

**Calendar No. 36**108TH CONGRESS  
1ST SESSION**S. 212****[Report No. 108-21]**

To authorize the Secretary of the Interior to cooperate with the High Plains States in conducting a hydrogeologic characterization, mapping, modeling and monitoring program for the High Plains Aquifer, and for other purposes.

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## IN THE SENATE OF THE UNITED STATES

JANUARY 23, 2003

Mr. BINGAMAN (for himself, Mr. BROWNBACK, and Mr. DOMENICI) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

MARCH 19, 2003

Reported by Mr. DOMENICI, with an amendment and an amendment to the title

[Strike out all after the enacting clause and insert the part printed in *italic*]

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**A BILL**

To authorize the Secretary of the Interior to cooperate with the High Plains States in conducting a hydrogeologic characterization, mapping, modeling and monitoring program for the High Plains Aquifer, 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.**

4        This Act may be cited as the “High Plains Aquifer  
 5 Hydrogeologic Characterization, Mapping, Modeling and  
 6 Monitoring Act”.

7 **SEC. 2. DEFINITIONS.**

8        For the purposes of this Act:

9            (1) ASSOCIATION.—The term “Association”  
 10 means the Association of American State Geologists.

11            (2) COUNCIL.—The term “Council” means the  
 12 Western States Water Council.

13            (3) DIRECTOR.—The term “Director” means  
 14 the Director of the United States Geological Survey.

15            (4) FEDERAL COMPONENT.—The term “Fed-  
 16 eral component” means the Federal component of  
 17 the High Plains Aquifer Comprehensive  
 18 Hydrogeologic Characterization, Mapping, Modeling  
 19 and Monitoring Program described in section 3(e).

20            (5) HIGH PLAINS AQUIFER.—The term “High  
 21 Plains Aquifer” is the groundwater reserve depicted  
 22 as Figure 1 in the United States Geological Survey  
 23 Professional Paper 1400–B, titled “Geohydrology of  
 24 the High Plains Aquifer in Parts of Colorado, Kan-

1       sas, Nebraska, New Mexico, Oklahoma, South Da-  
2       kota, Texas, and Wyoming.”.

3           (6) HIGH PLAINS AQUIFER STATES.—The term  
4       “High Plains Aquifer States” means the States of  
5       Colorado, Kansas, Nebraska, New Mexico, Okla-  
6       homa, South Dakota, Texas, and Wyoming.

7           (7) SECRETARY.—The term “Secretary” means  
8       the Secretary of the Interior.

9           (8) STATE COMPONENT.—The term “State  
10       component” means the State component of the High  
11       Plains Aquifer Comprehensive Hydrogeologic Char-  
12       acterization, Mapping, Modeling and Monitoring  
13       Program described in section 3(d).

14   **SEC. 3. ESTABLISHMENT.**

15       (a) PROGRAM.—The Secretary, working through the  
16       United States Geological Survey, and in cooperation with  
17       participating State geological surveys and water manage-  
18       ment agencies of the High Plains Aquifer States, shall es-  
19       tablish and carry out the High Plains Aquifer Comprehen-  
20       sive Hydrogeologic Characterization, Mapping, Modeling  
21       and Monitoring Program, for the purposes of the charac-  
22       terization, mapping, modeling, and monitoring of the High  
23       Plains Aquifer. The Program shall undertake on a county-  
24       by-county level or at the largest scales and most detailed

1 levels determined to be appropriate on a state-by-state and  
2 regional basis—

3           (1) mapping of the hydrogeological configura-  
4           tion of the High Plains Aquifer; and

5           (2) with respect to the High Plains Aquifer,  
6           analyses of the current and past rates at which  
7           groundwater is being withdrawn and recharged; the  
8           net rate of decrease or increase in High Plains Aquifer  
9           storage; the factors controlling the rate of hori-  
10          zontal and vertical migration of water within the  
11          High Plains Aquifer; and the current and past rate  
12          of change of saturated thickness within the High  
13          Plains Aquifer.

14 The Program shall also develop, as recommended by the  
15 State panels referred to in subsection (d)(1), regional data  
16 bases and groundwater flow models.

17          (b) FUNDING.—The Secretary shall make available  
18 fifty percent of the funds available pursuant to this title  
19 for use in carrying out the State component of the Pro-  
20 gram, as provided for by subsection (d).

21          (c) FEDERAL PROGRAM COMPONENT.—

22               (1) PRIORITIES.—The Program shall include a  
23 Federal component, developed in consultation with  
24 the Federal Review Panel provided for by subsection  
25 (e), which shall have as its priorities—

1 (A) coordinating Federal, State, and local,  
2 data, maps, and models into an integrated  
3 physical characterization of the High Plains Aquifer;  
4

5 (B) supporting State and local activities  
6 with scientific and technical specialists; and

7 (C) undertaking activities and providing  
8 technical capabilities not available at the State  
9 and local levels.

10 (2) INTERDISCIPLINARY STUDIES.—The Fed-  
11 eral component shall include interdisciplinary studies  
12 that add value to hydrogeologic characterization,  
13 mapping, modeling and monitoring for the High  
14 Plains Aquifer.

15 (d) STATE PROGRAM COMPONENT.—

16 (1) PRIORITIES.—Upon election by a High  
17 Plains Aquifer State, the State may participate in  
18 the State component of the Program which shall  
19 have as its priorities hydrogeologic characterization,  
20 mapping, modeling, and monitoring activities in  
21 areas of the High Plains Aquifer that will assist in  
22 addressing issues relating to groundwater depletion  
23 and resource assessment of the Aquifer. As a condi-  
24 tion of participating in the State component of the  
25 Program, the Governor or Governor's designee shall

1       appoint a State panel representing a broad range of  
2       users of, and persons knowledgeable regarding,  
3       hydrogeologic data and information, which shall be  
4       appointed by the Governor of the State or the Gov-  
5       ernor's designee. Priorities under the State compo-  
6       nent shall be based upon the recommendations of  
7       the State panel.

8               (2) AWARDS.—

9               (A) Twenty percent of the Federal funds  
10              available under the State component shall be  
11              equally divided among the State geological sur-  
12              veys of the High Plains Aquifer States to carry  
13              out the purposes of the Program provided for  
14              by this title. In the event that the State geologi-  
15              cal survey is unable to utilize the funding for  
16              such purposes, the Secretary may, upon the pe-  
17              tition of the Governor of the State, direct the  
18              funding to some other agency of the State to  
19              carry out the purposes of the Program.

20             (B) In the case of a High Plains Aquifer  
21             State that has elected to participate in the  
22             State component of the Program, the remaining  
23             funds under the State component shall be com-  
24             petitively awarded to State or local agencies or  
25             entities in the High Plains Aquifer States, in-

1 including State geological surveys, State water  
2 management agencies, institutions of higher  
3 education, or consortia of such agencies or enti-  
4 ties. A State may submit a proposal for the  
5 United States Geological Survey to undertake  
6 activities and provide technical capabilities not  
7 available at the State and local levels. Such  
8 funds shall be awarded by the Director only for  
9 proposals that have been recommended by the  
10 State panels referred to in subsection (d)(1),  
11 subjected to independent peer review, and given  
12 final prioritization and recommendation by the  
13 Federal Review Panel established under sub-  
14 section (e). Proposals for multistate activities  
15 must be recommended by the State panel of at  
16 least one of the affected States.

17 (e) FEDERAL REVIEW PANEL.—

18 (1) ESTABLISHMENT.—There shall be estab-  
19 lished a Federal Review Panel to evaluate the pro-  
20 posals submitted for funding under the State compo-  
21 nent under subsection (d)(2)(B) and to recommend  
22 approvals and levels of funding. In addition, the  
23 Federal Review Panel shall review and coordinate  
24 the Federal component priorities under subsection  
25 (e)(1), Federal interdisciplinary studies under sub-

1 section (c)(2), and the State component priorities  
2 under subsection (d)(1).

3 (2) COMPOSITION AND SUPPORT.—Not later  
4 than 3 months after the date of enactment of this  
5 title, the Secretary shall appoint to the Federal Re-  
6 view Panel: (1) three representatives of the United  
7 States Geological Survey, at least one of which shall  
8 be a hydrologist or hydrogeologist; and (2) four rep-  
9 resentatives of the geological surveys and water  
10 management agencies of the High Plains Aquifer  
11 States from lists of nominees provided by the Asso-  
12 ciation and the Council, so that there are two rep-  
13 resentatives of the State geological surveys and two  
14 representatives of the State water management  
15 agencies. Appointment to the Panel shall be for a  
16 term of 3 years. The Director shall provide technical  
17 and administrative support to the Federal Review  
18 Panel. Expenses for the Federal Review Panel shall  
19 be paid from funds available under the Federal com-  
20 ponent of the Program.

21 (f) LIMITATION.—The United States Geological Sur-  
22 vey shall not use any of the Federal funds to be made  
23 available under the State component for any fiscal year  
24 to pay indirect, servicing, or Program management  
25 charges. Recipients of awards granted under subsection

1 ~~(d)(2)(B) shall not use more than 18 percent of the Fed-~~  
2 ~~eral award amount for any fiscal year for indirect, serv-~~  
3 ~~icing, or Program management charges. The Federal~~  
4 ~~share of the costs of an activity funded under subsection~~  
5 ~~(d)(2)(B) shall be no more than 50 percent of the total~~  
6 ~~cost of that activity. The Secretary may apply the value~~  
7 ~~of in-kind contributions of property and services to the~~  
8 ~~non-Federal share of the costs of the activity.~~

9 **SEC. 4. PLAN.**

10       The Secretary, acting through the Director, shall, in  
11 consultation with the Association, the Council, the Federal  
12 Review Panel, and the State panels, prepare a plan for  
13 the High Plains Aquifer Comprehensive Hydrogeologic  
14 Characterization, Mapping, Modeling and Monitoring Pro-  
15 gram. The plan shall address overall priorities for the Pro-  
16 gram and a management structure and Program oper-  
17 ations, including the role and responsibilities of the United  
18 States Geological Survey and the States in the Program,  
19 and mechanisms for identifying priorities for the Federal  
20 component and the State component.

21 **SEC. 5. REPORTING REQUIREMENTS.**

22       (a) **REPORT ON PROGRAM IMPLEMENTATION.**—One  
23 year after the date of enactment of this Act, and every  
24 2 years thereafter through fiscal year 2011, the Secretary  
25 shall submit a report on the status of implementation of

1 the Program established by this Act to the Committee on  
2 Energy and Natural Resources of the Senate, the Com-  
3 mittee on Resources of the House of Representatives, and  
4 the Governors of the High Plains Aquifer States. The ini-  
5 tial report submitted by the Secretary shall contain the  
6 plan required by section 4.

7 (b) REPORT ON HIGH PLAINS AQUIFER.—One year  
8 after the date of enactment of this Act and every year  
9 thereafter through fiscal year 2011, the Secretary shall  
10 submit a report to the Committee on Energy and Natural  
11 Resources of the Senate, the Committee on Resources of  
12 the House of Representatives, and the Governors of the  
13 High Plains Aquifer States on the status of the High  
14 Plains Aquifer, including aquifer recharge rates, extrac-  
15 tion rates, saturated thickness, and water table levels.

16 (c) ROLE OF FEDERAL REVIEW PANEL.—The Fed-  
17 eral Review Panel shall be given an opportunity to review  
18 and comment on the reports required by this section.

19 **SEC. 6. AUTHORIZATION OF APPROPRIATIONS.**

20 There are authorized to be appropriated such sums  
21 as may be necessary for each of the fiscal years 2003  
22 through 2011 to carry out this Act :

1 **SECTION 1. SHORT TITLE.**

2       *This Act may be cited as the “High Plains Aquifer*  
3 *Hydrogeologic Characterization, Mapping, and Modeling*  
4 *Act”.*

5 **SEC. 2. DEFINITIONS.**

6       *For the purposes of this Act:*

7           (1) *ASSOCIATION.*—*The term “Association”*  
8 *means the Association of American State Geologists.*

9           (2) *COUNCIL.*—*The term “Council” means the*  
10 *Western States Water Council.*

11           (3) *DIRECTOR.*—*The term “Director” means the*  
12 *Director of the United States Geological Survey.*

13           (4) *HIGH PLAINS AQUIFER.*—*The term “High*  
14 *Plains Aquifer” is the groundwater reserve depicted*  
15 *as Figure 1 in the United States Geological Survey*  
16 *Professional Paper 1400–B, titled “Geohydrology of*  
17 *the High Plains Aquifer in Parts of Colorado, Kan-*  
18 *sas, Nebraska, New Mexico, Oklahoma, South Dakota,*  
19 *Texas, and Wyoming.”*

20           (5) *HIGH PLAINS AQUIFER STATES.*—*The term*  
21 *“High Plains Aquifer States” means the States of*  
22 *Colorado, Kansas, Nebraska, New Mexico, Oklahoma,*  
23 *South Dakota, Texas, and Wyoming.*

24           (6) *REVIEW PANEL.*—*The term “Review Panel”*  
25 *means the panel provided for by section 3(d).*

1           (7) *SECRETARY.*—*The term “Secretary” means*  
2           *the Secretary of the Interior.*

3   **SEC. 3. ESTABLISHMENT.**

4           (a) *PROGRAM.*—*The Secretary, through the United*  
5           *States Geological Survey, and in cooperation with the High*  
6           *Plains Aquifer States, shall establish and carry out the*  
7           *High Plains Aquifer Comprehensive Hydrogeologic Pro-*  
8           *gram, to characterize, map, and model the High Plains Aquifer.*  
9           *The Program shall undertake at the most detailed lev-*  
10           *els determined to be appropriate on a state-by-state basis,*  
11           *characterization, mapping and modeling of the*  
12           *hydrogeological configuration of the High Plains Aquifer.*

13           (b) *OBJECTIVES.*—*The objectives of the Program are*  
14           *to:*

15                   (1) *provide for the hydrogeologic characteriza-*  
16                   *tion, mapping and modeling of the High Plains Aquifer*  
17                   *through a cooperative partnership effort between*  
18                   *the U.S. Geological Survey and the High Plains Aquifer*  
19                   *States;*

20                   (2) *coordinate Federal, State, and local data,*  
21                   *maps, and models into an integrated physical character-*  
22                   *ization of the High Plains Aquifer;*

23                   (3) *support State and local activities with sci-*  
24                   *entific and technical specialists; and*

1           (4) *undertake activities and provide technical ca-*  
2           *pabilities not available at the State and local levels*  
3           *as may be requested by a Governor of a High Plains*  
4           *Aquifer State within such state.*

5           (c) *REQUESTS FROM GOVERNORS.—The Governor of*  
6           *a High Plains Aquifer State may submit a proposal to the*  
7           *Secretary requesting the Secretary to undertake activities*  
8           *and provide financial and technical capabilities not avail-*  
9           *able at the State and local levels to carry out the purposes*  
10          *of the Program.*

11          (d) *REVIEW PANEL.—Not later than six months after*  
12          *the date of enactment of this Act, the Secretary shall estab-*  
13          *lish a Review Panel to: (1) evaluate the proposals submitted*  
14          *for funding under subsection (f); and (2) review and coordi-*  
15          *nate Program priorities. In performing its functions, the*  
16          *Review Panel shall consult with the Association and the*  
17          *Council.*

18          (e) *COMPOSITION AND SUPPORT.—The Review Panel*  
19          *shall be comprised of: (1) five representatives of the United*  
20          *States Geological Survey, at least two of which shall be hy-*  
21          *drologists or hydrogeologists; and (2) one representative who*  
22          *is knowledgeable regarding hydrogeologic data and infor-*  
23          *mation from each of the High Plains Aquifer States that*  
24          *elects to participate in the Program. Each representative*  
25          *of a High Plains Aquifer State shall be recommended by*

1 *the Governor of such State. The Secretary shall provide*  
2 *technical and administrative support to the Review Panel.*  
3 *Expenses for the Review Panel shall be paid from Program*  
4 *funds other than those referred to in subsection (f).*

5       *(f) FUNDING.—Fifty percent of the funds appropriated*  
6 *to carry out this Program shall be allocated equally by the*  
7 *Secretary for the participation of State and local agencies*  
8 *and institutions of higher education within each of the High*  
9 *Plains Aquifer States that elects to participate in the Pro-*  
10 *gram. Grants may be made by the Secretary from the funds*  
11 *described in this subsection based on proposals that have*  
12 *been recommended by the Governor and reviewed by the Re-*  
13 *view Panel. Proposals for multistate activities must be rec-*  
14 *ommended by the Governors of all the affected States.*

15 **SEC. 4. REPORTS.**

16       *(a) REPORT ON PROGRAM IMPLEMENTATION.—One*  
17 *year after the date of enactment of this Act, and every 3*  
18 *years thereafter through fiscal year 2011, the Secretary*  
19 *shall include a report on the Program in the annual budget*  
20 *documents for the Department of the Interior. The initial*  
21 *report submitted by the Secretary shall contain a Program*  
22 *plan developed with the concurrence of the Review Panel.*

23       *(b) REPORT ON HIGH PLAINS AQUIFER.—No later*  
24 *than four years after the date of enactment of this Act and*  
25 *upon completion of the Program in fiscal year 2011, the*

1 *Secretary shall submit an interim and final report, respec-*  
2 *tively, to the Governors of the High Plains Aquifer States*  
3 *on the status of the High Plains Aquifer.*

4 ***SEC. 5. AUTHORIZATION OF APPROPRIATIONS.***

5 *There are authorized to be appropriated such sums as*  
6 *may be necessary for each of the fiscal years 2003 through*  
7 *2011 to carry out this Act.*

Amend the title so as to read: “A bill to authorize the Secretary of the Interior to Cooperate with the High Plains Aquifer States in Conducting a Hydrogeologic Characterization, Mapping, and Modeling Program for the High Plains Aquifer, and for other purposes.”

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**Calendar No. 36**

108TH CONGRESS  
1ST SESSION

**S. 212**

**[Report No. 108-21]**

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**A BILL**

To authorize the Secretary of the Interior to cooperate with the High Plains States in conducting a hydrogeologic characterization, mapping, modeling and monitoring program for the High Plains Aquifer, and for other purposes.

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MARCH 19, 2003

Reported with an amendment and an amendment to the  
title