

Calendar No. ●●●

107TH CONGRESS
2^D SESSION**S. 2773**

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

IN THE SENATE OF THE UNITED STATES

JULY 23, 2002

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

OCTOBER 8, 2002

Reported by Mr. BINGAMAN, with an amendment

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

A BILL

To authorize the Secretary of the Interior to cooperate with the High Plains Aquifer 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,*

1 **SECTION 1. SHORT TITLE.**

2 This Act may be cited as the “High Plains Aquifer
3 Hydrogeologic Characterization, Mapping, Modeling and
4 Monitoring 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) **DIRECTOR.**—The term “Director” means
10 the Director of the United States Geological Survey.

11 (3) **FEDERAL COMPONENT.**—The term “Fed-
12 eral component” means the Federal component of
13 the High Plains Aquifer Comprehensive
14 Hydrogeologic Characterization, Mapping, Modeling
15 and Monitoring Program described in section 3(c).

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

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

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

3 (7) STATE COMPONENT.—The term “State
4 component” means the State component of the High
5 Plains Aquifer Comprehensive Hydrogeologic Char-
6 acterization, Mapping, Modeling and Monitoring
7 Program described in section 3(d).

8 **SEC. 3. ESTABLISHMENT.**

9 (a) PROGRAM.—The Secretary, working through the
10 United States Geological Survey, and in cooperation with
11 the State geological surveys and the water management
12 agencies of the High Plains Aquifer States, shall establish
13 and carry out the High Plains Aquifer Comprehensive
14 Hydrogeologic Characterization, Mapping, Modeling and
15 Monitoring Program, for the purposes of the characteriza-
16 tion, mapping, modeling, and monitoring of the High
17 Plains Aquifer. The program shall undertake on a county-
18 by-county level or at the largest scales and most detailed
19 levels determined to be appropriate on a state-by-state and
20 regional basis: (1) mapping of the hydrogeological configu-
21 ration of the High Plains Aquifer; and (2) with respect
22 to the High Plains Aquifer, analyses of the current and
23 past rates at which groundwater is being withdrawn and
24 recharged, the net rate of decrease or increase in High
25 Plains Aquifer storage, the factors controlling the rate of

1 horizontal and vertical migration of water within the High
2 Plains Aquifer, and the current and past rate of loss of
3 saturated thickness within the High Plains Aquifer. The
4 program shall also develop, as needed, regional data bases
5 and groundwater flow models.

6 (b) FUNDING.—The Secretary shall make available
7 fifty percent of the funds available pursuant to this Act
8 for use in carrying out the State component of the pro-
9 gram, as provided for by subsection (d).

10 (c) FEDERAL PROGRAM COMPONENT.—

11 (1) PRIORITIES.—The program shall include a
12 Federal component, developed in consultation with
13 the Federal Review Panel provided for by subsection
14 (e), which shall have as its priorities—

15 (A) coordinating Federal, State, and local,
16 data, maps, and models into an integrated
17 physical characterization of the High Plains Aquifer;
18

19 (B) supporting State and local activities
20 with scientific and technical specialists; and

21 (C) undertaking activities and providing
22 technical capabilities not available at the State
23 and local levels.

24 (2) INTERDISCIPLINARY STUDIES.—The Fed-
25 eral component shall include interdisciplinary studies

1 that add value to hydrogeologic characterization,
2 mapping, modeling and monitoring for the High
3 Plains Aquifer.

4 (d) STATE PROGRAM COMPONENT.—

5 (1) PRIORITIES.—The program shall include a
6 State component which shall have as its priorities
7 hydrogeologic characterization, mapping, modeling,
8 and monitoring activities in areas of the High Plains
9 Aquifer that will assist in addressing issues relating
10 to groundwater depletion and resource assessment of
11 the Aquifer. Priorities under the State component
12 shall be based upon the recommendations of State
13 panels representing a broad range of users of
14 hydrogeologic data and information, which shall be
15 appointed by the Governor of the State or the Gov-
16 ernor's designee.

17 (2) AWARDS.—Twenty percent of the Federal
18 funds available under the State component shall be
19 equally divided among the State geological surveys
20 of the High Plains Aquifer States to carry out the
21 purposes of the program provided for by this Act.
22 The remaining funds under the State component
23 shall be competitively awarded to State or local
24 agencies or entities in the High Plains Aquifer
25 States, including State geological surveys, State

1 water management agencies, institutions of higher
2 education, or consortia of such agencies or entities.
3 Such funds shall be awarded by the Director only
4 for proposals that have been recommended by the
5 State panels referred to in subsection (d)(1), sub-
6 jected to independent peer review, and given final
7 recommendation by the Federal Review Panel estab-
8 lished under subsection (e). Proposals for multi-state
9 activities must be recommended by the State panel
10 of at least one of the affected States.

11 (e) FEDERAL REVIEW PANEL.—

12 (1) ESTABLISHMENT.—There shall be estab-
13 lished a Federal Review Panel to evaluate the pro-
14 posals submitted for funding under the State compo-
15 nent under subsection (d)(2) and to recommend ap-
16 provals and levels of funding. In addition, the Fed-
17 eral Review Panel shall review and coordinate the
18 Federal component priorities under subsection
19 (e)(1), Federal interdisciplinary studies under sub-
20 section (e)(2), and the State component priorities
21 under subsection (d)(1).

22 (2) COMPOSITION AND SUPPORT.—Not later
23 than three months after the date of enactment of
24 this Act, the Secretary shall appoint to the Federal
25 Review Panel: (1) two representatives of the United

1 States Geological Survey, at least one of which shall
2 be a hydrologist or hydrogeologist; and (2) three
3 representatives of the geological surveys and water
4 management agencies of the High Plains Aquifer
5 States from lists of nominees provided by the Asso-
6 ciation and the Western States Water Council, so
7 that there is representation of both the State geo-
8 logical surveys and the State water management
9 agencies. Appointment to the Panel shall be for a
10 term of three years. The Director shall provide tech-
11 nical and administrative support to the Federal Re-
12 view Panel. Expenses for the Federal Review Panel
13 shall be paid from funds available under the Federal
14 component of the program.

15 (f) LIMITATION.—The United States Geological Sur-
16 vey shall not use any of the Federal funds to be made
17 available under the State component for any fiscal year
18 to pay indirect, servicing, or program management
19 charges. Recipients of awards granted under subsection
20 (d)(2) shall not use more than eighteen percent of the
21 Federal award amount for any fiscal year for indirect,
22 servicing, or program management charges.

23 **SEC. 4. PLAN.**

24 The Secretary, acting through the Director, shall,
25 with the participation and review of the Association, the

1 Western States Water Council, the Federal Review Panel,
2 and the State panels, prepare a plan for the High Plains
3 Aquifer Hydrogeologic Characterization, Mapping, Mod-
4 eling and Monitoring Program. The plan shall address
5 overall priorities for the program and a management
6 structure and program operations, including the role and
7 responsibilities of the United States Geological Survey and
8 the States in the program, and mechanisms for identifying
9 priorities for the Federal component and the State compo-
10 nent.

11 **SEC. 5. REPORTING REQUIREMENTS.**

12 (a) **REPORT ON PROGRAM IMPLEMENTATION.**—One
13 year after the date of enactment of this Act, and every
14 two years thereafter through fiscal year 2011, the Sec-
15 retary shall submit a report on the status of implementa-
16 tion of the program established by this Act to the Com-
17 mittee on Energy and Natural Resources of the Senate,
18 the Committee on Resources of the House of Representa-
19 tives, and the Governors of the High Plains Aquifer
20 States.

21 (b) **REPORT ON HIGH PLAINS AQUIFER.**—One year
22 after the date of enactment of this Act and every year
23 thereafter through fiscal year 2011, the Secretary shall
24 submit a report to the Committee on Energy and Natural
25 Resources of the Senate, the Committee on Resources of

1 the House of Representatives, and the Governors of the
 2 High Plains Aquifer States on the status of the High
 3 Plains Aquifer, including aquifer recharge rates, extrac-
 4 tion rates, saturated thickness, and water table levels.

5 (e) **ROLE OF FEDERAL REVIEW PANEL.**—The Fed-
 6 eral Review Panel shall be given an opportunity to review
 7 and comment on the reports required by this section.

8 **SEC. 6. AUTHORIZATION OF APPROPRIATIONS.**

9 There are authorized to be appropriated such sums
 10 as may be necessary for each of the fiscal years 2003
 11 through 2011 to carry out this Act.

12 **SECTION 1. SHORT TITLE.**

13 *This Act may be cited as the “High Plains Aquifer*
 14 *Hydrogeologic Characterization, Mapping, Modeling and*
 15 *Monitoring Act”.*

16 **SEC. 2. DEFINITIONS.**

17 *For the purposes of this Act:*

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

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

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

24 (4) **FEDERAL COMPONENT.**—*The term “Federal*
 25 *component” means the Federal component of the High*

1 *Plains Aquifer Comprehensive Hydrogeologic Character-*
2 *ization, Mapping, Modeling and Monitoring Pro-*
3 *gram described in section 3(c).*

4 (5) *HIGH PLAINS AQUIFER.*—*The term “High*
5 *Plains Aquifer” is the groundwater reserve depicted*
6 *as figure 1 in the United States Geological Survey*
7 *Professional Paper 1400–B, titled “Geohydrology of*
8 *the High Plains Aquifer in Parts of Colorado, Kan-*
9 *sas, Nebraska, New Mexico, Oklahoma, South Dakota,*
10 *Texas, and Wyoming.”.*

11 (6) *HIGH PLAINS AQUIFER STATES.*—*The term*
12 *“High Plains Aquifer States” means the States of*
13 *Colorado, Kansas, Nebraska, New Mexico, Oklahoma,*
14 *South Dakota, Texas and Wyoming.*

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

17 (8) *STATE COMPONENT.*—*The term “State com-*
18 *ponent” means the State component of the High*
19 *Plains Aquifer Comprehensive Hydrogeologic Charac-*
20 *terization, Mapping, Modeling and Monitoring Pro-*
21 *gram described in section 3(d).*

22 **SEC. 3. ESTABLISHMENT.**

23 (a) *PROGRAM.*—*The Secretary, working through the*
24 *United States Geological Survey, and in cooperation with*
25 *participating State geological surveys and water manage-*

1 *ment agencies of the High Plains Aquifer States, shall es-*
2 *tablish and carry out the High Plains Aquifer Comprehen-*
3 *sive Hydrogeologic Characterization, Mapping, Modeling*
4 *and Monitoring Program, for the purposes of the character-*
5 *ization, mapping, modeling, and monitoring of the High*
6 *Plains Aquifer. The Program shall undertake on a county-*
7 *by-county level or at the largest scales and most detailed*
8 *levels determined to be appropriate on a state-by-state and*
9 *regional basis:*

10 (1) *mapping of the hydrogeological configuration*
11 *of the High Plains Aquifer; and*

12 (2) *with respect to the High Plains Aquifer,*
13 *analyses of the current and past rates at which*
14 *groundwater is being withdrawn and recharged, the*
15 *net rate of decrease or increase in High Plains Aquifer*
16 *storage, the factors controlling the rate of hori-*
17 *zontal and vertical migration of water within the*
18 *High Plains Aquifer, and the current and past rate*
19 *of change of saturated thickness within the High*
20 *Plains Aquifer. The Program shall also develop, as*
21 *recommended by the State panels referred to in sub-*
22 *section (d)(1), regional data bases and groundwater*
23 *flow models.*

24 (b) *FUNDING.—The Secretary shall make available*
25 *fifty percent of the funds available pursuant to this Act for*

1 *use in carrying out the State component of the Program,*
2 *as provided for by subsection (d).*

3 *(c) FEDERAL PROGRAM COMPONENT.—*

4 *(1) PRIORITIES.—The Program shall include a*
5 *Federal component, developed in consultation with the*
6 *Federal Review Panel provided for by subsection (e),*
7 *which shall have as its priorities—*

8 *(A) coordinating Federal, State, and local,*
9 *data, maps, and models into an integrated phys-*
10 *ical characterization of the High Plains Aquifer;*

11 *(B) supporting State and local activities*
12 *with scientific and technical specialists; and*

13 *(C) undertaking activities and providing*
14 *technical capabilities not available at the State*
15 *and local levels.*

16 *(2) INTERDISCIPLINARY STUDIES.—The Federal*
17 *component shall include interdisciplinary studies that*
18 *add value to hydrogeologic characterization, mapping,*
19 *modeling, and monitoring for the High Plains Aqi-*
20 *fer.*

21 *(d) STATE PROGRAM COMPONENT.—*

22 *(1) PRIORITIES.—Upon election by a High*
23 *Plains Aquifer State, the State may participate in*
24 *the State component of the Program which shall have*
25 *as its priorities hydrogeologic characterization, map-*

1 *ping, modeling, and monitoring activities in areas of*
2 *the High Plains Aquifer that will assist in addressing*
3 *issues relating to groundwater depletion and resource*
4 *assessment of the Aquifer. As a condition of partici-*
5 *pating in the State component of the Program, the*
6 *Governor or Governor's designee shall appoint a State*
7 *panel representing a broad range of users of, and per-*
8 *sons knowledgeable regarding, hydrogeologic data and*
9 *information, which shall be appointed by the Gov-*
10 *ernor of the State or the Governor's designee. Prior-*
11 *ities under the State component shall be based upon*
12 *the recommendations of the State panel.*

13 (2) AWARDS.—(A) *Twenty percent of the Federal*
14 *funds available under the State component shall be*
15 *equally divided among the State geological surveys of*
16 *the High Plains Aquifer States to carry out the pur-*
17 *poses of the Program provided for by this Act. In the*
18 *event that the State geological survey is unable to uti-*
19 *lize the funding for such purposes, the Secretary may,*
20 *upon the petition of the Governor of the State, direct*
21 *the funding to some other agency of the State to carry*
22 *out the purposes of the Program.*

23 (B) *In the case of High Plains Aquifer State*
24 *that has elected to participate in the State component*
25 *of the Program, the remaining funds under the State*

1 *component shall be competitively awarded to State or*
2 *local agencies or entities in the High Plains Aquifer*
3 *States, including State geological surveys, State water*
4 *management agencies, institutions of higher edu-*
5 *cation, or consortia of such agencies or entities. A*
6 *State may submit a proposal for the United States*
7 *Geological Survey to undertake activities and provide*
8 *technical capabilities not available at the State and*
9 *local levels. Such funds shall be awarded by the Direc-*
10 *tor only for proposals that have been recommended by*
11 *the State panels referred to in subsection (d)(1), sub-*
12 *jected to independent peer review, and given final*
13 *prioritization and recommendation by the Federal*
14 *Review Panel established under subsection (e). Pro-*
15 *posals for multi-state activities must be recommended*
16 *by the State panel of at least one of the affected*
17 *States.*

18 *(e) FEDERAL REVIEW PANEL.—*

19 *(1) ESTABLISHMENT.—There shall be established*
20 *a Federal Review Panel to evaluate the proposals sub-*
21 *mitted for funding under the State component under*
22 *subsection (d)(2)(B) and to recommend approvals and*
23 *levels of funding. In addition, the Federal Review*
24 *Panel shall review and coordinate the Federal compo-*
25 *nent priorities under subsection (c)(1), Federal inter-*

1 *disciplinary studies under subsection (c)(2), and the*
2 *State component priorities under subsection (d)(1).*

3 (2) *COMPOSITION AND SUPPORT.—Not later than*
4 *three months after the date of enactment of this Act,*
5 *the Secretary shall appoint to the Federal Review*
6 *Panel:*

7 (A) *three representatives of the United*
8 *States Geological Survey, at least one of which*
9 *shall be a hydrologist or hydrogeologist; and*

10 (B) *four representatives of the geological*
11 *surveys and water management agencies of the*
12 *High Plains Aquifer States from lists of nomi-*
13 *nees provided by the Association and the Coun-*
14 *cil, so that there are two representatives of the*
15 *State geological surveys and two representatives*
16 *of the State water management agencies. Ap-*
17 *pointment to the Panel shall be for a term of*
18 *three years. The Director shall provide technical*
19 *and administrative support to the Federal Re-*
20 *view Panel. Expenses for the Federal Review*
21 *Panel shall be paid from funds available under*
22 *the Federal component of the Program.*

23 (f) *LIMITATION.—The United States Geological Survey*
24 *shall not use any of the Federal funds to be made available*
25 *under the State component for any fiscal year to pay indi-*

1 *rect, servicing, or Program management charges. Recipients*
2 *of awards granted under subsection (d)(2)(B) shall not use*
3 *more than eighteen percent of the Federal award amount*
4 *for any fiscal year for indirect, servicing, or Program man-*
5 *agement charges. The Federal share of the costs of an activ-*
6 *ity funded under subsection (d)(2)(B) shall be no more than*
7 *fifty percent of the total cost of that activity. The Secretary*
8 *may apply the value of in-kind contributions of property*
9 *and services to the non-Federal share of the costs of the ac-*
10 *tivity.*

11 **SEC. 4. PLAN.**

12 *The Secretary, acting through the Director, shall, in*
13 *consultation with the Association, the Council, the Federal*
14 *Review Panel, and the State panels, prepare a plan for the*
15 *High Plains Aquifer Hydrogeologic Characterization, Map-*
16 *ping, Modeling and Monitoring Program. The plan shall*
17 *address overall priorities for the Program and a manage-*
18 *ment structure and Program operations, including the role*
19 *and responsibilities of the United States Geological Survey*
20 *and the States in the Program, and mechanisms for identi-*
21 *fying priorities for the Federal component and the State*
22 *component.*

23 **SEC. 5. REPORTING REQUIREMENTS.**

24 *(a) REPORT ON PROGRAM IMPLEMENTATION.—One*
25 *year after the date of enactment of this Act, and every two*

1 *years thereafter through fiscal year 2011, the Secretary*
2 *shall submit a report on the status of implementation of*
3 *the Program established by this Act to the Committee on*
4 *Energy and Natural Resources of the Senate, the Committee*
5 *on Resources of the House of Representatives, and the Gov-*
6 *ernors of the High Plains Aquifer States.*

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

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

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

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

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107TH CONGRESS
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A BILL

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OCTOBER 8, 2002

Reported with an amendment