

111TH CONGRESS  
1ST SESSION

# S. 2779

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

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## IN THE SENATE OF THE UNITED STATES

NOVEMBER 16, 2009

Ms. KLOBUCHAR introduced the following bill; which was read twice and referred to the Committee on Energy and 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 nutrient loss 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 sound science.

## 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.  
 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. Use of electronic means 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 nutrient and sediment loss in the Upper Mississippi  
 16 River Basin.

1           (3) The term “sound science” refers to the use  
2           of accepted and documented scientific methods to  
3           identify and quantify the sources, transport, and  
4           fate of nutrients and sediment and to quantify the  
5           effect of various treatment methods or conservation  
6           measures on nutrient and sediment loss. Sound  
7           science requires the use of documented protocols for  
8           data collection and data analysis, and peer review of  
9           the data, results, and findings.

10 **SEC. 3. RELIANCE ON SOUND SCIENCE.**

11           It is the policy of Congress that Federal investments  
12           in the Upper Mississippi River Basin must be guided by  
13           sound science.

14 **TITLE I—SEDIMENT AND NUTRI-**  
15 **ENT MONITORING NETWORK**

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

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

22           (1) identifying and evaluating significant  
23           sources of sediment and nutrients in the Upper Mis-  
24           sissippi River Basin;

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

4           (3) quantifying the transport of those sediments  
5           and nutrients to and through the Upper Mississippi  
6           River Basin;

7           (4) recording changes to sediment and nutrient  
8           loss over time;

9           (5) providing coordinated data to be used in  
10          computer modeling of the Basin, pursuant to section  
11          201; and

12          (6) identifying major sources of sediment and  
13          nutrients within the Basin for the purpose of tar-  
14          geting resources to reduce sediment and nutrient  
15          loss.

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

20 **SEC. 102. DATA COLLECTION AND STORAGE RESPONSIBIL-**  
21 **ITIES.**

22          (a) **GUIDELINES FOR DATA COLLECTION AND STOR-**  
23 **AGE.**—The Secretary of the Interior shall establish guide-  
24 lines for the effective design of data collection activities  
25 regarding sediment and nutrient monitoring, for the use

1 of suitable and consistent methods for data collection, and  
2 for consistent reporting, data storage, and archiving prac-  
3 tices.

4 (b) RELEASE OF DATA.—Data resulting from sedi-  
5 ment and nutrient monitoring in the Upper Mississippi  
6 River Basin shall be released to the public using generic  
7 station identifiers and hydrologic unit codes. In the case  
8 of a monitoring station located on private lands, informa-  
9 tion regarding the location of the station shall not be dis-  
10 seminated without the landowner's permission.

11 **SEC. 103. RELATIONSHIP TO EXISTING SEDIMENT AND NU-**  
12 **TRIENT MONITORING.**

13 (a) INVENTORY.—To the maximum extent prac-  
14 ticable, the Secretary of the Interior shall inventory the  
15 sediment and nutrient monitoring efforts, in existence as  
16 of the date of the enactment of this Act, of Federal, State,  
17 local, and nongovernmental entities for the purpose of cre-  
18 ating a baseline understanding of overlap, data gaps and  
19 redundancies.

20 (b) INTEGRATION.—On the basis of the inventory,  
21 the Secretary of the Interior shall integrate the existing  
22 sediment and nutrient monitoring efforts, to the maximum  
23 extent practicable, into the sediment and nutrient moni-  
24 toring network required by section 101.

1 (c) CONSULTATION AND USE OF EXISTING DATA.—  
2 In carrying out this section, the Secretary of the Interior  
3 shall make maximum use of data in existence as of the  
4 date of the enactment of this Act and of ongoing programs  
5 and efforts of Federal, State, tribal, local, and nongovern-  
6 mental entities in developing the sediment and nutrient  
7 monitoring network required by section 101.

8 (d) COORDINATION WITH LONG-TERM ESTUARY AS-  
9 SESSMENT PROJECT.—The Secretary of the Interior shall  
10 carry out this section in coordination with the long-term  
11 estuary assessment project authorized by section 902 of  
12 the Estuaries and Clean Waters Act of 2000 (Public Law  
13 106–457; 33 U.S.C. 2901 note).

14 **SEC. 104. COLLABORATION WITH OTHER PUBLIC AND PRI-**  
15 **VATE MONITORING EFFORTS.**

16 To establish the sediment and nutrient monitoring  
17 network, the Secretary of the Interior shall collaborate,  
18 to the maximum extent practicable, with other Federal,  
19 State, tribal, local and private sediment and nutrient mon-  
20 itoring programs that meet guidelines prescribed under  
21 section 102(a), as determined by the Secretary.

22 **SEC. 105. REPORTING REQUIREMENTS.**

23 The Secretary of the Interior shall report to Congress  
24 not later than 180 days after the date of the enactment

1 of this Act on the development of the sediment and nutri-  
2 ent monitoring network.

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

4 The National Research Council of the National Acad-  
5 emy of Sciences shall conduct a comprehensive water re-  
6 sources assessment of the Upper Mississippi River Basin.

7 **TITLE II—COMPUTER MODELING**  
8 **AND RESEARCH**

9 **SEC. 201. COMPUTER MODELING AND RESEARCH OF SEDI-**  
10 **MENT AND NUTRIENT SOURCES.**

11 (a) MODELING PROGRAM REQUIRED.—As part of the  
12 Upper Mississippi River Stewardship Initiative, the Direc-  
13 tor of the United States Geological Survey shall establish  
14 a modeling program to identify significant sources of sedi-  
15 ment and nutrients in the Upper Mississippi River Basin.

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

21 (c) COMPONENTS.—Sediment and nutrient models  
22 for the Upper Mississippi River Basin shall include the  
23 following:

24 (1) Models to relate nutrient loss to landscape,  
25 land use, and land management practices.

1           (2) Models to relate sediment loss to landscape,  
2           land use, and land management practices.

3           (3) Models to define river channel nutrient  
4           transformation processes.

5           (d) COLLECTION OF ANCILLARY INFORMATION.—  
6 Ancillary information shall be collected in a GIS format  
7 to support modeling and management use of modeling re-  
8 sults, including the following:

9           (1) Land use data.

10          (2) Soils data.

11          (3) Elevation data.

12          (4) Information on sediment and nutrient re-  
13          duction improvement actions.

14          (5) Remotely sense data.

15 **SEC. 202. USE OF ELECTRONIC MEANS TO DISTRIBUTE IN-**  
16 **FORMATION.**

17          Not later than 90 days after the date of the enact-  
18 ment of this Act, the Director of the United States Geo-  
19 logical Survey shall establish a system that uses the tele-  
20 communications medium known as the Internet to provide  
21 information regarding the following:

22          (1) Public and private programs designed to re-  
23          duce sediment and nutrient loss in the Upper Mis-  
24          sissippi River Basin.



1           (2) Information on sediment and nutrient levels  
2           in the Upper Mississippi River and its tributaries.

3           (3) Successful sediment and nutrient reduction  
4           projects.

5 **SEC. 203. REPORTING REQUIREMENTS.**

6           (a) **MONITORING ACTIVITIES.**—Commencing one  
7 year after the date of the enactment of this Act, the Direc-  
8 tor of the United States Geological Survey shall provide  
9 to Congress and make available to the public an annual  
10 report regarding monitoring activities conducted in the  
11 Upper Mississippi River Basin.

12           (b) **MODELING ACTIVITIES.**—Every three years, the  
13 Director of the United States Geological Survey shall pro-  
14 vide to Congress and make available to the public a  
15 progress report regarding modeling activities.

16 **TITLE III—AUTHORIZATION OF**  
17 **APPROPRIATIONS AND RE-**  
18 **LATED MATTERS**

19 **SEC. 301. AUTHORIZATION OF APPROPRIATIONS.**

20           (a) **UNITED STATES GEOLOGICAL SURVEY ACTIVI-**  
21 **TIES.**—There is authorized to be appropriated to the  
22 United States Geological Survey \$6,250,000 each fiscal  
23 year to carry out this Act (other than section 106). Of  
24 the amounts appropriated for a fiscal year pursuant to  
25 this authorization of appropriations, one-third shall be

1 made available for the United States Geological Survey  
2 Cooperative Water Program and the remainder shall be  
3 made available for the United States Geological Survey  
4 Hydrologic Networks and Analysis Program.

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

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

10 Funds made available for the United States Geologi-  
11 cal Survey Cooperative Water Program under section  
12 301(a) shall be subject to the same cost-sharing require-  
13 ments as specified in the last proviso under the heading  
14 “**UNITED STATES GEOLOGICAL SURVEY-SURVEYS,**  
15 **INVESTIGATIONS, AND RESEARCH**” of the Department  
16 of the Interior, Environment, and Related Agencies Ap-  
17 propriations Act, 2006 (Public Law 109–54; 119 Stat.  
18 510; 43 U.S.C. 50).

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