

112TH CONGRESS  
2D SESSION

# H. R. 4458

To promote Department of the Interior efforts to provide a scientific basis for the management of sediment and nutrients in the Upper Mississippi River Basin, and for other purposes.

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## IN THE HOUSE OF REPRESENTATIVES

APRIL 19, 2012

Mr. KIND introduced the following bill; which was referred to the Committee on Natural Resources

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## A BILL

To promote Department of the Interior efforts to provide a scientific basis for the management of sediment and nutrients in the Upper Mississippi River Basin, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

4 (a) **SHORT TITLE.**—This Act may be cited as the  
5 “Upper Mississippi River Basin Protection Act”.

6 (b) **TABLE OF CONTENTS.**—The table of contents of  
7 this Act is as follows:

- Sec. 1. Short title; table of contents.
- Sec. 2. Definitions.
- Sec. 3. Reliance on scientific knowledge.

## TITLE I—SEDIMENT AND NUTRIENT MONITORING NETWORK

- Sec. 101. Establishment of monitoring network.  
 Sec. 102. Data collection and storage responsibilities.  
 Sec. 103. Relationship to existing sediment and nutrient monitoring and assessment.  
 Sec. 104. Collaboration with other public and private monitoring efforts.  
 Sec. 105. Reporting requirements.  
 Sec. 106. National research council assessment.

## TITLE II—COMPUTER MODELING AND RESEARCH

- Sec. 201. Computer modeling and research of sediment and nutrient sources.  
 Sec. 202. Communication plan to distribute information.  
 Sec. 203. Reporting requirements.

## TITLE III—AUTHORIZATION OF APPROPRIATIONS AND RELATED MATTERS

- Sec. 301. Authorization of appropriations.  
 Sec. 302. Cost-sharing requirements.

**1 SEC. 2. DEFINITIONS.**

2 In this Act:

3 (1) The terms “Upper Mississippi River Basin”  
 4 and “Basin” mean the watershed portion of the  
 5 Upper Mississippi River and Illinois River basins,  
 6 from Cairo, Illinois, to the headwaters of the Mis-  
 7 sissippi River, in the States of Minnesota, Wis-  
 8 consin, Illinois, Iowa, and Missouri. The designation  
 9 includes the Kaskaskia watershed along the Illinois  
 10 River and the Meramec watershed along the Mis-  
 11 souri River.

12 (2) The terms “Upper Mississippi River Stew-  
 13 ardsip Initiative” and “Initiative” mean the activi-  
 14 ties authorized or required by this Act to monitor  
 15 nutrients and sediment in the Upper Mississippi  
 16 River Basin.

1 **SEC. 3. RELIANCE ON SCIENTIFIC KNOWLEDGE.**

2 Federal investments in the Upper Mississippi River  
3 Basin shall be guided by accepted and documented sci-  
4 entific methods, including the use of documented protocols  
5 for data collection and data analysis, and peer review of  
6 data, results, and findings, and shall take into account the  
7 results of studies using accepted and documented scientific  
8 methods to identify and quantify the sources, transport,  
9 and fate of nutrients and sediment and to quantify the  
10 effect of various treatment methods or conservation meas-  
11 ures on nutrient and sediment management.

12 **TITLE I—SEDIMENT AND NUTRI-**  
13 **ENT MONITORING NETWORK**

14 **SEC. 101. ESTABLISHMENT OF MONITORING NETWORK.**

15 (a) ESTABLISHMENT.—As part of the Upper Mis-  
16 sissippi River Stewardship Initiative, the Secretary of the  
17 Interior shall establish a sediment and nutrient moni-  
18 toring network for the Upper Mississippi River Basin for  
19 the purposes of—

20 (1) identifying and quantifying significant  
21 sources of sediment and nutrients in the Upper Mis-  
22 sissippi River Basin;

23 (2) quantifying the processes affecting mobiliza-  
24 tion, transport, and fate of those sediments and nu-  
25 trients on land and in water;

1           (3) quantifying the transport of those sediments  
2           and nutrients to and through the Upper Mississippi  
3           River Basin;

4           (4) quantifying changes to sediment and nutri-  
5           ent concentrations and loads over time; and

6           (5) coordinating with other Federal, State, trib-  
7           al, and local agencies on the acquisition of data to  
8           be used in computer modeling of the Basin, pursu-  
9           ant to section 201.

10          (b) **ROLE OF UNITED STATES GEOLOGICAL SUR-**  
11 **VEY.**—The Secretary of the Interior shall carry out this  
12 title acting through the office of the Director of the United  
13 States Geological Survey.

14 **SEC. 102. DATA COLLECTION AND STORAGE RESPONSIBIL-**  
15 **ITIES.**

16          (a) **GUIDELINES FOR DATA COLLECTION AND STOR-**  
17 **AGE.**—The Secretary of the Interior shall establish guide-  
18 lines for the effective design of data collection activities  
19 regarding sediment and nutrient monitoring, for the use  
20 of suitable and consistent methods for data collection, and  
21 for consistent reporting, data storage, and archiving prac-  
22 tices.

23          (b) **RELEASE OF DATA.**—Data resulting from sedi-  
24 ment and nutrient monitoring and the compilation of an-  
25 cillary information in the Upper Mississippi River Basin

1 shall be released to the public using generic station identi-  
2 fiers and hydrologic unit codes. In the case of a monitoring  
3 station located on private lands, information regarding the  
4 location of the station shall not be disseminated without  
5 the landowner's permission.

6 **SEC. 103. RELATIONSHIP TO EXISTING SEDIMENT AND NU-**  
7 **TRIENT MONITORING AND ASSESSMENT.**

8 (a) INVENTORY.—To the maximum extent prac-  
9 ticable, the Secretary of the Interior shall inventory the  
10 sediment and nutrient monitoring efforts in existence as  
11 of the date of the enactment of this Act of Federal, State,  
12 tribal, local, and nongovernmental entities for the purpose  
13 of creating a baseline understanding of overlap, data gaps  
14 and redundancies.

15 (b) INTEGRATION.—On the basis of the inventory,  
16 the Secretary of the Interior shall integrate the existing  
17 sediment and nutrient monitoring efforts, to the maximum  
18 extent practicable, into the sediment and nutrient moni-  
19 toring network required by section 101.

20 (c) CONSULTATION AND USE OF EXISTING DATA.—  
21 In carrying out this section, the Secretary of the Interior  
22 shall make maximum use of data in existence as of the  
23 date of the enactment of this Act and of ongoing programs  
24 and efforts of Federal, State, tribal, local, and nongovern-

1 mental entities in developing the sediment and nutrient  
2 monitoring network required by section 101.

3 (d) COORDINATION WITH LONG-TERM ESTUARY AS-  
4 SESSMENT PROJECT.—The Secretary of the Interior shall  
5 carry out this section in coordination with the long-term  
6 estuary assessment project authorized by section 902 of  
7 the Estuaries and Clean Waters Act of 2000 (Public Law  
8 106–457; 33 U.S.C. 2901 note).

9 **SEC. 104. COLLABORATION WITH OTHER PUBLIC AND PRI-**  
10 **VATE MONITORING EFFORTS.**

11 To establish the sediment and nutrient monitoring  
12 network, the Secretary of the Interior shall collaborate,  
13 to the maximum extent practicable, with other Federal,  
14 State, tribal, local and private sediment and nutrient mon-  
15 itoring and assessment programs that meet guidelines pre-  
16 scribed under section 102(a), as determined by the Sec-  
17 retary.

18 **SEC. 105. REPORTING REQUIREMENTS.**

19 The Secretary of the Interior shall report to Congress  
20 not later than 180 days after the date of the enactment  
21 of this Act on the development of the sediment and nutri-  
22 ent monitoring network.

23 **SEC. 106. NATIONAL RESEARCH COUNCIL ASSESSMENT.**

24 The National Research Council of the National Acad-  
25 emy of Sciences shall conduct a comprehensive water re-

1 sources assessment of the Upper Mississippi River Basin  
2 within 3 years after the date of the enactment of this Act.

3 **TITLE II—COMPUTER MODELING**  
4 **AND RESEARCH**

5 **SEC. 201. COMPUTER MODELING AND RESEARCH OF SEDI-**  
6 **MENT AND NUTRIENT SOURCES.**

7 (a) MODELING PROGRAM REQUIRED.—As part of the  
8 Upper Mississippi River Stewardship Initiative, the Direc-  
9 tor of the United States Geological Survey shall develop  
10 and implement a plan to improve existing water-quality  
11 models to identify and quantify significant sources of sedi-  
12 ment and nutrients in the Upper Mississippi River Basin  
13 at the subwatershed (12-digit Hydrologic Unit Code)  
14 scale.

15 (b) ROLE.—Computer modeling shall be used to iden-  
16 tify subwatersheds which are significant sources of sedi-  
17 ment and nutrients and shall be made available for the  
18 purposes of targeting public and private sediment and nu-  
19 trient management efforts.

20 (c) COMPONENTS.—Sediment and nutrient models  
21 for the Upper Mississippi River Basin shall—

22 (1) relate nutrient sources to landscape, land  
23 use, and land management practices;

24 (2) relate sediment sources to landscape, land  
25 use, and land management practices; and

1           (3) quantify river channel nutrient and sedi-  
2           ment transport and transformation processes.

3           (d) COLLECTION OF ANCILLARY INFORMATION.—

4 Ancillary information shall be collected, by remote sensing  
5 or other appropriate means, in a GIS format to support  
6 modeling and management use of modeling results, includ-  
7 ing the following:

8           (1) Land use data.

9           (2) Soils data.

10          (3) Elevation data.

11          (4) Hydrologic modifications.

12          (5) Information on sediment and nutrient man-  
13          agement actions including conservation tillage prac-  
14          tices and other Best Management Practices.

15          (6) Estimates of loads of nutrients from point  
16          sources and key nonpoint sources, including com-  
17          mercial fertilizer, applications of manure, geologic  
18          sources, and atmospheric deposition.

19 **SEC. 202. COMMUNICATION PLAN TO DISTRIBUTE INFOR-**  
20 **MATION.**

21          Not later than 180 days after the date of the enact-  
22          ment of this Act, the Director of the United States Geo-  
23          logical Survey shall establish a communication plan that  
24          includes use of the Internet to provide information includ-  
25          ing the following:



1           (1) Accomplishments of public and private pro-  
2           grams designed to manage sediment and nutrients  
3           in the Upper Mississippi River Basin.

4           (2) Seasonal and annual concentrations and  
5           loads of sediment and nutrients in the Upper Mis-  
6           sissippi River and its tributaries.

7 **SEC. 203. REPORTING REQUIREMENTS.**

8           (a) MONITORING ACTIVITIES.—Commencing one  
9           year after the date of the enactment of this Act, the Direc-  
10          tor of the United States Geological Survey shall provide  
11          to Congress and make available to the public an annual  
12          report that includes data and information on concentra-  
13          tions and loads of nutrients and sediment derived from  
14          monitoring activities conducted in the Upper Mississippi  
15          River Basin.

16          (b) MODELING ACTIVITIES.—Every five years, the  
17          Director of the United States Geological Survey shall pro-  
18          vide to Congress and make available to the public a  
19          progress report assessing changes in nutrient and sedi-  
20          ment concentrations and loads in relation to such factors  
21          as climate variability and changes in land and water man-  
22          agement practices.

1 **TITLE III—AUTHORIZATION OF**  
2 **APPROPRIATIONS AND RE-**  
3 **LATED MATTERS**

4 **SEC. 301. AUTHORIZATION OF APPROPRIATIONS.**

5 (a) UNITED STATES GEOLOGICAL SURVEY ACTIVI-  
6 TIES.—There is authorized to be appropriated to the  
7 United States Geological Survey \$6,250,000 each fiscal  
8 year to carry out this Act (other than section 106).

9 (b) WATER RESOURCE AND WATER QUALITY MAN-  
10 AGEMENT ASSESSMENT.—There is authorized to be ap-  
11 propriated \$650,000 to allow the National Research Coun-  
12 cil to perform the assessment required by section 106.

13 **SEC. 302. COST-SHARING REQUIREMENTS.**

14 Funds made available for the United States Geologi-  
15 cal Survey Cooperative Water Program under section  
16 301(a) shall be subject to the same cost-sharing require-  
17 ments as specified in the last proviso under the heading  
18 “UNITED STATES GEOLOGICAL SURVEY—SURVEYS, IN-  
19 VESTIGATIONS, AND RESEARCH” of the Department of the  
20 Interior, Environment, and Related Agencies Appropria-  
21 tions Act, 2006 (Public Law 109–54; 119 Stat. 510; 43  
22 U.S.C. 50).

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