHINE  
(For Peter R. Orszag, Director).

Enclosure.

*H.R. 5770—A bill to provide for a study by the National Academy of Sciences of potential impacts of climate change on water resources and water quality*

H.R. 5770 would authorize the appropriation of \$1.5 million for the Environmental Protection Agency (EPA) to enter into an agreement with the National Academy of Sciences to prepare a study on the potential effects of climate change on water resources and quality. The bill would require the EPA to submit the study to the Congress within two years of enactment. CBO estimates that implementing this bill would cost \$1.5 million over the 2009–2010 period.

H.R. 5770 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act and would not affect the budgets of state, local, or tribal governments.

The CBO staff contact for this estimate is Leigh Angres. The estimate was approved by Theresa Gullo, Deputy Assistant Director for Budget Analysis.

#### COMPLIANCE WITH HOUSE RULE XXI

Pursuant to clause 9 of rule XXI of the Rules of the House of Representatives, H.R. 5770, the Water Quality Investment Act of 2007, does not contain any congressional earmarks, limited tax benefits, or limited tariff benefits as defined in clause 9(d), 9(e), or 9(f) of rule XXI of the Rules of the House of Representatives.

#### CONSTITUTIONAL AUTHORITY STATEMENT

Pursuant to clause (3)(d)(1) of rule XIII of the Rules of the House of Representatives, committee reports on a bill or joint resolution of a public character shall include a statement citing the specific powers granted to the Congress in the Constitution to enact the measure. The Committee on Transportation and Infrastructure finds that Congress has the authority to enact this measure pursuant to its powers granted under article I, section 8 of the Constitution.

#### FEDERAL MANDATES STATEMENT

The Committee adopts as its own the estimate of Federal mandates prepared by the Director of the Congressional Budget Office pursuant to section 423 of the Unfunded Mandates Reform Act (Public Law 104–4).

#### PREEMPTION CLARIFICATION

Section 423 of the Congressional Budget Act of 1974 requires the report of any Committee on a bill or joint resolution to include a statement on the extent to which the bill or joint resolution is intended to preempt state, local, or tribal law. The Committee states that H.R. 5770 does not preempt any state, local, or tribal law.

#### ADVISORY COMMITTEE STATEMENT

No advisory committees within the meaning of section 5(b) of the Federal Advisory Committee Act are created by this legislation.

APPLICABILITY TO THE LEGISLATIVE BRANCH

The Committee finds that the legislation does not relate to the terms and conditions of employment or access to public services or accommodations within the meaning of section 102(b)(3) of the Congressional Accountability Act (Public Law 104–1).

CHANGES IN EXISTING LAW MADE BY THE BILL, AS REPORTED

H.R. 5770 makes no changes in existing law.

