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PROTECTION AND ENHANCEMENT OF
SOIL AND WATER RESOURCES
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HEARINGS

BEFORE THE

SUBCOMMITTEE ON ENVIRONMENT, SOIL
CONSERVATION, AND FORESTRY

OF THE

COMMITTEE ON AGRICULTURE,
NUTRITION, AND FORESTRY
UNITED STATES SENATE

NINETY-FIFTH CONGRESS

FIRST SESSION

ON

S. 1280

A BILL TO PROVIDE FOR THE MAINTENANCE OR ENHANCEMENT
OF THE QUALITY OF WATER IN RURAL AREAS

AND

S. 1616

A BILL TO ESTABLISH A NATIONAL POLICY CONCERNING AGRI-
CULTURAL, RANGE, AND FOREST LAND; TO ESTABLISH AN AGRI-
CULTURAL LAND REVIEW COMMISSION; TO ESTABLISH A DEM-
ONSTRATION PROGRAM FOR PROTECTING AGRICULTURAL,
RANGE, AND FOREST LAND FROM BEING USED FOR NONAGRICUL-
TURAL PURPOSES; AND FOR OTHER PURPOSES

AUGUST 2 AND 4, 1977

Printed for the use of the Committee on
Agriculture, Nutrition, and Forestry

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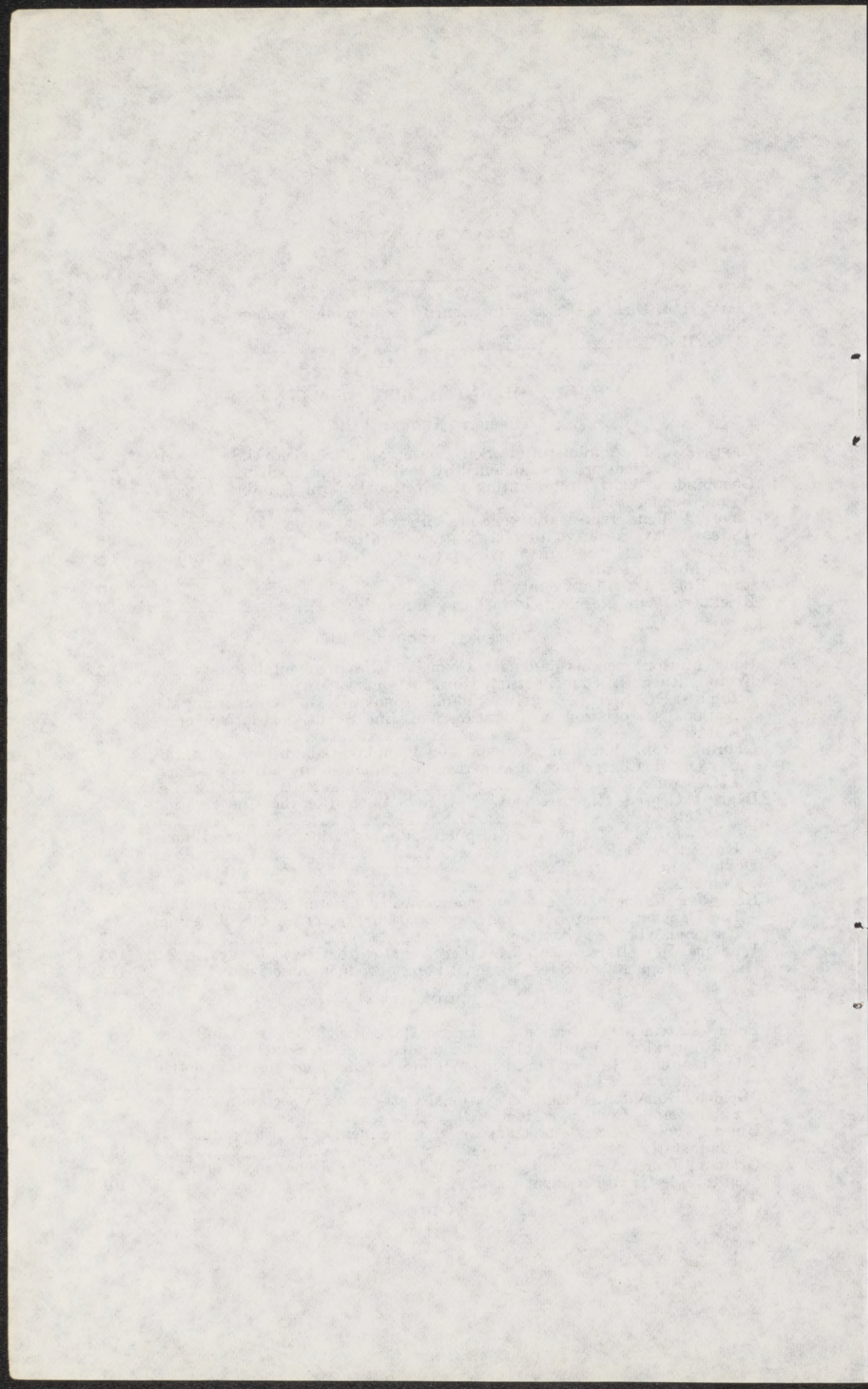
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PROTECTION AND ENHANCEMENT OF SOIL AND WATER RESOURCES

TUESDAY, AUGUST 2, 1977

U.S. SENATE,
SUBCOMMITTEE ON ENVIRONMENT, SOIL
CONSERVATION, AND FORESTRY OF THE
COMMITTEE ON AGRICULTURE, NUTRITION, AND FORESTRY,
Washington, D.C.

The subcommittee met, pursuant to notice, at 9:45 a.m., in room 324, Russell Senate Office Building, Hon. Dick Clark presiding.

Present: Senator Clark.

STATEMENT OF HON. DICK CLARK, A U.S. SENATOR FROM IOWA

Senator CLARK. The meeting will come to order.

I want to welcome all of you to this hearing of the Subcommittee on Environment, Soil Conservation, and Forestry. Our purpose this morning, and again on Thursday morning, is to receive testimony on legislation concerning one of the Nation's most pressing needs—the need to protect and enhance our agricultural resource base—to conserve our soil.

Now, these hearings come at a time when reliable indications suggest that a significant portion of our agricultural resource base is being lost or damaged through erosion by wind and water, and through land-use changes which permanently divert cropland into nonagricultural uses.

The hearings will focus on two bills, S. 1280 and S. 1616, which address this alarming trend toward cropland depletion. The purpose of S. 1280 is to establish a nationwide program to provide rural landowners with cost sharing funds and technical assistance on a voluntary basis to effectuate erosion control measures. The assistance would be provided through the Department of Agriculture in cooperation with local soil and water conservation districts, and it would be tied specifically to the water quality goals embodied in Public Law 92-500 the Water Pollution Control Act.

Now, the other bill under consideration, S. 1616, is entitled, The National Agricultural Land Policy Act. This legislation is organized into three titles:

Title I establishes a national policy to direct each agency of the Federal Government to use all practicable methods consistent with other considerations of national policy, to retain, protect, and improve agricultural land.

Title II establishes a Land Resources Review Commission to study the use and productivity of agricultural land. The commission, reflecting a broad spectrum of public and private interests, would present the President and the Congress with an authoritative evaluation of the situation and trends affecting agricultural land.

Title III authorizes the Secretary of Agriculture to provide matching grants to State and local governments for carrying out programs to retain farmland in production. This help would be on a pilot project basis, in small amounts, and only for a period of 5 years or so, so that many types of local projects could be evaluated as to their cost and effectiveness.

Let me emphasize that the provisions of both S. 1280 and S. 1616 are subject to debate and improvement. In fact, I expect that the expert testimony we receive this morning and Thursday morning will enable us to make these bills more pertinent and effective.

At this point in the proceedings, I submit for the record the full text of my opening remarks, including a more detailed description of the two bills and the problems they address. Copies of this document, I think, are available and were distributed.¹

Also, copies of the two bills, S. 1280 and S. 1616, will be placed in the record.

[The bills follow:]

¹ See p. 109 for the prepared statement of Senator Clark.

95TH CONGRESS
1ST SESSION

S. 1280

IN THE SENATE OF THE UNITED STATES

APRIL 7 (legislative day, FEBRUARY 21), 1977

Mr. CLARK introduced the following bill; which was read twice and referred to the Committee on Agriculture, Nutrition, and Forestry

A BILL

To provide for the maintenance or enhancement of the quality of water in rural areas.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That the Rural Development Act of 1972 (86 Stat. 558),
4 as amended, is hereby amended by adding the following new
5 title at the end thereof.

6 “TITLE VII—RURAL SOURCE WATER QUALITY

7 “SEC. 701. FINDINGS.—The Congress finds that:

8 “(a) Many of the potential sources for degradation of
9 the chemical, physical, and biological integrity of the Na-
10 tion’s waters are located in rural areas of the Nation.

1 “(b) The land and water resources in rural areas are
2 needed to feed, clothe, and house present and future genera-
3 tions of Americans; and to provide natural areas for rec-
4 reation, relaxation, and enjoyment.

5 “(c) Control of sources of pollution in rural areas is
6 needed to assure that our Nation's water quality and other
7 environmental goals are attained.

8 “(d) It is in the interest of the Nation and its people
9 that provisions be made to preserve, maintain, and improve
10 the usefulness, productive capacity, and aesthetic qualities
11 of land and water resources in rural areas and to use such
12 resources in a manner that will minimize pollution of the
13 Nation's waters.

14 “(e) Soil and water conservation programs which en-
15 courage activities such as farm and forest conservation man-
16 agement, crop rotation, terracing, contour farming, strip
17 cropping, tree planting, waste management, and the installa-
18 tion of other watershed protection measures are major
19 contributors to the maintenance and enhancement of the
20 quality of the Nation's waters.

21 “(f) Additional technical and financial assistance to
22 farmers, ranchers, and other land users in rural areas is
23 needed to accelerate their voluntary application of conserva-
24 tion practices and to implement local and State water quality
25 management plans.

1 “(g) The Department of Agriculture has the technical
2 capability and institutional arrangements to work with land
3 users, operators, and others whose activities in rural areas
4 affect water quality. Through its field force in education,
5 research, technical, financial, and credit assistance programs,
6 and its cooperative arrangements with individuals and with
7 local conservation districts, State forestry agencies, State
8 soil and water conservation agencies, cooperatives, and
9 similar groups, the Department has an effective technology
10 transfer and delivery system which can and should be used
11 in a program of water quality management in rural areas.

12 “SEC. 702. It is the policy of the Congress that the
13 Department of Agriculture be responsible for assisting farm-
14 ers, ranchers, other land users, and local and State water
15 quality management agencies in the implementation of pro-
16 grams for the maintenance or enhancement of water quality
17 impaired by activities on lands used for the production of
18 food, forage, fiber, and forest products; and for reduction of
19 sediment and erosion from related rural activities. For the
20 purposes of this Act, related rural activities shall include but
21 not be limited to roads and other construction activities.

22 “SEC. 703. The Secretary of Agriculture, hereinafter
23 called the Secretary, is authorized and directed to implement
24 a nationwide rural source water quality assistance program to

1 maintain or enhance, as appropriate, the quality of water
2 in rural areas. Such program shall include:

3 “(a) Identification and evaluation of rural source water
4 pollution from soil erosion, forest residues, animal wastes,
5 municipal waste applications on rural land, irrigation return
6 flow, agricultural chemicals, roads, construction, and other
7 polluting source activities, utilizing where available existing
8 information. The activities or sources which cause rural
9 water pollution of a significant nature and on which assistance
10 will be provided will be determined by the Secretary. In
11 providing assistance the Secretary will give priority to those
12 sources with the greatest pollution impact.

13 “(b) Procedures for the application of measures neces-
14 sary to reduce water pollution including cost-sharing and
15 technical assistance necessary to reduce water pollution.

16 “(c) Research, development, and testing efforts to col-
17 lect and analyze data to determine the effects of land-related
18 activities that result in significant impacts on water quality,
19 and the relative value and effectiveness of existing and newly
20 development pollution control measures, techniques, pro-
21 cedures, and methodologies.

22 “(d) In carrying out this program the Secretary is
23 authorized to provide assistance to and utilize the services
24 of State or local units of government, including conservation
25 districts, as he deems appropriate. The Secretary shall de-

1 develop the program in consultation with the Administrator of
2 the Environmental Protection Agency, other appropriate
3 Federal agencies, and the advisory board provided for in
4 section 705.

5 "SEC. 704. In carrying out the application portion of
6 the program provided in section 703 (b) of this Act, a local
7 organization such as a county, city, or conservation district
8 shall prepare and submit to the Secretary for approval a rural
9 source water quality plan. The plan shall include but not be
10 limited to—

11 "(a) identification of problem areas and the treat-
12 ment necessary;

13 "(b) the establishment of priorities for the treat-
14 ment of the problem area;

15 "(c) identification of those responsible for carrying
16 out the treatment measures;

17 "(d) identification of the technical assistance and
18 financial incentives needed to encourage voluntary in-
19 stallation of measures necessary to carry out the plan;
20 and

21 "(e) enduring conservation practices necessary to
22 carry out the rural source water quality plan.

23 The rural source water quality plan shall be developed in
24 coordination with appropriate portions of an areawide waste
25 treatment management plan developed under section 208,

1 Federal Water Pollution Control Act, as amended, and other
2 appropriate State programs to assure consistency. Participa-
3 tion in the local rural source water quality plan by land
4 owners and operators will be facilitated by long-term cost-
5 sharing agreements between the Secretary of Agriculture
6 and the concerned land owners and operators and approved
7 by the local organization and conservation district.

8 "The program authorized by this Act shall be in addi-
9 tion to existing programs of the Department of Agriculture
10 which are contributing to the maintenance and enhancement
11 of the quality of the Nation's waters.

12 "SEC. 705. The Secretary may, without regard to civil
13 service laws, appoint an advisory board to advise and consult
14 on matters relating to his responsibilities under this Act as
15 he deems appropriate. The board shall consist of persons
16 chosen from members of farm, fish and wildlife, forest, and
17 environmental organizations, soil and water conservation
18 associations, State and local governments, and representatives
19 of the general public. Members of such advisory board who
20 are not regular full-time employees of the United States shall
21 be entitled to reimbursement on an actual expense basis for
22 attendance at advisory board meetings. The Secretary is
23 authorized to issue such rules and regulations as he determines
24 are necessary to carry out the provisions of this Act.

1 “SEC. 708. The Secretary, during budget preparation
2 for fiscal year 1979 and annually thereafter to fiscal year
3 1990, shall prepare a report which evaluates the program’s
4 effectiveness in attaining the purposes of this Act. The report
5 prepared in concise summary form, with appropriate detailed
6 appendices, shall set forth the progress in implementing the
7 program, contain appropriate measurements of pertinent
8 costs and benefits, and assess the balance between economic
9 factors and water quality factors being obtained by the pro-
10 gram. The report shall also include plans for needed changes
11 in the program and new legislative authorities where
12 warranted.

13 “SEC. 709. To obtain the established goal of controlling
14 the discharge of pollutants from rural areas into the waters of
15 the Nation, there is authorized to be appropriated, without
16 fiscal year limitations, such funds as may be necessary to
17 carry out this Act.

18 “SEC. 710. The provisions of this Act shall take effect
19 on the date of enactment and shall terminate on Septem-
20 ber 30, 1991.”.

IN THE SENATE OF THE UNITED STATES

MAY 26 (legislative day, MAY 18), 1977

Mr. CLARK introduced the following bill; which was read twice and referred to the Committee on Agriculture, Nutrition, and Forestry

To establish a national policy concerning agricultural, range, and forest land; to establish an Agricultural Land Review Commission; to establish a demonstration program for protecting agricultural, range, and forest land from being used for nonagricultural purposes; 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 That this Act may be cited as the “National Agricultural,
4 Range, and Forest Land Policy Act”.

5 FINDINGS AND PURPOSES

6 SEC. 2. (a) The Congress hereby finds that—

(1) the maintenance of a sound level of productivity from agricultural, range, and forest land is essential to

1 provide adequate and affordable food and fiber supplies
2 for domestic consumption, for exportation which will
3 help offset rising import costs, for emergency and hu-
4 manitarian purposes, and for an effective economy in the
5 United States;

6 (2) despite a history of increasing yields per acre,
7 further increases in agricultural and timber production—

8 (A) cannot be projected because of changing
9 weather patterns, soil erosion, air pollution, compe-
10 tition for water, genetic vulnerability, increased costs
11 and scarcities of fuels and fertilizers, and other fac-
12 tors; and

13 (B) will depend on the amount, quality, loca-
14 tions, and financing of agricultural, range, and
15 forest land;

16 (3) urban and industrial encroachment in high
17 quality agricultural areas affects agricultural and timber
18 yields through air pollution and competition for water;

19 (4) poor use of agricultural land results in soil
20 erosion, low water tables, over-salinity of soils, depletion
21 of natural soil constituents, and other yield-decreasing
22 effects; and

23 (5) for these reasons, the Federal Government must
24 establish a national policy to help landowners, and State

1 and local governments protect their agricultural, range,
2 and forest land.

3 (b) It is, therefore, the purpose of this Act—

4 (1) to establish a national policy of retaining, pro-
5 tecting, and improving agricultural, range, and forest
6 land, and to insure that all activities of the Federal
7 Government are in harmony with this policy;

8 (2) to establish a commission (A) to study agricul-
9 tural, range, and forest land, especially the quantity,
10 quality, location, and financing of such land, (B) to
11 study the relationship of agricultural, range, and forest
12 land as a national concern to other national concerns
13 (including energy, the economy, urban growth and
14 development, foreign relations and trade, and humani-
15 tarian aid), and (C) to recommend to the President
16 and each House of Congress various methods of accom-
17 plishing the national policy described in paragraph (1);
18 and

19 (3) to establish a program which will provide tech-
20 nical and financial assistance to States and political sub-
21 divisions of States to carry out pilot projects for the
22 purposes of—

23 (A) encouraging such States and subdivisions
24 to experiment with a variety of methods for pro-

1 tecting agricultural land in areas where such land is
2 being converted to nonagricultural uses at a high
3 rate;

4 (B) providing the commission described in
5 paragraph (2) with information concerning
6 methods of reducing the amount of land which is
7 annually being converted from agricultural, range,
8 and forestry uses to nonfood and fiber producing
9 uses; and

10 (C) demonstrating practicable methods of re-
11 ducing such amount of land use conversions.

12 TITLE I—OBJECTIVES

13 NATIONAL AGRICULTURAL LAND POLICY

14 SEC. 101. (a) The Congress, recognizing the importance
15 of high levels of agricultural and forest productivity to the
16 economy, to the quality of the environment, human health
17 and welfare, and the position of the United States as an in-
18 ternational food and fiber producing leader, declares that it
19 is the policy of the Federal Government in cooperation with
20 the State and local governments to use all practicable meth-
21 ods to retain, protect, and improve agricultural, range, and
22 forest land.

23 (b) In order to advance the policy described in subsec-
24 tion (a), it is the responsibility of the Federal Government to

1 use all practicable methods consistent with other considera-
2 tions of national policy—

3 (1) to reduce the amount of land which is annually
4 being converted from agricultural and forestry uses to
5 nonfood and fiber producing uses;

6 (2) to limit the encroachment of industrial activities
7 in high-quality agricultural areas if such activities de-
8 prive cropland, range, and forests of needed water or
9 produce yield-reducing air pollution;

10 (3) to encourage optimum use of agricultural,
11 range, and forest land for maximum yields;

12 (4) to include in environmental impact statements
13 under the National Environmental Policy Act of 1969
14 an assessment of the effects of major Federal actions on
15 agricultural, range, and forest land;

16 (5) to inventory, assess, and evaluate the Nation's
17 agricultural, range, and forest lands on a continuing
18 basis in order to assure that public and private decisions
19 are made on an informed basis;

20 (6) to cooperate with the States and political sub-
21 divisions of States in retaining, protecting, and improv-
22 ing agricultural and forest land; and

23 (7) to require that all activities which are carried
24 out by departments or agencies of the United States

1 and which affect agricultural, range, or forest land be
2 coordinated and improved in order to protect such land.

3 TITLE II—RESEARCH PROGRAM

4 AGRICULTURAL LAND REVIEW COMMISSION

5 SEC. 201. (a) The Secretary of Agriculture (hereinafter
6 in this Act referred to as the "Secretary") is hereby au-
7 thorized to establish a commission to be known as the Agri-
8 cultural Land Review Commission (hereinafter in this Act
9 referred to as the "Commission").

10 (b) The Commission shall be composed of twenty-
11 three members. Such members shall be appointed within
12 ninety days after the date of enactment of this Act.

13 (c) The members shall be appointed by the Secretary
14 and shall be persons who are not officers or employees of
15 the Federal Government and who are knowledgeable of
16 and particularly interested in the protection of agricultural,
17 range, and forest land. The members shall be selected to
18 represent a geographical cross section of the United States.
19 No more than twelve of the twenty-three Commission mem-
20 bers may be members of the same political party.

21 (d) The Chairman and Vice Chairman of the Com-
22 mission shall be designated by the Secretary.

23 (e) Members of the Commission shall be appointed
24 for the existence of the Commission.

1 (f) A vacancy in the Commission shall be filled in the
2 manner in which the original appointment was made.

3 DUTIES

4 SEC. 202. (a) The Commission shall study—

5 (1) the quantity, quality, locations, and financing of
6 agricultural, range, and forest land in the United States;

7 (2) the relationship of such land to the supply and
8 demand of food and fiber and to the production of food
9 and fiber;

10 (3) the effects of urbanization, industrial develop-
11 ment, and other nonagricultural or nonforestry activities
12 on this land;

13 (4) the effects of climate predictions, agricultural
14 and forest technology, air pollution, genetic vulnerability,
15 soil salinity, environmental regulations, fertilizers, and
16 fuels on productivity of agricultural, range, and forest
17 land;

18 (5) the acquisitions of agricultural, range, and forest
19 land by persons who are not engaged in activities which
20 produce agricultural or forest commodities (including
21 acquisitions by agricultural land investment funds) and
22 the effects of such acquisitions on agricultural and timber
23 production;

24 (6) methods of protecting and improving agricul-

8

1 tural, range, and forest land and the benefits of such
2 methods with respect to their costs;

3 (7) methods of reducing the amount of land which
4 is annually being converted from agricultural and forestry
5 uses to nonvital uses; and

6 (8) the Federal, State, and local laws and regula-
7 tions promulgated as a result of enactment of such laws
8 to determine whether these laws and regulations in any
9 way diminish or impinge on agricultural, range, or forest
10 land; and further, and make recommendations for
11 changes in any of those laws or regulations that would
12 protect these lands from nonvital development, so that
13 ill-considered Federal, State, and local action does not
14 contribute to the diminution or destruction of lands
15 needed for the production of food and fiber.

16 (b) In order to obtain information for the study de-
17 scribed in subsection (a), the departments and agencies of
18 the Federal Government, at the request of the Commission,
19 shall carry out such research activities concerning agricul-
20 tural, range, and forest land as the Commission determines
21 necessary.

22 (c) (1) The Commission may make grants to institutes
23 of higher education which the Commission selects and which
24 are willing to carry out such research activities concerning
25 agricultural, range, and forest land as the Commission deems

9

1 necessary to obtain information for the study described in
2 subsection (a).

3 (2) A grant made under this subsection shall be for
4 the costs of carrying out the research activities for which
5 the grant is made.

6 (3) The Commission may only make a grant to an
7 institute of higher education under this subsection if—

8 (A) the research activities for which the grant
9 is made will be completed at least sixty days before
10 the date on which the Commission will cease to exist
11 under section 204; and

12 (B) the institute agrees to provide such fiscal con-
13 trol and fund accounting procedures as the Commission
14 determines are necessary to assure proper disbursement
15 and accounting for Federal funds received by such insti-
16 tute under this Act.

17 (d) In determining which research activities are neces-
18 sary under subsections (b) and (c), the Commission
19 shall consider research activities being carried out under
20 other laws of the United States, especially under section 302
21 and title V of the Rural Development Act of 1972, in order
22 to minimize duplication of research activities.

23 REPORTS OF THE COMMISSION

24 SEC. 203. The Commission shall transmit to the Secre-
25 tary, and to each House of the Congress, interim annua

1 reports concerning the study described in section 202 and
 2 a final report. The reports shall also include recommenda-
 3 tions of the Commission concerning—

4 (a) modifications in policies, programs, and laws
 5 of the United States, the States, and political subdivi-
 6 sions of States which are necessary to prevent land
 7 from being diverted from the production of food and
 8 fiber; and

9 (b) coordination of activities which are carried out
 10 by a department or agency of the United States and
 11 which affect agricultural, range, and forest land, includ-
 12 ing activities such as issuing permits, making grants or
 13 loans, and carrying out programs; and

14 (c) other matters which the Commission wishes
 15 to recommend.

16 TERMINATION

17 SEC. 204. The Commission shall cease to exist on Sep-
 18 tember 30, 1982.

19 PAY AND TRAVEL EXPENSES OF MEMBERS

20 SEC. 205. Members of the Commission shall receive
 21 \$100 for each day (including traveltime) during which they
 22 are engaged in the actual performance of duties vested in
 23 the Commission.

24 (a) While away from their homes or regular places of
 25 business in the performance of services for the Commission,

1 members of the Commission shall be allowed travel expenses,
2 including per diem in lieu of subsistence, in the same manner
3 as persons employed intermittently in the Government serv-
4 ice are allowed expenses under section 5703 (b) of title 5,
5 United States Code.

6 ADMINISTRATIVE PROVISION

7 SEC. 206. (a) The Secretary may appoint such staff,
8 including a Director, as it deems desirable without regard
9 to the provisions of title 5, United States Code, governing
10 appointments in the competitive service. The Commission
11 may pay such staff without regard to the provisions of chap-
12 ter 51 and subchapter III of chapter 53 of such title, relating
13 to classification and General Schedule pay rates, except that
14 no individual so appointed may receive pay in excess of
15 the annual rate of basic pay in effect for grade GS-18 of
16 the General Schedule.

17 (b) The Commission may procure temporary and inter-
18 mittent services to the same extent as is authorized by
19 section 3109 (b) of title 5, United States Code, at rates of
20 pay which are fixed by the Commission and which do not
21 exceed \$100 per day.

22 (c) Upon request of the Chairman or Vice Chairman
23 of the Commission, each department, agency, and instru-
24 mentality of the United States shall furnish to the Commis-
25 sion, on a reimbursable basis or otherwise, such information

1 as the Commission deems necessary to carry out its duties
2 under this Act. The Commission may request that the depart-
3 ment, agencies, and instrumentalities of the States furnish,
4 on a reimbursable basis, such information concerning agri-
5 cultural, range, and forest land as the Commission deems
6 necessary to carry out its duties under this Act.

7 (d) Upon request of the Commission, the head of any
8 Federal agency may detail, on a reimbursable basis, any of
9 the personnel of such agency to the Commission to assist the
10 Commission in carrying out its duties under this Act.

11 (e) The Commission may, for the purpose of carrying
12 out the provisions of this Act, hold such hearings, sit and act
13 at such times and places, take such testimony, and receive
14 such evidence, as the Commission deems advisable. The
15 Commission may administer oaths or affirmations to witnesses
16 appearing before it.

17 (f) The Commission may issue subpoenas requiring the
18 attendance and testimony of witnesses and the production of
19 any evidence which relates to any matter being studied by
20 the Commission under this title.

21 DEFINITIONS

22 SEC. 207. (a) As used in this title, the term "institute
23 of higher education" means an educational institution in
24 any State which (A) admits as regular students only per-
25 sons having a certificate of graduation from a school providing

1 secondary education, or the recognized equivalent of such a
2 certificate, (B) is legally authorized within such State to
3 provide a program of education beyond secondary education,
4 (C) provides an educational program for which it awards
5 a bachelor's degree or provides not less than a two-year pro-
6 gram which is acceptable for full credit toward such a degree,
7 (D) is a public or other nonprofit institution, and (E) is
8 accredited by a nationally recognized accrediting agency or
9 association.

10 TITLE III—DEMONSTRATION PROGRAMS

11 PILOT PROJECTS

12 SEC. 301. The Secretary of Agriculture may provide
13 financial and technical assistance for the purpose of demon-
14 strating and testing methods of reducing the amount of land
15 which is annually being converted from agricultural and
16 private forestry uses to nonessential uses. Such assistance
17 may be provided to States and political subdivisions of
18 States which have authority to establish and collect property
19 taxes and regulate the use of and acquire land.

20 APPLICATION

21 SEC. 302. Any State or political subdivision of a State
22 desiring to conduct a pilot project under this title demon-
23 strating or testing a method of reducing the amount of land
24 which is annually being removed from agricultural, range,
25 and forestry uses, may submit an application to the Secre-

1 tary under such conditions as he may, by regulation,
2 prescribe.

3 APPROVAL OF APPLICATIONS

4 SEC. 303. (a) The Secretary shall establish and pub-
5 lish in the Federal Register criteria on the basis of which
6 applicants will be selected to receive assistance under this
7 title. Such criteria shall give priority to applicants who sub-
8 mit applications to carry out pilot projects which—

9 (1) will provide, at a low cost, timely information
10 which will be useful to the Commission in carrying out
11 the research program under title II;

12 (2) will provide, at a low cost, data concerning
13 agricultural, range, and forested land which is not cur-
14 rently available or which, if currently available, is not
15 reliable; and

16 (3) will assure that the Commission, in carrying
17 out the research program under title II, will have a
18 range of projects to study in terms of (A) geographical
19 location, (B) reducing the amount of land which is an-
20 nually being converted from agricultural and forestry
21 uses to nonagricultural uses, and (C) improved utiliza-
22 tion of agricultural, range, and forest land.

23 (b) The Secretary may only provide assistance under
24 this title with respect to an application—

1 (1) which he approves under the criteria estab-
2 lished under subsection (a) ;

3 (2) under which the pilot project described in the
4 application will be completed within five years after
5 the date of enactment of this Act;

6 (3) under which the Secretary has received writ-
7 ten assurance from the applicant that the applicant has
8 the ability to finance its share of the cost of carrying out
9 the pilot project described in the application;

10 (4) under which the Secretary is satisfied that the
11 applicant has the capability of carrying out the pilot
12 project described in the application and is satisfied that
13 the applicant will make a good faith effort to cooperate
14 with the Commission; and

15 (5) under which the applicant has agreed to—

16 (A) transmit to the Secretary and the Com-
17 mission, during its existence, such reports at such
18 times, in such form, and containing such informa-
19 tion as the Secretary or the Commission determines
20 is necessary to carry out the provisions of this Act;
21 and

22 (B) provide such fiscal control and fund ac-
23 counting procedures as the Secretary determines
24 are necessary to assure proper disbursement and ac-

1 counting of Federal funds appropriated under this
2 Act.

3 AMOUNT OF ASSISTANCE

4 SEC. 304. (a) The amount of assistance with respect
5 to any pilot project carried out under this title shall be de-
6 termined by the Secretary and shall not exceed 60 per
7 centum of the cost of planning, carrying out, and issuing
8 reports concerning such project. The remainder of such costs
9 shall be provided by the applicant in a manner which the
10 Secretary determines is satisfactory. In determining the
11 share of costs provided by the applicant, the Secretary
12 shall include the value of service provided by the applicant
13 in planning, carrying out, and issuing reports concerning
14 such project.

15 (b) In providing assistance to an applicant under this
16 title, the Secretary may make payments to the applicant as
17 the applicant progresses toward completion of the pilot
18 project.

19 CONSULTATION WITH THE COMMISSION

20 SEC. 305. The Secretary shall consult with the Commis-
21 sion in planning and carrying out the demonstration program
22 described in this title.

23 REPORT OF THE SECRETARY

24 SEC. 306. Within ninety days after completion of the
25 last pilot project carried out under this title, the Secretary

1 shall transmit a report to the President and to each House
2 of Congress. The report shall contain a detailed statement of
3 the findings and conclusions of the Secretary concerning
4 methods of reducing the amount of land which is annually
5 being converted from agricultural and forested uses to non-
6 essential uses, together with his recommendations for such
7 legislation or administrative action concerning such methods
8 as he or she deems appropriate.

9 STATEMENT OF LIMITATION

10 SEC. 307. This Act does not authorize the Federal Gov-
11 ernment to regulate the use of private land or to deprive own-
12 ers of land of their rights to property or to income from the
13 sale of property and does not diminish in any way the rights
14 and responsibilities of the States and political subdivisions of
15 States.

16 TITLE IV—FUNDING

17 AUTHORIZATIONS FOR APPROPRIATIONS

18 SEC. 401. (a) There are authorized to be appropriated
19 \$8,000,000 to carry out the provisions of title II of this Act.

20 (b) There are authorized to be appropriated \$5,000,000
21 to carry out the provisions of title III of this Act for each of
22 the fiscal years ending on September 30, 1978, Septem-
23 ber 30, 1979, September 30, 1980, September 30, 1981, and
24 September 30, 1982.

Senator CLARK. Our first witness is R. M. Davis, Administrator, Soil Conservation Service, U.S. Department of Agriculture.

Mr. Davis, I think you have a statement, or a summary of a statement.

STATEMENT OF R. M. DAVIS, ADMINISTRATOR, SOIL CONSERVATION SERVICE, U.S. DEPARTMENT OF AGRICULTURE, ACCOMPANIED BY NEIL R. SAMPSON, SCS

Mr. DAVIS. Mr. Chairman, I have a statement—in fact, I have two statements, S. 1280 and S. 1616. My first statement will have to do with S. 1280.

Mr. Chairman and members of the committee, I am pleased to appear before you today to represent the Department of Agriculture in discussing S. 1280, the bill to provide for the maintenance or enhancement of the quality of water in rural America.

The President, in his recent environmental message to the Congress said, "Environmental protection is no longer just a legislative job, but one that requires and will now receive firm and unsparing support from the executive branch."

The Department of Agriculture fully supports the protection of our environment including the objectives of maintaining or enhancing the water quality in rural America. We are very aware of the fact that the great bulk of sediment, about 50 percent, comes originally from agricultural land, 10 percent from range and forest lands, 10 percent from eroding roadsides, construction activities, surface mined lands, and other man-disturbed areas with the remaining 30 percent being natural geologic erosion occurring on land relatively undisturbed by man.

Sediment in addition to filling streams, lakes, and estuaries, and damaging fish and wildlife habitat, is a principal carrier of nutrients, pesticides, heavy metals, and other contaminants. These pollutants are released into the water under certain conditions, contaminating water supplies and creating a danger to public health and aquatic life, as well as contributing to accelerated eutrophication of lakes.

These factors, coupled with the economic impact of sedimentation on reservoirs, harbors, and irrigation systems, as well as the increased flooding experienced when sediment clogs streams and channels, makes it clearly essential that excessive sedimentation be stopped.

It is this initial man-caused sediment—70 percent—which this Department has spent over 40 years in helping control. While our primary objective has been the control of erosion and resulting sediment to maintain a resource base for sustained production, water quality without a doubt has improved significantly from this effort.

Many soil and water conservation practices singularly or in combination are the very practices which could be applied to many millions of acres of land to help keep water where it falls, and soil, plant residues, and animal wastes in place. To the extent that water, soil, and plant residues are kept in place, sediment, many nutrients, and pesticides stay on the field. To the extent that those potential pollutants stay on the field they are prevented from getting into streams and lakes, thereby reducing water pollution.

The Department of Agriculture is uniquely qualified for handling a new role of rural water quality improvement. Through our day-to-day work with farmers, ranchers, and others we now have the confidence of those that is so necessary for the success of such a major effort. We have long favored a voluntary approach to the rural water quality problems. Technical and financial assistance has been and is available to our Nation's landowners and land users through our various departmental programs. We have within the Department all the tools necessary to administer effectively and efficiently such a major national undertaking.

We do recommend three amendments to S. 1280 that in our opinion would strengthen the objectives of the bill. These amendments are as follows:

1. There is a need to eliminate duplicative planning where there is an approved plan under section 208 of Public Law 92-500 which the Secretary of Agriculture can satisfactorily use in carrying out and implementing a rural water quality program.

Senator CLARK. In other words, why duplicate it if you already have it.

Mr. DAVIS. That is right. It has been done once, Mr. Chairman, and we can satisfactorily accept it, and recommend it be done.

Senator CLARK. That sounds good.

Mr. Davis.

2. The authority for administering a rural source water quality program within the context of planning conducted under section 208 of Public Law 92-500 should rest with the Secretary of Agriculture. This would allow him to effectively use all organizational and programmatic means at his disposal to accomplish the objectives intended. And,

3. The Secretary should be given the authority to establish the assistance to be provided and the recipient eligibility standards, including among others the ability to pay.

The rural source water quality assistance program would provide for the additional technical and financial assistance needed to get the water quality management job done in rural areas. It would stress the application of enduring conservation practices through long-term cost-sharing agreements to insure the effectiveness of these practices for both water quality improvement and for soil and water conservation.

We appreciate this opportunity to appear before your subcommittee and would be pleased to respond to any questions you might have at this point in time on S. 1280.

Senator CLARK. I appreciate your testimony, it has been very brief and to the point.

Suppose we do not pass S. 1280 for one reason or another, how do you the Department of Agriculture or the administration plan to fulfill the requirements of the water pollution laws that are now written? What other approaches might be taken? You are under rather strict existing law to avoid further water pollution, to clean up the streams to some degree. If we do not go this route, what route might we go?

Mr. DAVIS. Mr. Chairman, I am not sure that I can spell the exact route. We do have existing authority. The cost-sharing program through ACP is one example of a program where our technical assist-

ance is provided. All of these, as I indicated in my statement, have been working for 40 years toward this objective.

But accelerated technical and financial assistance to meet the intent of Public Law 92-500, I believe, will be essential if we are going to have a significant effect on water quality and water conservation. The Department of Agriculture has the expertise and organization out in the countryside, and the confidence of the American farmer and rancher that will be needed to do the job.

You say, how would we do it without S. 1280? I do not know how we really could do it unless existing programs were financed and staffed.

Senator CLARK. Beyond what they are.

Mr. DAVIS. Right.

Senator CLARK. And you have certain deadlines, do you not?

Mr. DAVIS. Yes, sir, deadlines are written into Public Law 92-500. Of course, I am not the judge whether or not those deadlines can or will be met.

Senator CLARK. In one point in your statement, although I could not find it, I interpreted what you said to mean that because of the existing soil conservation program we have had over the last—

Mr. DAVIS. Forty years.

Senator CLARK. Forty years now, we have been able to clean up the streams, or something of that kind. But actually, have not the streams gotten dirtier, even though we have done a great deal to revert that process? I would agree with the statement that without soil conservation it would be much, much worse.

But is it not generally believed that even though we have done a great deal of soil conservation that it has not been able to keep up with water pollution, and streams and rivers are more polluted today as a result of agriculture than they would have been 40 years ago? I mean, just taking the insecticides and pesticides, and fertilizers, and so forth, it would seem to me that would be the case.

Mr. DAVIS. I do not believe the total sediment load has significantly increased. I am talking about total sediment load from agriculture.

Senator CLARK. What about chemicals?

Mr. DAVIS. Chemicals are a different situation. We are using many more herbicides and fertilizers in 1977 than we were in 1937. Soil particles moving into streams naturally are carrying more of these chemicals.

I do not think we can prove that sediment from agriculture has increased to any great extent, but the resultant chemical contamination has increased.

Senator CLARK. But sediment increase has perhaps not occurred.

Mr. DAVIS. We do not think it has increased significantly from agriculture, but it has increased from other activities, and no doubt some from agriculture.

Senator CLARK. But just to follow through what you are saying, if we go on in the way we are now, putting a fair amount of money into soil conservation—depending upon one's point of view, I suppose—with a very strong team all across this country and the Soil Conservation Service, if we go along at the present pace it is difficult to see us reversing the trend of water pollution.

I guess we are in agreement that we are going to have to undertake some kind of significant program to really reverse that, and particularly if we are to meet the requirements of the law.

Mr. DAVIS. That is correct, Senator. Many of our programs in the past have not been geared entirely to water quality, as is S. 1280.

Senator CLARK. That is right.

Mr. DAVIS. Therefore, the emphasis in this bill would be more toward water quality than would some of the other programs that we have been operating.

Senator CLARK. Now, if I heard you correctly—I just want to be sure for the record—it seems to me you were saying that you do feel that the United States Department of Agriculture could manage the program that would be set up under S. 1280, that you have the ability, the personnel, or whatever necessary. It may not necessarily be the exact number of personnel, but you have the ability and the qualifications, and the know-how and so forth to actually implement a program of this kind.

Mr. DAVIS. Yes, we have the organization, and we have the technical know-how. The amount of assistance required, both in the form of financial assistance for landowners and operators, and technical assistance, would have to be accelerated to accomplish the objectives of Public Law 92-500.

Senator CLARK. Now, how would this bill, S. 1280, really fit into the existing conservation programs, such as the Great Plains? Would there be an overlap, or could it be integrated into existing programs? Not just the Great Plains program, but all of your conservation programs. Would that cause you a big problem or could it be integrated well without overlapping; what do you see in terms of the administration?

Mr. DAVIS. It can be integrated well. The amendments we have suggested would give the Secretary the authority to integrate the rural water quality program into the Great Plains conservation program, or have it as a separate stimulus, but not duplicate it.

I would not see any particular problems of management or administration, recognizing that there is always that possibility if we do not exercise careful management.

Senator CLARK. What do you think about the Environmental Protection Agency running it? That is another alternative. Really, we are talking here about a program in which we involve two things, soil conservation and water pollution.

Mr. DAVIS. Right.

Senator CLARK. I think we are all in agreement—whether we are talking about the EPA, or the USDA, or whoever—that the two programs go hand in hand. The way to best control water pollution is to avoid soil runoff and soil erosion. So, it could be argued that either of these administrations might justifiably administer this program. From the USDA point of view, why do you think it would be better off in your agency?

Mr. DAVIS. I feel it would be better off in the Department because we have the field organization. We are located in the 3,000 counties of the United States. We have the confidence of the American farmer and rancher. We have the technical expertise. Therefore we could implement the program much more quickly, and without as large an increase in technical and financial assistance, than if the Congress

created another body. We are talking about a program that affects every private agriculturist, every farmer, every land owner in the United States.

Senator CLARK. You make a good point. In other words, the EPA or other agencies or departments do not have people already in place all around the country, and ready to implement such a program.

Mr. DAVIS. And the expertise to do it.

Senator CLARK. And the expertise to do it.

Do you have adequate personnel, an adequate personnel ceiling to handle this kind of aggressive pollution control program, or would that have to be increased? How would you really take on that much more work? We are talking about a very significant and very large program here, we are not just talking about a little more of the same.

Mr. DAVIS. I speak for my agency now—the Soil Conservation Service. As far as technical people to assist in the planning and application of the practices envisioned in S. 1280, the answer is simply—we do not. We do have the standards and specifications, we have some people there; we have been carrying out a small scale of this program all through the years. But to accelerate it, as we understand the intent of your bill, Mr. Chairman, we do not have that capability today. The numbers in our agency would have to be increased to do it, and I believe other agencies impacted by this program likewise would face similar problems.

Senator CLARK. Lastly, I wonder if you might provide us with the drafting service to conform the bill to the three amendments that you suggest. All look very worthwhile in terms of our looking at them more carefully. I would like to see what effect they would have overall, but they are very constructive suggestions, I think. A good part of the reason for this hearing is to try to find out how we can improve this legislation.

Mr. DAVIS. We will be happy to do so, Mr. Chairman.

Senator CLARK. Now, you wanted to speak, I think, also briefly on S. 1616.

Mr. DAVIS. I do.

Senator CLARK. Fine, go right ahead.

Mr. DAVIS. Mr. Chairman, this particular piece of testimony has been filed separately, so it can be broken out that way.

Senator CLARK. Good.

Mr. DAVIS. It is a pleasure for us again to appear before you today to discuss our concerns for the prime farmlands of the Nation. This is a topic that has been attracting more and more attention in recent years.

The reason for increasing concern about America's prime farmlands is found in the growing body of data that shows both the limits and the continuing reductions to this vital natural resource base. The arithmetic is becoming increasingly well-known as continuing research and survey work are done, and it is not encouraging.

Current estimates of the Soil Conservation Service, based on a 1975 sample of the Nation's non-Federal lands, show that urban and water developments are taking around 1 million acres of prime farmland each year. That does not count the acres that are idled from production in the normal process of growth and urbanization.

Part of the national concern is based on the fact that, although urbanization occurs on only a small portion of the land—something on the order of 3 percent—it occurs on a disproportionate amount

of the very best farmland. Many major urban areas are located in river valleys, or alluvial plains. Additional growth around these centers seeks out the best land in terms of soil characteristics, slope, water supply, and roads. These lands are the prime farmlands, developed over the years by massive private and public investments. Thus, the process of urbanization is drawn to the Nation's best farmlands in many cases by the investment that makes them prime for agriculture. This is a tragedy. We cannot continue investing in land to make it productive for agriculture, then closing that investment by converting the land to other uses.

Our supply of prime farmland is not endless. The current estimates show around 50 million acres that may be economic to bring into future production. Not all of this land is located next to existing agricultural areas, or water supplies, or even roads. There will be significant investments in bringing it into production.

If we continue to take prime farmland out of production at the current rates, we face several choices as a Nation. We must either develop the remaining prime lands for agriculture over the next 25 to 30 years; develop lands of lower quality at higher costs, energy inputs, and environmental impacts; or, reduce our Nation's capability to produce agricultural products. None of these options are particularly appealing if there are ways in which they can be avoided.

The Department of Agriculture feels there are significant opportunities for the Nation to reduce the loss of prime farmland. We have cooperated with the Council on Environmental Quality to issue instructions to all Federal agencies concerning the assessment of agricultural impacts in environmental impact statements. We are getting good cooperation in most instances.

These efforts are consistent with national policy statements such as those proposed in S. 1616. We strongly support the concept that all Federal agencies should attempt to minimize the amount of prime farmland taken by their projects and actions. This will not stop the loss of prime farmland in many instances, and it will not keep Federal agencies from using prime farmland when other feasible alternatives are lacking, but it will make the Federal Government a responsible party to the best long-term use of these limited resources.

The Carter administration has supported inclusion of strong provisions for the protection of prime farmlands in the surface mining bill which recently passed the Congress. Prime farmlands must be restored to their original productivity as part of the mining process. If they cannot be so restored, they are not to be surface mined. That is a significant protection in those regions of the Nation where agriculture and energy compete for the use of prime lands.

In terms of acres, however, mining is responsible for only a small portion of the million acres of prime farmland taken each year. We need to do a great deal more, particularly in those areas where prime farmlands are under the most immediate threat.

The bill before you today, S. 1616, would provide Federal cost-sharing for State and local programs that reduce farmland loss. In testimony before the House of Representatives on a similar bill, the Department expressed the administration's concern with that proposal in terms of fiscal impact and the need to develop more clear guidelines and justification for funding levels. We are not able to support this proposal at this time.

We also expressed concern with the proposal to establish a commission to prepare a study and report, as proposed in title II of S. 1616. This is a concern in light of President Carter's attempt to reduce the number of commissions, advisory committees, and boards that have grown up in the Federal Government.

If the commission's major role is to gather together facts and public opinions about the loss of agricultural land to assist the Congress in determining whether or not the Federal Government needs to develop new policy or program initiatives, we feel that this information can be adequately gained through the efforts of the Department. It will require additional effort and the cooperation of many agencies, but we feel that it can be done.

We have not developed a specific proposal for a concentrated study, but a proposal is currently being considered within the Department. In the meantime, we are accelerating efforts under ongoing programs to identify and inventory prime farmlands and improve our knowledge of how they are being used and treated.

We hope that this information will be of value to the Congress and the administration as we continue to work together to address the goal of maintaining a strong, productive agriculture land base in the Nation.

We appreciate the opportunity to appear before the subcommittee, and we would be pleased to respond to any questions you might have.

Senator CLARK. I know we have some strict time limitations, because we have several other witnesses, but just two or three things.

I gather you do feel with regard to S. 1616 that the commission would serve to elevate the consciousness of the Nation, of the need to preserving our farm and forest lands, and so forth; is that accurate?

Mr. DAVIS. Yes.

Senator CLARK. Some of our States are passing laws to allow them to purchase development rights in order to keep land in agriculture and forestry. Do you think it would be appropriate for the Federal Government to pick up some of the costs, or would you think not?

Mr. DAVIS. I believe that where States take the initiative to do something about and to keep land in agriculture, it would be logical to provide a mechanism by which we could assist, assuming that this Nation is interested in the protection and preservation of prime farmlands.

Senator CLARK. Now, if the Secretary says that he wants to create a "Blue Ribbon" Commission to study USDA soil and water conservation efforts, what is the essential difference between that and the commission that you oppose in this bill?

Mr. DAVIS. Mr. Chairman, I cannot answer that question. The Secretary has made that statement a time or two. I have not discussed it with him, nor have there been any steps taken in the creation of that blue ribbon commission that he was indicating would be created to take a look at the total soil and water conservation program in the Department. Therefore I would have to say that Secretary Bergland, I believe, should answer that.

Senator CLARK. Do you agree with the Secretary that there ought to be a blue ribbon commission set up to study soil and water conservation efforts, or are you and the Secretary in disagreement on that point?

Mr. DAVIS. The Secretary and I have never discussed it. We might agree, or disagree, Mr. Chairman, if we discussed it, in light of such things as the recent GAO report on soil and water conservation. Senate bill 106 has a bearing on this subject, as well. It passed the Senate and a similar version has passed the House. This may become, I would say, another way in which the Department could take a look at this particular subject. But whether or not any of these would be a substitute for what the Secretary has been thinking about, I am not in a position to say.

Senator CLARK. Now, our particular proposal for a pilot project of course is much smaller than that on the House side; ours is \$5 million, compared to \$25 million each year. Is it your feeling that \$5 million would be too high for a pilot project as well?

Mr. DAVIS. No, sir. If the bill were to become law, I do not believe that \$5 million would be too high. Without that amount of money I am not sure that you can have a realistic pilot program. That is my personal observation.

Senator CLARK. If we do not have this, is there any other program to inform local people of the best way to protect farmland; what are you doing now? What other programs might you propose? What is the alternative, I guess, I am saying.

Mr. DAVIS. Presently, we are providing basic data to local people to help them identify prime land, and where it is located. We are doing a rather methodic study in the United States over a period of time. Of course, it is their decision what they want to do, if anything, about the loss of agricultural land.

There is no financial assistance program available to them from the Federal level. Some States—New Jersey as an example—have dedicated several million dollars to preserve farmland. They are doing a similar thing on Long Island—putting up money to buy development rights.

Senator CLARK. So, it is your feeling it is the Department's job, or the Government's job to show people simply how to identify prime farmland.

Mr. DAVIS. Where it is; how much there is, and these sorts of things.

Senator CLARK. Identify it, show where it is located, and how much there is, and so forth. You think it goes beyond the administration's prerogative, or the Department's prerogative to try to protect it?

Mr. DAVIS. No, sir. I do not believe it goes beyond our mission to try to protect it. We are intimately involved by virtue of identifying it.

Senator CLARK. Well, the last point, then, and I am not quite certain that I understand what the Department's position is. You identified the problem very accurately, we are losing prime farmland, there is no question about it.

Mr. DAVIS. No question about it.

Senator CLARK. If it is the Department's job, or the Government's job, or Congress' job to try to protect it, we have failed in that we are not protecting it. I think you are right in saying that it is our job to try to help protect it. The question then is, what are we going to do to help protect it?

Now, maybe this legislation is not the right way, but I do not think that we can just make a lot of statements that it is a bad idea, we have to have some kind of program. S. 1616 may not be the best way, but it is our feeling that it was a good start. But, we are open to amend-

ments, or suggestions, or rejections. We would like to see something. What does the Department intend to do? If not this, what?

Mr. DAVIS. The Department has no program for the protection of agricultural land such as you spell out in S. 1616. We have studied some possibilities, and we are studying others now. If you want me to comment on what we are doing, Mr. Chairman, Neil Sampson can comment on that.

Mr. SAMPSON. We have, as our testimony says, a program proposal circulating in the Department. Unfortunately, we do not have the input we need from all the agencies to pull it together as a firm proposal. It is our intention to try to do that and send a proposal up here.

Senator CLARK. What would that proposal do? Give us some idea of what we are talking about.

Mr. SAMPSON. The proposal being circulated now is for an intensive study in the Department to take a look at the need for a National program of cost-sharing assistance. It was our feeling that perhaps, if we put the evidence forward that the Commission in S. 1616 is seeking, the Congress would have the information it needs to consider a program similar to Title III of S. 1616. This could be a permanent program, rather than a pilot project.

Senator CLARK. So, you are not really objecting to title III so much as you are saying you want to work through the bureaucracy in terms of their feelings before you decide you want to go forward with that; is that it?

Mr. SAMPSON. I think that is right.

Mr. DAVIS. I think that is accurate, Mr. Chairman. I am sure you are aware that part of our concern here is one of cost and balancing the Federal budget, with which we are all concerned.

Senator CLARK. All right. So, I think what you are saying is that the bill, or at least parts of the bill may be OK, but you are not ready to say so yet.

Mr. DAVIS. That is correct.

Senator CLARK. Thank you.

Mr. DAVIS. Thank you very much, Mr. Chairman.

Senator CLARK. I am going to call Walter Goeppinger now and then come back to Mr. Davey because I know that he has some other business that he has to attend to. So, Walter, if you would come up?

Then we will hear from Bill Davey, Pat O'Mera, Curt Sorteberg, Roger Ehle, and Dean Kleckner.

Walter, you proceed in any way you think appropriate. We are very pleased to have you here. You certainly have the kind of long experience and background and interest in soil conservation that this committee is particularly interested in. If you will just proceed any way you think appropriate.

STATEMENT OF WALTER GOEPPINGER, REPRESENTING THE NATIONAL FARM GROWERS ASSOCIATION, BOONE, IOWA

Mr. GOEPPINGER. Thank you, Senator Clark.

I am here representing the National Farm Growers Association in this very important facet of agriculture. We held the annual meeting of our corn growers association on July 20 of this year, and passed the resolution endorsing S. 1616, which you are considering and taking testimony on this morning.

I am here in the city on other business and do not have prepared testimony for this meeting; but having testified twice before you, the substance of our intent is contained in that testimony. Briefly, I would like to restate our complete support of 1616, a very comprehensive bill that provides opportunity for various kinds of demonstrations which are very important. The bill does not dictate to anybody what should be done. It opens up the avenues of methodology and ways that various areas of the United States, if they decide they want to participate in this and are willing to put some of their own resources and money into it, along with matching funds from the Federal Government, gives opportunity for us to see many different ways in which the land resources of the Nation can be conserved.

I think everyone who is connected with agriculture is not only somewhat alarmed—but thoroughly alarmed—with the rate at which we are consuming prime agricultural land for nonagricultural purposes, shifting away from the resource which will support the future generations; and putting it from agricultural use into use for roads, airports, urbanization, commercialization and industrialization.

The methods by which this is being done are helter-skelter. There is zoning, but many zoning commissions are interested in maintaining the kind of allocation of agricultural land that they think is good for the urban scene. It does not take into consideration the reduction, and permanent reduction, once shifted, that means the complete loss of land for agriculture.

Except for the fact that we are happy this bill does make mention and provides for a no-encroachment on the rights of the States, or the subdivisions thereof, or individual property owners, I think that this pretty much sums up our opinions and feelings on the bill.

Now, as to the other bill, relating to water quality, we support that also.

Senator CLARK. I remember your testimony on the soil conservation hearing before this subcommittee out in Iowa, you spoke to that question then.

I know something about your own life and your own interest in the problems of the environment particularly, as well as agriculture. Do you see the situation in terms of water pollution as a problem that comes from really erosion—it being enormous—in terms of your own experience and your own knowledge of this? Is this something that we have addressed ourselves to, or how serious is it, as you see it?

Mr. GOEPPINGER. Well, it is absolutely true from an erosion standpoint. We see a lot of publicity about erosion when we get winter winds and there is dirt in the sky. This is the least of it. But in our area, at least, the main portion in the corn belt, wind erosion is minuscule compared to the amount of soil that moves when we get one inch of rain when the ground is already soaked; or we get it through a 3-inch cloudburst on dry land. It does not take very long for substantial amounts of soil to move. Usually those rains come about the time we get the land prepared, ready to plant; or it has just been planted. Corn and beans may be up a couple of inches and there is an immense amount of sheet erosion, which, of course, also results in gully erosion.

The sheet erosion is easily erased by going out with a cultivator or rotary hoe. The appearance of the soil looks the same to a casual observer riding by, but the toll would be half an inch, or an inch of

the entire field. If you would allocate the area all over the field from the high ground to the low ground you may lose as much as an inch of soil in one rain. This cannot happen very many times. We now find ourselves in a position of having allowed over half of the topsoil of the Nation in its most productive area to have gone down the drainage ways of the country. In the corn belt it is estimated that we lost about 50 percent of the topsoil in 100 years of farming.

That is the best of the topsoil too, because it contains the most humus. As you get a little lower into the topsoil, which is about an average of an 18-foot profile, as we get a lower amount of humus and that means the soil's ability to absorb water when rains come is less. So, the erosion could be greater in the next 100 years than it has been the past 100 years unless we use methods and structures which may help prevent it; and farming policies, too.

Senator CLARK. And yet, I suppose that a lot of this loss—maybe most of this loss—has occurred in a period when we have had soil conservation programs.

Mr. GOEPPINGER. Very possibly.

Senator CLARK. We have had 40 years, at any rate, almost half of this period. We have lost half of the topsoil, and yet we have had conservation programs that I expect you and I believed in, in that period. You wonder what the answer is.

We cannot apparently go on as we have, with exactly the same programs and no increase, that we are continuing to lose all through that period—something more has to be done, it seems to me.

I suppose one could argue—I would argue—that without a soil conservation project we would be a lot worse off. But still, apparently, with the kind of agriculture that we have, the emphasis on all-out production, and so forth, we are still not keeping up with the soil loss. They say it still takes 2 bushels of topsoil to produce 1 bushel of corn in some cases. Is that an accurate statement? Do you think; are we losing that much?

Mr. GOEPPINGER. I doubt whether that is the case—I rather doubt that is the circumstance. It may in some years, but if it were that fast, I think we would be down further than we are.

Some new methods of land culture for our row crops are enhancing water permeability to the soil.

Senator CLARK. Could you talk about those a little, I wonder? You mean some farming methods.

Mr. GOEPPINGER. Yes. The wide use of deep chisel plows now is opening the ground to a better absorption capability, and that stops some of it. There are other things, too, that can be done and need to be experimented with; anything that will break the effect of a drop of water when it hits the soil and its compaction will assist in stopping it. There is a great deal of experimentation that needs to be done.

I do not think that we can possibly carry on a program of all-out farming that is based on row cropping. In other words, our current activity in the main corn belt of the rotation of corn and soybeans is leaving the soil open too much of the time. It cannot rebuild itself as well from the humus standpoint as it would if it was in either rotational hay or in a small grain—rotation of hay and small grain.

In the 1960's and early 1970's when we had the set-aside, a portion of the land was kept in small grain or rotational hay. That helped a

great deal to reestablish the structure of the soil and its moisture holding and absorbing capability.

Senator CLARK. Well, let me ask one last question. How do your members—if you have talked about this at all—how do your members intend to meet next year's requirements of the 208 water quality plans if no program is passed, or is enacted; how are you going to meet those requirements? How do Iowa farmers or corn growers across the country hope to meet those requirements?

Mr. GOEPPINGER. Well, they are hoping to meet them by having Congress enact legislation that makes it possible for them to do so.

Senator CLARK. Thank you very much, we appreciate your comments.

Mr. GOEPPINGER. Thank you.

Senator CLARK. Bill Davey, representative of the Soil Conservation Society of America. I would like to have you, Bill, describe just very briefly what the Soil Conservation Society of America is; and then go ahead in any way you think appropriate.

STATEMENT OF WILLIAM DAVEY, REPRESENTATIVE, SOIL CONSERVATION SOCIETY OF AMERICA

Mr. DAVEY. Mr. Chairman, my name is William B. Davey, and I appear before the subcommittee representing the Soil Conservation Society of America.

The society, founded in 1945, is a nonprofit scientific and educational organization dedicated to advancing the science and art of good land use. Most of the 14,500 members of the society are professional conservationists, representing nearly every conceivable academic discipline concerned with the management of land and related natural resources.

The society is pleased to have the opportunity to express its views on S. 1280, a bill to improve rural source water quality, and S. 1616, a bill to establish a national policy for the protection of agricultural, range, and forest lands.

With respect to S. 1280, the society endorses the concept embodied in the bill and recommends that it be enacted.

In our view, focusing on pollution prevention through conservation practice application, building on existing institutions and institutional arrangements, and providing incentives through cost-sharing represents a sound and practical approach to water quality improvement and management.

Appropriate soil and water conservation measures for sediment and erosion control, for animal waste management, for irrigation and for other pollution-generating activities can substantially maintain or enhance the quality of water in rural areas. The added emphasis of a rural source water quality program as envisioned by S. 1280 would be an effective implementation mechanism for a significant portion of the section 208 State and areawide water quality management plans and would contribute importantly to achieving the national water quality goals expressed in Public Law 92-500.

The Department of Agriculture is uniquely equipped to administer such a program and to provide the needed technical and financial assistance to farmers, ranchers, and other land users. The Department has the delivery system—it has competently staffed field offices;

it has technical knowledge and an effective rapport with landowners and operators.

With regard to S. 1616, the Soil Conservation Society of America has been concerned with the wise use and conservation of the Nation's land resources throughout its existence as an organization. In a statement issued in 1968 the society urged national action to establish land use policies that would, among other things, insure that:

Fundamental changes in land use—especially the conversion of prime agricultural lands to nonagricultural uses should be made only after adequate study of the short-term and long-term effects, ecologic, economic, and social—of these changes and the establishment of procedures that will maximize benefits to society.

Today, nearly 10 years later, the society still supports that viewpoint, and still finds that there is inadequate attention to the current and future problems being created by the type and amount of land use change occurring in the Nation. We are pleased to see a bill such as S. 1616 being discussed in the Congress and support its passage. We commend its authors and sponsors for addressing this critical issue.

The recent studies indicating the magnitude of the loss of prime agricultural land is a major concern to our society. We are aware of the limited scope and reliability of these samples, yet deeply concerned by the trends that they indicate. Additional information is badly needed, and needed as rapidly as it can be obtained. If the current losses of prime farmland are in the range of 1 million acres each year, as the 1957 Soil Conservation Services sample indicated, and the remaining reserve of prime farmland is as low as 30 to 50 million acres, the Nation has a relatively short time in which to make major adjustments in the way land use decisions are made on these lands.

The Commission proposed in S. 1616 is a proven method of obtaining and gaining national attention for the type of information that is so badly needed. Past Commissions on similar resource issues have illustrated that this is an excellent way to focus resources and attention on a particular problem in a reasonable amount of time. We support the establishment of a commission such as proposed in S. 1616 and encourage you to retain that concept as you consider this bill.

We also support the concept of Federal cost-sharing for demonstrating and testing methods of reducing the amount of land which is annually being converted from agricultural and private forestry uses. I would again like to quote from the Society's policy position statement on land use.

Most of the productive land upon which the nation must depend for its food and fiber is in private ownership. Therefore, the Society recommends that the Federal Government, in the national interest, by appropriate cooperative and cost-sharing programs, assist owners in maintaining their land at the optimum level of productivity and wise use.

Thank you, Mr. Chairman, for the opportunity to present our views. Senator CLARK. It is an excellent statement, Mr. Davey.

Mr. DAVEY. Thank you, sir.

Senator CLARK. I think it is very much to the point. I was particularly interested in the statement of 10 years ago that the Society made, in 1968, at which you were a little bit more foresighted, I think, than most of us.

I am interested in your statement that the programs or the actions laid out in S. 1616 are proven methods of obtaining and gaining

national attention, the type of information which we do need to resolve this problem.

Do you see any program existing in the Department of Agriculture or elsewhere in the Government now that really does address itself to the problem S. 1616 addresses itself to; that if we are going to give up this effort and are not able to pass it, that we are just going to continue along the same lines, or is there another alternative?

Mr. DAVEY. Well, I think not, Senator. There are a number of departments that have had a high interest in land use. We feel that an independent commission of stature would be a more effective way of doing it, to avoid any possibility of bureaucratic entanglement, or bureaucratic aggrandizement. So, we feel a commission is a sounder approach to do an independent study.

Senator CLARK. It might keep it out of bureaucratic infighting, and perhaps even political conflict.

Mr. DAVEY. Yes, sir; very naturally.

Senator CLARK. One thing that has interested me—and I have been interested in soil conservation particularly only for the last year or two, as I have learned more about it—do you think—and you, goodness knows, have had a lot of experience, you are a former Soil Conservation Service employee, if I am not mistaken, and a farmer—

Mr. DAVEY. Yes, sir.

Senator CLARK [continuing]. Do you think over the years, as you look back at conservation programs, have they focused too strongly on, let us say, productivity, rather than protection and conservation of the soil; has that been a part of the problem of our soil conservation programs, or not?

Mr. DAVEY. Well, there are some aspects of that, where the productivity has tended to overshadow the conservation efforts. While there has been a substantial amount of money spent on conservation, it really never has been enough to carry on a sustained type of activity. This is true particularly in the cost-sharing arena. Many farmers find good conservation with respect to water quality control as something removed from them; it is a little bit of a "hard sell" to get them to do certain kinds of things at their own expense that will benefit something downstream.

Now, conceptually you may find this quite palatable, but as we come to these very issues you find this much more difficult. So, this has been, I think, a real deterrent over the years. One thing we were pleased to see in this rural water quality program was that it would carry a special focus, and we presume a commitment, to deal with these kinds of issues.

Senator CLARK. All right, we appreciate your testimony very much.

Mr. DAVEY. Thank you, sir.

Senator CLARK. Thank you.

Now, Pat O'Mera, Executive Director, National Water Resources Association. We are pleased to have you here.

STATEMENT OF PAT O'MEARA, EXECUTIVE DIRECTOR, NATIONAL WATER RESOURCES ASSOCIATION

Mr. O'MEARA. Thank you, Mr. Chairman.

The National Water Resources Association is a federation of the State water associations in the 17 Western States and Hawaii.

Senator CLARK. How far east do you go?

Mr. O'MEARA. Well, the reclamation States virtually are west of the Missouri, which just misses Iowa.

Senator CLARK. I am sorry to hear that.

Mr. O'MEARA. We now recognize, far more than ever the need to continue programs to assure the availability of quality water to meet the ever-increasing demands of the Nation. Thus, we are particularly pleased to appear before this committee today to present testimony in support of the enactment of either S. 1280 or S. 1616. Of these two bills we would prefer the enactment of S. 1616 at this time.

I do not propose to make a section-by-section analysis of the bills, but rather just some general comments.

Senator CLARK. Let me say at the outset, Pat, that they are not mutually exclusive, we can pass both of them.

Mr. O'MEARA. Yes, sir, I understand that. I have a reason, though, for avoiding S. 1280, and I would voice it at this time.

Senator CLARK. Fine.

Mr. O'MEARA. The amendments to Public Law 92-500 are making their way through the Congress. The States are drawing up their State water plans under section 208.

Senator CLARK. Yes.

Mr. O'MEARA. Until those plans have been adopted it is difficult to tell what water quality assistance might be needed from the Federal Government. That is the only reason I would hold S. 1280 at this time.

Basically we feel that S. 1280 is an excellent bill, but because of tenuous times as we are developing other programs, we should see if it fits all the requirements and all the criteria.

As you are well aware, Senator, much of this Nation is in the grips of one of the worst droughts it has ever endured. Every effort is being made in most of the Western States through both voluntary and mandatory conservation programs to conserve the precious remaining supplies of water to carry us through the balance of this water year. If precipitation returns to normal during the coming rainy season and continues at normal in succeeding years, the Western States will recover from the current water shortage in about 1980. The drought was front-page news some months ago, but it no longer is news, even though it continues unabated. Recently, however, it again reached the front pages because of the fires that are raging in the West through parched brush and forest lands. It is depressing to me to try to imagine the problems we will face if the drought is not broken in this coming rainy season. The drought this year is causing widespread unemployment and huge losses in agricultural income. There also is a sharp curtailment of hydroelectric production. Both the Columbia and the Colorado Rivers may reach their lowest flow of record later this summer. There will be virtually no carry-over reserve in many areas to meet 1978 water demands. The drought is teaching us a grim lesson.

We know that the availability of natural supplies of water occurs in an erratic pattern. The problem is that we have just a little over 100 years of record on which to base our projections. It may be that we are not going into just the fourth year of drought; it just may be that we are in the 4th year of a 40-year drought cycle. Because

we have generally had ample supplies of water we have not concerned ourselves to the extent we should have to fully develop methods for its wise use and protection. Water is directly tied to the land, and the productivity of the land is directly tied to the availability and the quality of the water.

We commend you, Senator Clark, for introducing the National Agricultural, Range, and Forest Lands Policy Act, and we encourage its enactment.

Without question, we are faced with a heavy balance-of-payments deficit because of the vast quantities of oil we will be forced to import to meet the energy demands of this Nation over the next decade, and perhaps longer. Our best chance to offset that balance-of-payments deficit is through the production of food and fiber from our agricultural lands. Thousands of acres of arable lands are being taken out of production annually by uncontrolled urban sprawl: The construction of new sites for shopping centers, highways, airports, and other nonfarm purposes. This encroachment can only reduce our national agricultural output, which is essential to create new wealth and for economic balance.

In S. 1280, under section 703(d), we note "The Secretary"—and that is the Secretary of Agriculture—"shall develop the program in consultation with the Administrator of the Environmental Protection Agency, other appropriate Federal agencies.", etc. We would like to call to this committee's attention the activities of the Department of the Interior through its Office of Water Research and Technology. Through this program, in each of the 50 States, a water resources research institute has been established at the land grant colleges. These institutes are geared to study water problems at State and local levels. We would encourage the Secretary of Agriculture to work with the Secretary of the Interior to utilize the expertise of these institutes in carrying out the provisions of these legislative proposals.

We are gearing up to a multibillion-dollar effort to develop alternate sources of energy other than oil, such as nuclear, wind, geothermal, shale, breeders, fusion, hydropower, and so forth. But there is no alternative to water, and no new land is being created. Fortunately, water is a renewable resource, and through improved farming techniques, the productivity of the land can be upgraded. The bills before this committee today will help accomplish both objectives.

According to the U.S. Geological Survey, we have readily available about 315 billion gallons of water daily. While this may sound like an enormous supply, our current use of water in the United States is about the same volume; that is, approximately 315 billion gallons of water per day.

This means that at this point in time in order to meet our daily water demand water must be used and reused. For example, it is estimated that water flowing down the Ohio River is used 17 times before it flows from the mouth of the Mississippi. The point is that anything we can do to enhance water quality and to shut off the potential sources of degradation of water quality is vitally important. We must maintain the quality of water to assure its availability for reuse.

S. 1616 provides an important additional tool to maintain the biological integrity of this Nation's water, as well as to protect our shrinking agricultural areas from further encroachment.

S. 1616 authorizes a total of \$32 million, a worthy, if I might say, minuscule investment in two finite resources: land and water, when we compare it, for example, with the price tag on the energy bill that is now making its way through the Congress.

We appreciate the opportunity, Senator, to support this legislation, and we urge committee approval.

Senator CLARK. Thank you very much.

This is quite beside the point of this hearing, but I would be interested in your comments. Is it not strange that we have what may be the worst drought in this century—at least some people so identify it—and yet, we are going to have record crops. Had we had a year, say, where the weather has been as good in this country as it has been in the rest of the world—the Soviet Union is having its biggest crop in history; India is having an enormous crop—if we had had weather of that kind, it would appear that our surpluses would have been just enormous. I suppose we would have had plummeting prices; we already have to some degree, but they would have gone right through the bottom.

I suppose the moral of the story is that our productive capacity is just so enormous that it is almost—it is hard to say “frightening” because it is difficult to think that we should not have the capacity, given the number of hungry people in the world. But, I do not know, is it true that we are going to have the worst drought in history, and the biggest crop in history?

Mr. O’MEARA. That is true, Senator, and it is strange. But the drought has not been striking at the Corn and Wheat Belts, the drought is more west of there. While it was dry in the Corn Belt—and certainly parts of the area are suffering drought, South Dakota, North Dakota, western Minnesota, and parts of Iowa—but south of there, Nebraska has had a wet year; Kansas and Oklahoma, and Texas are having good weather.

But then you move west into Idaho and eastern Oregon, and eastern Washington, and northern California, Utah and Idaho, it is very severe.

What has carried those Western States through this growing season is the water that has been in storage.

Senator CLARK. I see.

Mr. O’MEARA. But this year’s water use will deplete that storage.

Senator CLARK. I see.

Mr. O’MEARA. In northern California they have stringent rationing of even municipal water. Farmers in the Central Valley of California are getting about 15 percent of their irrigation water this year. It means that the lettuce crop, the beet crop, those kinds of crops will be in short supply, not wheat and corn.

I look at the tremendous surpluses that we have as very temporary situations when we look at the world population, when we consider the growth of the world population, and the limited ability of other countries normally to produce wheat and corn, perhaps we will find, in very short time, that this is a great asset to have some reserves of wheat and corn.

Senator CLARK. You make a good point, particularly if you are using the water that is in storage it makes you happy to have some product on hand if that drought continues into next year.

Mr. O'MEARA. A second problem I just mentioned in my statement of the water shortage is that in the West and Northwest there is great reliance on hydroelectric power. They do not have the capacity in thermo-generating plants to offset the loss of hydropower that is anticipated. There will be some brownouts later this summer in that area. People have been asked to sharply curtail their use of electrical power.

But, everything is predicated on rain this winter, and if the rain and snow does not come this winter, then next year will be terrible. I would have to say, the "Oakies" will have to go back home. [Laughter.]

Senator CLARK. It is going to be drier out in the West.

Pat, let's get to just a couple of questions about your testimony. We are trying to look very carefully at S. 1280 this year in hearings like this, with the hope that we can pass this legislation this coming year; we know we are not going to be passing it this year under our Budget Act, frankly, it would be impossible—in my judgment—to do that.

But I gather that you think it may be premature to go forward with the bill just now until we have seen more of the 208 water quality plans.

The other thing I wonder about in this regard is that, remember next year, October of 1978—that is 14 months from now—these requirements will begin to go into effect, and the program has to be ready then. I am just wondering if we wait that long before we begin to look at a program to implement it, whether our timing will be adequate, whether we will have time to implement them.

Mr. O'MEARA. That is a concern, I think, like an earlier witness said, it is probably the hope that the Congress would relax those target dates. While they are good target dates, they appear now not to be realistic. I kind of regret your statement that the Budget Act precludes the enactment of S. 1280, and I say that because water may well be the Achilles heel of the energy development in this country. We can put tens of billions of dollars into energy because it is now the No. 1 concern; but without the water to back up that energy program, there will be no domestic energy.

Senator CLARK. Water is just as important as energy.

Mr. O'MEARA. And in the development of energy, water is necessary.

Senator CLARK. Yes.

Mr. O'MEARA. So, the whole energy program will collapse if there is not the water there for the coal "slurry", pipelines, or for the coal conversion plants, shale gasification plants; they all require water.

Senator CLARK. Well, you made a good point, I think, pointing out the importance of water; and particularly the problems that exist in the Western States with regard to storage and so forth. I did not realize that it was that great a problem. Thank you.

Mr. O'MEARA. Actually, Senator, the area of the west, the Far West is the best off during this growing season, is the driest part of the Nation. The Colorado River Basin, where the storage was in full capacity at the time the drought began to take over; and because of those storage projects they are surviving reasonably well. In areas where the storage projects were not developed as fully as they are on the Colorado River, there are really severe out-backs.

Senator CLARK. Thank you very much.

Mr. O'MEARA. You are certainly welcome, my pleasure.

Senator CLARK. We are going to hear now from Curt Sorteberg, assistant to the president of the Iowa Farmers Union in Des Moines, representing the National Farmers Union. Go right ahead.

**STATEMENT OF CURT SORTEBERG, ASSISTANT TO THE PRESIDENT,
NATIONAL FARMERS UNION, DES MOINES, IOWA**

Mr. SORTEBERG. We did present similar testimony on H.R. 7235, so, some of it will be repetitious; nevertheless, we want to enter the statement for the record anyway.

Senator CLARK. Fine.

Mr. SORTEBERG. I am Curt Sorteberg, assistant to the president, Iowa Farmers Union, Des Moines, Iowa. I am pleased to have the opportunity to appear before this committee on behalf of the family farmer and rancher members of the National Farmers Union in support of both measures before the committee today.

Although my remarks will be directed basically to the provisions of S. 1616, I would like to begin by endorsing the bill S. 1280, amending the Rural Development Act of 1972 by adding a new title, "Rural Source Water Quality".

These bills are certainly complementary to one another. Farmers and ranchers are well aware of the need to preserve and protect our water resources, for without adequate and clean water our ability to produce is greatly diminished. Farmers and ranchers over the years have been leaders in efforts to protect and maintain adequate water resources. However, there still remains a need to further our efforts to continue to protect this valuable resource. We believe the approach as proposed in this legislation is worthwhile. Delegates to our most recent National Farmers Union convention held in San Antonio, Tex., March 5 to 9, 1977, adopted the following policy on soil and water conservation programs:

Soil and water conservation programs have proven highly effective for pollution abatement and conservation. Each family farmer and rancher should have access to competent federally financed technical assistance and adequate cost-sharing programs needed to develop sound conservation plans so that each acre of farmland may be used within its capabilities.

We in the Farmers Union endorse the approach outlined in S. 1280.

I would now like to turn to S. 1616, the "National Agricultural, Range and Forest Land Policy".

A national commitment to preserve and protect America's farmlands is as important to the preservation of American agriculture as is the need for a national food policy and a national energy policy. They are all interrelated. American agricultural will not be able to produce abundantly or efficiently in the future unless these policies are adopted, recognizing the problems and specific needs of our agricultural producers.

Without adequate income farmers can no longer afford to produce food and fiber. Without adequate and reliable sources of energy farmers cannot produce. Without protection of farmlands from increasing diversion to other uses, farmers will not be able to continue to produce in abundance.

The challenge of protecting our environment is an exciting one in itself, but it is no longer simply an esthetic argument. It is now a

matter of deciding policies which will determine whether or not we have enough food here at home and for the hungry people throughout the world.

National Farmers Union views the proposals in this legislation as a major step forward in addressing the problem of disappearing agricultural land. This legislation provides the Congress with an opportunity to address a situation prior to its becoming a major national crisis. The policies and procedures outlined in this legislation will permit government, Federal, State, and local, to make rational, realistic policy decisions in advance of a crisis situation.

Now, let me digress a bit from the text here, Senator Clark. You know, the availability of data, the Land Commission aspect that you are setting up, we do not find this "availability of data" quite as available as we think. We are doing a study in Iowa, primarily on land, and we have tried to get information from the ASCS; and this concerns ownership, absenteeism. We have gotten 2 months of run-around, to be honest on that. We do feel it would be good to have this sort of data, not only in the land tenure area.

Now, the data we did receive from the State agricultural department shows that the land that is actually in farms in Iowa started in 1945 with 35 million; and then it decreased, leveled off, and now, in 1977 it is about 34.2 million.

Senator CLARK. What is that figure?

Mr. SORTEBERG. In 1977, 34.2 million.

Senator CLARK. What is that?

Mr. SORTEBERG. That is the land that is in farms now in Iowa; and that was 35 million in 1945. That is a loss of about 800,000 acres of land. Now, we do not know how much of that is being farmed, that is land that is more or less just designated as farmland.

At any rate, we are working with the ASCS to receive this data in our land study, but there is a need, I think, for the commission that you have talked about, to compile this information. We found that in most States they do not have current data upon which to make sound policy decisions. How can the Federal Government, State governments, or local governments be expected to make responsible policy decisions without accurate, reliable information?

Statisticians in two of the State departments of agriculture whom we contacted frankly admitted that the lack of information in this area was a problem and concurred that information such as would be gathered by the Agricultural Land Review Commission as proposed in this legislation would be helpful for policymaking and planning purposes.

We believe the provisions in the legislation providing for a national inventory will provide valuable assistance to policymakers at all levels of government, as well as educational institutions and private citizen organizations.

The delegates to the most recent National Farmers Union annual convention reaffirmed our commitment to the family farm system of agriculture and made specific recommendations as to how that system is to be preserved. In part the delegates said:

"The family farm is the keystone to our highly successful agricultural system. The welfare of the Nation's consumers, and those in

need throughout the world is increasingly related to the preservation of the family farm and ranch pattern of agriculture."

As I have said, one of the urgent needs for both consumers and farmers is the enactment of a national food policy. Our members have said that one of the elements of that national food policy must be: "Strict guidelines for land use that will preserve agricultural land." The objectives of the National Agricultural Land Policy as spelled out in title I of this bill receives Farmers Union's full support.

To achieve our goal National Farmers Union members have adopted a land policy that reads in part:

Objectives of the comprehensive land policy of the Farmers Union include: Maintaining family agriculture; a viable Rural America, and assuring the conservation of our land, water and air.

Other elements of our policy include population policy to assure viable rural communities provisions for land transfer, especially to young farmers and ranchers; protection from eminent domain policy abuses; economic and tax policies to protect family farmers and ranchers, and improved water and waste treatment systems.

I am appending to this statement excerpts of our national policy relevant to land use and agricultural land protection.*

As this committee knows, there are many competing pressures for use of our Nation's lands, including urban sprawl, recreation, highway and airport construction, industrial expansion, and now energy resource development. At this point, let me say, we are not advocating zero growth. Rather, we are advocating balanced growth policies. It is important that our national growth policy must recognize the importance of protecting nonrenewable resources, such as land.

The economic and social pressures competing with agricultural production for the use of the land has been well documented in a study by Mr. Floyd Ciruli, now of Congressman Frank Evans' staff, entitled "Hold the Mesa." The study documents land utilization conflicts around the Pueblo, Colo. area. Although the locale is in southern Colorado, the same conflicts are occurring today in hundreds of locations around the country. I would commend this study to the attention of the committee as you continue your deliberations on this legislation.

Now, this study perhaps represents the worst of all cases, but nevertheless, the constraints are clearly defined because water is scarce, and there the effects of development in the Mesa area are profound. I think what it tells us, even though it is an extreme case, it does put the limits on the frame reference we are looking at. We do recommend that the committee consider this study.

Recently another factor has generated considerable pressure for farm and ranch lands—the greatly increased demand for coal development. We are extremely concerned about the possibility of diverting millions of acres in Iowa, Illinois, Indiana, North Dakota, Colorado, Wyoming, Montana, and New Mexico for strip mining of coal.

National Farmers Union has testified before several committees of the Congress on the need to protect prime agricultural lands and ecologically fragile lands from the effects of strip mining.

*See Appendix p. 112.

Although as a Nation we are faced with the challenge of increasing our self-reliance on domestic sources of energy, we must also be cognizant of our responsibility to protect our land and water resources along with our agricultural production capability.

Much attention has been focused on the western regions of the country as a potential source of readily available cheap coal. It is imperative that both land and water use be carefully considered before any development of this region for coal production occurs.

The administration, the Congress, and the American people must not abdicate our responsibility and capitulate to demands that environmental considerations and agricultural use of land must be subordinated to the exploitation of the land in the name of energy.

There is another force exerting considerable pressure on agricultural lands which I have not mentioned yet, taxes. Federal, State and local tax policies generally work to the detriment of the agricultural landowner. Property taxes in many locations have become almost confiscatory. This is particularly true in lands located adjacent to or near urban areas and recreational developments. Farmers and ranchers are forced to sell to speculators and developers simply because they can no longer afford to pay the taxes on their land. In all too many instances property taxes are based on the development value of the land rather than its agricultural productivity value.

Federal gift and inheritance taxes, although somewhat improved during the last session of Congress, still are not equitable to the family owned and operated farm or ranch.

The demonstration programs provided for in this legislation will, we hope, permit local and State governments to implement policies which will prove valuable in protecting and reserving agricultural lands.

The problems we face in attempting to protect a vital resource are great. We believe this legislation would provide a starting point to protect our agricultural lands and our agricultural production capability. We must also remember to provide protection for our Nation's farm and ranch families.

To insure a continuous and abundant supply of food and fiber for ourselves and other nations around the world we must have a national food policy; a national energy policy; and a national agricultural land policy.

Mr. Chairman, this concludes my statement. I will try to answer any questions that you have, sir.

Senator CLARK. Just a couple. I appreciate the statement very much, it is strong support, and I think it is a valuable statement.

One of the things that seem to become a vicious circle in farming and soil conservation is that when prices are very high, or reasonably high, let us say, where there is great motivation to plant, then obviously farmers are going to plant a great deal, even to the detriment of conservation practices. They plow land that they would not otherwise put into cultivation, so that the motivation to improve income when it is clearly, or seems to be available, works to the detriment of soil conservation. And yet, when the prices are low and farmers do not have the money, they are much less apt in those cases to undertake some major conservation projects. That is the time to sort of hunker down and get by the best you can without making any more expenditures. So, it seems either way you cut it, if prices are reasonably

good people plow up land that perhaps should not be plowed up and conservation suffers; and when prices are down people are less apt to go ahead with their own conservation projects. It is kind of a vicious circle.

What do we do, what is the answer; should we simply have better cost-sharing programs, or what do we do to solve it?

Mr. SORTEBERG. Well, I think that the policies of the at least 8 or 9 years have been a system that has not been based on planning; it has put farmers at the whims of markets that have violently fluctuated.

We also had a very poor set-aside program, as has been mentioned before; very poor rotation of crops. This is almost banished from the lexicon of agricultural rotation. This is such an important one to restore the properties to soil.

But I would say the other and the more important one is perhaps some organizations have abdicated their responsibility of education because it seems to me it is so easy to take the path of least resistance, always be more and better and this kind of thing. But we really all have responsibilities to future generations to save that soil. I think maybe our own organization has not been aggressive enough in our education program concerning soil conservation. I think all the institutions need to readdress themselves to that issue and try harder to see that actual programs are enacted, so that we will actually start reducing erosion, instead of just containing it.

Senator CLARK. One other point. In a way I suppose one could say that this bill, S. 1616, is almost an anti-land-use bill. That is to say the presumption of this bill is that local people should deal with their land-use problems, rather than the Federal Government. I assume that the National Farmers Union's call for a land use policy does not mean that it necessarily would favor land-use Federal level plans.

Mr. SORTEBERG. Correct. I think that the consensus among our members would be that they would surely like to have it controlled at the local level. I think the fear, you know, of the Federal bureaucracy moving into that area is that they would lose control of their land. Consequently I think the Federal Government, though, can do a great service to us by coordination and initiation to get programs or funds, matching funds, which are an important part of this thing.

But certainly, I think our folks would prefer local control because they have a feeling they have a little bit more control over their destiny when the control is at the local level.

Senator CLARK. All right. Thank you very much, Curt, we appreciate your coming. The next name on the list is Roger Ehle from Allen County, Ind. And then we are going to be hearing from Dean Kleckner.

I understand, Roger, that you may have taken on some special project, or some special interesting proposals. I am not quite sure on what, but I am sure you are going to tell me. So, you proceed in any way you think appropriate.

STATEMENT OF ROGER D. EHLE, ALLEN COUNTY, IND.¹

Mr. EHLE. Well, Mr. Chairman, I am certainly delighted to be here. To introduce myself, I am a farmer from Allen County, Ind.—I am a peanut farmer.

Senator CLARK. I have heard of those people. [Laughter.]

¹ See pp. 117-138 for additional material submitted by Mr. Ehle.

Mr. EHLE. We raise corn, wheat, oats, and soybeans for peanuts.

Senator CLARK. We have some of those.

Mr. EHLE. If you have been following the commodities market you know what I am talking about. [Laughter.]

I would first like to compliment Senator Clark for recognizing the need for some type of land-use plan. I am a person who is very involved with agriculture, and I become very concerned when I continually see prime agricultural land being taken out of production by land developers, speculators, industry, highways, and other commercial concerns. It is people like Mr. Clark that have the foresight to see the need for preserving the prime agriculture land which has always been and will continue to be the backbone and the natural strength of our country.

In reference to bill S. 1616—which I will hold my comments to—under “Findings and Purposes”, page 3, line 19, paragraph 3, section A, I feel that it should be included and stressed that these methods of protecting agricultural land will not only benefit the people involved in agriculture, but will also benefit every citizen that buys food or purchases a home. When land suited for development is developed, the buyer or citizen definitely benefits. Not all buyers, land speculators and developers are aware of the problems that can be caused by building homes on the wrong kinds of soil. There is a significant difference in the response of certain soils when they are farmed for 5 months, compared to when they are lived on for 12 months. Our experience in Allen County is that the average citizen is not aware of soil types and the internal problems that a particular soil type may have, such as severe wetness and poor drainage. Noise, odors and dust are important factors that an urbanite may not consider.

In Allen County, Ind., we are exactly as described in this article. We have a very fast-growing urbanite county, the largest county in Indiana, which includes the city of Fort Wayne. The population is approximately 275,000 people. We have seen urban sprawl, and strip and leap frog developments. The misinformed home buyer who moves to the country for peace and quiet and for fresh country air, is very disturbed and chagrined to find obnoxious chemical and livestock odors and noise from late operating tractors and other farm machinery.

For these reasons I believe that not only agricultural land needs to be protected, but also when land is developed the citizenry be protected by an appropriate land-use and development plan.

TITLE II: RESEARCH PROGRAM

I feel much thought has been given to this program and the duties have been clearly defined. I am most impressed with some of the things to be studied such as items 3 through 5 on page 7. In regards to administrative provisions, there are some real strong points which are possibly necessary to obtain data with a least cost involvement, and they are located in C, D, E, and F of section 206.

TITLE III: DEMONSTRATION PROGRAMS

I feel this is where this project can either be made into a huge success and start to be applied or simply end up with volumes and volumes of data which can be put on shelves and never be used

again. For this project to develop into a success and have the greatest return per dollar invested, it is felt that the Secretary may want to get as many of these projects into the control of the people that it is going to affect. Some agency which is close to the people should be the project director and contractor. One example of this type of program was the Black Creek watershed project, which was a \$2.2 million project made available through Public Law 92-500, section 108: demonstration projects. Our local Allen County Conservation District is made up of five supervisors who are elected by the citizens of the county. This board was the contracting and directing agency. Contracts were made with the State Soil and Water Conservation Service, to land-grant colleges, all local government agencies, and the local people involved in the project. These people were all simultaneously involved and they worked harmoniously to achieve an end product which may become a major factor in the development of section 208 of the Water Pollution Act.

I question whether or not these agencies could have worked together and had the input into the results if it had not been a local contracting agency. Because it was a local agency and their lands were involved, they sought the best possible assistance.

In 1972, Allen County, Ind., developed an agriculture exclusive ordinance which was enacted for the purpose of preserving our prime agricultural lands and for guiding our county's urban sprawl into areas more suited for development. When this ordinance passed, it had the support of all environmental groups, labor unions, concerned citizens and young farmers. When it came time to apply the ordinance, we could not get the cooperation of the rural people because of dissenters combining forces and misinforming the people. This caused the people to become unwilling to permit their land to be zoned A.E. For this reason I feel education will be another very important factor in the final success of this bill.

In summary, I again want to compliment you on your proposed bill. I was honored to have been invited to comment on it. If I, or our district can be of further assistance, we would be glad to do so.

Senator CLARK. Thank you very much for a good statement.

We have heard that prime farmland in Indiana is selling for up to \$3,000 an acre, and I must say it is in Iowa, as well; in a few rare cases, at any rate.

I do not see how you could produce, say, corn on that land and even pay the interest on it. You are a farmer, what about that? No. 1, why is it that high? You go into a number of factors here, but why is the land that high, and what does that do to the structure of farming in Indiana?

Mr. EHLE. The land is that high because of outside interests. I must admit most of the land is being purchased by other farmers, speculation and anticipation that if they do not buy now, it is going to be higher next year. Those who do buy, and have the money, are financially well off and can add to their operation without hindering their capital outlay, or their financial position.

Senator CLARK. Sure.

Mr. EHLE. Young farmers—and a lot of them are—are faced with a real catastrophe. If something does not happen to these prices, which I do not anticipate, they are going to be in a financial bind—it is just supply and demand, that is all there is to it. Like it has been

stated earlier, there is no more land, and if a young man wants to farm he either buys it, or rents. In our area there is no land available to rent. Like I say, it is a pure matter of economics; and like you stated, there is no possible way that the income from that will even pay the interest.

Senator CLARK. So, it is your view that, first, there is some outside pressure, outside people interested in buying land; and second, that some farmers who are well enough off from the past, they can go add to their operations and handle that additional cost, even if it did not pay out in the next several years. But the person who is really buying that land is the young farmer who takes it on as a new way of life, or as a new occupation, who pays that kind of price for it, unless grain prices are a lot higher than they have been historically over a long time, that it is difficult to see how he could make it.

Mr. EHLE. That is right. Myself, I cannot justify these kinds of land prices. People seem to have forgotten about the hills and the valleys in market structure, the price freeze—not freeze, but the squeeze put on cost of production and that type of thing.

Senator CLARK. Well, does that mean, then, in terms of the structure of farming, if your presumption is true—and I tend to think it probably is—does that mean that there is going to be a tendency in farming that there will be a greater concentration in those people that already have the money to do that, to add to their operation, or to outside interests that might come in, as distinguished from new people coming into it, or young people coming into it?

Mr. EHLE. I would say the well established farmer can continue to grow, and the young farmer who does not have financial backing will be unable to get established.

Senator CLARK. Unless he is going to inherit the farm, or something of that kind.

Mr. EHLE. Right, there is no way that he can possibly get established in farming today without financial assistance, through the family or an existing operation.

Senator CLARK. Maybe it will become like the building trade and some of the trades were in Europe—and indeed in this country to some degree—where you almost had to be born in that family to be a bricklayer.

Mr. EHLE. That is right.

Senator CLARK. A very close, tight-knit kind of growth.

Could you tell us a little more about what you are doing in your county to preserve farmland or protect water quality?

Mr. EHLE. In Allen County, it is in Northeast Indiana, and is, like I said, the largest county in Indiana. In this county we have the youngest soil in Indiana. It is a former lake bed formed by Lake Maume, a glacier lake approximately 10,000 years ago. This is some of the most productive soil in the State of Indiana. It is nearly level, it is zero to 2 percent slope—so, it is practically level.

Of course, with urban counties, as we have, we have urban sprawl leapfrog development. I am sure you are aware of what this is. Due to the levelness of this type of soil we have developers who want to come out there because of the least cost ratio in development. It is much easier to pour a slab for a house, building, or structure, on a level piece of ground than it is on something that is 5- to 6-percent slope. So, naturally this has encouraged development out in this area.

So, in Allen County we have tried to work around this thing and get the cooperation of local people, landowners, and so forth, to combat this, to preserve our prime agricultural land. But again, economics rule. The only saving thing that we have had in the last 3 or 4 years has been the high land value because farmland is selling higher than housing development land currently. This has helped to preserve our agricultural land and postponed the development for housing.

Hopefully, in a few more years, if we could have a program such as this, we could get people concerned. I get real concerned when the people don't have the foresight to see that the preservation of agricultural land is necessary. They seem to have a tendency to be too shortsighted, think of their own returns on investment—"No one is going to tell me what I can do with my personal property." They fail to realize that we are only tenants on our land, just caretakers. In Allen County we have run into resistance. We felt when we had this A.E. ordinance passed that we would have clear sailing, we would get cooperation from all farmers, that they would be eager to put their land into this type of preservation for future use.

Well, that was fine, but we had dissenters within the group who got people together and told untruths, and people became cautious and were reluctant to let their land be put into this type of program. So, we were shot down so badly that the president of our planning commission is a little reluctant to go out and try it again. But I am sure we will, we will not drop it at this.

Also a problem with something like this, we have the elderly who have been counting on their real estate for retirement by selling off a few lots a year. It is really said, they want to retain their farm, but still, they destroy the community, the agricultural community when they do sell off these lots of farmland.

One unique thing, we do have in our county the Amish people. Of course, they do not take social security, or anything like that, so if they have not been a good farmer and laid capital and assets back it is necessary for them to sell real estate, or pieces of land, to have something to live on.

Senator CLARK. Well, we appreciate very much having your testimony, Roger. We thank you very much for coming.

Mr. EHLE. Thank you.

Senator CLARK. We are going to hear now from Dean Kleckner, the president of the Iowa Farm Bureau, who I think is speaking for the American Farm Bureau Federation.

Proceed in any way you think appropriate.

STATEMENT OF DEAN KLECKNER, PRESIDENT, IOWA FARM BUREAU

Mr. KLECKNER. My testimony is not long, so I think I will read it.

Senator CLARK. Fine.

Mr. KLECKNER. I may skip over a few places. I think you have had the testimony ahead of time.

Senator CLARK. Yes.

Mr. KLECKNER. As you said, I am testifying not only for the Iowa Farm Bureau, but for the American Farm Bureau.

We do appreciate the opportunity to present our views on these two bills, S. 1616 and S. 1280.

The farm bureau is concerned about the rapid rate of disappearance of agricultural land, therefore S. 1616 is of interest to us. Farmland is being shifted to nonagricultural uses at the rate of about 5 million acres annually. The future availability of productive agricultural land is of vital importance to producers and consumers alike. We commend this subcommittee for seeking information on the difficult problem of preserving agricultural land for future generations.

We have voiced strong confidence in the ability of State and local governments to handle the tough land use decisions of today.

Farm bureau policy for 1977 includes the following statements relative to land use and particularly the preservation of agricultural land. I will just read the first portion of that.

We believe that land use planning can best be accomplished at the county or comparable level of government and by private landowners. We urge State farm bureaus to take the lead in their States.

We have several examples here of State farm bureaus that have led to successful efforts for adoption of various proposals which attempt to preserve productive land for agricultural purposes. One that I am listing is our own in Iowa. As you know, Senator, there was some confusion in the Iowa legislature about property tax replacement.

We think this bill will be particularly significant in allowing the continued farm use of agricultural land on the outskirts of urban areas. That point was not, I think, brought out strongly enough in the debate in our legislature.

The New Jersey and Connecticut Farm Bureaus have recently been involved in the consideration of programs providing for government purchases of development rights on agricultural land in those States.

A number of years ago the New York Farm Bureau was actively involved in creating a program of agricultural land preservation which included the establishment of agricultural districts in that State. These are just a few examples.

In light of our strong desire to have land use decisions made at the State and local level, we oppose Federal grants for land use projects proposed in title III of this bill.

We believe States have already proven their ability to carry out innovative programs for the preservation of farmland on their own. In addition, any authority for Federal grants inevitably carries with it Federal rules, regulations, and eventually Federal control.

When we testified before a subcommittee of the House of Representatives in February on the Continental Illinois National Bank's proposed Ag Land Fund, we expressed our concern about the lack of information available on the current ownership and control of agricultural land.

We are particularly interested in the development of factual information on the acquisition of agricultural land by persons who are not engaged in agriculture as outlined for study by the commission in point 5 of subsection 202(a) of this bill. But we do not see the need for a special commission to accomplish this task.

We believe that the Economic Research Service of the USDA is the proper agency to conduct such a research project. We recommend that Congress direct ERS to carry out this activity and provide the agency with such additional funding as may be necessary to carry out this congressional directive.

We appreciate your awareness of, and concern for the difficulties farmers will encounter in attempting to comply with pollution abatement requirements. We have been concerned for some time that section 208 of the Federal Water Pollution Control Act—and that 208 is getting to be three numbers that farmers are getting aware of more and more—contains authorities that could have costly impacts on the farmer and the Nation's food production system. This committee's willingness to address these concerns legislatively is appreciated.

We have carefully reviewed the provisions of S. 1280 and offer the following comments and suggestions:

Subsection 701(f) calls for accelerated voluntary application of conservation practices. We endorse this finding. We are concerned, however, that voluntary participation may not be an option to farmers within the framework of 208 plans. For instance, the Commonwealth of Pennsylvania has required every farm to develop and implement a conservation plan. I fail to see how voluntary that is. It reminds me of my service time, Senator Clark, when we were picked as a volunteer.

Subsection 703(a) and subsection 703(c) require the Secretary to implement a plan to identify and evaluate rural water pollution problems. We agree that problem identification is an important first step. While we prefer that these activities be conducted by USDA, as provided in S. 1280, Congress has already decreed and funded an alternative approach, under the control of the Environmental Protection Agency. Pollution problems are to be identified and recommended abatement practices—called Best Management Practices—are to be achieved by the 208 agencies before this bill could become effective in fiscal year 1979.

Farmers and ranchers have given strong support to conservation programs over the years. We feel that federally assisted conservation programs have been successful for several reasons. These programs have generally embraced sound conservation practices. Program implementation has been locally controlled. Public financial support has encouraged practices that would not have been economic in the short run. And, of particular importance, farmer participation has been on a strictly voluntary basis. In short, the system has worked.

Today, under authority of the Federal Water Pollution Control Act we have embarked on a new and comprehensive program of environmental protection. Many program goals of the two approaches are consistent; however, it is important to note that this is not always true. For instance—and I cite some examples:

Section 208 programs will encourage water runoff control. In many areas SCS has aided farmers in expediting water runoff through construction of drainage ditches, tiling, and stream channelization work to aid production.

SCS has participated in the construction of upstream water impoundment facilities to control flooding and to provide a source of water for agricultural and other uses. Water impoundment reduces stream flow which decreases a stream's pollution-carrying, or dilution capacity—contrary to the goals of section 208.

SCS has aided in the development of many irrigation systems that have made previously arid lands productive. Bringing this land into production increases pollution, associated with irrigation return flows, and potential ground water problems—contrary to the goals of 208.

We do not believe it is desirable to attempt to make the USDA's conservation programs consistent with 208. We therefore find ourselves unable to support S. 1280. We suggest that efforts be initiated by this committee to bring the 208 program into conformity with the USDA's conservation system—a program of proved practices that are cost effective, that provide appropriate technical and financial incentives, that are under local control, and that permit truly voluntary participation by farmers and ranchers.

We thank you, Senator, and this committee for this opportunity to express the Farm Bureau's views on these bills.

Senator CLARK. We appreciate very much having your comments. I am particularly interested in the examples that you cite, that you feel are contrary to 208; I have not heard these before.

In other words, when you say SCS—I am looking at example 3 here, on page 3.

Mr. KLECKNER. Yes.

Senator CLARK. SCS has aided in the development of many irrigation systems that have made previously arid land productive. Bringing this land into production increases pollution, associated with irrigation return flows, and potential groundwater problems, contrary to section 208.

In other words, it is your feeling that if section 208 is implemented as intended, that further irrigation systems would be discouraged. Am I reading that right?

Mr. KLECKNER. Yes, I think that would be the net effect of implementing 208.

Senator CLARK. And then in No. 2 you say, SCS has participated in the construction of upstream water impoundment facilities to control flooding and to provide a source of water for agricultural and other uses. Water impoundment reduces stream flow, which decreases a stream's pollution-carrying capacity.

So, there again you feel that the goal of section 208 would be primarily one of reducing or discouraging construction of upstream water impoundment facilities.

Mr. KLECKNER. Yes, in this case it would, because compliance with 208 in some cases requires an increase in stream flow for pollution carrying, or dilution. So, you have the conflict in these three instances—and I am sure there are others—these are three that we listed, between what 208 is saying in the regulation, and what SCS over the years has said.

Senator CLARK. In the first example then—to see if I understand you, you say that the section 208 programs will encourage water runoff control. In many areas SCS has aided farmers in expediting water runoff through construction of drainage ditches, tiling, and stream channelization work to aid production.

I am not sure I see the conflict there with 208. Draw that out a little for me.

The other two examples are pretty clear to me, but I am not quite sure I understand this one.

Mr. KLECKNER. Well, Senator—our land in north central Iowa is relatively flat, and we do construct drainage ditches. There has been some stream channelization, although that is being frowned on more and more.

What we are interested in is getting rid of the water so we can bring land into production, or can make it more productive. Some 208 programs want to discourage that.

Senator CLARK. I see.

Mr. KLECKNER. We are pointing out that there are conflicts between section 208 and SCS. As I get the thrust of S. 1280, it will bring USDA into conformity with existing 208 standards, and we think it should be the other way around. We would like to see 208 change.

Frankly—and I am not an expert on section 208 of this Water Pollution Control Act—farmers that are involved in soil conservation work and who have looked into this area at all, throw their hands up and bristle their hair when they hear the word “208”. I cannot say that everything in section 208 is bad, I do not think there is everything bad about anything, but SCS over the years has been going the way the farmers want to go, cooperating—the farmers have cooperated voluntarily and I think we have made some good progress. We are not where we should be, but we never will be. I do not think you can pass a bill in Congress and enforce it everywhere. We never will be able to do that, frankly.

Senator CLARK. On pollution abatement.

Mr. KLECKNER. On any conservation or pollution abatement program. You cannot pass a bill that will really direct everything that we should do. I guess I am thinking of Harland Miller back when he was a columnist for the Register. I guess to fill space, periodically, once a month, or a couple times a month he would put in a little statement, “There is no solution, seek it lovingly.”

I guess that is where we are in these areas. There is no solution, but we ought to be working toward it. But, let us go the voluntary route, the local control route, rather than the Federal Government route.

Senator CLARK. Well, then, in that regard you would say that your own attitude toward this would be that there should not be imposed on farmers—or perhaps others, but we are talking about farmers here—Federal control in terms of meeting water pollution standards, or soil run-off standards generally; that we would leave that to farmers, and that is probably as well as we can do.

Mr. KLECKNER. I think so. I think working with the States and the Soil Conservation Service, that we will get more done in the long run than implementing mandatory Federal standards, Federal control. I just do not think we are going to get the job done through Federal mandate.

SCS has the personnel, they have the experience and the background to get the job done. I guess I have not agreed over the years consistently with every single thing SCS has done, but by and large they are the experts. I think we need to work with them. I just do not see how you can pass a bill here and have a Federal program that could meet the conditions that exist in Iowa, Indiana, Ohio, Alabama, California and Montana.

It is like we say in our Land Preservation bill we passed this year in the Iowa Legislature, we did not see how they could pass a bill in Des Moines that would be a good bill for all of Iowa because the counties vary so much. It is the same thing with the States.

Senator CLARK. Mr. Davis, the Administrator of the Soil Conservation Service—I do not know whether you were here—testified that he

felt—if I understood his testimony—that we were falling farther behind. He spoke of the soil conservation programs over the past 40 years and felt they had prevented a lot of the problems that otherwise would have existed in terms of pollution abatement—if we had not had them, it would be much worse. But still, that we are probably worse off today in terms of water pollution in our streams than we were before soil conservation started, particularly as far as chemical runoff because obviously we did not have it at the time as we do now. Those have been voluntary programs, obviously.

It is your feeling that it would not continue to get worse if we continue with the present soil conservation programs and voluntary programs, assuming we keep matching funding, such as we have now. So, you do not feel that our streams will continue to be increasingly more polluted.

Mr. KLECKNER. I am not an expert on that.

Senator CLARK. Well, nobody is.

Mr. KLECKNER. Well, he should be more than I am. I guess I will give you my personal feelings.

Senator CLARK. Yes.

Mr. KLECKNER. I think it might get worse for a while.

There are more people. It seems like the problems are intensifying. But there is much more awareness now on the part of the farmer on what the problem is. I would like to cite an example of the problem of hauling manure in the wintertime on frozen ground. I do not happen to live near a stream, and I have a confinement hog operation. So, I have the "honeywagon" and we haul when we have to. I do have friends and neighbors that live in an area that is more sloping than where I live. They make sure that they do not haul manure onto sloping frozen ground adjacent to streams. They are aware now, where 10 years ago they were not aware of that run-off into the stream from hauling manure in the wintertime when the ground is frozen.

Another example of increased farmer awareness is the application of chemicals. Farmers went the blanket approach. Farmers are more aware that the blanket approach is not good ecologically, and they are also aware of the skyrocketing cost of chemicals and fertilizers. So, they are trying to do a better job—utilizing the rifle, rather than shotgun approach.

I guess I believe that in the long run things will get better. Farmers are aware and are doing things that will make the situation get better. I tend to think that the Soil Conservation Service and the Iowa Legislature, working with local agencies, are the ones to set the standards on what we should do. We will have our input there. I tend to think that our input in Iowa is greater than in Washington, D.C., we are closer to the problems. Not just in this area, but many areas.

Senator CLARK. That is difficult to argue with. The only thing is that when you talk about water pollution and some other areas of government, I am not sure that application is equally true. In other words, I subscribe to the idea the more local you can make that control, the better; but it depends to some degree on the nature of the issue.

To take an extreme example, let us take defense. We do not want to all provide for our own national defense at a local level, we think having a national, Federal approach to that is a more unified, sound principle in terms of national defense. I am not sure you could not make some—

what the same case in terms of pollution problems, either air or water, to this extent, that it does not have much respect for localism, or for local lines.

For example, if Minnesota pollutes the Mississippi River it may not hurt the people in Minneapolis very much because they are polluting it below Minneapolis. It does not really matter what we do at a local level along the Mississippi River, everybody that lives on the Mississippi River is going to be polluted if the people upstream polluted the stream.

So, I am not sure that kind of a problem is not more of an interstate, or if you will, a national problem. It is not really a national problem in the case of the Mississippi because the people in California are not going to pollute it. But there are some areas, air pollution to some degree, also. In the District of Columbia, we drive our cars in here every day and we get this enormous pollution rate, and people say it is unhealthy for us. You know, really, it is as much Maryland's and Virginia's fault as the District's because it does not respect the District line, or the State line. So, what one of us does so seriously affects somebody downstream, or downwind in a sense that it does seem to me you almost have to have either an area approach, or a national approach to that kind of problem, otherwise the farmer, who, let us say, is not responsible just fouls all the water downstream.

So, leaving it totally to individuals, or locals in some cases where you have a national interest, or at least other people downstream, so to speak, you know, you may never solve the problem.

Mr. KLECKNER. I think you cite some examples where obviously it is more than local, or more than State.

Senator CLARK. Yes.

Mr. KLECKNER. The Mississippi River, obviously is one that affects a dozen States, 18 as it flows. But, again, I am not sure that in many areas in fact that a Federal bill, a Federal regulation is one that we can live with. I again suggest that SCS is a national organization already addressing these problems.

Senator CLARK. Yes.

Mr. KLECKNER. I guess I come back to the main theme of my testimony that working with and through SCS would be the proper way to address these problems.

Senator CLARK. OK.

Mr. KLECKNER. I do not know how many letters, if any, you have gotten from farmers concerning sections 208, 404, and some others.

Senator CLARK. We are going to get a lot more when they find out.

Mr. KLECKNER. That is right, that is my point. I would think if the thrust of your bill—and I am not quarreling at all with what you are trying to do—could be changed, could be reversed rather than working and complying with EPA and section 208 but made to conform to existing SCS practices then I think, frankly, it could work. Section 208 should be modified to bring it back into coordination with SCS. Farmers want to do what is right. There are very few farmers, in my opinion, that say, "To heck with everything."

Senator CLARK. Sure.

Mr. KLECKNER. There are pressures, of course, for growing as much as they can. But, we want to do what is right. We want to conserve for future generations.

Senator CLARK. The last question that I have, really—you are leading into—what do you do about 208? One of the problems, of course, for this committee is that it is not even within our jurisdiction, it is an EPA problem under Public Works. We are getting a handle on it in a sense here because it involves soil conservation. Our jurisdiction does reach into soil conservation. The Water Pollution Control Act was actually passed—that was in 1973—about 4 years ago. Obviously one could disagree with whether that bill, of which section 208 is a part, was wise or unwise. But having just passed it, in a sense, before it has gone into effect completely, my own judgment would be that it would be very, very difficult to get the Public Works Committee to meet and reverse the position they considered earlier. Nothing is impossible, but it is probably unlikely that both the Senate committee and the House committee would agree to reverse their position on 208.

If we assume for the moment any such effort would not be successful, and that these plans go into effect, in 14 months it does seem to me that the farmer is faced with the reality of having to live up to section 208.

So, this kind of legislation that we are talking about gives the farmer a practical way, or some assistance at any rate, to try to fulfill the requirements of that provision, namely, to try and provide cost sharing, and so forth, to try to control runoff and so forth.

So, my question, I guess, is, if there is not a reversal of this section 208, is it not going to be necessary for your members and farmers generally across the country to get some kind of assistance, additional assistance, in cost sharing, to really meet these requirements that are going to be imposed?

Mr. KLECKNER. Well, I presume so. I feel there are some of these areas which they are going to be required to meet, will be beyond their economic capability.

Senator CLARK. I understand.

Mr. KLECKNER. I guess I do not have much faith in the ability of government, the bureaucracy, to come up with regulations and even then, with the funding, to allow us to meet these things, meet these regulations without being involved in all kinds of paperwork that we need attorneys to handle for us. In fact, it just has to be that way. If we are going to get Federal money there are going to be strings attached.

Senator CLARK. But is it not true that the Soil Conservation Service, you say now, is doing this:

Mr. KLECKNER. If it is going to be done, it obviously will be done through SCS, rather than a new agency.

Senator CLARK. I think you testified that in the past they have been fairly effective.

Mr. KLECKNER. In my opinion, they are.

Senator CLARK. So, if you had a program of this kind, you think that would be the best approach, rather than running it through the EPA?

Mr. KLECKNER. I would throw up my hands in horror, if the EPA were to administer such a program. Yes, definitely through SCS, rather than through EPA.

Senator CLARK. So, to that degree, you feel the bill takes the right approach?

Mr. KLECKNER. Yes.

Senator CLARK. We appreciate very much having your testimony and your position and ideas on these issues because, as you say, it is an issue that farmers, numbers of farmers, are becoming increasingly familiar with section 208. The question really is, What is the best approach?

Mr. KLECKNER. The bill was passed 4 years ago, and I do not think many farmers, other than those who are actively involved in soil conservation, are even aware of it yet.

Senator CLARK. I think that is right.

Mr. KLECKNER. But, as these things are implemented and they become aware of it, they are going to be asking us in our organization, and they are going to be asking you and other Senators and Congressmen, Where in the world did it come from, why is it like it is?

Senator CLARK. That is correct.

Mr. KLECKNER. I think there are going to be some pressures developed to modify it.

Senator CLARK. I am sure that is true.

Mr. KLECKNER. You know the political ramifications of how to do it much better than I do. But, in my opinion, Congress responds to the people. It may take a little while, but they do respond.

Senator CLARK. We have representative Government, at least I hope we do.

Mr. KLECKNER. It is more representative than any other one I can think of. And, as the letters and telegrams and phone calls start coming in—and I think they will—I think there will be increasing pressure to modify the 1973 Act. We will be for it.

Senator CLARK. Thank you very much, we appreciate it. It is good to see you again.

[Whereupon, at 11:55 a.m., the subcommittee adjourned, to reconvene at 9:30 a.m. Thursday, August 4, 1977.]

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PROTECTION AND ENHANCEMENT OF SOIL AND WATER RESOURCES

THURSDAY, AUGUST 4, 1977

U.S. SENATE,
SUBCOMMITTEE ON ENVIRONMENT,
SOIL CONSERVATION, AND FORESTRY OF THE
COMMITTEE ON AGRICULTURE, NUTRITION, AND FORESTRY,
Washington, D.C.

The subcommittee met, pursuant to recess, at 9:30 a.m., in room 322, Russell Senate Office Building, Hon. Dick Clark presiding.

Present: Senator Clark.

Senator CLARK. The hearing will come to order.

This is a continuation of the hearing that began on Tuesday on two bills which I have introduced dealing with problems of water control and soil conservation and so forth.

Senator Harrison Williams is scheduled to be our first witness. I know that he is very busy in the Committee on Labor this morning, and I am not sure when he will come or if he will be able to come, but when he comes, we will put him on immediately.

But Marion Edey is here, and she is a member-designate, Council on Environmental Quality, and former president of the League of Conservation Voters.

She has long been active in the environmental movement and certainly one of the first people to be particularly active in that area. And we welcome her here this morning.

Now, Marion, you proceed in any way you think appropriate.

STATEMENT OF MARION EDEY, MEMBER-DESIGNATE, COUNCIL ON ENVIRONMENTAL QUALITY

Ms. EDEY. Well, I have a prepared statement here today, which I will just go ahead and read.

Senator CLARK. Fine.

Ms. EDEY. Mr. Chairman and members of the subcommittee, it is a pleasure to appear before this committee to present the Council's views on S. 1280, the bill to provide for the maintenance or enhancement of the quality of water in rural America, and S. 1616, a bill to provide for protection of agricultural, range, and forest land.

We are convinced new approaches are necessary to protect agriculture and forest lands from irretrievable loss and degradation and to maintain and improve water quality. To accomplish these goals we must address two problems: (1) the effects of agriculture on soil productivity and other aspects of environmental quality, and (2) the loss of agricultural land to other uses.

Before presenting specific comments on S. 1280 and S. 1616, I would like to first present the committee with the Council's perspective on the seriousness of these problems.

Over the past century, many programs have been developed to protect and conserve our rich resource base, yet those programs have not accomplished as much as we have hoped; in fact, there is evidence of serious backsliding. For example, the SCS conservation needs inventory reports that farmers in 7 out of 12 Corn Belt States were doing a better job of protecting highly erodible cropland in 1958 than they are today, nearly a decade later, as I guess you know.

The Council for Agriculture, Science, and Technology, CAST, reproted 2 years ago that more than a third of all cropland was suffering soil losses too great to be sustained without a gradual but ultimately disastrous decline in productivity.

General Accounting Office, GAO, in a report released this February, studied 283 farms randomly selected in the Great Plains, Corn Belt, and Pacific Northwest regions, and found that about 84 percent of the 283 farms were losing over 5 tons of topsoil per year from croplands with some 25 percent of the farms sampled losing more than 20 tons per acre per year. These results occurred despite Federal expenditures for soil conservation of nearly \$15 billion since the 1930's.

GAO found no evidence that soil losses were smaller for the farmers who had been participating in USDA conservation programs than for those who have not.

An estimated 4 billion tons of topsoil are lost each year to wind and water erosion. It is generally accepted by soil scientists that even deep soils cannot sustain a loss of more than 5 tons an acre per year without hurting productivity. Yet erosion losses nationally have been variously estimated at 9-12 tons an acre per year—extreme cases may reach 60 tons per year. Under usual conditions, new topsoil forms at a rate of about 1.5 tons an acre per acre.

In addition to the loss of soil productivity, eroded soil causes air and water pollution. About 3 billion tons of topsoil end up as sediment loads in streams, rivers, lakes, and reservoirs. Sediment transported and deposited by water causes damage to cropland, pastureland, forest land, urban areas, rivers, lakes, and bays. It can reduce the capacity of stream channels and cause overwash, swamping, and increased flooding. It accumulates in reservoirs, reduces the efficiency of hydroelectric facilities, increases treatment costs of municipal and industrial water supplies, impairs irrigation, clogs irrigation systems and drainage ditches, destroys harvestable crops, increases maintenance costs of utility and transportation facilities, decreases recreational value of some waters, and can seriously affect the fishery resources.

In addition to croplands, erosion and sedimentation occur on forest and rangelands. This can be serious where there are poor logging practices and where there is overgrazing. Also erosion from mining areas is projected to increase in severity unless conservation measures are implemented.

Erosion and sedimentation throughout the Nation are, in large part, caused by improper land management practices and the problem appears to be getting worse. Your committee is to be commended for its excellent report and field hearings which have highlighted the

problems that occur when farmers abandon such traditional soil conservation practices as crop rotation, strip cropping, hedge rows, and the use of harvest residues to control erosion.

In addition to the problems of sediments, millions of tons of fertilizers, pesticides and organic wastes are washed off the land every year. Phosphorus, nitrogen and organic wastes create stream conditions that reduce the amount of oxygen available to fish, accelerate the growth of certain plants that clog streams and rivers and lead to accelerated aging of lakes. Fertilizer use quadrupled in 25 years.

The disastrous long-term effects of the loss of topsoil and natural soil nutrients has been masked by the heavy applications of nitrogen fertilizer during our era of cheap energy. This can keep crop yields high in the short run.

As energy prices continue to rise, we will discover how serious the problem really is. Not until the oil embargo did farmers begin to reduce their use of fertilizers. Additionally, the use of pesticides doubled between 1960 and 1975.

In recent years, we have seen a new agricultural development that has added to these severe environmental problems. Since the end of World War II, agriculture production increased mainly due to the application of chemical fertilizers. But as maximum production levels are approached, there is a decline in the amount by which agriculture production has increased with each additional, and increasingly expensive, ton of fertilizer. So, to increase production between 1972 and 1975, when foreign demand for U.S. grain sharply increased, harvested cropland rose by 41 million acres. This is the largest increase in harvested cropland in recent U.S. history, but is not an unmixed blessing.

SCS has attributed the accelerated soil loss for the years 1973 and 1974 to clearing of more land for cultivation without adequate erosion control measures and the conversion of more land to row crop production. Nearly one-half of this converted land was found to have inadequate erosion control.

High prices and a policy of maximum production were contributing factors.

To these disturbing agricultural impacts on the environment must be added the irreversible loss to other uses of the farms, forests and rangelands that are so suitable to their traditional uses. One kind of cropland is being lost in substantial amounts—prime farmland, which is the land best suited for producing food, feed and forage.

It gives the highest yield with minimum inputs of energy and money and does the least damage to the environment in the process. Yet more than 8 million acres of prime U.S. farmland have been converted to urban development, impoundments, strip mining and other uses during the period from 1967 to 1975—an average net loss of 1 million acres per year.

Losses in the Southeast and Corn Belt regions were most severe accounting for 3 of the 8 million acres converted to other uses. The SCS estimates that there are about 384 million acres of prime farmland of which 250 million acres are now being cropped. Other uses of the lands include forest pasture and range. The greatest losses of prime farmlands are occurring on the land with fewest environmental and management problems.

While prime cropland is disappearing in some areas, productive cropland is being created in other areas—at a rate three times that at which it is being diverted to urban uses, and these are less productive lands.

In regard to its concern over the loss of these valuable lands, CEQ last year requested all Federal agencies to determine the existence of prime and unique farmlands in the areas of impact analyzed in their environmental impact statements prepared in compliance with section 102(2)(c) of NEPA. This analysis is to include threats to the continued use and viability of the farmlands, not only from direct construction activities, but also from urbanization or other changes in land use that might be induced by the Federal action.

As part of its policy to preserve the Nation's prime range, farm and forest lands, USDA is establishing an inventory of prime and unique farmland. It is also examining a number of other actions it could take.

Now I would like to make a few specific comments on each of the bills under consideration today.

S. 1616, this bill has three basic purposes: (1) To establish a national policy of protecting agricultural land from conversion to nonagricultural uses and improving existing agricultural lands; (2) to establish an Agricultural Land Review Commission to be appointed by the Secretary of Agriculture; and (3) to establish a demonstration program for protecting agricultural, ranch, and forest land from being used for nonagricultural purposes.

The Council is sensitive to the problem posed by the conversion of our Nation's farmland to nonagricultural uses. We believe that there is a need for a fresh look at programs affecting these lands.

USDA has already indicated to this committee its intent to undertake a comprehensive review of the extent to which farmland conversion is an important national problem. We believe that this review should recognize the noncrop benefits of farmlands, such as the preservation of open space, scenery, wildlife habitat and recreation opportunities so often lost to costly urban sprawl. However, these are not the only impacts of prime land conversion.

We must also be concerned about the environmental impacts associated with bringing substitute land into production—the wetlands that are filled in, the increased erosion and higher use of fertilizers and energy to produce the same amount of output.

Other Federal agencies will need to be included in this review. If some agencies' programs are stimulating development of prime agricultural land, then these agencies need to be involved in efforts to protect these areas. If they are part of the problem, they should be part of the solution. Moreover, since prime farmland has other environmental values in addition to agriculture, other natural resource agencies should also be involved in this effort.

As you may know, the administration has taken the position that the purpose of this bill can be carried out without new legislation.

S. 1260, to provide for the maintenance or enhancement of the quality of water in rural areas.

I have already discussed some of our concerns regarding potential threats to the degradation of our land resources and pollution of our water resource through improper management practices and poor land use decisions. In fairness, we must not place the sole blame on the farmer.

The Council recognizes that many farmers have major financial problems from inflation and sharply rising costs for equipment, fuel, fertilizers and pesticides, and labor. Therefore, there is a tendency to place short-term profits ahead of long-term productivity. Soil and water conservation is in the whole Nation's interest. Therefore, we believe there is a role for the Federal Government to play in aiding individual farmers, ranchers, and woodland owners to maintain and improve soil productivity and water quality.

The Council strongly supports the conservation of our Nation's land and water resources. The Council believes it makes good sense to take advantage of the expertise and delivery system of all elements of the Agriculture Department in the implementation of programs to maintain and enhance water quality impaired by activities on land used for the production of food, forage, fiber, and forest products.

Close coordination with EPA, responsible State and water quality agencies and the "208 planning process" will be essential to accomplishing the goals efficiently and without duplication of effort. We think it important that the EPA continue to have primary authority to coordinate Federal water pollution control efforts under section 208, but the problem of soil degradation is so large and complex that we sorely need the initiatives of the USDA in combatting erosion-caused pollution.

The Secretary of Agriculture should have the authority to determine what and how assistance should be provided, including eligibility requirements for Federal cost sharing and technical assistance. However, we should also get the concurrence of the Administrator of EPA to make sure that the soil conservation efforts are part of our approved 208 land use management plan. Rural landowners should be encouraged to introduce and maintain enduring measures incorporating best management practices to control nonpoint source pollution. Federal assistance should be directed on a priority basis to the more serious problem areas and to those farmers who lack the financial resources to afford such practices on their own.

Contracts should be long term with the requirement that if the owner defaults or violates the contract, he must make full refund to the United States.

In order to participate in this program, the landowner should be required to develop a plan which is approved by a soil conservation district, under guidelines developed by the Soil Conservation Service, or State forester for forest lands and which further implementation of an approved 208 plan.

We need to investigate better incentives for crop rotation and diversity to keep natural nutrients in the soil, and the more creative use of sewage sludge and feedlot wastes.

The Council sincerely hopes that successful programs can be developed which meet national resource and environmental goals for the long term with minimum interference with individual activities.

Thank you for the opportunity today to present our views on this important topic.

I would be pleased to answer your questions. Thank you.

Senator CLARK. Thank you.

I notice at the conclusion of your description of 1616, that you say very specifically on page 8, "In conclusion, we believe the purpose of this bill can be carried out without new legislation."

Did you make a statement similar to that with regard to 1280?
I must have missed that.

Ms. EDEY. No, there is no such statement one way or the other on S. 1280.

Senator CLARK. I see.

You are not prepared either to say that it is not needed or that it is needed?

Ms. EDEY. Well, I do not think the administration has taken a position on whether this bill is needed or not.

The Council, in studying the existing cost-sharing programs by farmers, became very aware that in many ways, you know, they were inadequate to the purposes for which they had been carried out. I think there is a recent GAO report that says that less than one-half of the money in the existing cost-sharing programs administered by the Agricultural Stabilization and Conservation Service had been used for measures primarily oriented to conserving the Nation's topsoil and for improving crop yield.

It is also a fact that farmers may not choose to participate in this program at all. And many do not. So I think there is enormous room for improvement in the existing cost-sharing programs.

Senator CLARK. And, in fact, at one point you say—and I cannot find this—but the GAO study concluded that—maybe you can help me find that.

Ms. EDEY. It was early on.

Senator CLARK. Yes, it was early on. And it concluded that those people who participate in—

Ms. EDEY. The GAO found no evidence that soil losses were smaller for the farmers who had been participating in the USDA conservation programs than for those who had not.

Senator CLARK. That is very shocking.

Ms. EDEY. It is very disturbing.

Senator CLARK. If we do not adopt this legislation—and I am speaking now of S. 1280—how are we going to fulfill or how does the administration expect that the American farmer is going to fulfill the requirements of section 208 of the Environmental Protection Act?

Is there a program underway?

Is there some alternative to that, that seems practical?

It is my recollection that in about 14 months, these regulations come into effect. If we do not do something like this in that capacity or some other—well, let us say if we do not do it in this way, how are we going to fulfill those requirements?

Ms. EDEY. Well, I believe that the Agriculture Department is probably, judging from the high environmental awareness, is probably going to be examining the existing cost-sharing programs and finding out ways to improve them.

I am not, for the moment, conversant with exactly how much they could legally do under the existing law that they could not—

Senator CLARK. Mr. Mel Davis, Administrator of the Soil Conservation Service, testified here on Tuesday that they really do not have the manpower now or the programs now to address this problem of fulfilling the 208 plans.

I get faced with this when we go out to Iowa, and I am sure every other Senator does, where you have farmland. Constituents say now

that you passed this antipollution bill in 1972, to deal with nonpoint source pollution. We must comply with the law. How do we do it?

That is the problem, it seems to me, for every farmer. The Government—and I think I voted for it—determined that nonpoint source pollution is as big a problem as point source pollution. We have all of this runoff from agricultural lands, with its chemicals, pesticides, herbicides, insecticides, and feedlot runoffs. We must control this.

And now we are at a point where we are so close to that law becoming legally effective on a farmer, that we must produce some way now to really implement those 208 plans.

Ms. EDEY. I could not agree with you more, Senator, that it is really important that the USDA improve. And I think that this committee, having oversight over the USDA, can help nudge it along through nudging or whatever it needs to improve those cost-sharing programs to make them more specifically oriented toward soil conservation and coordinated toward the worst problems.

Senator CLARK. That is right.

Ms. EDEY. I personally recognize that there is a great need to do that. I am not aware that the administration as a whole has taken a position on this one way or the other.

Senator CLARK. I think that is right.

Ms. EDEY. I see a sore need for this kind of improvement.

Senator CLARK. Right.

The Department says they do not have the wherewithal to do it. Of course, that is the whole purpose of 1280. It does not have any other purpose except to do that. And we think that is an appropriate vehicle.

On the other hand, we do not think we know everything. It may be it is the wrong vehicle, or there may be a different one, or this one ought to be changed significantly or in some minor way. And we are prepared to do that. And that is really the purpose of the hearing.

But we think we ought to find some way to really help farmers to go ahead and solve this problem that we have identified, and I think accurately, and have told them they have to solve, and have told them by law.

But go ahead. You think there may be some other ways consistent with existing law, Ms. Edey, that this can be done?

Ms. EDEY. Well, I think that it may be that, consistent with existing law, that we can tighten up those programs. In the past, I think sometimes, to the degree that the localities have just said, well, we are going to do whatever is profitable or whatever increases yields next year and not worry about other farmers. And farmers will begin to agree sometimes that they will go along with a plan and then not follow through, or they will not go into the plan at all. But I think a problem we may have to deal with somewhere down the pike—and I am speaking now from a personal standpoint, and it is not necessarily an administration standpoint; in fact it is not—but we have to worry, Senator, about what to do with the farmers who simply do not comply with the plan.

And I know that some environmentalists have suggested that other Federal agricultural assistance programs be tied to compliance to land management plans and conservation plans. It is a pretty big step to do that. It is something you have to keep in mind.

And because that step will be a big step to take, it makes it doubly important we do everything we can to make a voluntary program work, which it has not done.

Senator CLARK. Incidentally, in the State of Iowa, the State legislature passed a law, which is really a voluntary program, and gives some cost assistance. But if the farmer does not fulfill his obligation, and the results of that runoff goes on to another farmer's land, that is against the law, and they can take him to court.

So they have really put some teeth into the Iowa conservation law.

Now, we have never done that at the Federal level, but it may be that if we do not do a better job than we have done in the past, we will have to.

Let me bring you back——

Ms. EDEY. May I make one point?

Senator CLARK. Sure.

Ms. EDEY. I think there is a natural tendency in Congress to create bills that are all carrot and no stick. It is just politically easier to pass such bills.

The administration, in dealing with it from a budgetary point of view, of course, has to worry about the carrots from the point of view of the whole thing. And, therefore, if you have no sticks and you have no carrots, what do you have?

Senator CLARK. That is correct. That is about where we are at now, I think.

Ms. EDEY. But I think that something surely has to be done to change the mix of financial incentives on the farmers. And there are several methods available in terms of conditioning, of increasing the aid for farmers, of improving the tightness and the soil conservation aspects of the existing programs. So it all needs to be explored, I think.

Senator CLARK. Well, of course, that is what we think we are doing here. And that is certainly the purpose.

We are saying that we want to deal with this problem of rural source water quality. We have imposed this law now, and we want to help farmers meet the problems that are created by this.

And as to the solutions, we are suggesting things like greater amounts of money for cost sharing so that farmers will go into this and put their own money into it. And we will help them in the same way.

We think it is a proven system in the Soil Conservation Service to some degree.

But, anyway, let me just ask you a couple of other questions because I understand we have nine witnesses this morning and we have to move along.

You concluded in your testimony on 1616, as I said earlier, by saying that "In conclusion, we believe the purposes of this bill can be carried out without any new legislation."

And S. 1616 is a bill, as you can see, to establish a national policy concerning agricultural, range, and forest land; to establish an Agricultural Land Review Commission; to establish a demonstration program for protecting agricultural, range, and forest land from being used for nonagricultural purposes; and for other purposes.

That is the title of the bill.

And you have gone through and given a very careful and, I think, a very accurate description of the nature of the problem we have with prime farmland, but then you conclude that "no new legislation is needed."

And I am not sure what we can do. I mean, if there is this kind of a problem—and I agree with you that there is, and it is an enormous problem—and if we are not to have any new legislation, what are we to do?

Ms. EDEY. I think one thing which the Council would welcome and which ought to be done in cooperation with the Agriculture Department and others, is to basically be working interagency to try to identify where the prime agricultural land is, to try to identify those Government policies which may be causing an incentive for the destruction of prime agricultural land in a way that is counterproductive to our ends.

And to some degree, in terms of policy development, Senator, that from that standpoint, that at some point in the future we might go on to some very strong policies to protect agricultural lands.

Speaking personally, I think there are uses to be gained from a commission or from pilot programs such as the ones outlined in the bills that could help localities to develop new methods of protecting farmlands. This is certainly true.

There are other approaches that cannot be implemented simply by giving money to the States, but may require changes in tax structure on other regulations, which require legislation.

I think basically what has happened is that the administration does not at the moment know precisely what approach it wants to take. I am personally hopeful that in the future some more forceful steps to protect prime farmland will be taken.

I think in regard to the studying of where the prime farmland is and the different methods that are available to protect it, certainly this can be done by the agencies. And I expect the agencies will be working together to do this.

One further concern you might have with a commission is that if it has a life, say, of 3 years, and you say, "Well, within 3 years, this commission is going to tell us what we need to do," that may turn into an excuse for not doing anything for those 3 years, until the life span of the commission is up. That would be one possible concern that I could see with the commission—in addition to the fact that perhaps the agencies can be studying these things even at a somewhat faster pace themselves.

Senator CLARK. If that were true, I would be perfectly willing to withdraw this bill. I will tell you that. If there were some good sign the Federal Government has a program and plan to go ahead and do these things, I would do that.

Ms. EDEY. I am not saying they have a really well defined program now. We do have a new administration, and many of us who come from the outside, Senator, are trying to figure out how the whole system works, and see what can be done from there.

I can see that a commission does, in a sense, have the advantage of bringing in fresh expertise from the outside, which is always helpful. Of course, there are perhaps other vehicles for doing this, too.

Senator CLARK. Well, one-eighth of the administration is over already. You have to look at it that way, too. Over 6 months is gone of your 4-year administration.

Ms. EDEY. Time flies.

Senator CLARK. I hear you saying, I think, that there is an enormous problem with regard to both of these bills. But I hear you saying that

you are not ready to support these proposals, that the administration is not ready to support these proposals, because the money is just not there.

Ms. EDEY. If you are asking for motivations, for further motivation for why the administration is not able to support these proposals, I might be able to offer something later for the record.

I think the administration has to be very concerned about expenditures at this time. That is the role of the OMB. They have a very difficult and important job to fulfill in so doing.

Senator CLARK. Well, thank you very much.

Our next witness is Ruth Keeton, council member, Howard County, Md., and John Klein, executive, Suffolk County, N.Y., representing the National Association of Counties.

STATEMENT OF RUTH U. KEETON, COUNCILPERSON, HOWARD COUNTY, MD., ACCOMPANIED BY JOHN V. N. KLEIN, EXECUTIVE, SUFFOLK COUNTY, N.Y., REPRESENTING THE NATIONAL ASSOCIATION OF COUNTIES, AND JIM EVANS, LEGISLATIVE REPRESENTATIVE

Ms. KEETON. Mr. Chairman, I also have Jim Evans, legislative representative, National Association of Counties, with me.

Thank you, Mr. Chairman.

Senator CLARK. We appreciate your coming. You go right ahead and present your testimony any way you think appropriate.

Ms. KEETON. I will be making the opening statement, and then John Klein will be following.

I should say to you that I am a member of the council in Howard County, Md. And my testimony is based, in part, on our own experience and concern in this area.

Senator CLARK. Where is Howard County?

Ms. KEETON. It is midway between Baltimore and Washington. So that we are very deeply concerned about this, and how it is going to go forward.

John Klein is the executive of Suffolk County on Long Island. And in both of our counties we have been working very diligently for 3 or more years to address this concern. So that we are speaking today on behalf of the National Association of Counties, who met in their annual national meeting just last week—

Senator CLARK. I remember.

Ms. KEETON. And at that time this question had our major attention.

Our statement is as follows—and I might say we are particularly delighted that you filed the bill and scheduled the hearings.

There is an intense interest on the part of county officials throughout the country to protect prime agricultural land for agricultural uses.

I chaired a session on this last week.

Senator CLARK. I see, at the national meeting?

Ms. KEETON. Yes. And counties from all across the country came and asked what can we do. What is working? How can you help us?

And we ended up with a list of people from jurisdictions from coast to coast who were saying please share with us what other steps are available, so that we, who really control the land use planning and decisions in our jurisdictions, will know what to try, and what the issues are that need to be addressed.

So there really is that intense interest now, and a sense of urgency about it.

The National Association of Counties, as you know, represents 1,600 counties nationwide. At our meeting we voted to support Federal legislation that would—and a copy of the resolution is included—that would:

One: Establish a study of the need for measures to retain, protect, and improve agricultural land.

Two: Provide financial and technical assistance to demonstrate practical methods for protecting and enhancing the future availability of agricultural land.

Three: Provide funds to encourage the U.S. Department of Agriculture, in cooperation with local governments, to accelerate the the national soils mapping program, which in many ways helps jurisdictions know how to identify the prime land.

In our own State that has been used very effectively, as you know, in several counties.

County officials are on the firing line to resolve competing demands for our limited land resources. It is our county officials who must make the land use and zoning decisions for such competing uses for agricultural lands, as residential development, industrial expansion, recreation, highways, airports, and most recently, large scale energy development.

We are often teased that we are zoning people and not commissioners and council members.

As previous witnesses before your committee have testified these competing uses and pressures are resulting in the conversion of more than 2 million acres annually from agricultural to nonagricultural uses.

The National Association of County Officials refers your committee to an excellent study and analysis of the complexity and intensity of these land use pressures at the county government level entitled "Hold the Mesa; Colorado's Growing Struggle to Preserve Agricultural Land."

And I will give you a copy of that.

Senator CLARK. Fine, that will be placed in our file.

Ms. KEETON. This study, by L. Floyd Ciruli, describes the development pressures in Pueblo County, Colo., as they affect farm and ranch lands. The development pressures faced in Pueblo County are the same faced by counties throughout the Nation—and it is usually the county who administers land use programs in growth areas.

A NACo survey in 1975 of more than 1,100 counties found that 66.9 percent of the counties report that they administer comprehensive land use planning programs; 63.2 percent control zoning; and 68 percent provide subdivision control. Most of these services and regulations are administered countywide also, not just in unincorporated areas.

Many counties are already implementing some form of agricultural land preservation program, primarily by use of zoning ordinances, differential assessment programs, and/or purchase of development rights.

Examples of counties with one or more of these programs are Howard County, Md.; Suffolk County, N.Y.; Black Hawk County, Iowa—

Senator CLARK. Lynn Cutler tells me about it continuously.

Ms. KEETON. Yes, I am sure. She tells me she did.

Tulare County, Calif. and King County, Wash. NACo can supply data on the agricultural land programs in these counties if the committee desires.

Senator, both the Black Hawk and Lynn County people would have joined us today but they figured they can only travel 30 days legitimately, so they could not be here.

NACo supports S. 1616 which would assist these and other counties to implement agricultural land preservation programs. NACo suggested changes and improvements in S. 1616 are as follows:

First: An increased funding level is needed for demonstration projects. The \$5 million now proposed would be inadequate to provide for demonstration projects in several geographic areas;

Second: An increased Federal share for demonstration projects is needed. The required 40-percent local match is too high for a demonstration project;

Third: Counties with ongoing programs should be eligible for demonstration projects to take advantage of experience already gained so that we may have a complete pool of resources to share; and

Fourth: Research under title II should not be limited to "institutions of higher learning"—especially when it comes to research on the laws and regulations governing land use policy decisions made at the various governmental levels.

NACo staff are available to assist your committee, or answer questions concerning the specific sections of this legislation.

I want to speak briefly from personal experience. We in Howard County, Md., have lost more than half our farmland since 1950. At that rate, Howard County's farmland will be exhausted by the year 2000. Our farmland is rich, Piedmont soil. Four out of every five acres in the rural areas are classified "prime or productive" land.

Located midway between Baltimore and Washington, Howard County has grown by 55 percent from 1970-75, twice as fast as any other Maryland county. Only one farm in the last 3 years has been purchased for long-term farming. Farmers and their families can no longer afford to buy farmland.

For 2½ years I have been a participant in the Howard County Work Force for the Preservation of Howard County Farmland seeking answers to the questions, "Is it too late to save our farmland?" "If not, how can we do it?"

Included in this testimony is our report which states it is not too late if we act within the 1970's.

And I guess that is one of the reasons I am so supportive of this bill, because it gives us an opportunity to act within a time frame that has hope of being meaningful for many jurisdictions.

Recommended is the purchase of the development rights on a minimum of 2,000 acres. Over 250 county residents, both urban and rural, longtime and recent residents, Democrats and Republicans, young and old, have joined as sponsors. The Young Farmers have been the keyworkers.

The County Farm Bureau and Grange, the Maryland Agricultural Commission, and the Maryland Secretary of Agriculture, have joined established neighborhood organizations in our urban areas to support the program. We will be happy to share what we have learned with you.

I want you also to know that my brother farms in Iowa——
 Senator CLARK. Really? Where?

Ms. KEETON. Near Benton County. I was there last month. And last year there was a severe drought. His corn produced little more than half the bushels per acre Howard County farms, with abundant rainfall, were able to harvest.

We must keep our farmland in all areas of the United States, both to protect our future against changes in weather and to keep some production near consumers to avoid energy-expensive transportation costs.

In our county, the county government, the farming community, and the county urban residents join in saying farmland must be preserved. Howard County is just one example.

The National Association of Counties has identified other areas of the United States where there is serious loss of prime agricultural land. Where local governments are searching for solutions. We would like to submit for the record examples from jurisdictions across the country.

In conclusion, the United States is at a watershed point and cannot afford to let the 1970's end without establishing the two questions: What are our long-term needs of agricultural land? And you have had a good deal of testimony on the importance of that. How can we guarantee that these essential acres will be available for the future?

Solutions will undoubtedly have different design and will be built with a mix of tools and structures requiring a partnership between government and the citizens who make up our farming communities.

Congressional leadership can help all areas of this richly endowed Nation address the questions and select the tools that are right for their areas.

The National Association of Counties urges your support of S. 1616, the National Agricultural, Range, and Forest Land Policy Act. In our judgment, this is an immediate priority for congressional attention and action.

We support the establishment of the commission and the provision of adequate funds to provide the research and pilot project to enable local governments to make urgent land use decisions on our agricultural land.

Mr. Chairman, I listened to your questions of the last witness.
 Could I comment?

Senator CLARK. Sure.

Ms. KEETON. I would like to comment on the question of whether the present Department is equipped to do that.

Senator CLARK. Yes.

Ms. KEETON. The bill as filed has a very important section under the "duties of the commission," which is No. 6, to study methods of protecting and improving agricultural range forest land, and the benefits of such methods with respect to their cost.

Now, the testimony that you just received outlines what the Department is prepared to do. And it says—well, it has already indicated to this committee its intent to undertake a comprehensive review of the extent to which farmland conservation is a national problem.

And I would like to suggest to you that what is urgent is that we not stop with that, but that we also look at what tools we have to address alternatives to the present very clear trends.

And it appears to me that the people who are thus equipped to do that, are very often at the local and State levels, where they are already using and exploring ways that this can happen. And the implication happens to be largely at that level.

Senator CLARK. Yes.

Ms. KEETON. I think the opportunity to create a priority for addressing this question is very much helped by the establishment of the Commission, and that your bill has given the Department and the Secretary of Agriculture a very close working relationship with this project, and the teamwork that could be provided by the kinds of work that is already going on within the Department—with the opportunity to have a Commission that can give it a focus on additional dimensions, and the opportunity to utilize local jurisdiction experience, and State experience—I think that could move us much more quickly into addressing the question, and implementation opportunities that I think we urgently need.

Senator CLARK. Well, thank you very much. It is an excellent statement, and I appreciate your strong support.

I wonder if either of you gentlemen have any additional statements or comments, or anything that you would like to make?

Mr. KLEIN. Yes, I have a formal statement,* Senator. I will give the abridged version of that.

Senator CLARK. Fine.

We do have time problems, but go ahead.

Mr. KLEIN. First of all, I am very grateful for the chance to testify. We read both S. 1280 and S. 1616, Senator, and while I am deep into 208 work in Suffolk County at this point, my testimony is limited to the bill S. 1616.

Ironically, I am the county executive of the largest agricultural county in New York State—while the second largest urban county in New York State. Suffolk County has a population of 1.3 million people, but yet supports an agricultural industry of about \$70 million a year, which by Iowa standards, is small, but by New York standards is the highest. And we have been grappling for many years with the question of rapid growth.

Our five western towns, in which 92 percent of the population resides, were once farming communities, but the urbanization process literally consumed them. And there is now virtually no farming in the western end at all.

Last year there were about 55,000 acres of farmland in Suffolk County, of which 41,000 were under active production. But 10 years ago there were 60 percent more farmlands in our county. And today, of the farmland that I have identified, 60 percent is now held by speculators, and leased to farmers. And speculators are not waiting for any crops to ripen, but rather for the time to be ripe for development.

We have embarked upon a program of acquiring development rights from the landowners, for the purpose of preservation of farmland. What we have provided, very simply, is that the county, as a government, using the proceeds of serial bonds, Senator, pays to the farmer a sum equal to the difference between the full market value for its highest and best use, and the value for agriculture, which we have designated "the development right value."

*See p. 138 for the prepared statement of Mr. Klein.

In exchange for that, the land is perpetually bound by an agreement, and a transfer of those development rights to the county.

We are determined to solve a number of problems by that device. First of all, it helps the farmers' liquidity problem. If the farmer dies, today his farm is required to liquidate the real estate to speculators in order to pay the inheritance tax responsibilities.

Second, our program leaves the title in the hands of the farmer. If he were to buy and condemn and lease back, there is a very unhappy result. It takes the incentive away from the farmer, and it puts us in the business of being a landlord, which governments are not very good at, at the national level.

Our purchase of the development right removes the incentive for development. And while tax programs are effective for limited periods of time in some parts of the country, they are not permanent solutions to the problems of the loss of farmland by urbanization.

In addition, it reduces and stabilizes the property tax burdens for the farmer, Mr. Chairman, because we buy out, in our case, essentially 80 percent of the value. And since the tax structure is based upon value, we have stabilized and lowered the farmer's tax problem.

It also provides him with substantial cash security. We have embarked on a \$21 million first-phase program to save 3,800 acres of farmland—with that objective ultimately of saving 12,000 to 15,000 acres of farmland, with a total cost of about \$5 million.

I have gone through this background briefly in order to suggest to you that local governments are indeed capable of innovative efforts at the local level. In our county, for instance, agriculture is a part of our heritage. And it is an integral part of our economy.

It also creates not only \$70 million from itself, but—and incredibly enough—it is a recreation resource, which is part of a \$1 billion annual industry in our county. It is an environmental resource, and an instrument toward balanced growth.

Obviously, in the Metropolitan New York area it provides yet another function, in that it provides local food supplies for an urbanized area of probably between 12 million and 15 million people. And that, of course, is an enormous value to the people who reside in that metropolitan area.

Not only are we most anxious to see local farming preserved, but we think it is wise national policy for the Federal Government to be involved in agricultural preservation. And for that reason we are strongly supportive of S. 1616.

The points that I will make briefly are substantially in conformity with that which was made just a moment ago, in the previous statement. We would suggest that there should be greater local involvement in land preservation, and counties, particularly active in that respect.

Under title II, section 201, Mr. Chairman, we think there should be a specific requirement for local government representation on the Agricultural Land Review Commission.

In addition, we think that 202(C)(1), which limits research to institutes of higher learning should be broadened to include local governments—including, for example, a regional planning board should be included, as we have in Suffolk County, representing 2.8 million constituents. They do an enormous amount of work, including all of the 208 studies. They do research in a variety of fields.

We concur that the level of support in the bill for titles II and III is inadequate. We concur with the previous statement.

Sixty percent funding for pilot projects really is not enough for hard-pressed localities; \$8 million for studies, and \$5 million for pilot programs is inadequate.

The State of New Jersey, for example, has a pilot program in one community, and one county, and is involved with \$5 million alone in that one project.

Our project is, as I indicated, a project that would include ultimately \$54 million, with the first-phase costing at \$21 million.

Under section 201 the Secretary appoints the members of the advisory committee. And I suggest greater accountability could be achieved if the President appointed, with the consent of the Congress, all or most of the members.

I want to commend the subcommittee for including in the scope of the advisory commission's responsibilities, Mr. Chairman, the review and analysis of the effects of Federal, State and local laws on land preservation. This is an area that has received very little attention in the past, but is of vital importance.

The funding of projects under titles II, III and IV must include municipalities that are already carrying out programs.

Now, undertaking a program such as ours, at the local level, is costly, and is difficult, and is politically almost impossible. And I am concerned that Suffolk County, for example, which has taken a bold step on its own, will receive no help under this legislation—while others, which had previously considered programs, but have been waiting, will be rewarded for that waiting. This is very important in our jurisdiction.

Finally, let me say that I consider 1616 a major step toward solving a national problem. We in Suffolk County have had requests for information about our program from almost all 50 States in the Union; from Montana to the New England States, California, New Jersey, Washington, Indiana, Colorado, Michigan, and Iowa. And we believe that Senate bill 1616 shows that our legislators at the Federal level do perceive how vital it is to preserve our productive land.

Once again we voice our support, and respectfully express our appreciation for the chance to give this testimony.

John, do you have anything to add at all?

Mr. EVANS. No; I do not have any statement other than our pleasure to assist you in enactment and working with your staff on this legislation.

Senator CLARK. Well, fine. We appreciate your statements very much.

Basically you feel this \$5 million is just scratching the surface and that one of the things we need to do is provide more funding, as evidenced by your own case and that in New Jersey and so forth.

But you do feel, both of you, I gather, that this kind of pilot project grant can be very helpful and very useful in terms of solving the problem?

Ms. KEETON. Yes, sir, so that each area does not have to start from scratch, but rather the experience and resources can be shared effectively.

Senator CLARK. That is right. And you are in agreement with that?

Mr. KLEIN. Yes, sir, I would like to support what is obviously the

design of the legislation; that is, to recognize that once we set a goal of the preservation of agricultural land, the bill clearly indicates that there is going to have to be a broad spectrum of weapons in the arsenal to do that. And what may be effective in Suffolk County may only be effective there and not effective elsewhere.

So the demonstration pilot projects gives localities an opportunity to be creative with Federal support and provide that spectrum of approaches which are going to be required to make it work.

Senator CLARK. Well, I have a lot of other things I would like to ask you. But in view of the time I will not be able to do so.

But we do appreciate very much your taking the time and effort to come and give us your judgment on this.

Thank you.

Our next witness is Ron Gahring, Williamsburg, Iowa, representing Land Improvement Contractors of America. He is accompanied by Mike Strother of the LICA staff.

We are glad to have you here.

STATEMENT OF RON GAHRING, CHAIRMAN, NATIONAL 208 PLANNING COMMITTEE, LAND IMPROVEMENT CONTRACTORS OF AMERICA, ACCOMPANIED BY MIKE STROTHER, LICA STAFF

Mr. GAHRING. Mr. Chairman and distinguished members of the committee, my name is Ron Gahring. I am from Williamsburg, Iowa, and I am appearing today as chairman of the Land Improvement Contractors of America's 208 Planning Committee.

The Land Improvement Contractors of America has served in the past as the implementing arm of the ACP and, to a large degree, will be called upon to implement 208 plans. Therefore, we greatly appreciate this opportunity to appear before you today and share some of our views on section 208 of the Federal Water Pollution Control Act.

The American agricultural system has remained the most efficient in the world for generations. However, we must consider one aspect of the system a failure. That is, the maintenance of our soil and water resources in a condition which will provide adequate food and fiber for this and future generations.

Soil erosion and the water pollution it causes are the result of uncontrolled surface runoff of rain. In the areas of past programs, we have had success. Where we have controlled runoff to the highest practical level, we have succeeded in reducing both soil erosion and water pollution. It is in the area where we have attempted to deal with it indirectly that our failures have occurred; that is, where we have tried to force land out of production.

As the demands for products of American agriculture grow, so will the demands for the use of the land. It should be evident that the solution is not through restrictions on the use of the land. The answer lies in controlling nonpoint source pollution in a way that allows as much freedom for the use of the land as possible.

Most farmers today are unaware of the nonpoint source pollution problem, and many are aware of possible solutions. However, because of their current economic situation, they are unable to successfully deal with the problems. This is where the Government can help.

The question of water is not only a question of quality, it is largely a question of quantity. For while we receive an abundant supply of rainfall, because we allow it to run off freely, carrying polluting soil with it, we find ourselves with shortages in the midst of abundance.

What is needed is a broad program of runoff control which will contain a 10-year frequency rain. This would reduce water pollution to a harmless level, about a 95-percent reduction. As an example, in my home county, that means stopping the runoff of a 4.5-inch rainfall occurring in a 24-hour period. This temporary containment allows suspended particles to settle out and much of the water to be absorbed into the groundwater table. This can be done by using existing successful methods developed by the Soil Conservation Service, but on a much larger scale. These include terraces, wet ponds, dry ponds, and various flood control structures now in use in the P.L. 566 watershed program. In addition, new techniques not currently recognized by SCS can be easily developed.

Thus, we could control siltation, increase wildlife cover, and create more recreational areas without substantial losses in the production acreage. This plan would offer to the water quality people site-specific treatment for nonpoint pollution while offering to the soil conservationist a means of retaining soil on the farm.

A major concern of our industry is the visible move toward land use management under 208. Following is a quote from a book by EPA called Conservation Districts and 208 Water Quality Management.

Regulatory control mechanisms are those methods which may be applied to control a pollution source in line with water quality standards. In the non-point source arena, the major forms of regulatory controls are those involving land use (e.g., zoning, easements, development regulations, sediment control ordinances, etc.); permits and/or licenses (e.g., for activities generating non-point source pollution); and fiscal policies (e.g., taxation policy to induce sound land use).

To illustrate what we mean, I would invite your attention to the map of the "Old Man's Creek Watershed."

Senator CLARK. This is the Old Man's Creek Watershed?

Where is that located?

Mr. GAHRING. That is in Iowa County, Iowa.

Senator CLARK. Iowa County.

Mr. GAHRING. This watershed is a pilot study area for 208 planning. Classes 4, 6 and 7 soils shown in blue, orange, brown on the map, are severely erosive soils. Under present 208 guidelines, these lands would be forced out of production because they cannot be safely farmed under present best management practices. That would mean 2,000 out of 19,000 acres in this watershed—or over 10 percent. This is land currently selling at \$1,500 an acre. Such a land use restriction would reduce its value to \$500 an acre.

We feel this economic ruin can be averted by a comprehensive runoff control program like we have outlined. We would ask the committee to consider amending S. 1280 to prevent 208 funds from being used for land use controls until all other available methods have been exhausted.

Research by land grant universities have shown such a program will increase subsoil moisture availability by as much as 300 percent. This reduces the problem of wind erosion while providing the basis for a stable increase in production. The result is more food produced at a

lower cost. The advantage goes to the public since an abundance of supplies historically means prices go down.

As additional side benefit beyond reduction of pollution, soil conservation, and replenishing our water supply, these runoff control measures will largely reduce lowland flooding. This will make feasible development in these areas of additional cropland.

A partial solution to the secondary road problem in rural America lies in the control of runoff. Many of the bridges used today would not be needed at all and most could be reduced in size. Maintenance costs of the secondary road system would be greatly reduced if the surge of runoff no longer had to be coped with.

Of the 158 million pounds per day of pollutants entering the waters of our Nation, 8 percent comes from point source pollution. To solve this problem, 10.3 billion Federal dollars are proposed to be spent next year. The total cost of controlling point source pollution has been estimated at \$250 billion. All of these dollars to save our water from point sources.

Nonpoint sources contribute 92 percent of the daily loading. Primarily this comes from runoff from agriculture. The solution for 92 percent of the water pollution problem will come from the control of runoff. Control to the level of a 10-year frequency rain will cost an estimated \$200 billion. It will solve many of the problems facing our Nation other than pollution, at a cost lower than the control of point source pollution.

Senator CLARK. Well, you make a great point. It is really a fantastic statistic. We will come back to that in the question period.

Mr. GAHRING. In order for it to be accomplished, we need to recognize that the public will be the prime beneficiary and will have to bear the cost. Past programs, largely underfunded, have provided from 50 percent to 90 percent Federal dollars.

If we are to face our responsibilities and expect voluntary cooperation from farmers and ranchers, we need a program that provides 90 percent plus cost sharing and construction scheduling to allow completion of programs in a reasonable time span. Surely if we can spend \$10.3 billion to solve 8 percent of the problem, we can spend more than \$200 billion for the other 92 percent.

Instead of promoting a set-aside program for land to come out of production, why not tie set-aside payments to pollution control cost sharing?

If a farmer is willing to take land out of production to allow construction during the season, which allows more work to be done for less construction dollars, why not pay more of the percentage? For no crop 90 percent, for hay or small grain short season 80 percent, for full crop only 60 percent.

Why not use funds now being spent for dikes and silt removal to stop the problem at its source by keeping water on the land?

Why not provide ample incentives to the farmer to stop nonpoint source pollution on the farm rather than mandating restrictive land use policies that could disrupt our highly successful farm economy?

In conclusion, our specific recommendations concerning S. 1280 include:

One, provide nonpoint funding comparable to point source funding—through an appropriation separate from the Rural Development Act;

Two, add language to prevent 208 funds from being used to force arbitrary land use controls;

Three, provide funding for pilot studies to develop new land treatment techniques not now recognized by SCS or EPA;

Four, eliminate double approval of long-term cost-sharing agreements by vesting responsibility with local conservation districts only; and

Five, provide language to allow 208 plans to be based on maintenance of overall water quality standards by area, rather than just by holding soil in place.

We would like to commend you and the committee for moving to meet this important challenge in a meaningful way.

I thank you for the opportunity to appear. That concludes my statement.

Senator CLARK. Well, it is an excellent statement. I think it is the best statement we have had on this question. And it gives really some excellent statistics and some interesting conclusions—some of which, frankly, we have not thought about before. And I would like to compliment you on it and tell you that we will look at these particular recommendations very carefully.

I think the most interesting statistic you have and recommendation you have is talking about providing a nonpoint funding comparable to point source funding.

And additionally I want to ask you a little bit concerning your point about adding language to prevent 208 funding from being used to force arbitrary land use controls.

And then, finally, and I find this particularly interesting, your point to provide funding for pilot studies to develop new land treatment studies not recognized by SCS or EPA.

As you heard, Marion Edey has told us this morning, and the GAO has told us that we really have not solved the problem so far with what we have been doing during the last 40 years, and we ought to start looking at some other possibilities.

And then you go on in your statement to recommend eliminating double approval of long-term, cost-sharing agreements by vesting responsibility with local conservation districts only.

You also recommend providing language to allow 208 plans be based on maintenance of overall water quality standards by area rather than just holding soil in its place.

Now, I have just a couple of questions on your points. I think the statistics that you cite at the bottom of page 5 and on three-fourths of the next page, page 6, are important to those of us who are interested in nonpoint source pollution—and it seems strange that in all this time we have not developed a better term than “nonpoint source pollution.”

There must be a better way of saying it.

Mr. GAHRING. I would agree.

Senator CLARK. But your statement here in your testimony is very important, and I am just going to read this into the record again because it is really phenomenal:

Of the 158 million pounds per day of pollutants entering the waters of our Nation, 8 percent comes from point source pollution. To solve this problem, 10.3

billion Federal dollars are proposed to be spent next year. The total cost of controlling point source pollution has been estimated at \$250 billion. All of these dollars to save our water from point sources. Nonpoint sources contribute 92 percent of the daily loading. Primarily this comes from runoff from agriculture. The solution for 92 percent of the water pollution problem will come from the control of runoff. Control to the level of a 10-year frequency rain will cost an estimated \$200 billion. It will solve many of the problems facing our Nation other than pollution, at a cost lower than the control of point source pollution.

And then you conclude:

If we are to face our responsibilities and expect voluntary cooperation from farmers and ranchers, we need a program that provides 90 percent plus cost sharing and construction scheduling to allow completion of programs in a reasonable time span. Surely if we can spend \$10.3 billion to solve 8 percent of the problem, we can spend more than \$200 billion for the other 92 percent.

Well, I think those are excellent statistics. I wanted to come back just in one area with regard to your map, because I am not sure that I understand that. And I want to be sure that I do understand it.

Let me just quote from your statement with regard to that. You state that this is the Old Man's Creek Watershed. You state that:

Under present 208 guidelines, these lands would be forced out of production because they cannot be safely farmed under present best management practices. That would mean 2,000 out of 19,000 acres in this watershed, or over 10 percent.

Now, those are what over there on the map?

What is that which would be forced out of production?

Mr. GAHRING. The colors are blue and orange and brown. This would here [indicating] and the brown is this color here [indicating]. Senator CLARK. All right.

And you say that such a land use restriction would reduce its value to \$500 an acre. You go on to state:

We feel this economic ruin can be averted by a comprehensive runoff control program like we have outlined. We would ask the committee to consider amending S. 1280 to prevent 208 funds from being used for land use controls until all other available methods have been exhausted.

Well, my question is, what are these comprehensive runoff control plans that you have outlined?

Can you succinctly indicate that? Can you succinctly tell us what those are and how you tie that in with that watershed?

Mr. GAHRING. The problem in a lot of the conservation programs we have had in the past is that we have dealt primarily with the problem of trying to hold the soil in place, right where it is. Some lands cannot be farmed that way. The steepness of the slopes, the texture of the soil in those areas, et cetera, means they cannot.

When they are farmed, the soil moves. And the Soil Conservation Service has not recognized anything can be done structurally to hold that soil in place.

Senator CLARK. If you are going to farm it, in other words, it is going to go?

Mr. GAHRING. It is going to move. So in their past guidelines, and in all the programs we have had in the past, we have referred back to seeding down certain lands. These are the types of lands that we have attempted to force back into seeding down, Senator. And those lands can be farmed. They are currently being farmed all across the Nation. They are producing income for farmers who badly need the income, and crops for people who need the food.

This is being done by a structure we call a "dry pond," which is nothing more than the silt basin located at the bottom of the hill. You capture the soil. It uses the same technique as the terrace system. So you can capture that soil as it erodes.

Senator CLARK. You just build a kind of pond around it and the silt comes down and is captured there.

Is it used?

Mr. GAHRING. Yes, it can be recycled. It can be economically transported back up the hill and used again. It just simply moves down, you see, and you move it back up. This keeps this land in production. This is a concept the American farmer can accept.

Senator CLARK. Where has this ever been done?

Mr. GAHRING. It has been done in a good many places in Iowa where we tried, in the past, to get the Soil Conservation Service to approve this technique, and we did it.

Senator CLARK. I would like to see some of it.

Where can we see it?

Well, we do not need to waste our time here, but before you leave, please give me some places where I can see it.

Mr. GAHRING. OK.

Senator CLARK. But do you say that this is not approved by the Soil Conservation Service as a cost-sharing mechanism?

Mr. GAHRING. No, and the amazing thing is when you do this on a man's farm—well, Senator, a lot of farmers do not realize the vast amounts of soil that are moving. So it serves as an educational tool. Once that structure is there and that silt begins to collect, he can easily see how much soil he is losing. So he begins to change his technology, his farming techniques, to cut down on the amount of that soil that is moving.

But this provides him with a time span to adjust, you know, so that he can do it within his own economic means, rather than simply saying to him you can no longer farm this land. It needs to be in pasture.

And, as I say, he needs the income from that land and is not about to put it back to pasture.

Senator CLARK. Well, now, are you saying that once the 208 restrictions or guidelines are put in place that that land cannot be farmed legally?

Is that the gist?

Mr. GAHRING. At the current time, the soil loss off that particular watershed is 13.58 tons per acre per year. That is above any guidelines, any minimums, that we are currently considering. With no Government-approved practices that provide for holding that soil on the farm, the current outlook of the 208 planning agencies, Senator, is that that land will have to be seeded down.

One-fourth of the land in Iowa County falls in that category, although we are in what is considered a prime agricultural area. And certainly in regard to the current cattle prices, we do not need one-fourth of Iowa County's land turned back to grazing land.

Senator CLARK. Mike, you do not have any idea or figures at all in terms of what that would mean across the country?

Mr. STROTHER. No, we do not. But it appears to be a serious problem in that there are not recognizable techniques currently being considered to solve the problem, Senator, so that the land can be used.

And lacking the funds to do so, or lacking the cost sharing to provide the structures he is talking about, we are afraid that 208 and EPA and, indeed, the Soil Conservation Service under 208 plans, Mr. Chairman, are going to say we are sorry but in order to meet the standards in the law, that land and comparable ranges across the country will have to come out of production.

Senator CLARK. Well, now, let us take the other side of the story though.

Suppose that 208 had not been passed, and suppose that you do not have this restriction. Suppose the farmers did not practice any soil conservation.

Does that mean over a period of time that these 2,000 acres would simply have gone on down the river anyway?

Or is there a limited time that those could be farmed, you know, if no soil conservation practices are followed?

Mr. GAHRING. Very limited.

The problem is not only a limited time, Senator, but once the soil moves, it does not move immediately into the stream. If you will look at the map, those soils are not located adjacent to the creek.

When that soil moves, that poor soil is deposited first on top on the good soil on the bottom lands. So you have ruined two peices of land that way.

This is the problem that the farmers are faced with now. And a lot of them do recognize the problem.

They really do not have any financial means at their disposal to cope with it, in other words.

Senator CLARK. I wonder if the Federal Government has made any estimate of how much farmland is going to go out of production when 208 goes into effect?

Mr. STROTHER. Everybody is afraid to.

Senator CLARK. Everybody is afraid to look?

I think it is probably time somebody did. We ought to look at it.

If we had hundreds of thousands of acres in the next 3 years that would be forced out of production and with no alternative but to put it into pasture—and as you say, given the price of beef in the last 4 years, I do not know how many people are going to want more pasture land—then—

Mr. GAHRING. May I say we are considering two bills this morning which say that there is going to be a dire need to preserve some farmland in this country; 1616 says that.

Then, in 208, we are saying that all that farmland needs to come out of production. I mean, there is something about that, Mr. Chairman, that does not quite ring true.

Senator CLARK. Well, the other bill does not say that. The other bill is trying to fulfill the requirements of 208 that were passed back in 1972.

But you are right, there does seem to be some contradiction.

Well, we thank you very much. You gave a very good statement.

And, Ron, you provide me with some areas so that we can see where that is being done. I am going to be walking on Highway 30 all during August. So if you have any close by, I would appreciate those names.

Mr. STROTHER. You might ask the next witness about silting ponds. He has some information on their use in the Mediterranean area.

Senator CLARK. The Mediterranean area?

Mr. BAGLEY. All over Western Europe, in fact.

Senator CLARK. Well, do not let us forget it.

Now, we are going to hear from George R. Bagley, president, National Association of Conservation Districts.

George, you go ahead.

STATEMENT OF GEORGE R. BAGLEY, PRESIDENT, NATIONAL ASSOCIATION OF CONSERVATION DISTRICTS

Mr. BAGLEY. I am George R. Bagley of St. Joseph, La., and I am here representing 3,000 local soil and water conservation districts in 50 States, and 17,000 elected and appointed officials of those 3,000 conservation districts.

I have a prepared statement,* but I will just briefly summarize it here for the sake of time. I will speak both to 1280 and 1616.

NACD and its member conservation districts have been deeply involved in the water quality planning process initiated under the provisions of section 208 of Public Law 92-500. Many conservation districts have provided technical data and background studies to the water quality planning agencies, especially data on agricultural and other rural water quality problems.

Our national association has recently compiled and published a guidebook for the use of conservation districts in their participation in 208 planning. Several of the State soil conservation agencies have also been directly involved in the development of 208 plans at the State level.

Bill Greiner's outfit, Senator Clark—the commissions and boards, in other words—have all been very deeply involved in the development of 208 plans at the State level.

From this involvement in water quality planning, we believe that many, if not most, of the rural sources of water pollution can be controlled through the proper application of sound soil and water conservation practices. Such practices, designed to keep the soil in place and to maintain its productivity over the long term, are also practices which will improve and maintain water quality.

We also believe that there is a public interest in getting these conservation practices established on the land. There is a longstanding history of this public interest. The establishment of the Soil Conservation Service in 1935 to provide technical assistance to landowners for soil conservation purposes is a prime example of this interest.

There is also a need for the public to share the cost of installing these practices on the land to achieve water quality goals. Installation of conservation practices, or "best management practices," as EPA calls them, in most instances does not return a profit to the landowner, especially in the short term. It may require changes in rotation which will take land out of crop production in some years, and may take land out of production permanently.

This was discussed previously here, by the previous witness.

These adjustments in the farming enterprise will reduce the landowner's income. The construction of waterways, diversions, terraces, and other such practices create an out-of-pocket expense which today's

*See p. 140 for the prepared statement of Mr. Bagley.

crop prices cannot support. Further, most of the water quality benefits are downstream from the farm, Senator, where the practices are installed.

Water quality planning agencies and conservation districts are concerned about the future implementation of 208 plans. They have expressed the hope that Congress will provide the means whereby best management practices can be installed to help meet the goals of the Water Quality Act.

The National Association of Conservation Districts supports the concepts of S. 1280 and its emphasis on enduring conservation practices, its use of existing institutional arrangements to accomplish water quality purposes, and the inclusion of provisions for long term contracts with landowners.

We have a few suggestions which we believe would strengthen the bill. First, we question the advisability of appending this legislation to the Rural Development Act of 1972. This act, which we felt has several very commendable provisions, has a very poor track record in terms of being funded. We would recommend that the bill be free standing as separate legislation.

Second, we believe it is unnecessary for long term cost sharing agreements between the Secretary of Agriculture and landowners to be approved by two other organizations. In the bill it has a couple of others approving the agreements. We feel that one approval should suffice, and that the capable technical unit there would be the conservation districts.

So, therefore, we recommend that line 7 on page 6 be amended to read "by the conservation district."

Then we would like to add to our testimony here, Senator, an amendment to our statement. Here is a copy for you, Senator. And it reads—and incidentally, since they skipped over section 706, it gives us a place to put it in.

Senator CLARK. I see. You think they left that out for you?

Mr. BAGLEY. I do not know. But we suggest a section 706 that reads:

The Secretary may enter into agreements with soil conservation districts, State soil and water conservation agencies, or State water quality agencies to administer all or part of the program established under this act under regulations developed by the Secretary. Such agreements shall provide for the submission of such reports as the Secretary deems necessary.

We believe that such a provision is a necessary addition to this legislation to expedite the implementation of the program, reduce duplication where there are already similar State programs, and to help offset the limitations of present Federal personnel ceilings as placed on SCS by OMB.

The protection of prime agricultural lands against irresponsible conversion to nonfarm uses is a major NACD objective. We support S. 1616, we commend its author, and we urge your subcommittee to act favorably on it.

The wise use of land for all human purposes has been at the core of the conservation district movement since its inception. In many of these conservation districts today, the issue of retaining prime and unique farmlands in agricultural production is a top priority concern. This concern is reflected in the policy positions developed by NACD.

Our policy positions originate with the officials of individual local conservation districts, are considered at State and regional meetings, are reviewed by national NACD committees, and are then adopted at the annual meeting of our NACD council. Each association of districts in the 50 States, Puerto Rico, and the Virgin Islands is represented on the council.

Our current policy position related to prime and unique lands is as follows:

Acres suitable for orchards, vineyards, and the production of truck crops is becoming less plentiful each year because of the spread of nonfarm uses of land. This poses a special problem affecting not only the production and availability but the cost and quality of fruits and vegetables for the consumers of America. We favor legislation that would preserve these unique and limited lands for agricultural use.

We are also concerned about the conversion and potential reduction in the supply of "prime" agricultural lands. We support efforts underway to identify "prime and unique" agricultural lands, to estimate the supply of such lands in relation to oncoming needs, to assess the hazards to maintenance of such lands in agriculture and horticulture, and to preserve these lands in agricultural and horticultural uses wherever possible.

NACD supports the principle that landowners be compensated by State or local governments for the loss of development rights in preserving prime and unique agricultural lands.

In a further policy statement, we recommended that our member districts concentrate efforts on the "preservation and enhancement of prime and unique agricultural, range, horticultural, and forest lands."

In our opinion, S. 1616 squarely addresses one of the most important resource issues that America will face in the next few years. The trends give some cause for alarm. One estimate is that we have ample land to meet agricultural production needs for 20 years; another estimate is 35 years.

It might sound as if we have time, but we do not have very much. It is time for action, and not for complacency. It is now that we must begin the discussions, gather the facts, make the assessments, and develop the action programs.

We therefore suggest that the proposal for a 3-year study on this subject is the right response to the issue of farmland retention, at precisely the right time. And we heartily support S. 1616.

Thank you, Senator.

Senator CLARK. Well, we thank you very much. It is a very good statement. I think it is right on track. I think I got your position on this, but I want to get it very clear.

Some States have passed laws allowing them to purchase development rights from landowners. You think it is appropriate for the Federal Government to help the States?

Mr. BAGLEY. I think the Federal Government needs to give States and local governments all of the encouragement, and in any way they can, because I think this is an enormous issue. But as to the policy of the Federal Government, I think this is a real good step in the right direction. The Federal Government, or Congress, at least, is recognizing that this is an approaching national problem, and a real serious one.

Now, how it is accomplished, we do not know, but we will be right with it.

Senator CLARK. Good.

Well, let me say that the conservation districts, and the people that work on them—well, I have had occasion in our State to talk to a lot of the people that have worked on this, and have looked at a lot of the watershed projects. And I have seen the other kinds of cooperative efforts that they have headed up. And it is hard to imagine a group of people in this country that are more interested and dedicated and concerned, or have worked harder than these people have. They are really dedicated to the conservation of soil.

I know people say that about every group, but in fact, these people are really exceptional, at least the ones that we have talked to.

Mr. BAGLEY. We thank you. It has been going on for 40 years now. It is all a voluntary effort, Senator. It is because we love the soil and the farms that we do it. There is no money involved.

Senator CLARK. Well, we thank you very much.

Mr. BAGLEY. Thank you, Senator.

Senator CLARK. Our next witness is J. D. Esseks, a professor of public administration, Northern Illinois University, DeKalb, Ill.

We are very pleased to have you here. You go right ahead in any way you think appropriate.

STATEMENT OF J. D. ESSEKS, PH. D., PROFESSOR OF PUBLIC ADMINISTRATION, NORTHERN ILLINOIS UNIVERSITY, DE KALB, ILL.

Dr. ESSEKS. Thank you. I am speaking on S. 1616.

Senator CLARK. Good.

Dr. ESSEKS. I believe that it promises to yield information of vital concern to the region where I live. I am not convinced that the assistance to the States and local governments, which this bill promises, can be provided under existing legislation.

First, I should tell you a little background. I teach public administration at Northern Illinois University, which is located in the Chicago area. One of my major responsibilities is to look at land use problems facing public administrators. And a major problem continues to be urban sprawl at the expense of good farmland.

Then, in my statement, I go on to give some data about the problem in our region.

I think I will skip to page 3, and try to explain how I think this bill could help those officials in our region who seek to curb or rationalize development of farmland.

These officials face, I believe, three kinds of information gaps, which S. 1616 could help to close.

One gap concerns the quality of the land being taken out of agriculture. We tend not to know, with sufficient precision, how much prime land has recently been lost, and how much more is being held by speculators, and is likely to be converted in the not-too-distant future.

The Census Bureau's data give us only gross numbers. The USDA can also tell us only the total amount of land that is being taken out of farming—in Illinois, from 40,000 to 60,000 acres a year. But we do

not know how much of that land represents prime land. To know that, we need county-level studies.

The Soil Conservation Service carried out a county-level inventory of land quality and use in 1967, but none has been done since.

According to my inquiries, none is now planned for the future, because of lack of funding.

Maybe we cannot do such a study in all the Nation's counties, but I think in those areas which are undergoing great urbanization, Senator, this comparison—between land uses in 1967 and present uses—may be essential. It may wake up county legislatures and executives, as to what is going on. It may give them the data upon which they can base effective policy.

I go on—on page 4—to talk about speculator activity in our area. What it has done in terms of increasing the price of farmland, is phenomenal. The average price of Illinois farmland has gone up in the 2 years, 1974–76, 69 percent, to about \$1,500 per acre.

Family farmers, as you can well imagine, are finding it increasingly difficult to compete in such a land market.

I believe that the research program of S. 1616's title II could help Illinois jurisdictions to identify both the amount of prime land recently lost, and the quantity held by speculators.

I believe that when confronted with evidence on these two dimensions, policymakers in our area will be prodded to take steps to curb this loss of the community's land resources.

However, if they are not persuaded by the data on cropland, hopefully they will be convinced by data regarding the fiscal and environmental costs of scattered development.

We suspect that most, or much of the development in our area occurs in a scatter pattern.

We suspect that the scatter pattern tends to be more expensive than compact development in terms of the cost of providing public services, of damage to the environment, and of the amount of farmland around the scatter that is adversely affected, such as by runoff and by trespassing by animals and human beings.

I think with good estimates of the fiscal cost, the environmental cost, and the farm production cost, Senator, we might be able to persuade our local legislatures to zone to discourage sprawl. And we might be able to persuade our courts that such zoning should be upheld.

In Illinois we have a problem with the courts, which are very skeptical about restrictive zoning. I think with the kind of data this bill could generate—particularly focusing on counties in the areas most threatened by sprawl—we could hope to come up with zoning legislation which is both effective on the ground and in the courts.

However, most or many of our local governments lack the resources to develop such estimates. Some counties have planning commissions which consist of several part-time people and a half a dozen pens. And in those which have larger planning offices, their staff members tend to be burdened with day-to-day administrative tasks.

If we ask them why they don't hire research resources from the outside, they say they do not have the money. Hopefully, here is a policy area where Federal tax money can be fruitfully returned to local communities, to close these important information gaps.

Let us assume that we have many county and State governments which are persuaded of the need to curb, or rationalize the loss of prime farmland. A third kind of information gap concerns what steps to take to reach that objective. I think an essential part of this bill, something which I do not believe exists in present legislation, is the encouragement to experiment with preservation techniques and to evaluate them.

Next in my statement I go on to discuss four farmland preservation techniques of interest to jurisdictions in northern Illinois. But these are techniques which either have not been applied on a significant basis, or have not been evaluated if they have been applied.

For example, in Illinois our legislature is now considering the adoption of an agricultural districting bill, patterned after New York's legislation. However, where can we in Illinois find information about the real effectiveness of that legislation since 1971 in encouraging farmers to hold on to their land, and to invest in maintaining its productivity, rather than sell to speculators to developers?

According to agricultural economists at Cornell University, such information does not exist. This is not surprising, Senator, since good evaluation research is often too costly for financially pressed State and local governments to underwrite.

Here, then, is another area, Senator, where Federal tax money can be fruitfully applied—to evaluate New York's agricultural districting program, so as to aid Illinois, and other interested States, in deciding to adopt that approach, and/or how to adopt it to their local conditions.

It seems to me one of the great advantages of our Federal system is our ability to experiment with a policy in one jurisdiction, to study its success or failure, and to inform policymaking in other jurisdictions from such study.

However, we cannot realize this advantage if evaluation of the experiments fails to take place, and the results are not disseminated.

Through S. 1616 we might see the establishment of a clearing-house on techniques of farmland preservation which would make available, in convenient form, information as to where, when, and with what success—including before the courts—various techniques have been applied.

Now, briefly, another technique of interest to one important county in northern Illinois is the transfer of development rights. This is a complex technique. It has not yet been applied on a substantial scale.

I believe that title III of this bill, which will promote experimentation, could provide essential support for those local governments willing to experiment with the technique.

Another technique we heard about this morning, from John Klein, and also from Ruth Keeton, is public sector purchase of development rights. This is a fascinating technique that is now being applied in New Jersey and New York and perhaps also soon in Howard County, Md. But this too has to be evaluated. All kinds of political supporters and opponents are willing to push or oppose it on really sketchy grounds.

According to my inquiries, neither the New York nor New Jersey development rights program is being carefully evaluated.

There is another technique of interest in my part of the country, and that is zoning to minimize urban sprawl. This technique tends to require a lot of data on the fiscal, environmental, and other costs.

Federal financial assistance could be fruitfully employed to build up the data base needed to assess such relationships.

Many of us are skeptical that zoning will work. However, in many jurisdictions the only politically feasible approach is zoning. So I think we should devote more resources to trying out zoning, in order to see how it will work, including in the courts.

In summary, I am arguing that many people in northern Illinois are concerned about the loss of fertile farmland. And urbanization there tends to be at the expense of this good land.

You are familiar with the area, and——

Senator CLARK. Well, yes, you have some of the best farmland in the world.

Dr. ESSEKS. Well, that is what we say.

Senator CLARK. And you do.

Dr. ESSEKS. Well, we are worried about the loss of fertile cropland. We want to do something about it, but we need help. We need help, in the first place, in defining the particular problems facing us—that is, how much of the land being lost is prime, and the fiscal and environmental cost of sprawl.

Second, we need encouragement to experiment with different techniques to curb the loss of highly productive land.

Third, we need help in evaluating those experiments.

In short, we need more information. And this bill, I believe, can provide it. I am not sure existing legislation can.

Senator CLARK. Well, it is an excellent statement.

Needless to say, I like it because it is a very strong statement in favor of 1616.

I hear you saying, in essence, that the urban sprawl and loss of prime agricultural land is real, but there is really not a data base, there is really not the statistical information for county officials and other State and local officials to really base judgments on. They do not necessarily know how much is in their county, or how much is subject to conversion. And 1616 could give us that data base, or at least help us begin building it. And could give us the kind of information that we would need if we are really going to deal with this problem.

And the pilot projects, and further evaluation of what other people are trying, that could assist overworked local officials to use other methods in their own localities—it could, if they only knew about them, and only had some data base and information source to get them. Is that what you are saying?

Dr. ESSEKS. Yes, Senator, you have put this on the agenda in the Senate. I think it is essential to push it through. Too many local government officials have the sense that the problem is too big for them, and that alone they cannot do a thing about it. I think that pessimism is very dangerous. They need the kinds of assistance this bill can provide.

Senator CLARK. Well, we appreciate your statement.

Dr. ESSEKS. And this goes along with it, Senator, this map.

Senator CLARK. I see. This will go into the file.

This area here is Oakland County?

Dr. ESSEKS. Yes. We do not have a map like this for northern Illinois, but I might use this to point out to you——

Senator CLARK. Point out important farmlands?

Dr. ESSEKS. Yes. The Soil Conservation Service has developed maps like this for just a selected number of counties.

Senator, look at the sprawl here [indicating]. You see here [indicating] you have farmland. This is prime land with urbanized areas on two sides of it.

Senator CLARK. And what is the prime farmland identified with?

Dr. ESSEKS. The green color. Here also, fields of prime farmland are bordered by urbanization on two sides. And you have the runoff here, the trespassing, et cetera.

Just look at this sprawl. There is just no sense to it. And I suspect this is what we have around Chicago, but we do not have a map like this.

Senator CLARK. This is Flint, Mich.?

Dr. ESSEKS. This is Flint, Mich. The Soil Conservation Service has done this for a limited number of counties in the country. I think if they could do it for most or many counties undergoing urbanization, such as in our area, southern Florida, and New York, we could better see what is going on.

How can you farm there? There is a farm here [indicating] and here [indicating]. I suspect there are some cornfields also there, but just look at that sprawl.

Senator CLARK. Well, thank you very much. We appreciate it. Very good statement.

Your statement will be placed in the record.*

Our next witness is John Doyle, Jr., Washington representative, Environmental Policy Center.

John, pleased to have you.

STATEMENT OF JOHN C. DOYLE, JR., WASHINGTON REPRESENTATIVE, ENVIRONMENTAL POLICY CENTER

Mr. Doyle. I have a prepared statement I have tried to edit down in the interest of brevity.

Senator CLARK. Fine.

Mr. DOYLE. I am John C. Doyle, Jr., of the Environmental Policy Center, a Washington-based nonprofit, public interest research, educational, and lobby organization whose primary legislative focus includes energy, water resource and land use issues as these emerge in the U.S. Congress.

We appreciate the opportunity to express our views here today on S. 1616, the National Agricultural, Range, and Forest Land Policy Act.

The Environmental Policy Center has become involved with the agricultural land issue largely through its involvements with energy legislation and the formulation of national energy and environmental policies, including the recently enacted strip mine bill, the coal slurry pipeline bill, national coal leasing policy, powerplant siting initiatives, and synthetic fuels guaranteed loan proposals, to mention a few.

*See p. 143 for the prepared statement of Dr. Esseks.

The citizen/environmental coalitions we work with and represent on these and other measures include ranchers and farmers whose lives and livelihood will inevitably be affected by many of the energy and minerals development projects proposed for rural America.

We have also worked with the National Farmers Union, the National Farmers Organization, the National Association of Wheat Growers, the National Grange and the National Corn Growers Association on certain of these issues.

EPC is concerned about the loss of the Nation's most efficient and most productive food producing resources to all forms of development, but particularly energy development, energy infrastructure projects and minerals development generally.

We are concerned about the loss of good agricultural lands to such development, not only for the obvious environmental impacts and increasing energy requirements that would result as a consequence of having to go to less efficient, marginal and submarginal land—and much more of it—to make up such losses; but also for the often irreversible impacts of such development on the agricultural community and its local, small business economy. Such losses, whether of land or socioeconomic scale, will inevitably represent themselves as higher costs to consumers everywhere.

From our perspective, it is extremely important that the Nation's rush for a national energy plan or a national minerals policy not outdistance or push aside what should be an even greater concern for protecting our most valuable food producing resources.

For this reason, it is especially important that an articulate and defensible national agricultural land policy go forward simultaneously with the development of our national energy plan. We feel that S. 1616 is the basic legislative vehicle to begin that process, and recommend that this subcommittee not delay in its consideration and markup.

The potential conflicts between agriculture and energy development are basically those associated with the four steps in the energy-getting process; namely, the extraction of the basic fuel resources; its transport to a point of conversion and/or refining; the byproducts, residues and wastes resulting from its conversion to power; and finally, its transmission and distribution to users.

Seen in toto, the energy-getting and energy-making process has a potential for touching vast areas of society. Coal for example, is found in deep and near-surface seams in at least 36 States. Rural areas in particular will experience the full brunt of the energy-getting process—from predevelopment speculation clear through to the "bust" end of the boom/bust roller coaster that comes with some forms of energy development.

The problem, for family based and small business agriculture confronted with the prospect of energy and/or minerals development in their regions, is that "energy dollars" are worth more than "agricultural dollars"; consequently energy investments can "price" agriculture out of any region it moves into.

When energy and mineral interests set their sights on an agricultural region for development purposes, a kind of "economics of demoralization" is set in motion which has a decided impact on the economic base and support mechanisms which hold an agricultural community together.

Put simply, energy speculation and inflated land values undermine the willingness of the farmer to invest in his future as a farmer. In a recent study jointly funded by the National Population Institute and the Governor's Office in Colorado, and entitled "The Impact of a Growing Energy Industry on Agriculture," Allen Hertzke, an agricultural economist, surveyed 300 ranchers in a four-county region of northwest Colorado to determine what effect proposed and rumored energy development would have on ranchers' future plans. Hertzke's main finding:

It is evident from the data collecting in this study . . . that uncertainty, speculation, and damages to property—resulting from a growing energy industry—have in fact weakened the viability of agriculture. These factors (in all four counties) appear to have influenced farmers' and ranchers' investment decisions, their retirement plans, and their general morale.

Furthermore, concern for condemnations, interference and damage also appears to have affected farmers' and ranchers' perceptions and actions. These developments in general point to a disruption of farming and ranching in the study area.

In a second study, coauthored by Susan Tripp of USDA's Economic Research Service and Marc Messing of the Environmental Policy Institute, future economic expert values for synthetic fuels production and crop production per 100,000 gallons of water were estimated for 17 Western States for the purpose of comparing how these two uses would fare in terms of projected water requirements under competitive market conditions. That study concluded:

Estimates of the comparative values of grain and synthetic fuel production per unit of water strongly substantiates indications that crop production cannot compete with synthetic fuel production for water resources on an economic basis . . . the value of exported grain would yield \$40-\$95 per 100,000 gallons of water, whereas comparable prices for synthetic fuel production range from \$200-\$1,000 per 100,000 gallons of water. Thus, it appears that if we assume a simple model considering only the allocation of water resources under competitive market conditions, and evaluating projected export values . . . synthetic fuel production appears likely to supplant agricultural crop production in some areas of the 17 Western States.

While such consequences for agriculture in the West may only come with the advent of synthetic fuels technologies, we know now that in States like Wyoming, energy and mineral interests including Exxon, Pacific Power & Light, and Reynolds Metals have already purchased entire ranches solely to get their water rights.

The problem then, not only involves damage to agricultural land from energy and minerals development, but also, and perhaps more importantly, a shift in the control of agricultural resources as a consequence of energy planning, energy development subsidies, and energy infrastructure accommodation.

By far, the most important task facing the Review Commission created in the proposed bill should be that of formulating implementable and action-oriented mechanisms which assure the Nation that our agricultural resource base will not be further diminished, but which will also protect the concepts and rights associated with private property.

Small business and family-based agriculture, as well as the agricultural land base itself, need to be elevated to a position of legal and social value at least comparable to that of any mineral, energy, or transportation value.

The traditional body of law in this country that has systematically given preference to the mineral estate and the principle of right-of-way was conceived in a time of land abundance and an unlimited and implied developmental right.

Now, with the prospect of land scarcity and shortfalls in productive agricultural capability, productive lands and fertile soils need to be put on the same, if not higher, legal footing. And while few courts of law would agree with us, to our way of thinking, it is the agricultural estate which is the dominant estate, that is, the primary resource, the resource which is renewable.

One of the legal concepts that needs to be reexamined, if not restructured, in light of the Nation's potential food-producing losses, is that of eminent domain. The power of eminent domain has been traditionally used to accommodate certain kinds of industrial, transportation, and energy development and siting, often disproportionately in rural areas, but always perceived to be in the public's best interest.

If eminent domain comes to be increasingly relied upon in the years ahead to accommodate energy and minerals development, agricultural lands and communities will suffer an irreversible encroachment. A constructive change in the use of the eminent domain power, when used for energy, minerals, and infrastructure development, would be to severely restrict or prohibit its use for such purposes when productive agricultural lands are at stake.

Such a restriction—received as an assurance by the farmer that his future as a farmer is worth something to the Nation—could have the effect of preventing the debilitating economics which set in when energy speculation gets underway in a rural region. This also underscores why a national inventory of our very best agricultural lands needs to be compiled in conjunction with policies designed to protect them, so that development interests can be put on notice in the planning stages that such areas must be avoided in the national interest.

Finally, recent legislative experience with the Federal strip mine bill, has taught us that the "placement approach" to protecting agricultural lands from this or that encroachment inevitably leads to an undesirable compromise, and in the end, to little real protection for agricultural values.

Earlier this year, for example, it seemed assured, with the backing of the Carter administration, that strip mining on prime farmland and alluvial valley floors in the West would be flatly prohibited, particularly given the vast amounts of coal under other nonproductive lands.

Now, however, all that seems to be in the offing is that mining on these productive lands will be permitted provided special reclamation procedures are followed, even though there is very little demonstrated evidence of restoring such lands to their full agricultural capability after strip mining.

In the absence of an effective, overall agricultural land policy—which specifies which lands are the best lands, and as such, how they should be protected and preserved in the national interest—agricultural land will continue to be lost to piecemeal encroachment and only partial and ineffective legislative protection.

We are encouraged that S. 1616 makes provision for studying energy as a national concern in relation to agriculture as a national concern; its policy objective of limiting the encroachment of industrial activities in high quality agricultural areas when such activities deprive

croplands of needed water or produce yield-reducing air pollution; and its reiteration of the need to include the effects of major Federal actions on agricultural land in environmental impact statements pursuant to the National Environmental Policy Act.

We urge, therefore, that S. 1616 be moved expeditiously through Congress, and that these intentions, policy objectives and prospective actions not be compromised in the process.

Thank you.

Senator CLARK. Well, we thank you very much, Mr. Doyle. I think you have made an excellent point, and one that has not been made in these hearings, or in our hearings in Iowa, namely, your emphasis on preserving land in comparison with energy development and mineral development.

This is important, particularly in our area, for example, and in some of the Western States, where we have this desire to push very hard to get that coal out of the ground, and all the water that is needed for that purpose, and so on. And it is an excellent point you raise. And I think that your point that we ought to be able to look at land now—in view of the changing times—in a different context, in terms of the legality of it, and that it ought to be given at least as great an importance as energy and minerals—I think that point is very important, particularly as it relates to eminent domain.

Mr. DOYLE. Yes. One thing that we found in Illinois, Senator there are 52 counties that have strippable coal reserves. And we did a little research to see what, if any, mechanisms were offered to protect prime farmland. And as was pointed out earlier, they do not have a good handle on even how much prime land they have.

And we did a crude calculation, looking at land capability classes, at the first three classes. And three of the counties with strippable coal reserves, well, on 30 at least 80 percent is prime farmland. And this is all in the context of a situation where you have 160 billion tons of coal and 140 billion tons of which are deep minables. So that the coal they are going after in Illinois, most of the strippable portion is very small. And they could go for the deep reserves, and disturb a lot less farmland.

Senator CLARK. Yes; but there are lots of areas of the country where just the opposite would be true.

Mr. DOYLE. That is true.

Senator CLARK. Where stripping is so much more economical and practical that it presents a real problem.

Well, we thank you very much for coming over. It is a good statement.

Senator CLARK. We are going to hear now from Kenneth R. Hampton, assistant conservation director, National Wildlife Federation.

And you are accompanied by?

STATEMENT OF KENNETH R. HAMPTON, ASSISTANT CONSERVATION DIRECTOR, ACCOMPANIED BY LEE DANEKER, DIRECTOR, CITIZEN PARTICIPATION PROJECT FOR 208 PLANNING, NATIONAL WILDLIFE FEDERATION

Mr. HAMPTON. Mr. Chairman, I am Col. Kenneth R. Hampton, U.S. Army, Retired, assistant conservation director for the National Wildlife Federation (NWF) which has its national

headquarters at 1412 16th Street NW., in Washington, D.C. I am a professional conservationist with degrees in forest management and meteorology. I am accompanied by Mr. Lee Daneker, director of NWF's citizen participation project for 208 planning.

Ours is a private organization which seeks to attain conservation goals through educational means. Affiliates of NWF are located in all 50 States, Puerto Rico, Guam, and the Virgin Islands. These affiliates, in turn, are made up of local groups and individuals who, when combined with associate members and other supporters of the National Wildlife Federation, number an estimated 3½ million persons.

We appreciate the invitation to appear today and comment on S. 1280, a bill to improve rural source water quality and S. 1616, a bill to establish a national policy for the protection of agricultural, range, and forestry land.

We have a complete statement here, as you know. I will try to go through it and hit some of the highlights of it.*

Conceptually, the federation supports the principal thrust of both measures. Most of our comments are mainly of a technical nature and are intended to "fine tune" the bills.

Senator CLARK. Good. That is what we need.

Mr. HAMPTON. First, with respect to S. 1280, we believe that its intent is indeed a commendable initiative to assist farmers in meeting the goals of the Federal Water Pollution Control Act (FWPCA) Amendments of 1972. It has become apparent that cleaning up pollution and then maintaining a healthy water quality is expensive. But certainly human health and the quality of our environment are worth this societal price. The American taxpayer has consistently demonstrated a willingness to help defray these costs.

Thus far, much has been done to aid municipalities to clean up their sewage and the water pollution it generates. However, even after industries and municipalities achieve the established goals for control over point or discrete sources of pollution, nonpoint or diffuse sources of pollution will continue to pose a most serious threat to human and environmental health in the water medium unless programs such as envisioned by S. 1280 are implemented—section 208 of the FWPCA has provided the authority for the past few years to plan for the implementation of nonpoint source pollution control measures.

We would agree that the farmers and small private foresters of this country also need Federal technical assistance in their efforts to abate pollution and to enhance environmental quality. Several pilot programs already undertaken by the Environmental Protection Agency, the Soil Conservation Service, local and State governments, and individuals farmers have worked well and in some instances have resulted in the development of some innovative and practical means for abating nonpoint pollution.

The findings outlined in section 701 of the proposed title VII of the Rural Development Act of 1972 are accurately stated. Section 701(g) is particularly significant. The U.S. Department of Agriculture already has many of the institutional arrangements and technical and research capabilities to assist farmers and foresters in complying with national, State and regional water quality requirements.

*See p. 146 for the additional material submitted by Mr. Hampton.

However, overall responsibility for water quality programs rests with the Environmental Protection Agency and we understand that it is the intent of S. 1280 that EPA responsibility in this area remain unimpaired. We support that intent.

At the same time, we recognize that the Soil Conservation Service and other USDA agencies have established lines of communication to the individual farmer and have built a rapport which will facilitate both the educational underpinnings and the delivery of technology needed to stem the tide of nonpoint agricultural and silvicultural pollution.

Since EPA is the agency responsible for the regulatory programs developed under section 208 of FWPCA, language should be added to S. 1280, section 703, noting this prime responsibility of EPA and clarifying Department of Agriculture's role as the implementor of, and funding agency for, technical assistance to farmers, ranchers, other land users and local and State water management agencies within the context of EPA approved 208 water quality plans.

We suggest that in the introductory paragraph to section 703 language be added to indicate that the rural source water quality assistance program will be developed in cooperation with EPA and that concurrence on the program will be obtained from EPA.

The purpose of the concurrence would be to insure that there is no duplication or conflict between the assistance and related planning carried out by USDA and the overall water quality management planning program administered by EPA under section 208 of the FWPCA. This will focus on EPA's overall responsibility for water pollution as distinct from the Secretary's role to assist in resolving particular pollution problems.

Although S. 1280 does not seem to create conflicts between EPA and USDA, prudence calls for emphasizing the separation of the regulatory and standard setting responsibility of EPA and the technical assistance role of USDA. The creation of an advisory board as outlined in section 705 would be helpful in insuring that all concerns are addressed. The federation would suggest, however, the inclusion of language requiring that the interests mentioned be balanced to avoid any single interest dominating the advisory board.

As for "assistance" rendered under S. 1280, we feel that small operators should qualify for financial assistance in addition to technical assistance to carry out specific control measures. We question, however, whether financial assistance should be provided to large corporate agricultural and silvicultural operations.

NWF notes that the bill makes no distinction between large and small operators. We suggest that such a distinction be made with respect to eligibility for funding assistance.

Parenthetically, I would add we recognize this would be a real problem for you, Senator, in trying to determine how you are going to distinguish between the big and the small because in some parts of the country obviously acreage is not going to be the satisfactory criterion.

Next, we note that no mechanism is established for apportioning appropriated funds among the States or within any given State and that funding assistance is intended—section 704(d)—to be provided only for voluntary installation of pollution control measures.

We do not have a specific recommendation on apportionment except to state that funds should go to those areas where agricultural problems, as identified by the section 208 planning program are most severe. The principle should apply to apportionment within States as well as among States.

Further, NWF does not believe financial assistance should be limited to voluntary efforts. We understand that some States already have mandatory pollution control programs for farm and forest activities.

The section 208 planning regulations require that, where certain specified conditions are met, mandatory control programs be established. These programs are established with the involvement of State and local officials and the public. We do not feel that compliance with mandatory programs, established with public participation, should be excluded from eligibility for financial assistance.

Indeed, since mandatory programs will occur in areas with more severe pollution problems, and are more certain to lead to effective pollution control than volunteer programs, we believe that a strong case can be made for priority financial assistance under S. 1280 to areas with mandatory programs.

One further observation on the subject of water pollution stemming from farmland: Current Federal assistance programs such as ACP (agricultural conservation program) could be more helpful in holding soil and water in place if more emphasis were given to long term, enduring conservation practices. NWF views on this subject are contained in the attached 1976 resolution on ACP.* We are hopeful that new USDA guidelines—which presumably is forthcoming from USDA—will require that cost sharing funding priority be given to such conservation practices. As you know, the GAO issued a report earlier this year which was very critical of the production orientation of ACP.

In summary, the National Wildlife Federation supports and endorses the concepts contained in S. 1280. We believe that such a law will play a useful role in achieving greatly improved water quality through the control of nonpoint sources of pollution. We do feel that such a measure should be a bit more explicit in reiterating the leading role of EPA for establishing and regulating water quality control programs under the FWPCA. We also feel that if the goals of this bill are to be met, adequate funding is essential, perhaps on the order of \$100 million or more per year. The federation's general concern about water pollution is outlined briefly in the attached NWF resolution adopted earlier this year on "major conservation issues."

Turning to S. 1616, we have problems with the bill in its present form for two reasons:

First, we believe that it should focus on agriculture only and not include range and forest lands. Perhaps we are reading something into the language that you did not intend, but I will comment a little bit more on that in a moment. Second, with respect to agriculture, it seems to the federation that S. 1616 is too production-oriented, and needs to be broadened to clearly include the subject of soil conservation and soil erosion abatement.

*See p. 148.

I know that is what you intended, but I think a couple of small word changes would be helpful.

While there may well be a need for legislation establishing national policy for range and forest lands, the federation takes the position that those subjects need separate attention. Their scope is far too broad, both technically and administratively, to be adequately addressed in one bill. For example, both forestry and range matters cross departmental lines with both the Secretary of Agriculture and the Secretary of the Interior having major responsibilities. It seems to us, therefore, that the single department approach envisioned in S. 1616 will not work. In our judgment, it would be far better and make for a much tidier administrative package to address only agricultural matters in the bill.

With respect to our second problem with S. 1616, we believe it can be resolved satisfactorily by making a few changes/additions to the wording of the bill to squarely address the subject of soil conservation as you intend it be. For that purpose, and to eliminate the forest and rangeland thrust of S. 1616, we are attaching a small list of recommended revisions to the bill.

One further comment about soil erosion abatement is in order. The federation would expect that any Federal cost-sharing assistance given to farmers under the proposed statute would be aimed at establishing enduring conservation measures on the land such as installing shelterbelts and protecting marginal land.

In summary on S. 1616, Mr. Chairman, NWF certainly shares your concern about the continuing loss of productive farmland to all forms of development. (Our concern is expressed, in part, in the attached resolution on "Preservation of Agricultural Lands"* adopted in 1976.) Accordingly, we will strongly support a version of the bill revised in the relatively minor fashion recommended in this statement.

Thank you for this opportunity to offer our views.

Senator CLARK. They will be very helpful to us. We appreciate them.

Mr. HAMPTON. So I think with that, Senator, we will close by saying we certainly support your views. We share your concern about the loss of productive farmland to all the various forms of development. And we are very interested in seeing that legislation of this type moves forward!

Senator CLARK. Well, it is an excellent statement. I think you made some very good comments. And we will take those changes very seriously into consideration. That is the purpose of the hearing.

I think you have obviously taken our request for you to appear here very seriously. You looked at it very carefully. You have made some very worthwhile suggestions.

Mr. HAMPTON. Thank you.

I know you are running short on time, but would it be possible for Mr. Daneke to make some comments?

Senator CLARK. Yes.

Mr. DANEKER. I would like to make just two brief comments.

We have seen in the point source control program that there has been a lot of Federal money appropriated to assist municipalities. One thing that has happened as a result of that, Senator, is that municipalities

*See p. 148.

have waited for that Federal money before going ahead with pollution control. I do not think that was the original intent of Congress in 1972, but that is what has happened.

Senator CLARK. That is correct.

Mr. DANEKER. I am concerned that as we consider a similar program of assistance in agriculture, that the same phenomena should not occur—if that is not the intention of Congress.

In other words, if the intention of S. 1280 is to establish an assistance program, which will help farmers as they go ahead, that should be clear. If it does not intend to put the whole burden on the Federal Government that should be clear too. If people think the Federal Government plans to provide all the funds, they will wait; not go ahead with pollution controls until Federal money is available. I understand your intent to be the establishment of an assistance program.

I think it would be useful to state that more explicitly, so that the message is clear.

Senator CLARK. I think that is a good suggestion.

Mr. HAMPTON. Mr. Daneker has had a lot of experience in this—I should have noted that first, Senator. He has conducted several workshops on 208 water quality management planning in Montana, Oklahoma, Louisiana, Michigan, and Maryland. And he had anywhere from 75 to 250 participating in each workshop. That is, citizens, local officials, State officials, farmers, and so forth.

Senator CLARK. Good. I think what you say makes sense. And we will look at that along with the other comments you have made in your statement.

Mr. DANEKER. Secondly, if I could make a comment on something raised earlier?

Senator CLARK. Certainly.

Mr. DANEKER. It was said that 208 agencies, in developing their plans, may arbitrarily suggest that certain lands be taken out of production. I think that is a misinterpretation of the mandate that 208 agencies have. Their job is to identify ways to prevent pollution from various sources, including agriculture. And they would only make a recommendation that land be taken out of production, Senator, if there were no other way to prevent severe erosion from occurring in that land.

Senator CLARK. But I think what the witness was saying is that there is no other way.

Mr. DANEKER. I thought he was saying there were ways, but—

Senator CLARK. They were not approved ways.

You see, his point was that there is a good way to solve it, and that he thinks he knows how to do it; namely, to build these pools down here and capture the soil. But then since the Soil Conservation Service does not approve those methods that are available, then that land is going to have to go out of use, unless we can get these practices approved.

Mr. DANEKER. The 208 agencies are in a position to make evaluations of techniques, Senator, separate from those approved by the Soil Conservation Service.

Senator CLARK. I see. That is a good point.

Mr. DANEKER. They should be doing so. If they are not, I think they are outside of their mandate. I just wanted to add that.

Senator CLARK. Thank you very much. We really appreciate it.

We are particularly pleased now to have Senator Harrison Williams, of New Jersey, here to testify. I know that this particular legislation can be very important, particularly 1616, in terms of the problems of New Jersey, because you have an almost unique situation—although it is characteristic of the whole country to a lesser degree—and that is the problem of prime agricultural land really giving way to more and more urban development.

So we are very pleased to have you here to testify. You go ahead in any way you think appropriate.

**STATEMENT OF HON. HARRISON A. WILLIAMS, JR., A U. S. SENATOR
FROM NEW JERSEY**

Senator WILLIAMS. I know the time limitations that the committee has. I have to get back to my own committee by noon.

However, I appreciate this time to make a few comments on S. 1616. I would like to insert my full statement in the record, if I may.*

Senator CLARK. Certainly. It will go into the record.

Senator WILLIAMS. Mr. Chairman, we in New Jersey welcome so much this approach to the preservation of one of our greatest resources, our agricultural lands.

We are the most densely populated State in the country. However, notwithstanding that, we have areas of great productivity in agriculture. I have included some of our achievements in agriculture in my statement. It may come as a surprise to many to know that New Jersey is second in the Nation in blueberry production, third in the Nation in cranberries, fourth in the Nation in tomatoes, spinach, and green peppers; fifth in the Nation in peaches and asparagus.

We are also a leader in animal husbandry, horses, cattle, and so on.

I am reminded, as we deal with your bill, Senator Clark, of a comparable situation in the early 1960's. I had a bill called the Federal Open Space Preservation Act. This bill was designed to provide Federal resources to our States to preserve open space in and around metropolitan areas.

The State of New Jersey created a companion program, called Green Acres. And the State Green Acres program, and the Federal Open Space program joined together in a partnership. It has been remarkable to see how much land has been preserved close to where those teeming masses live in our most densely populated State through this joint effort.

And the same thing applies here. We have a State effort still in its earliest stages. First of all, the State adjusted its tax structure to the facts of agriculture, by basing the rate for farmland on its agricultural value rather than its development value.

Senator CLARK. I see.

Senator WILLIAMS. And that has been in existence now for over 10 years.

More recently we have added to that a program to provide State funds to certain areas on a demonstration basis to buy up development easements. The State says to the farmer, we will pay you t

*See p. 112 for the prepared statement of Senator Williams.

ence between the value of the land for agriculture and the value of the land for development.

Once we pay you that differential, your deed will thereafter restrict the use of the land to agriculture.

There are procedures for lifting these restrictions in exceptional situations but only after careful consideration. This would be understood when the farmer receives the money for his development rights.

I believe New Jersey's program could complement the Federal program, which you propose, Mr. Chairman. I think we could improve upon the good results, we have seen in New Jersey, where we have already reduced the annual acreage of farmland lost from about 50,000 to 60,000 acres to about 5,000. That has just got to mean a better quality of life for everyone.

Senator CLARK. That is right.

Well, Senator, we thank you very much.

Senator WILLIAMS. Well, I am honored to be a cosponsor.

Senator CLARK. Thank you very much. We appreciate your statement.

Our last witness is going to be Mr. Joseph Hinson, forester, National Forest Products Association.

Joe, you can proceed in any way you think appropriate.

STATEMENT OF JOSEPH M. HINSON, FORESTER, NATIONAL FOREST PRODUCTS ASSOCIATION

Mr. HINSON. Thank you.

I have submitted a written statement.*

Senator CLARK. Yes; I have that. That will go into the record.

Mr. HINSON. I will just paraphrase from that statement briefly, if I can.

I am Joseph M. Hinson, a professional forester with the National Forest Products Association in Washington.

NFPA represents growers, manufacturers, and wholesale distributors of solid wood products throughout the United States. We welcome this opportunity to testify on 1616, and will restrict our remarks to that bill.

Senator CLARK. Fine.

Mr. HINSON. We are very happy to see this bill addressed to forest lands as well as agricultural lands. The forest industry has contended for many years that too much productive land is being diverted to nonfood and fiber production uses. We are pleased to see this concept embodied in this bill.

We also agree that the policy of the country should be to keep the optimum amount of land in a productive capacity. We feel that any transfer of productive land into nonproductive uses should be made only when it can be proven that specific withdrawals are clearly in the public interest. And many times they are.

We would like to point out that the Federal Government plays a major role in encouraging the shift of land from food and fiber production to nonproductive uses. This occurs not only by decisions affecting land in Federal ownership, but through Federal actions which influence or dictate the way in which non-Federal owners manage their land.

*See p. 149 for the prepared statement of Mr. Hinson.

I would like to highlight briefly three Federal actions which result in, or encourage shifts of productive land into uses which preclude food and fiber production.

First, on Federal land, governmental actions which most affect productive capability are the management decisions made by the administering agency for the land under its jurisdiction.

The Forest Service's current roadless area review and evaluation is an excellent example of this. In carrying out this review, the Forest Service made the administrative decision to withdraw approximately 60 million acres, one-third of the total national forest ownership, from productive use until a final decision can be made over which portion of this land should be designated as wilderness.

Another example is the push to administer much of Alaska's interior lands as national parks, or wilderness preserves, rather than through resource management agencies, such as the Forest Service, or Bureau of Land Management.

Second, the Federal Government also either encourages, or causes the transfer of productive land to nonproductive uses through the establishment of environmental law and regulations.

I think regulations issued under sections 404 and 208 of the Federal Water Pollution Control Act Amendments, and regulations are excellent examples, and we heard a lot of testimony concerning those regulations this morning.

This Federal influence over the management of private lands is extended through management limitations. An example of this is the House legislation, which will not only take private lands as additions to Redwood National Park, but would also dictate management practices on lands adjoining the park.

Finally, direct Federal acquisition of productive lands has a marked effect on this country's ability to produce food and fiber, and again, I think the Redwood National Park issue is very illustrative of this.

We also recognize that private institutions also influence the withdrawal of productive agriculture, range, and forest lands. Utility companies may use powers of eminent domain in order to build powerlines, pipelines, and powerplants on otherwise productive land. Land holding and development firms may buy productive farm and forest lands near urban areas of population, and hold this land for speculative purposes. This nearly always results in such land being removed from production.

We would like to point out that these withdrawals of land are not in themselves good or bad. Oftentimes the withdrawal of the land is very definite in the public welfare. One of our concerns is that these decisions are made without adequate knowledge of their consequences.

As we understand it, S. 1616 would be a major step toward eliminating this kind of decisionmaking in a vacuum.

We would hope that this bill, if enacted, would provide Federal, local, and private institutions with information and guidance, enabling logical, intelligent decisions within their current responsibilities about the use of productive forests, range, and farmland.

In order to provide this information and guidance to Federal and local decisionmakers, it is necessary that they have the knowledge which will enable them to reach intelligent decisions. We feel the basis of this would be the inventory of productive land, and an analysis of the relationship of this land to the supply and demand for food and fiber.

This provision is well defined in the bill. We would point out that much of this information has already been gathered through the Resource Planning Act assessment compiled in 1975, which is to be updated in 1980. We feel that S. 1616 should be coordinated with the Forest and Rangeland Renewable Resources Planning Act of 1974.

The forest industry sees almost daily the effects of land withdrawals upon it. Mills and subsidiary industries are closing because the land on which they depend for their timber supplies is being withdrawn or restricted from productive use.

It is our hope that a public policy to reduce the amount of land loss to nonproductive uses would call attention to this.

Finally, we feel there is definitely a need to oversee the myriad of laws and regulations, and analyze their effects upon the ability of our productive land to produce food and fiber.

To our knowledge, there is no one agency of the Government that currently has this responsibility. As a result, laws and regulations, often conflicting with one another, are established with little consideration of their effect on food and fiber production. Oversight and coordination of these laws and regulations is a function of Government which very definitely should be fulfilled.

Although we agree that there may be a need for this legislation, we would like to emphasize the importance of protecting the rights of private landowners in implementing such an act.

We fully support section 307 of the bill, designed to protect the rights of private landowners. I think that you would find that there is little enthusiasm within the agriculture and forestry community for further Government intervention, or Federal land use controls—for whatever the reason.

We feel that it is the responsibility of the Government to set the policies, and to provide information which will enable the Government to work within these policies.

In studying this bill, we did have some comments, and we did identify some concerns over the specific language of the bill.

Rather than go through them—

Senator CLARK. I see them.

Mr. HINSON. With your permission, I will submit them for the record.

Senator CLARK. Fine. Your whole statement will go into the record.

Mr. HINSON. The forest industry—I might say, in conclusion—agrees with the concept of this bill. We cannot stress too greatly the importance of the country's productive forests, range, and agricultural land, and the importance to both the economy and welfare of keeping this land in productive capacity.

We have offered what we feel are some constructive changes in the bill. We hope that you will consider these changes in the future.

We look forward to working with you on this bill, and supporting the bill.

Senator CLARK. Thank you very much.

We will look at the specific proposals that you offer with great care.

On the bottom of page 3 and the top of page 4 I think you make an essential point:

These Federal and private actions which cause or encourage the withdrawal of land from productive capacities cannot be characterized, in themselves, as good or bad. Many times such land withdrawals are demonstrated to be for the public good.

However, all too often these decisions are made without adequate knowledge of their consequences, and the effects upon the ability of these lands to produce food and fiber are unknown.

As we understand it, S. 1616 would be a major step toward eliminating this kind of decisionmaking in a vacuum. We hope that this bill, if enacted, would provide Federal, local and private institutions with information and guidance enabling logical, intelligent decisions within their current responsibilities about the use of productive forests, range and farmland.

Well, we thank you very much.

Our hearing is adjourned.

[Whereupon, at 12:10 p.m., the subcommittee adjourned, subject to the call of the Chair.]

APPENDIX

STATEMENT OF HON. DICK CLARK, A U.S. SENATOR FROM IOWA

The United States has no greater natural asset than its agricultural resource base. Our nation's rich and abundant farm, range, and forest lands have protected us from famine and disaster, produced ample quantities of food and fiber at low prices, and responded to modern management and technology with increasingly higher yields per acre.

Because of these factors, a single American farmer today produces enough food for himself and 56 other Americans. A single acre of prime land in my state of Iowa produces enough calories to provide the current diet for 15 people in portions of Asia and Africa. The value of total U.S. agricultural exports is now nearing \$24 billion per year, and these exports have become an essential component of our international balance of trade position.

Unfortunately, a significant portion of our agricultural resource base is being lost or damaged through erosion by wind or water and through land use changes which permanently divert cropland into non-agricultural uses.

There is nothing especially alarming about the existence of erosion or the use of cropland for non-farm uses. Soil erosion is a natural and continuous geological process which man cannot entirely prevent. Similarly, a growing and prosperous nation requires land—including some cropland—for new homes, factories, recreational, and other facilities.

What is alarming is the high and accelerating rate at which our agricultural resource base is being lost. Despite 40 years of federal conservation programs at a cost of \$15 billion, 63 percent of cropland needing conservation treatment remains untreated or inadequately treated. Last year alone, more than seven million acres of the Great Plains area were severely damaged by wind erosion.

In portions of my state of Iowa, soil losses of 13 tons and more per acre annually are being recorded. This is three times the rate at which new topsoil is being formed and represents an increase in loss over recent past years. Estimates by the Soil Conservation Service indicate that some counties of Iowa have lost 50 percent of their topsoil in the last 100 years. If losses continue at such a rate some of these still productive areas will be virtually barren within another 50 to 100 years.

At the same time, the Department of Agriculture estimates that land use changes cost the nation 1.7 million acres of valuable cropland each year. One million acres of that is "prime" cropland. These statistics suggest that we will at some future point, jeopardize the means of our agricultural productivity.

I am surprised that we have heard so little about these trends. I talk to many farmers who are concerned, but I do not detect a public sense of urgency. Perhaps this has not happened because there is nothing singularly dramatic about the depletion of our agricultural resource base. Losses occur gradually—almost imperceptibly: 20 acres go to a subdivision; 300 acres go to a new strip mine; 40 acres of topsoil wash away in a flood. Taken individually, each loss seems too insignificant to worry about. But taken together, they add up to a tremendous and frightening resource loss.

In consideration of these threats to our agricultural resource base, the Subcommittee is holding hearings focusing on S. 1280, a bill to curtail soil erosion and improve rural water quality, and S. 1616, a bill to establish a national policy for the protection of agricultural lands. Since I introduced both bills, I would like to take this opportunity to outline the problems which make this legislation vitally necessary.

I turn first to the question of soil erosion as it relates to water quality. The U.S. Geological Survey estimates that about four billion tons of sediment reach our streams each year. Nearly one-half billion tons are discharged downstream clogging harbors and navigable rivers, while 1.3 billion tons are trapped in

reservoirs. Most of this sediment originates as eroded topsoil from agricultural land. As such, it carries with it nitrogen, pesticide chemicals, dissolved salt and other pollutants.

In 1972, Congress enacted the Water Pollution Control Act. (Public Law 92-500) which establishes national goals for clean water. Under the Act, soil erosion and other non-point sources of water pollution are identified as prime targets for corrective action. Section 208 of Public Law 92-500 establishes a process for planning and implementing state guidelines to reduce water pollutants from all non-point sources. Obviously, this is a massive and expensive undertaking which will require farmers and other rural landowners to make very substantial investments.

The cost of controlling non-point source pollution is great, but the benefits are even greater. In rural areas, water quality and soil conservation are opposite sides of the same coin. Cleaning-up water quality means reducing soil erosion. While the stated purpose of Public Law 92-500 is water quality, the effective result is soil conservation. For this reason, the Water Pollution Control Act—and especially section 208 of the Act—gives us the impetus we need to get our soil conservation efforts in high gear.

In order to assist farmers and other rural landowners in complying with the Section 208 requirements, I have introduced legislation—S. 1280—to provide cost-sharing funds and technical assistance on a voluntary basis. The assistance would be provided through the Department of Agriculture, in cooperation with Soil and Water Conservation Districts, since these agencies have the necessary technical expertise and delivery system.

S. 1280 specifically recognizes the responsibilities of the Environmental Protection Agency in administering the section 208 process. But the bill is predicated on the assumption that water quality goals will never be met without a program to assist landowners in controlling surface run-off and other forms of soil erosion.

The provisions of my bill are subject to debate and improvement. But the general thrust of the legislation, which links erosion control with water quality, and combines cost-share benefits with technical assistance in the same program, is both timely and necessary. The nationwide program provided in this legislation, which is designed to assume the central role in agricultural conservation, will go a long way toward meeting the threat of soil erosion on our agricultural lands.

But there is another imminent threat to our agricultural resource base—the diversion of cropland to non-agricultural uses.

A 1975 survey by the Soil Conservation Service shows that each year five million acres of land are being directly or indirectly converted to urban, industrial or public works uses. Of this amount, 1.7 million acres are valuable cropland, including one million acres of “prime” cropland.

The continuing loss of “prime” land is especially ominous. Prime land is defined by the Department of Agriculture as land best suited for producing food, feed, forage, fiber, and oilseed crops. It has the soil quality, growing season, and moisture supply to produce sustained high yields of crops with minimum inputs of chemicals and with the least damage to the environment. About 66 percent of the 1975 crops of corn, soybeans, wheat, cotton and feed grains were grown on prime farmland.

Once prime land has been paved over, built upon or surrounded by suburban sprawl, there is very little prospect that it will ever again revert to agricultural production. The rich soil, and its crop-producing potential, is lost to posterity forever.

There is nothing new about urban encroachment on agricultural land. Expressions of public concern with this pattern date back to William Jennings Bryan, and even to Thomas Jefferson. But the issue has taken on new urgency in recent years because the rate of loss is increasing. And, in fact, the nation may one day run out of cropland reserves—land which is not now cropped, but suitable for cultivation.

At present conversion rates, and assuming no increase in the current cropland base of 400 million acres, the “ready reserve” of 24 million acres could be depleted in just 14 years. As R.M. Davis, Administrator of the Soil Conservation Service, recently stated: “Nearly four-fifths of the total cropland available in this country is already in crops. When that last 20 percent is planted our cropland ‘frontier’ is closed. An expanding U.S. population, coupled with growing demands for agricultural commodities abroad, makes our potential cropland figures—our reserve—seem very small indeed.”

The problem is further complicated by the apparent leveling-off of yield increases for major commodities. Overall yields-per-acre seem to have stopped increasing—and may even be trending downward—for the first time in 20 years.

If high yields per acre are needed, and if yields per acre are not increasing, then it becomes necessary to look to the acres themselves. Preservation of agricultural land, wherever possible, becomes all the more essential.

Nevertheless, the attrition continues. In New York and California, orchards and vegetable land are being lost to highways, housing developments and shopping centers. In New England, dairy and truck farmers are being taxed out of business as developers boost the price of land far beyond its agricultural production value. In Colorado and Wyoming, rich bottom land is threatened by strip mining and vital irrigation water supplies may be taken for energy production. Some of this activity is necessary and even desirable. But much of it is the result of poor planning, misplaced priorities, disruptive economic forces and the lack of consistent Federal policies.

Fortunately, many states and local governments have already recognized the value of retaining agricultural land. Forty-two states now have preferential assessment laws on the books in the hope of keeping farmland in farm use. In addition to tax breaks, state and local governments have mounted more direct methods to stem cropland diversion. These include the purchase of transfer and development rights, exclusive farm use zoning, development permit systems, inverse condemnation and even the outright purchase of land which is then sold or leased back to farmers.

The federal government, in my opinion, should not be directly involved in the land-use planning business, except insofar as federal lands are concerned. Nor should the federal government contribute to the problem, as it is now doing, by building highways that cut diagonally across farmers' fields by subsidizing "hopscotch" housing subdivisions, and by imposing near confiscatory inheritance taxes on farm property. It is all too obvious that in the construction of federal projects, the granting of federal permits and the management of federal resources very little—if any—consideration is given to impacts on the farm sector.

For these reasons, I have introduced legislation, S. 1616, to establish a consistent national policy on the preservation of farmland, and to aid and encourage state and local programs which work toward this goal. S. 1616, entitled the National Agricultural Land Policy Act, has three titles.

Title I establishes national policy to direct each agency of the federal government to use all practicable methods consistent with other considerations of national policy, to retain, protect and improve agricultural land. Title II establishes a Land Resources Review Commission to study the use and productivity of agricultural land. The Commission, reflecting a broad spectrum of public and private interests, would present the President and the Congress with an authoritative evaluation of the situation and trends affecting agricultural land. Title III authorizes the Secretary of Agriculture to provide matching grants to state and local governments for carrying out programs to retain farmland in production. This help would be on a pilot project basis, in small amounts and only for a period of five years, so that many types of local projects could be evaluated as to their cost and effectiveness.

This legislation does not in any way diminish the rights and responsibilities of the states and their political subdivisions. The practical decisions on how land is to be used must be made by local citizens, consistent with local needs, problems and land use traditions. For this reason, the grant authority provided in Title III is sufficiently flexible to assure that pilot projects represent a broad range of approaches reflecting the diversity and complexity of land use problems in different regions. At the same time, Titles I and II fashion a national policy and planning mechanism which complements local governments' responsibilities for land use decision making.

To summarize my remarks, I need only state that it is a matter of vital national importance to preserve our valuable cropland base for agricultural uses, and it is equally important to assure that those lands are given proper soil and water conservation treatment in the future. As George Bagley, President of the National Association of Conservation Districts, recently said: "It makes no sense to protect prime land from the bulldozer and let it be destroyed by wind or water."

The farmers, ranchers and others who own and operate this vast and productive land have demonstrated that they will accept the responsibility for its wise use and conservation if they are provided with the assistance and cooperation needed to supplement their own knowledge and resources. If we give them the tools they will get the job done.

STATEMENT OF HON. HARRISON A. WILLIAMS, JR., A U.S. SENATOR FROM
NEW JERSEY

Mr. Chairman, I applaud you for introducing S. 1616, the National Agricultural Land Policy Act. I am pleased to be a cosponsor of this far-sighted and much-needed legislation.

My appreciation of the importance of this bill stems largely from the experience of my own state. New Jersey is the most densely populated of all the states. The price of farmland there is the highest in the Nation. Costs of farm equipment and supplies are correspondingly high. Air and water pollution have taken a toll on farm productivity.

All of these factors have made it difficult to continue farming in New Jersey. Moreover, developers have applied increasing pressure on farmers to sell their choice land for residential and commercial use. This pressure became so irresistible in the 1960s that the state was losing farmland at a rate of 60,000 acres a year.

Some may question why an urbanized state like New Jersey should be concerned about preserving farmland. Let the fertile soils of the corn belt and the great plains produce the food and fiber for the rest of the country.

It may come as a surprise to many that New Jersey is still one of the nation's primary producers of a number of crops. In 1976, it was second in the nation in blueberry production, third in cranberries, fourth in tomatoes, spinach, and green peppers, and fifth in peaches and asparagus. New Jersey clearly makes a substantial contribution to our nation's food supply.

We also must not overlook the importance of having a nearby source of food. Food from nearby farms is fresher. Minimizing the distance between producer and consumer saves money and energy. The open space that farmland provides helps to purify the air and water. It brings beauty and variety to the landscape.

For all of these reasons, states like New Jersey have a vital interest in preserving agricultural land. And, I am pleased that New Jersey has taken steps toward this goal.

The Farmland Assessment Act of 1964 provided preferential tax treatment for land devoted to agriculture. This helped to reduce the loss of farmland from a high of 60,000 acres a year to the recent average of 5,000 acres a year.

More recently, the state has initiated a demonstration program for preserving farmland—the first of its kind in the nation. Legislation was passed to provide \$5 million to purchase development easements on prime farmland in a demonstration area. The response has been very favorable. About 100 farmers have asked to participate in the project.

I believe New Jersey's experience can be instructive to other states. With its spreading cities and suburbs competing for land with a still healthy agriculture, New Jersey is perhaps a microcosm of the nation. Some parts of the country have not yet experienced development pressures as severe as New Jersey's. But the trend is apparent. Between 1967 and 1975, 23 million acres of America's farmland were converted to other uses. We must act before this trend reaches crisis proportions. A national policy of preserving agricultural land is needed now. A solid base of information about farmland needs to be developed now. The means of retaining farmland need to be explored now.

S. 1616 provides Federal direction and funds for meeting these needs. It also provides assistance to states and local governments for their own efforts to preserve farmland.

Mr. Chairman, I wholeheartedly support S. 1616. I hope that you and the Subcommittee will remain steadfast in your effort to secure enactment of this important measure.

Thank you.

[The following material was submitted by Mr. Sorteberg:]

EXCERPTS FROM 1977 POLICY STATEMENT OF NATIONAL FARMERS UNION
PERTAINING TO LAND USE AND AGRICULTURAL LAND PROTECTION

WE MUST PRESERVE THE FAMILY FARM

The family farm is the keystone of our highly successful agricultural system. The welfare of the nation's consumers, and those in need throughout the world, is increasingly related to the preservation of a family farm and ranch pattern of agriculture.

Studies indicate that America is better served with greater economic and social efficiency by family farms and ranches than it is by large-scale absentee investor-owned factory-farming operations. Farm and ranch families provide the initiative, skill, and prudent land stewardship which have made possible agricultural production that feeds us abundantly and provides food and fiber for export, assuring a favorable balance of trade.

Corporate farming is far more costly to the nation because of the tax advantages afforded absentee owners to shift earnings from non-farm professions and businesses into farming to avoid or reduce payment of taxes.

The ill effects from absentee investor farming and the migration to the cities of farm families are widely shared by all: (1) Rural communities lose families engaged in agriculture and their taxes which support schools, libraries, and other institutions; (2) main street businesses dependent on the purchasing power of farm families, face bankruptcy; (3) consumers experience higher "administered" food prices due to the concentration of market power in corporations; (4) urban areas face increased demands for housing, sewage disposal, welfare, and other service programs due to over-crowding; and (5) environmental protection for the entire nation can best be maintained through the preservation of the family farming and ranching system.

NATIONAL FOOD POLICY

National Farmers Union believes that there is one overriding issue on which the future of family agriculture and the future of our nation's food supply depend—the need for a national food policy.

A national food policy should include the following:

1. Assurance to farm and ranch families of full parity prices and assurance to the nation's consumers of abundant supplies of food and the maintenance of ample reserves to be released into the market in times of shortage at 110 percent of parity.
2. Guarantee a nutritionally adequate diet for all Americans.
3. Expansion of the Farm Credit System to allow farmers and ranchers to make the extensive capital investments needed to produce the nation's food.
4. Strict guidelines for land use that will preserve agricultural land.
5. Cost sharing conservation programs that will allow farmers and ranchers to better protect our nation's greatest natural resource—the land.
6. A program to make a farming career available to qualified young people without the overwhelming financial burden.
7. Involvement of the U.S. in international trade agreements to offer United States farmers and ranchers a constant and fair export market.
8. Participation by the U.S. in a world grain reserve which will free the world's farmers and consumers from the economic stranglehold of fluctuating prices and act as a strategic emergency food supply.

* * * * *

III. LAND POLICY

Objectives of the comprehensive land policy of the Farmers Union include: (1) Maintaining family agriculture, a viable rural America, and the capacity to produce abundant food and fiber; and (2) assuring the conservation of our land, water, and air.

Other elements of our policy include population policy to assure viable rural communities, provisions for land transfer, especially to young farmers and ranchers, protection from eminent domain policy abuses, economic and tax policy to protect family farmers and ranchers, and improved water and waste treatment systems.

The nation's resources are protected best by families who own and control their land. In addition, family farmers and ranchers must have the protection of government policy which provides for government programs to assist in conservation and maintenance of an ecological balance, regulation of surface mining to prevent destruction of the land and water, disposal of waste, and use or inorganic chemicals.

A new national land and food policy oriented to family agriculture is now needed. Family farmers, the historic custodians of Mother Earth, must take part in this crusade to save human species from extinction. We call upon the ecologists, scientists, ministers and their followers, teachers and their students and all people of good will, to join with rural America in preserving family agriculture, which is basic to the ecology. We must act in unison to preserve the food supply and the environment.

A. Corporation Farming

The Farmers Union urges the passage of state and federal laws to prohibit the entry of non-farm corporations, limited partnerships, and other non-farm structures into agriculture, and to force those already in agriculture to divest themselves of their agricultural interests.

Foreign interests (excepting families and individuals seeking U.S. citizenship) should be prohibited from acquiring agricultural lands.

Legislation to restrict entry of corporations into agricultural production should exempt farmer-owned cooperatives and associations which meet the criteria of the Capper-Volstead Marketing Agreements Act.

B. Population Distribution

There is theoretically an ideal balance between any given population and its resources, its technology, and its social-economic system. We, therefore, recommend that the people of this nation and the world develop unused resources, implement technology to improve their social-economic systems, and encourage realistic individual family planning.

For the U.S., we urge a national policy that will stimulate revitalization of rural America to provide for new opportunities for sound resource development and a better population balance. Congress should start by fully funding the Rural Development Act.

C. Land Transfer

1. *Land Agency.*—We urge that legislation be enacted by Congress and individual states to establish a state and national land policy that should enable farmers to sell their farms in a lump sum or deferred payments at fair appraised values to a land transfer agency. Such property would be made available to young farmers on long-term lease or payment schedules at low interest rates to help preserve the family-farm pattern of agriculture by permitting transfer from one generation to the next. One-half of the capital gains tax owed by the seller of such property should be exempt.

2. *Credit.*—We recommend at least \$2 billion be made available at 3-percent interest for operating loans and \$2 billion to finance purchases of farms through the Farmers Home Administration for new farmers.

We recommend that the limit on farm ownership loans be increased from \$100,000 to \$350,000, and operating loans increased from \$50,000 to \$150,000 as additional funds become available in order not to reduce the number of farms assisted.

3. *Estate and Gift Taxes.*—The Tax Reform Act of 1976 makes some desirable changes in federal estate and gift taxation, including the valuation of farm estates on the value of the land for farming; the increase of the marital deduction to \$250,000, or half of the estate, whichever is larger; the provision of a longer period (15 years) within which the tax must be paid; the setting of a 4-percent interest rate on the unpaid tax; and a substantial increase in the value of an estate which will be exempt from taxation.

However, the amount of the exemption does not come up to the figure advocated by Farmers Union and the 5-year phase-in will delay the full benefit of the provisions, with the possible effect that continued inflation of assets could offset part or all of the yearly increase in the unified estate and gift tax credit.

We, therefore, urge the Congress to amend the law to provide for a unified estate and gift tax credit, equivalent to a tax exemption of \$300,000, beginning in 1978. We further propose that the annual gift tax exemption be raised to \$6,000 a year.

Husband and wife must be considered equal owners of farms or small businesses if they so designate. It should not be necessary for the wife to prove she helped pay for jointly owned property acquired between 1954 and 1977. We ask that it be recognized that all joint tenancies are owned half by each.

The provision of the bill, which requires that capital gains which were not realized during a decedent's lifetime hereafter will be subject to tax, has raised concerns among farmers as to its impact. We ask that Congress re-evaluate this provision to assure that it will not be injurious to family-sized farm estates.

D. Eminent Domain

The 5th Amendment of the Constitution assures that "private property (shall not) be taken for public use without just compensation." We urge constant vigilance in order that this constitutional assurance not be weakened or violated.

The power of eminent domain is being abused in many instances. We call for a

moratorium on the powers of eminent domain where the rights of private land owners are not fully protected through legal processes. Agencies which have the right of eminent domain must be required to prove that land is needed in order to serve the public interest, that fair environmental standards will be observed, and that no more land is being taken than is actually required. A public hearing on each project will be held in the affected area, after legal notification of all area residents and owners. Court-adjusted compensation should return full value of property to the owner and legal costs should be borne by the agency condemning the property, in case court settlement exceeds final agency offer for the land.

Where the federal government takes land for projects, it should comply with all obligations of the Uniform Relocation and Real Properties Acquisition Act.

E. Economic and Tax Policy

1. *Tax Policy.*—In order to protect family agriculture, we urge tightening of tax-loss farming provisions to limit this tax advantage for off-farm investors.

Tax advantages should be ended for non-farm interests that are now able to change ordinary income into capital gains by investing in agriculture.

More of the cost of public education and welfare should be shifted from the unfair property tax system to a system which is based on the ability to pay through graduated state and federal income taxes on both corporate and personal income.

We urge the Congress to pass legislation providing reimbursement to counties, school districts, and other local taxing entities for property taxes lost as a result of private lands taken by the right of eminent domain, or by other methods for recreation, dams, military or any other purposes. Such real estate should be taxed at the same rates as similar land is taxed for agricultural or natural purposes.

We recommend that cash transfers of property or equipment between lineal descendants on a one-time transfer be entitled to take advantage of the federal investment tax credit.

2. *Housing.*—Rural America has more than 60 percent of all substandard housing in the nation. Yet, most of the federal housing funds are spent in urban areas.

A legislative goal of at least 300,000 rural housing units per year should be established to be financed by the Farmers Home Administration.

We urge Congress to increase appropriations for all public housing with allocation of units to rural areas in proportion to the need. Provisions should be made to accelerate rural cooperative and farm labor housing programs, and to implement the section of the Housing Act of 1968 which authorizes experimental programs in rural areas, including self-help and building site purchases.

Congress should provide housing grants up to \$5,000 to low-income families for emergency repairs to houses that have deteriorated to a point where they are unfit for habitation.

3. *Zoning.*—The rights of those most affected by land zoning decisions must be fully protected at all levels of the decision-making process. The destruction of farm units should be avoided if at all possible.

Farm land near areas already converted to urban or other uses which may be growing in speculative value should be taxed as agricultural land.

In water-scarce areas, when it is proposed to change the use of land from agriculture to other uses, a water feasibility study should be required to determine the effects on future water supplies.

We oppose the use of federal or state funds to build flood control projects for the protection of those who insist on building in known flood plains. We favor zoning laws prohibiting construction in known flood plains.

We look with favor on the idea of forming "agricultural districts" in areas outside cities and towns, creating the opportunity for such entities to incorporate to provide rural people with greater decision-making powers in matters of land use.

4. *Water and Waste Facilities Grants.*—We urge that every effort be made at the national level to focus attention on the needs that exist for funding and facilitating rural water and waste systems with loans and grants at full levels authorized by Congress, in order to provide these services to rural users at costs commensurate with those in nearby urban areas.

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2. *Farmer Representation.*—Family farmers and ranchers should be adequately represented on all boards and commissions dealing with zoning, land purchase, leasing, transfer, environment, health, and planning to preserve agricultural land in the future.

G. Ecological Balance

Ecological balance can best be achieved through maintenance of family-type agriculture in which crops are rotated, livestock waste is not in excess of the volume that can be returned to the soil, farm forestry plot, and other conservation measures are common practice. Corporate agriculture, on the other hand, is less sensitive to natural resource conservation. There is particular need for control of corporate livestock feeding, which has resulted in serious water and soil pollution.

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3. *Water Policy.*—Water policy is inseparable from energy and agricultural policy. We urge adoption of the following order of preference in the use of water:

- a. Domestic and municipal consumption;
- b. Farming and ranching, including ground water recharge;
- c. Hydroelectric uses;
- d. Navigation;
- e. Industrial consumption;
- f. Wildlife and recreation.

We favor a federal water policy that would minimize disposal and encourage recycling. Methane gas and fertilizer would be benefits of such a policy.

We urge Congress to amend the 1902 Reclamation Act to allow family-farm units that are not entirely Class One lands to be increased in size. Additional acreage allowed should depend on soil quality, crop adaptability, cost of production, and the length of growing season.

Determination of additional acreages should be made by the Secretary of Interior with Congressional oversight to insure the original intent of the 1902 Reclamation Act.

We urge the strict application of the preference clause for consumer-owned utilities. This provision of the law, based on the constitutional authority of federal management of water resources of this nation, must not be weakened by legislative or administrative action.

We oppose the movement of any water for the purpose of a coal slurry pipeline or similar venture, unless a method can be developed to return equal quality and equal quantity of water to the original area from which it is taken.

Prior to the exportation of any water, an environmental impact statement must be made to determine the effect on agriculture.

IV. ENERGY POLICY

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E. The Environment

We realize the need for enormous amounts of energy in all forms. We believe that this energy should be generated without polluting the earth, air, and water. Pollution standards should be set at levels to prevent damage to health, and energy-producing corporations must be required to meet those standards.

1. *Coal Policy.*—A strong federal statute on strip mining is needed so that any land stripped to recover underground resources must be returned to its original use so the land can be put back into production.

To accomplish this, we recommend that the topsoil (a minimum of 18 inches), be removed, stored, and returned to the top. Suitable vegetation should be established within one year after the spoil banks are graded.

Any land not fully restorable to its original agricultural use should be banned to strip mining. All land already subjected to strip mining must be returned to its original use.

We believe that strip mining should be forbidden in alluvial valley floors because such land is needed more for agricultural production.

Emphasis should be placed on making underground mining as safe, economically attractive, and technologically feasible as possible.

Coal companies should be required to post bond for the restoration of agricultural land damaged by strip mining or mine sinks. The Abandoned Mine Reclamation Fund pending in the Surface Mining Control and Reclamation Act of 1977 should be amended to provide assistance to farmers and ranchers to reclaim land when damage occurs following mine abandonment.

With this protection, energy would be provided without damaging the nation's most important non-renewable resource—agricultural land.

For privately owned agricultural lands where the federal government retains the subsurface mineral rights, we support legislation requiring the written consent of the landowner prior to any lease of such lands for strip mining.

2. *Oil Shale*.—Oil shale development poses serious problems for the western region of the United States. This development will disturb large areas of land to recover a small percentage of oil. The debris from these operations expands in volume, causing massive disposal problems. Salts present in shale and associated soil material are dissolved in surface water. This can lead to saline contamination.

It is imperative that no commercial development of these resources, either by heat or nuclear explosions, be conducted until all environmental effects are assessed and assurance is provided that all liabilities will be assumed. Burden of proof should rest with the energy companies.

Any subsidies granted by the federal government to the synthetic fuels demonstration program should be directed specifically to large-scale prototypes simulating actual commercial operation, and all data collected should be made available to the public, including studies showing the economic and social impacts on citizens of the affected area.

Consideration should be given to the social and economic impact on local communities where synthetic fuels might be developed. Federal appropriations should include moneys for housing, schools, and other services when communities are impacted by new coal and oil shale development.

3. *Hydroelectric Sites*.—We urge the cautious development of hydroelectric power sites in order to assure that the ecological balance will not be threatened.

[The following material was submitted by Mr. Ehle:]

[Reprinted from the News-Sentinel, Fort Wayne, Ind., Mar. 17, 1972]

FARMERS WARNED TO STOP SELLING LAND FOR HOUSING—PRIME AGRICULTURAL GROUND SCARCE

(By Roger Metzger)

Should residential development of prime agricultural land in Allen County be permitted to continue as is now happening?

If not, what should be done to restrict that "urbanization" of the most productive farm land?

Those thorny issues were the topic of an informational presentation Thursday night at Woodlan High School by the Allen County Cooperative Extension Office and Allen County Soil and Water Conservation District. And the session seemed to provide lots of "food for thought" on the pros and cons of the controversial subject for the 200 farmers attending.

A repeat performance is set for 7:30 p.m. March 28 at Carroll High School. Projected urbanization of rural Allen County by 1990 based on current trends, will require 33 square miles, or a tract about the size of Jackson Township, the farmers were told by Jack Suter, director of the Allen County Plan Commission.

Earlier, John Couey, area extension agent, explained that an average of 637 new homes a year has been constructed over the last seven years in Allen County outside the two-mile fringe around Fort Wayne.

"We must expect continued growth," Suter said, noting Allen County's population jumped 21 per cent between 1960 and 1970, compared to only a 13 per cent gain for Marion County.

"If something isn't done, prime agricultural land is going to become more and more scarce. And the urbanite isn't going to tolerate some of what he considers nuisances that go hand in hand with prime agricultural land uses."

The solution, Suter suggested, lies in prohibiting the sale of prime agricultural land for residential uses.

"You must decide which you want to be . . . a farmer or a land developer," Suter said after indicating he felt zoning for strictly agricultural uses was the only way to stop urban encroachment on the County's most productive soil.

"I don't think it will be too well taken," Suter remarked in prefacing his suggestion. "But I think the handwriting is on the wall and this is the only way to go . . . along with trying to guide residential growth into areas properly suited for urban uses."

Asked how such a zoning change would come into being, Suter said the "impetus should come from the people most directly affected,"—the farmers.

"The Plan Commission is concerned about the problem," Suter indicated. "But I don't think any Plan Commission member is going out on his own to start this sort of crusade unless he knows the people favor it."

If enough people favor such a plan, the rural landowners should let the Plan Commission know about it, Suter stated. Evidence of general acceptance would result in a proposed amendment, public hearings on it and forwarding to the County Commissioners if the hearings proved favorable. The Commissioners then would decide whether to approve the amendment.

"If it passed, then probably about the next thing that would happen is that the next week someone would test in court for us," Suter laughed.

One farmer spoke against the agricultural zoning proposal as a further loss of freedoms, and that has been an objection in discussions of the problem in other farm groups. Farmers opposed to the concept dislike restrictions preventing them from selling a part or all of their land for nonfarm uses if they chose.

Ellis McFadden, program chairman, said that when the present County zoning plan went into effect 10 years ago, "there was a lot of talk about farmers being opposed to zoning because of the threat to their freedoms. Today, I see it as a protection, primarily, for the farmers' own investments."

Another side of the question of freedoms was raised in the presentations. That dealt with the problem of law suits and other difficulties stemming from complaints of those who are now building in agricultural areas, then object to "disturbances" of farm operations.

PANELIST Waltet Oehler, a livestock farmer, and Michael Lomont, a grain farmer, cited some of these problems:

—Objections to noises and odors from livestock operations, sometimes resulting in lawsuits that jeopardize \$25,000 to \$100,000 investments by farmers.

—Complaints about air pollution in the form of drifting chemicals, such as nitrogen and herbicides being applied to farm land, and dust from grain harvesting.

—Gripes about noise pollution, which in some Indiana metropolitan areas resulted in ordinances stating that no engines such as lawnmowers or farm machinery are permitted to operate after 10 p.m.

—Hazards in moving wide farm equipment along narrow rural roads, "especially where there are mailboxes every few feet."

Dan McClain, district soil conservationist, explained that soil characteristics best suited for farming often are not good for residential development because of drainage problems. Only five per cent of the County's land offers unrestricted percolation qualities for septic tank systems.

"We're not trying to say we're going to build a fence around this agricultural land and say stay out," McClain emphasized. "We're looking at what better management can do on the land. If we are going to zone prime agricultural land strictly for that, farmers are going to suffer some on land prices. But better land use management can encourage more fulltime farmers in the future."

[Reprinted from the News-Sentinel, Fort Wayne, Ind., Mar. 29, 1972]

AG 'URBANIZATION' JARS ALLEN FARMERS

(By Roger Metzger)

Another group of Allen County farmers took a look Tuesday night at the problems they face as residential development rapidly expands into some of the County's most productive agricultural land.

Representatives of the Allen County Cooperative Extension Service and Allen County Soil and Water Conservation District outlined problems related to mushrooming urbanization in a presentation at Carroll High School. The informational session was a repeat of discussions March 16 at Woodlan High School.

Urbanization of agricultural land is a matter of increasing concern because of explosive population gains in Allen County, the speakers emphasized.

Statistics cited at both meetings showed the County's population soared 21 per cent between 1960 and 1970, while the four other largest counties in Indiana had increases of just two to 13 percent. Current trend indicates that by 1990 urbanization will take up 33 square miles, or an area the size of Jackson Township, according to Jack Suter, Allen County Plan Commission director.

George Dunten, local extension agent, cited figures showing an average of 637 new houses were built each year in Allen County outside the two-mile fringe around Fort Wayne over the last seven years.

"Figuring an average of one-half acre per house, we're losing more than 300 acres per year to new homes in Allen County," Dunten said. "And that doesn't take into account accompanying development such as shopping centers, parking lots, roads and related uses."

What does this mean to the farmer?

Walter Oehler, a livestock farmer, and Michael Lomont, a grain farmer, predicted eventual food shortages if too much prime agricultural land goes for residential development. "I feel we have a moral obligation to preserve our best farm land," Lomont stated. "We have surpluses now, but who knows what we'll have 15 or 20 years from now."

Both panelists mentioned the problem of complaints and lawsuits from "urbanites" who find advantages in rural living but object to odors, noises, dust and dirt coming from nearby farming operations.

Suter repeated his suggestion made at the initial meeting that the solution lies in prohibiting sale of prime agricultural land for residential uses.

Some concern was expressed about that approach during a later question-and-answer because it would prevent a retiring farmer from selling his land for residential development to realize the most profit, that a son would not be able to build a house on his father's farmland, and that in some cases land that could be sold for \$1,500 an acre for development might adjoin property that might bring only \$500 an acre as prime agricultural land.

Earlier, Suter said he felt farmers must decide "which you want to be . . . a farmer or a land developer" and indicated a movement to establish zoning strictly for agricultural purposes would have to come from the landowners themselves.

Alternatives to restrict urbanization to areas less suited to agriculture were also discussed. One of these involved formation of agricultural districts, following the pattern of New York State, where farmers organize and agree to keep all of their land in agricultural productions for periods of eight years at a time. The other mentioned the possibility of more rigid requirements for sewage treatment on individual lots, making necessary more elaborate filter systems that would discourage building in certain rural areas.

Conservationist Jim Lake emphasized that the ideas presented were intended for information and that no attempt would be made to force restrictions upon the landowners.

Survey forms were distributed to those attending by Ellis McFadden, chairman of the conservation district, who said results would be compiled to determine whether there is sufficient interest to justify further study and meetings on the issue.

[Reprinted from the Journal-Gazette, Fort Wayne, Ind., Apr. 13, 1972]

PROBLEMS RECOGNIZED—AGENCIES VIEW CONFLICTS IN CITY, FARM LAND USE

(By Glenn Allen)

Urban sprawl in Allen County is a two-headed monster which threatens both the farmer and home builder through misuse of land.

That was the consensus of a number of representatives of concerned governmental agencies who met last night in the County Plan Commission office to discuss the problem informally.

The meeting had been sought by Ellis McFadden of the Allen County Soil and Water Conservation District following the survey made recently by his agency on land use in the county.

Represented at the meeting were the County Council, county commissioners, the Board of Health, county surveyor and the Three Rivers Environmental Control Advisory Board, as well as the conservation and planning units.

McFadden first called on two farmers, Michael Lomont, a grain farmer, and Walt Oehler, a livestock farmer, who pointed out conflicts between residential and farming usages and sought a stop to encroachment of urban expansion onto prime agricultural land.

Then, two conservationists from the soils agency, James Lake and Don McCain, pointed out that most of the agricultural land being so developed was poorly suited for housing and buildings, and that residents were encountering many problems, particularly in sewage and drainage. General discussion seemed to indicate a consensus feeling that urban development should be limited to land unsuitable for farming which was reasonably suited to development.

Luckily, in Allen County, the non-farm land is best suited to urban development, McCain pointed out.

Surveyor William Sweet, who agreed with McCain as to the many problem calls he, too had received about poor drainage, said the pressing matter was implementation.

Sweet suggested two approaches for immediate control—elimination of a provision which allows farmers to sell two lots a year without providing plat plans, and formulation of stricter sanitary provisions.

These could curtail the problem while a broader plan was formulated and refined, he said.

Richard Ellenwood, president of the Board of County Commissioners, said that while he favored the plan, he believed it might meet a great deal of resistance from farmers who were told they would not be able to sell land for urban development.

"They would be left with land valued at \$500 an acre, the going agricultural value, while those not so restricted might be getting thousands of dollars."

LAND USE—I—POPULATION SPREAD GETS CLOSE LOOK

(By Jane Scholz)

An auburn-haired movie heroine once made cinema history by declaring, "Land's the only thing that matters, it's the only thing that lasts," but increasingly county land planners and farmers are worrying about how long fertile acreage in the county will remain devoted to agricultural use.

Between 1954 and 1968, 72 square miles of farm land in the county were lost to agriculture, most of it through residential construction, Jack Suter, director of the County Plan Commission, notes.

Compared to the 467.3 square miles of Allen County land still devoted to agricultural uses, 72 square miles seems paltry, but experts at the Allen County Soil and Water Conservation District office and the plan commission are taking a serious look at the possibility and consequences of the loss of more agricultural land by urban encroachment.

City and county population growth figures for the last ten years are an indication of "urban spread" in the county:

While the city gained 15,895 residents (a 9.8 per cent increase), the county gained 48,259 inhabitants (an increase of 21 per cent).

ANOTHER 22 GOING

Within the next 18 years, projections of population and land use in the county indicate that another 22.2 square miles of land will go into residential development to keep pace with population growth, Suter said.

Dan McCain, Soil Conservation Service (SCS) district conservationist, observed that the spread of urban development does not per se endanger valuable agricultural acreage—it is only when urban spread spreads in the direction of prime land that real problems arise.

The eastern segment of the county, including all of Maumee, Jefferson, Jackson, Madison and Monroe townships and parts of Springfield, Scipio, Milan and Adams townships, contain most of the county's prime agricultural land.

These sections, along with parts of Pleasant, Lafayette and Lake townships to the south and west, are ranked by SCS as "productive areas to be preserved for agriculture."

McCain points out, however, that a finger of growth reaching east of New Haven could be the beginnings of heavy residential development in the eastern area.

PROCESS SLOW

"The process by which prime farm land becomes residential property is a very slow one," McCain said, "but you can see the beginnings of it now with the strips of housing that line most county roads."

Why be concerned about residential and the ensuing commercial development on land that was once "down on the farm?" A number of reasons are cited:

"Most important is the fact that with future population growth, we are going to need every foot of good crop land we have," James Lake, county conservationist, said.

McCain observed that aside from the fact that use of good growing land for housing is detrimental to food production, such development is often harmful to the homeowner.

The best agricultural land in the county, he said, is productive for reasons which make high density home construction impractical.

Some 444 acres of prime agricultural land in the county, SCS has determined, have a capacity for holding water above or below ground level which is good for thirsty crops but bad for homeowners who like dry basements.

"Problems such as flooding of basement, crawl spaces, patios, etc., may occur due to surface water and high water table problems in these soils," an SCS report reads. "For this reason, use of this land may not be best adapted for urban development.

"Urban uses of prime agricultural land could be considered detrimental to the agricultural future of this county," the report concludes.

Conversely, McCain points out, there is much land in the county where soil conditions are poor for farming and where residential land use would not only be acceptable, but preferable to agricultural uses.

"Farming on poor soils which don't hold water leads to increased sedimentation in rivers," McCain said, noting that heavy silt loads are already one of the Maumee River's great problems.

Finally, farmers who remain in the agricultural business while residential development springs up around their acreage, face the possibility of being forced to curtail some of their operations because of homeowners' complaints.

Confined feeding areas, where large numbers of animals are raised in a small space, produce "farmy" smells which aren't exactly perfume to the noses of suburban homeowners, Suter said.

Another problem is the farm's working hours—at peak seasons machinery may grind away from 5 a.m. to midnight—certainly an irritant for the nearby city worker whose hours are 8 to 5.

Upon complaint of neighbors who resent such irritations, several feeding operations have already been closed down, one Farmer's Union member reports.

"We need land for both residential and farm uses," Lake observed, "simply because people need places to live and food to eat.

"The problem is directing urban growth toward land best suited for it and at the same time preserving the best crop lands for farming."

ALLEN COUNTY SOIL & WATER CONSERVATION DISTRICT,
Fort Wayne, Ind., February 21, 1973.

DEAR CONCERNED FARMER: As you probably know a meeting was held at Woodlan High School, January 23, 1973, concerning protection of Prime Agricultural areas in Allen County from the devastating effects of urban encroachment. At that meeting Jack Suter, Allen County Plan Commission Director, told the group of about 80 farmers that "if you want something done, you're going to have to convince the Planning Commission that you really are interested."

Well, as many of you know Russell Meyer called a meeting for February 15, at my office to organize our ideas and to make preparations for meeting with Plan Commission officials. As a result of Russell's tragic death that meeting was dissolved.

Another meeting has been set for February 26, 1973, at 7:30 p.m. at the Allen County Extension office to pick up where we left off.

It is important to note that the members of Russell's family told myself and others that we should continue our efforts even harder because as far as they were concerned this was a very important issue, and that Russell wouldn't want us to let up on it now.

I hope we can all be at the meeting Monday night to continue our effort toward some solutions to this ever increasing problem.

Sincerely

JIM LAKE,
County Conservationist.

[Reprinted from the News-Sentinel, Fort Wayne, Ind., Apr. 12, 1972]

COUNTY TO GET SAVE FARM LANDS FIGHT

(By Roger Metzger)

Prompted by increasing concern over urbanization of prime farm land, the Allen County Soil and Water Conservation district will meet with county governmental officials to discuss the problem.

"We plan an informal, informational session to see how our ideas fit into the plans and programs of the various elected officials and boards," Dan McCain, district conservationist, said. "The outcome of our survey distributed to land-owners in a meeting at Carroll High School is encouraging in that it indicates a favorable attitude toward more involvement of the County Plan Commission."

Nearly 90 per cent of those completing surveys, distributed at the recent meeting, said they believe the problem of rapid residential development on agricultural land "is serious and needs further attention." The vote was 51 to 7.

"We realize the survey returns represent an awfully small segment of our society," McCain said. "But we will attempt to find out what citizens want and, if interest is high enough, we'll have a public meeting."

The survey asked if farmers felt it was important to protect prime agricultural land from residential development, and 43 answered yes, while 11 said they did not.

All but nine of 54 farmers responding said they favored the creation of agricultural "districts" to protect their investments. These districts might be created by farmers who agreed not to sell land for non-agricultural purposes for periods of eight years, for example. Asked if they would agree not to sell any prime farm land for non-agricultural uses, 28 of 40 answering said they would.

Most rural landowners answering the survey indicated they believed the location and extent of the county's prime farming areas should be determined either by the Plan Commission, or soil survey maps, or both.

Statistics cited at two meetings of Allen County farmers indicate the county has lost an average of more than 300 acres per year to new homes over the last seven years. Current trends indicate that by 1990 urbanization will require an additional area the size of Jackson Township.

Problems of complaints and lawsuits from urbanites who find advantages to rural living but object to odors, noises and dust coming from nearby farming operations were cited. Also cited was the problem of poor drainage resulting in residential development on land best suited for farming.

"We believe we have a real problem, both for the farmer and the urbanite," McCain said. "We're looking for the best way to solve it, but we want to emphasize that no public official is going to crusade for change unless he knows the public wants something done about this problem."

"What we would really like to see happen is that, in the future, houses be built on land best suited for that use, while the county's best farm land be kept in agricultural production."

[Reprinted from the News-Sentinel, Fort Wayne, Ind., Apr. 13, 1972]

SURVEYOR BELIEVES FARM LAND SALES BAR "REAL PROBLEM"

(By Roger Metzger)

Efforts to prevent residential development of Allen County's prime agricultural land could benefit not only farmers, but urbanites and society in general.

That was the consensus Wednesday night at a meeting of County government officials, representatives of the Three Rivers Environmental Control Board and the Allen County Soil and Water Conservation District. They met to discuss the rapid urban encroachment on some of the County's best farm land and resulting problems, both present and future, for the farmer and the rural lot dweller.

There was not disagreement about the need for directing residential development to those rural areas least suited for farming.

The way to achieve that objective was not so easily agreed upon by those participating in the informal, informational exchange of ideas. But, they did agree that at least some preliminary steps should be taken toward encouraging development in those rural areas best suited for housing and commercial uses, and not farming.

"Any way we do it, this is going to be a real tough planning problem," County Surveyor William Sweet said. "It's an idea that's going to take a lot of selling, or educating the public."

Sweet suggested that a start could be made by a zoning ordinance amendment eliminating the provision that farmers can sell two lots per year for residential use. He also suggested that the provision allowing the use of filter beds for rural residence septic systems be eliminated or modified, thus discouraging new housing construction on those soils unsuitable for absorption fields.

"Neither of these would be irrevocable steps," Sweet said. "If we found we made serious errors, we're not without options."

"Still, a lot of people who own land want to be free to exercise their fundamental right to sell their land as they see fit," Sweet continued. "But we won't really know until we stop some of them and listen to them and their lawyers. I think

you could set a deadline for some time in the future and say you must tie into a municipal sewer system or you can't build, and enforce it."

Atty. Frank Webster, a member of the Environmental Control Board and chairman of the Fort Wayne Chapter, Izaak Walton League, asked the Soil Conservation Service to prepare its recommendations for use as a guideline in developing the Control Board's land use ordinance. He emphasized, however, that the Board is a recommending agency only and has no power of enforcement.

Earlier, Webster said that planning to put developments on land best adapted to them would be a means of protection for the buyer.

"You would be doing him a service by preventing the sale of a lot when it was high and dry and then having it flooded later," Webster stated.

Jack Suter, director of the Allen County Plan Commission, said the Commission's only practical approach is to identify prime agricultural land and protect it. He stresses that elimination of the two lots per year provision would not stop developers from buying up large tracts of prime farm land and subdividing it.

"About 17 per cent of the 250 new home starts in our jurisdiction since the first of the year were in agricultural land, and about 4 per cent of those in prime agricultural land," Suter said.

"So, that problem isn't really large right now," he added. "The thing that concerns me is the large developments that can come in and take up several hundred acres of top farm land."

Urban development follows utilities, sewer and water services, Suter said. "If local governments were able to provide the utilities in rural areas, these would guide development into the most logical areas," he added.

Dan McCain, district conservationist, said few people understand the well and septic problems, leaky basements and other problems they may face when they buy a rural lot on a poor site. "They call us with drainage problems and, when they live there and have a mortgage, the only thing they can do is try to work it out. About all we can do is offer sympathy," McCain said. "The solution begins back much earlier in proper planning."

County Councilman Irwin Bandemer said he spoke for the Council in expressing appreciation for the thought being given to the planning discussed at Wednesday's meeting and presented at two earlier meetings of rural landowners in the County.

Bandemer suggested that some restrictions on rural development might encourage more Fort Wayne residents to stay in the City and spend more to improve their City properties. He also said he believed such planning would be helpful in the future in locating highways and schools more advantageously.

ALLEN COUNTY SOIL & WATER CONSERVATION DISTRICT, *Fort Wayne, Ind., April 24, 1973.*

GENTLEMEN: Undoubtedly you are aware of the fact that the Allen County Soil and Water Conservation District is vitally interested in the proper use of soil and water resources in Allen County. The Supervisors of the Conservation District, together with many other individuals and organizations have become increasingly aware of the many conflicts that arise from the mixing of agricultural and non-agricultural land uses. The conflicts and potential problems create many situations which are intolerable both for the home owner and the agricultural operator. The problems most frequently discussed at recent community meetings could be included under three general headings:

- Drainage
- Conflicting land uses
- Loss of land resources

Drainage.—Surprisingly, the areas of the County which are most suited for agricultural production because of either geographic location or the inherent capability of productivity are situated on soils which are characterized by poor internal drainage—certainly an undesirable for home construction. The problems created by the internal drainage limitations of certain soils lead to increased water pollution from the installation of septic tank systems, flooded basements and crawl spaces and the potential overloading of farm drainage systems which were installed for strictly agricultural uses.

Conflicting Land Uses.—Residential and agricultural land uses have many potential conflicts. Situations cited at recent discussions include odors from livestock operations which are undesirable from a residential standpoint, the traffic hazards created by the increasing number of driveway entrances onto County roads, the lack of urban facilities such as schools, shopping, police and fire protection, and the nuisance of noise, chemical and the sometimes, later operation of

farm machinery is naturally disturbing to the home owners yet essential for the agriculturalist. These situations lead to undesirable climate for home owners and for the farmer who must continually invest large sums of money for equipment and facilities.

Loss of Land Resources.—We all should be aware of the fact that land is an irreplaceable resource and we must use it judiciously. Often the highest monetary return, is not in the best public interest. We feel that agricultural land is an important commodity and must be preserved.

The list of conflicts and problems is endless but the undersigned feel that there is room for both lifestyles without the aforementioned conflicts. We are by this letter requesting the Allen County Plan Commission to develop an Ordinance whereby exclusive agricultural districts are created to protect and preserve the prime agricultural land in Allen County by permitting only agricultural related land uses to further protect a potential home owner from acquiring a home site in an area where the natural characteristics of the real estate lend themselves to agricultural purposes rather than home construction.

The supervisors of the Allen County Soil and Water Conservation District would be pleased to provide the Plan Commission with maps as well as technical assistance in the identification of prime agricultural lands in Allen County.

Sincerely,

ELLIS McFADDEN, *Chairman.*

ALLEN COUNTY SOIL & WATER CONSERVATION DISTRICT,
Fort Wayne, Ind.

DEAR CONCERNED FARMER: The Allen County Soil and Water Conservation District Board of Supervisors met last week and one of their items of business was discussion of the Prime Agricultural Land Zoning Proposal, which we have been working on for some time. From discussion of the results of our efforts to collect signatures of farmers and others who feel that steps should be taken to protect prime agricultural land, in Allen County particularly, it seems as though we are moving in the right direction. For example, the first two petitions returned to this office contained a combined total of over one hundred and ten signatures.

The board felt that it would be good to get our group back together again to summarize the results. We also feel that it would be good to discuss any reactions or comments that you may have received during your effort to collect signatures. We will also want to discuss our next step of action.

Ernie Lesiuk agreed to host the group at the Allen County Extension Office on May 27, 1973 at 8:00 p.m. Would you please try to be in attendance and bring with you your list of signatures. Even if you have only a couple of signatures be sure to bring them in, each and every signature will help and they will be much appreciated.

While we are together at this meeting we would like to discuss the purposes of our efforts with any farm organization or other organization that might want more information on it as a result of your contact with them. We hope then that they will be able to make a definite policy decision on this issue. If so, they will be very helpful to us in our future efforts.

Sincerely,

JIM LAKE,
County Conservationist.

P.S.—See you May 27th, 8:00 p.m. County Extension Office.

SOIL & WATER CONSERVATION DISTRICT,
Fort Wayne, Ind., October 3, 1973.

DEAR CONCERNED FARMER: As you are probably aware by now that the Allen County Planning Commission is holding a public hearing on the Prime Agricultural Ag. Zoning Ordinance that our group has initiated on October 17, 1973, at 9:30 a.m.

I am well aware this is a bad time to have a hearing and expect farmers to attend. However, the planning commission feels that we can't afford to let the ordinance ride any longer, and I think they're right.

Several people have requested that our group get together before the public hearing to plan our actions, such as group representatives that will speak at the hearing and any other necessary items pertinent to the hearing.

We the undersigned, recognize the need for agricultural zoning methods in Allen County and hereby endorse this request and lend the Allen County Plan Commission our full support. THIS IS ONE OF NINE PAGES SIGNED BY LOCAL LANDOWNERS AND CONCERNED PEOPLE OF THE COMMUNITY

<u>Dr. J. P. Doctor</u>	<u>R# 2 Monroeville Ind.</u>
<u>Dennis H. Dote</u>	<u>R# 2 Monroeville, Ind.</u>
<u>Wm. Ralph Doster</u>	<u>R# 2 Monroeville Ind.</u>
<u>Mr. John Hoffmann</u>	<u>R# 2 Monroeville Ind.</u>
<u>Robert G. Gault</u>	<u>R# 1 Monroeville Ind.</u>
<u>Robert G. Gault</u>	<u>R# 1 Monroeville Ind.</u>
<u>Eugene G. Gault</u>	<u>RR 1 Monroeville</u>
<u>Grace M. Bacon</u>	<u>H. Wayne Ind. R# 7</u>
<u>Richard G. Gault</u>	<u>H. Wayne Ind. R# 7</u>
<u>Hilda Linderson</u>	<u>H. Wayne Ind. R# 7</u>
<u>Wm. Bergall</u>	<u>Monroeville</u>
<u>Charles H. Bergall</u>	<u>Monroeville Ind. R# 7</u>
<u>J. Wm. T. Niten</u>	<u>H. Wayne Ind.</u>
<u>Charles H. Bergall</u>	<u>R# 2 Monroeville Ind.</u>
<u>Laurence H. Bergall</u>	<u>R# 2 Monroeville Ind.</u>
<u>Laurence H. Bergall</u>	<u>R# 2 Monroeville Ind.</u>
<u>Laurence H. Bergall</u>	<u>R# 2 Monroeville Ind.</u>

Our District board met on October 2, 1973 and discussed this issue and decided that a meeting would be worthwhile. The meeting will be held at the Allen County Soil & Water Conservation District Office at Executive Park at 8:30 p.m. on Wednesday evening October 10, 1973. Please make a serious effort to attend even though it will probably be on a busy harvesting day. We've progressed this far, and don't want to loose due to the fact of not being prepared for the hearing.

Sincerely,

JIM LAKE,
County Conservationist.

P.S.—I'm sending along a copy of the ordinance just as it will be presented on October 17, 1973.

Enclosure.

A HEARTLAND TOWN MEETING REPORT—603: DISCUSSION ON THE PRESERVATION OF PRIME AGRICULTURAL LAND

I. PRESERVATION OF PRIME AGRICULTURAL LAND: A SUMMARY OF RECENT ATTEMPTS

INTRODUCTION

The preservation of prime agricultural land is a key issue to the Indiana Heartland Coordinating Commission and local governments in the Heartland Region. The adopted "Goals for the Indiana Heartland Coordinating Commission and the Heartland Region" lists this issue in the goals for "Balanced Growth and Development" and to "Improve Environmental Quality".

This summary is not intended to be a comprehensive overview of the issue of preserving prime agricultural land but merely a survey of ideas to provide a launching point for further discussion and, hopefully, future action.

IHCC would like to thank Charles A. Sargent, Extension Economist with the Cooperative Extension Service at Purdue University for providing us with most of the information included in this portion of the report.

PRIME AGRICULTURAL LAND

The Problem

Well drained, easy to develop land is at a premium in many areas. Prime agricultural land is desired not only by farmers putting together larger units, but by builders who can put in subdivisions, sewers, water and roads on level land at lower cost than in hilly areas. Someland has unique environmental or recreational attributes that are in scarce supply. Fortunately some scenic areas that will not raise a 150 bushel corn crop make attractive residential areas, but at higher development costs.

Let us look for a moment at the situation we find in rural Indiana, particularly the counties where urbanization is making an impact. Rural people are uneasy. They have what has been called an *impermanence syndrome*. Why the uneasiness? I see several reasons:

(1) *Heavy demand for farm land and open space* increasing land values make land too valuable to farm or to hold for open space uses. This pushes land to more intensive uses. It is great for the person who wants to sell out, not so good for those who want to stay and maintain the community as it is.

(2) *Rising property taxes*—more people means demand for more and better public services that cost tax money. Rates go up almost every year, and often faster than income to rural residents, and faster than the tax base.

(3) *Environmental regulations*—farmers are fearful of controls that affect farm operations. Livestock operations are threatened by encroachment of non-farm residents who understandably object to smells and livestock waste disposal. Crop operations are threatened by controls on the chemical usage and objections to machinery noise and dust.

(4) *Good off-farm alternatives* on the plus side are all the opportunities for off-farm employment and income. Close to half of the income to farmers is from earnings and returns from non-farm sources. But, this phenomena adds to instability of the agricultural sector and has pushed about 40 percent of Hoosier farmers to become part-time operators."¹

The Rationale

The rationale for preserving prime agricultural land against uncontrolled urbanization is outlined below:

1. *Adequate food supply*.—While large amounts of land could be farmed more intensively or could be brought into food production when needed, some day food shortages might put pressure on our fixed productive land resource. In the foreseeable future, we seem to have plenty of land in the United States for our own food production needs, with population growth slowing and technology still increasing output per acre. Feeding the world is another matter.

More important than the *total supply* of arable land, is the maintenance of large enough agricultural areas to sustain agricultural industry in some of our more populated regions. It is possible to squeeze out enough farmers from a particular region, so that there are too few operators to keep agri-business suppliers going

¹ Charles A. Sargent, "The Need for Land-Use Planning." A speech presented to the Indiana Farm Bureau Land-Use Planning Conference at Indianapolis, Sept. 7, 1973.

or maintain themselves. A minimum critical mass is needed to keep agriculture viable, wherever you locate it.

The argument that we should maintain some agriculture in even the most urban counties is harder to defend, except on grounds that a minimum food producing capability should be encouraged close to population centers for emergency purposes. We need farms and farmers, but not necessarily as part of every community since our transportation and communication systems are excellent and we get food from all over the world.

2. *Maintaining open space.*—We do need room to breathe, to recreate, to relax, to get relief from urban congestion. Rural areas provide an aesthetic break from city pressures. Open lands are watersheds where water can be collected and water holding structures recharged. The cities have materials that must be disposed of or recycled, and though rural residents are not too generous in accepting urban wastes, land does provide the most efficient depository we have found. The counter-argument here is the fact that much open space is not really usable for the urban population. To justify open space, it must be usable to people.

3. *Agriculture as an economic asset.*—Agriculture is a basic export industry that sells products outside the region and brings outside dollars back in to the area. Economists know the value of such export industries in stimulating the local economy and the business multiplier effect. In contrast, service industries cause an exchange of money largely within the community without adding much new wealth. Agriculture and agri-business account for a great many jobs; the food industry is, of course, one of the largest sectors of the state's economy. Further, residential development without accompanying basic manufacturing industry, does little for the economic base of the community and in fact can be a net drain on the local economy.

On the other hand, many kinds of industry and business are needed in the state. Well-planned residential development with sufficient density, can add to the community tax base. Compatible, multiple uses of farm land and open space can help to justify the preservation of these lands. It is harder to maintain and justify exclusive uses that keep out hunters, fisherman, bird watchers, picnickers, and yes, even those who want to dispose of their wastes. But, we must begin to stop the mixing of incompatible land uses, that cause real conflict between people and destroy the natural environment."²

The Solution?

Present Land Use Controls

1. *Traditional planning and zoning.*—We need not review here the long history of local and state involvement in traditional land-use planning and zoning controls. We have not done too badly in many respects, but we know the record is mixed. We have been able to discourage some gross misuse of land and to encourage some semblance of order through local planning units that have developed and enforced comprehensive plans, zoning ordinances, subdivision controls, and other policies. Local planning, I believe, is in a stronger position in our state than in many others, and many of you have had something to do with that.

Zoning as used now, is a relatively weak tool, however. We have not been able to stop scattered and strip development of homes and businesses that come on one at a time. Forcing builders to create large lots and in the country has not been very satisfactory. But, we are moving toward special ordinances that will help protect you from non-farm encroachment around intensive livestock operations. Counties are getting subdivision control ordinances for rural areas. There are several other zoning tools I will mention a bit later that can make zoning more powerful.

2. *Special control devices.*—Specific covenants that run with land can be enforced by private land owners. Covenants can prohibit certain kinds of land use in the present or in the future.

Easements can be purchased that will allow property to be used according to some agreement or not to be used for a particular purpose.

Public ownership is a means to control land use. Considerable land is in roads, schools, city parks, and various other public uses that obviously gives public control.

Specific legal prohibitions are common that limit pollution, regulate mining and other questionable land uses. They are somewhat different than traditional zoning regulations.

² Charles A. Sargent, op. cit.

In some cases, *special subsidies* are used to encourage owners to use land in a certain way, to reduce erosion, keep land in conserving crops or maintain usable open space in greenbelts or recreation areas."³

3. *Preferential tax assessment*.—Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Hawaii, Indiana, Iowa, Kentucky, Louisiana, Maryland, Minnesota, Montana, New Jersey, New Mexico, Oregon, Pennsylvania, Rhode Island, South Dakota, Texas, Utah, Virginia, Washington, West Virginia have all enacted legislation which attempts to curb the pressures of rising taxes on agricultural lands. The provisions of these laws vary widely, however, these laws can be classified into five groups.

(a) Classified property taxes that give preferential treatment to rural or agricultural lands,

(b) simple provisions that require assessors to assess land at its current use-value,

(c) deferred taxation arrangements under which qualifying lands are assessed at their current use-values but are subject to rollback taxes at the time they shift to other uses,

(d) deferred tax and rollback arrangements that limit eligibility for participation or provide special tax incentives to lands that have been zoned or classified for special uses, and

(e) arrangements involving the public acquisition of development-right easements.⁴

Agricultural Districts

The State of New York has enacted legislation to allow for the creation of Agricultural Districts. The following describes the rationale for such districts, what they can accomplish and how they are created.

*Why Agricultural Districts?*⁵

In many parts of the State, agricultural lands have come under pressure from expanding metropolitan areas. This pressure takes the form of scattered development in wide belts around urban areas, which creates conflicting land uses, raises costs for public services, and stimulates land speculation. When this scattered development extends into good farm areas, ordinances inhibiting farming tend to follow, farm taxes rise, and investments in farm improvements are discouraged by hopes for speculative gains.

In 1971 the New York Legislature adopted legislation to allow for the creation of *agricultural districts*. The purpose of agricultural districts is to protect and enhance agricultural land as a viable section of the State's economy and as an economic and environmental resource of major importance.

Effects of Agricultural Districts

Creating an agricultural district—has a number of effects. Under the law:

Local regulations that reasonably restrict farming in agricultural districts are to be limited,

Policies of state agencies are to reflect the importance of farming in agriculture districts,

The exercise of eminent domain and the advance of public funds for functions that would facilitate non-farm land uses within an agricultural district are to be limited,

The power of certain public service districts to impose benefit assessments or special district (*ad valorem*) levies is to be limited,

Most land within an agricultural district will be eligible for an agricultural value assessment upon application of the land owner.

To Create An Agricultural District

To propose creation of an agricultural district, a land owner or group of land owners must own at least 500 acres or 10 percent of the proposed district, whichever is greater. The proposed district can contain more farms than just the petitioners'.

The proposed district should include as much viable farmland, and exclude as much non-farmland, as possible. Large districts are preferable to small ones.

³ Charles A. Sargent, op. cit.

⁴ Michigan Department of Agriculture, "A Concept for Agricultural Land Use." Nov. 16, 1973.

⁵ N.Y.S. Department of Environmental Conservation, "How To Create an Agricultural District—A Guide for Interested Landowners." (All information about agricultural districts in New York is from this source.)

There are six steps required in creating an agricultural district. They include:

1. Landowner Submission of Application.
2. Referred by County Legislative Body.
3. Public Hearing.
4. Decision by County.
5. Certification by Commissioner of Environmental Conservation.
6. Final County Action.

Follow up

Eight years after the district is created, it is reviewed by:

- the county legislative body,
- the Department of Environmental Conservation,
- the Agricultural Resources Commission, and
- the Office of Planning Services to determine if the area should be continued as an agricultural district.

Unique and Irreplaceable Agricultural Land

The New York law also allows the Commissioner of Environmental Conservation to create agricultural districts containing unique and irreplaceable agricultural land, in units of 2,000 acres or more.

Exclusive Agricultural Zoning

Allen County, Indiana adopted exclusive agricultural zoning on October 25, 1973. This exclusive agricultural zoning is to be adopted on a township-by-township basis. A set of evaluation criteria has been developed to determine whether parcels of land qualify for designation as exclusive agricultural districts.

A parcel of land is first rated against the following five criteria and a point score given as shown.

Utilities (proposed and/or existing)	5
Land use plans (all agencies)	5
Density/development	3
Zoning (current classification)	1
Scenic/cultural, Environment	1

A total of 15 points is possible in this initial test. If a parcel received five or more points, the land receives no further consideration for exclusive agricultural zoning. If the score is less than five, the land is then rated against the following criteria:

Soils (SCS soil classification as prime agricultural)	5
Current agricultural use	3
Proximity to other agricultural uses	1
Marginal soil (including floodplains)	1

If a parcel of land receives five or more points as a result of this second test, it may then be considered for A-E (Agricultural Exclusive) zoning.

Additional points considered include type of ownership (absentee or farmer owned), owner support for exclusive agricultural zoning and the size of the tract.

Development Rights Easement

The Michigan Department of Agriculture (MDA) has developed and issued a policy statement which establishes a need for eight million acres of agriculturally productive farmlands in the year 2000.⁶

The MDA evaluated the entire range of alternatives. MDA found agricultural zoning unsatisfactory because master plans and zoning are too easily modified.

MDA sought to combine a number of tools into a single mechanism for preserving this 8 million acres. They chose a proposal developed by the Blueprint Commission on the Future of New Jersey Agriculture. This plan includes creation of agricultural open space preserves in all but the most highly urbanized counties of New Jersey. The lands will remain in private ownership, for agricultural purposes only, with development easements purchased by a public agency at any time chosen by the landowner. A four-mill tax on real estate sales is proposed to finance the plan, and all land in the preserves will be assessed on the basis of agricultural value.

The Commission sought to retain 70 percent of existing Class I, II and III open and special agricultural land by means of this plan—slightly more than one

⁶ Michigan Department of Agriculture, op. cit. (All information on development rights easements is from this source.)

million of the approximately 1.5 million acres which are still available for agricultural use. The proposed agricultural preserves will total approximately 22 percent of the total land area of New Jersey.

The MDA proposed a mechanism incorporating two ideas used by other states: the public acquisition of development right easements and the assessment of agricultural land at its current use-value.

To achieve their objectives, the enactment of five measures should be sought.

1. Agricultural districts (AD's) would be authorized, to be formed by land owners within townships on local initiative. Upon formation of the district, all croplands included in it would be classified for agricultural use in any local, county or state land use plan. No conversion of land from agricultural use to other developmental uses would be allowed without permission from both the administrators of the agricultural land use plan and the local land use plan.

2. Owners of agriculturally essential croplands within agricultural districts would receive a one-time payment for the development rights to their land. The value of development rights would be established as the difference between the assessed value for farming and the current market value for any other use permitted by existing zoning or land use restraints.

3. Following the creation of an agricultural district, no cropland within the district could be sold unless first the development rights to the land had been sold to the State: the land owner could elect to sell these rights to the State at a time of his own choosing.

4. Those croplands from which the development rights have been successfully conveyed within each township will comprise an agricultural district. Capital gains from the sale of affected properties will be shared by the seller, other owners of lands in the district, and also the township, the county and the local school system in lieu of the higher taxes which would have been otherwise paid on the lands involved.

5. Assessment for taxation purposes would be the same as for establishment of the value of development rights. The local Soil Conservation District would be assigned the role of advisor to the assessor, who could reject the District's expert opinion and advice only for cause.

Deed of Development Rights

The instrument to be used to convey the development rights will be known as the Deed of Development Rights (DDR). Once given, the lands will continue to be owned and used by the farmer in productive agricultural pursuits as he sees fit. The DDR will be purchased by the State of Michigan, with the Director of the MDA acting as agent for the state.

Deeds of development rights will be sought for eight million acres. The funds to acquire these DDR's are proposed to be raised by the issuance and sale of general obligation bonds. Acquisition of DDR's granting of low agricultural valuation assessments (AVA's) and insuring adequate lands for the production of foodstuffs sufficient to serve the needs of the population are so thoroughly desirable from the perspective of stable government, adequate diet, and relatively expense, that issuance and sale of such bonds appears justified.

II. THE HEARTLAND TOWN MEETING DISCUSSION

INTRODUCTION

The Indiana Heartland Coordinating Commission on July 10, 1974 sponsored a Regional Workshop on the Preservation of Prime Agricultural Land as part of its Public Information and Education Program. The workshop was attended by 30 technicians, commission members, and citizens. The objective of the Workshop was to identify the problems facing preservation of agricultural land and outline alternative approaches and implementation methods to solve these problems. The workshop identified possible roles for IHCC in the future, specifically an educational program for general public consumption in the Heartland Region and formulation of commission policies concerning the preservation issue.

Preservation of prime agricultural land will be one land use-related element of the comprehensive Regional Development Guide. The Guide will set forth the policies to manage future growth within the framework of a strong regional economy, efficient and adequate public services and a general upgrading of the quality of life in the region.

Agriculture is a major component of the regional economy. Accelerated urban growth in the past 30-year period has placed greater demands on land resources for urban development. Consequently, prime agricultural land has been susceptible to economic pressures for development, regardless of the quality of the land resources for food and sustenance production.

IHCC recognizes the role of agriculture in our regional economy and historic development, in addition to its direct link with substantial urban-based economic activities. Because of this recognition, IHCC policies for the reservation of prime areas of agricultural land will be established.

The following text summarizes the conclusions of the questions posed to the workshop participants. These questions were:

- I. How do we define the problem?
- II. How are community decisions made?
- III. What is the rationale for preservation?
- IV. What are alternative approaches to solutions?
- V. What implementation tools are available?

The conclusion of this workshop will be used to formulate IHCC programs and studies which will lead to policies for the preservation of prime agricultural land.

DEFINING THE PROBLEM

The Purpose of Agricultural Land

The major purpose of agricultural land is to provide the space and natural elements required to grow food and materials for human use. The worldwide demand for food has increased substantially. Previous large surpluses have depleted in the industrialized nations by those developing nations and the entire growing world population demand for food. The preservation of prime agricultural land is so intimately tied to the world food and material problem that it is important to keep this scale of the problem in mind. The mid-western states of the United States, due to their unique combination of climate, soil, technology, location and consistency of production, are ultimately a major breadbasket of the world. Allocation of space for food and material production for future generations as well as our current population is a primary responsibility facing us in 1974.

Defining the prime agricultural land problem

The definition of the agricultural land problem is directly related to the difficulty in adequately defining what "prime" agricultural land is. The definition is contingent on regional differences in the agricultural economy which developed as a result of certain natural characteristics of the environment. The desired land qualities of each segment of the agricultural economy such as grain yield, livestock, fruit, tobacco or lumber products, makes the definition of "prime" agricultural land a relative one.

The combination of climate, soil patterns, geology and geographic location makes any specific location suitable for certain agricultural activities. In the Heartland Region, drainable level land is considered the most prime due to the emphasis on the grain segment of the agricultural economy.

Why Do We Have a Problem?

The problem of preserving agricultural land is caused by a combination of natural and man-made influences. The natural influences include those characteristics of the landscape and climate which make regions relatively suitable for certain types of agriculture. Man-made influences caused by urbanization and its consequent capital expenditures for services place economic pressure for development of land adjacent to urban areas, regardless of agricultural values.

In the historical development of urban-oriented land planning, agricultural uses have been given a low priority. Urban uses are allocated in a logical expanding manner in most land planning processes with little regard for natural land characteristics. Agricultural land is usually combined with "open" land as "left-overs". The demand for farmland in urbanizing regions with both an active agricultural economy and a speculative land market, makes it expensive to maintain agricultural practices due to taxing policies and increasing demands for public services. This dilemma can only be solved by demonstrating that agriculture is a viable element of the regional economy and recognizing the need for food and material production space close to the urban area.

THE COMMUNITY DECISION-MAKING PROCESS AS IT AFFECTS AGRICULTURAL LAND RESOURCES

This decision-making process involves every citizen and private and public group in a community. Each person or group is making decisions according to his bias, position and point of view. The views and biases affecting prime agricultural land are very diversified. Several of the primary decision-makers are:

The farmer.—The individual farmer makes the ultimate decision to either sell his farm or maintain agricultural production. Many of those engaged in agriculture often do not want restrictions on their land because of the possible future speculative profit from selling it for urban uses.

The land subdividers.—The speculative market operates according to current trends in urban expansion. These trends are influenced by developable land availability and provision of public services and facilities such as schools, parks, sewers, and transportation links. The decisions made which lead to the ultimate speculative assessment of any land parcel probably have not taken into account the relative agricultural desirability of the parcel. Therefore, based on the trends, the land subdivider purchases land from farmers at a price higher than its agricultural value and transforms it for urban uses.

Local plan commission.—Local plan commissions enact and enforce, to varying degrees, land development controls (zoning, subdivision regulations, building permits, etc.). They are responsible for implementing land use plans and establishing the policies affecting land use.

The combination of all the individual decisions results in a complex process with no overriding philosophy about land use. Government's role in the process depends on the effects and long-term ramifications of all the individual decisions. Those who possess political power will continue to be key influences in determining the future use of existing agricultural land.

THE RATIONALE FOR PRESERVING PRIME AGRICULTURAL LAND

There are many direct and indirect advantages for preserving prime agricultural land. Inherent to the rationale is the goal of conserving all land resources by putting land to its best suited use according to its natural conditions. Everyone benefits from the wisest use of land resources.

Provision of an adequate food supply is essential for not only national but world-wide existence. The food demands of the American population has caused a move upward in the food chain. The American diet now includes more meat and less grains. Average annual meat consumption has risen from 129 pounds per person in 1930 to 186.3 pounds in 1970.⁷ Much more grain is required to produce meat for consumption than is required when the grain is consumed directly. This climb up the food chain thus requires an increase in crop production and pasture forage to meet the greater demand for livestock production. This change in demand characteristics coupled with a leveling off of agricultural unit productivity makes it imperative that adequate prime land be preserved and conserved to meet the food requirements.

Agriculture is an economic asset. Not only do the people engaged directly in the agricultural industry gain economic sustenance from it, but also many urban workers who provide required services and materials for agriculture gain from it. According to the Department of Labor, 3.7 million people were employed in farming in 1970. It is also estimated that 2.26 million of the 80.29 million people employed in 1970 in this country worked to produce the \$22.4 billion of goods and services purchased by farmers. Using these statistics, for every three people working on farms, there are about two city people engaged in supplying the goods and services required by farm enterprises.⁸

The national food bill in 1970 was \$101.6 billion. Of this amount, \$33.1 billion went to farmers and \$68.5 billion went to people engaged in processing and marketing.⁹ Therefore, the effects of the agricultural economy are not limited to the rural population. The land requirements and any inherent problems in providing the necessary land requirements could affect an estimated 18 to 20 percent of the total labor force. In addition, everyone is affected by higher food costs if adequate land resources are not available to meet the demand for food.

⁷ Gerald F. Winfield, "The Impact of Urbanization on Agricultural Practices." *The Annals of the American Academy of Political and Social Science*, January 1973.

⁸ *The Annals of the American Academy of Political and Social Science*, op. cit.

⁹ *Ibid.*

Preservation of agricultural land can also provide open space and contrast from urbanization. From the urban viewpoint, sprawl is very expensive. Preservation of agricultural land can assist in compacting new urban development into more efficient patterns and densities.

ALTERNATIVE APPROACHES TO SOLUTIONS

There are a number of alternative approaches to preserving agricultural land. However, no single approach can solve the problem. A coordinated combination of a number of governmental and private programs is required. Several specific approaches are outlined in the following text. The advantages and disadvantages of each are illustrated.

Traditional Land Use Planning and Zoning

It was recognized that too often in the land use planning process, agricultural lands are treated as the land left over after other land uses have been spatially located. Agriculture requires spatial consideration on a comparative basis with other land uses on a regional basis. Traditional zoning practices have generally been too weak to reinforce the preservation of agricultural land. Zoning establishes a base line from which variances can be made according to the highest economic use. This implies the highest *urban* economic use. Zoning can also pre-determine relative market values which can actually be detrimental to agricultural land preservation. Necessary agricultural practices which are incompatible with urban uses must be protected from encroachment.

Zoning decisions must be better related to the characteristics, assets, and limitations of land resources through more sophisticated comprehensive land use planning. More and better technical data compiled with more firm public policies are required to give zoning the necessary substantiation needed to be effective.

Exclusive Agricultural Zoning

Direct public policy combined with owners consent can preserve agricultural land. This method has merit and is being implemented in a number of areas. There are certain inherent disadvantages, however, unless it is on a voluntary basis. Whereas the younger farmer can have greater certainty of his land and surrounding land remaining for agricultural production, the established older farmer would potentially be hindered from collecting anticipated retirement income from the potential sale of the land for urban uses. However, if the program is voluntary and certain economic rewards can be gained during the active farming period, the land could potentially increase in value as a committed agriculture area.

Special Control Devices

Covenants and other special control devices are usually susceptible to major philosophical changes in our nation which can void their effect or make them illegal. In addition, these controls are too individual, dealing with specific land parcels, to have major overall effect. They are too difficult to enforce to be generally useful.

Taxing Policies and Programs

Preferential taxing policies can be beneficial. Ideally, in Indiana, land is assessed by its current use value rather than its potential value. This program could be potentially strengthened by a classification of "agricultural use" where the actual millage or rate of tax would be lessened. Classification of land for assessment purposes would require a constitutional amendment since it is currently forbidden in Indiana.

Deferred tax is a possible effective tool but it would be a highly debated measure. If this mechanism were considered, the question concerning who would pay the tax; the buyer or seller would arise. Possibly, since both could benefit, both should pay. Inheritance tax relief is another related program with possible merit.

Whatever the approach taken, basic natural studies are required to outline the relative quality of land for agricultural production, given the individual regional nature of the agricultural economy.

All approaches must recognize the conflicts between types of agricultural uses and urban uses. Just as urban land attempts at minimizing conflicts are practiced, so should attempts to resolve conflicts between croplands, feedlots, woodlands, and grazing be initiated. Often the conflicts between agricultural uses can be detrimental to the overall goal of maintaining agricultural lands.

IMPLEMENTATION CONSIDERATIONS

Implementation of measures to preserve agricultural land should be initiated at the local level where local decision-makers and citizens can be directly involved. This requires development of a comprehensive information and education program to illustrate the problem and the need for action. Regional councils can be important in the execution of such a program. Education will require a concerted and cooperative effort of governmental agencies and citizens groups to present the public with an accurate perspective.

Research is required into the problem of providing adequate food supplies and the consequent demand for land resources. Cooperative research into a regional definition of "prime" agricultural land should be undertaken by local agencies.

Legislative changes are required which specifically enable agricultural districts to be organized. Legislative modifications should include tax and other financial incentives and rewards for compensation of cooperation in such districts.

NEXT STEPS FOR THE HEARTLAND COMMISSION

The Indiana Heartland Coordinating Commission is looking at the problem of agricultural land from the viewpoint of developing a comprehensive Regional Development Guide. This Guide will establish the policies for the overall use of our land resources in addition to provision of required public services in order to manage regional growth.

Agriculture is recognized as a major element in the regional economy. Agriculture is considered on an equal basis with all other economic factors of regional growth and development. The interrelationship of the rural and urban economies has been statistically demonstrated. IHCC will study further the specific local interrelationships in the Heartland Region. This will enable us to have a closer and more critical look at the importance of the agricultural economy in our region.

IHCC will take a catalyst role in formulating educational and informational programs with increasing depth as data is revealed, as part of the Heartland Citizen Information Program. The IHCC will work closely with the Extension Offices, SCS and local governments to develop this program.

IHCC will continue to monitor the efforts in other regions to preserve agricultural land and report their success and failures and applicability to this region to elected officials.

IHCC will work closely with technical agencies in establishing a functional regional definition of prime agricultural land. In addition, other technical data concerning the status of our natural environment will be gathered, analyzed and shared with local officials and agencies.

THE FUTURE OF AGRICULTURAL LAND IN ALLEN COUNTY CAN IT BE PRESERVED?

This grant proposal concerns itself with the future of agricultural land in Allen County, Indiana. In recent years, this has become a pertinent issue as the county has lost a yearly average of 1,400 agricultural acres to residential development. As Indiana's fastest urbanizing county, Allen County has had a 20% increase in population over the past ten years. It is this growth factor which has placed increased development pressures on land acres which have been traditionally agricultural in nature.

There is a pressing need to discuss the consequences of continued development of agricultural land. Information gathered from farmers and new residential homeowners alike indicate the dimensions of this land use problem. First of all there is the fact that once this land is developed it is lost from agricultural production forever. The spread of residential development around agricultural land also tends to inhibit the farmer by curtailing his agricultural investment. Farmers are reluctant to invest large sums of money in agricultural operations which could be infringed upon by residential development. A third issue is that the local prime agricultural land is perhaps least suited to dense residential development because of its clay soil conditions. More than a few of the new residential homeowners have encountered basement and septic tank drainage problems. If enough septic systems fail, for example, sewer systems will need to be extended, thereby opening the area to further urbanization.

This land use conflict is a classic example of the tension between individual land use rights and society's obligation to protect and educate its citizens about the possible consequences of their actions. No farmer would sell off his land for development if he thought it would endanger his own livelihood. His aim, in fact,

is to promote his farm operation. But take the farmer's tendency to sell prime land and couple it with the rapid expansion of the urban area and the farming community's future comes into question. The aim of this proposal is to stimulate public discussion about this very serious chain of events and the alternatives to the development of agricultural land.

Growth trends indicate that the pressure to develop farm land will increase in the future. Farmers must therefore begin to ask questions about the future of the agricultural community. The search for answers must begin now, before the pressures of urbanization increase. This proposal relates to the Indiana Committee for the Humanities theme in that the quest for community standards, in a period of transition, involves questions about human values. Farmers have been traditionally strong proponents of self-reliance and they do not respect outside groups, especially government organizations, which tell them what to do. Instead, a situation must be created where farmers are allowed to hear themselves discuss their own problems. The influence of the Allen County Plan Commission can only be indirect at best.

A community in transition is perhaps most in need of guidance. There is often a tendency, in a period of transition, to revert to traditional answers in the face of contemporary questions. The role of the humanist will be crucial here as one who recognizes traditional continuity as well as the need for new perspectives. As participants without vested interest, these academicians will help direct a balanced discussion. It will be their challenge to translate the idea of the community in transition, through literature and history. And yet, these academic guests cannot "lecture" to the farm community about their problems. The humanist will need to balance his own contributions, too. As the great 20th century theologian Martin Buber has said, the challenge of shaping the community is to shape that which is shapeless.

It is important to note that the proposed land use conference is specifically designed around the suggestions of established leaders in the farm community. The Allen County Soil and Water Conservation District has been actively involved and the bulk of the proposed format represents their suggestions. The use of the three area high schools and their Vocational Agriculture Departments will attract both students, the future farmers, and their parents. Younger farm families of the area are also involved in continuing education courses offered by these high schools. In this way it is hoped that the future of agricultural land will become a family and community issue worthy of rational discussion.

In addition, the regional Rural Development Commission has asked that a format be compiled from these discussions to be used in other Indiana counties.

Based on past interaction with the farming community, the role of the Allen County Plan Commission in these discussions will be very low profile. In October of 1973, for example, an Agricultural Exclusive Zoning Ordinance was developed to resolve the residential/agriculture conflict in the county land use system. Zoning, however, has traditionally been an urban tool and the agricultural community has had little experience with its function in rural society. To date, the reaction to A-E zoning has been mixed. Politicians and other government representatives tend to support the zoning concept, while the farming public has strong reactions both for and against a redefinition of their land use rights. As a result, the Agricultural Exclusive Zoning Ordinance has been adopted in Allen County but has not yet been implemented.

The information gathered from these proposed conferences will indicate to county government the prevailing attitudes about the preservation of agricultural land and will guide the community in its planning efforts relative to the preservation of agricultural land. The enthusiastic support shown by farm leaders in Allen County, as well as surrounding counties, represent the potential for a successful land use conference. It is hoped that The Indiana Committee For the Humanities will also see fit to support this land use conference proposal as a government agency's attempt to consider the human side of its policy decisions.

U.S. DEPARTMENT OF AGRICULTURE,
SOIL CONSERVATION SERVICE,
Indianapolis, Ind., July 14, 1975.

Subject: MGT—Allen County Plan Commission—Request for R. Neil Sampson's Assistance.

To: Paul M. Howard, Director, Resource Development Division, SCS, Washington, D.C.

Attached is a copy of a letter the Service received requesting the assistance of R. Neil Sampson at a proposed meeting, probably in early September.

The Allen County Plan Commission has worked very closely with the Allen County Soil and Water Conservation District in using soil survey information. The Commission is now in the process of conducting an intensive educational program relating to "Prime Agricultural Land" in the county.

Since Allen County is one of the leading Indiana counties in this endeavor and does statewide and multi-state (Indiana-Ohio-Michigan) influence, I believe it would be appropriate for Mr. Sampson to assist. If you agree, Mr. Sampson should correspond directly with the Allen County Plan Commission with copies to Dan McCain, District Conservationist and this office.

CLETUS J. GILLMAN,
State Conservationist.

ALLEN COUNTY PLAN COMMISSION,
Fort Wayne, Ind., July 3, 1973.

MR. DANIEL MCCAIN,
District Conservationist,
Fort Wayne, Ind.

DEAR DAN: As you know, the Allen County Plan Commission is currently sponsoring a three part series of public discussions concerning the future of agricultural land here in Allen County. These meetings have been developed in response to a number of land use conflicts which have come to our attention as the City of Fort Wayne continues its rapid expansion into local farming areas.

To date, these agricultural meetings have attracted over 170 people and a good amount of objective reporting. (Please note the enclosed editorial.) One overriding concern in these meetings is the need to step beyond "the land use conflict" and into the area of problem solving. We are currently considering how to best provide information on programs which could help those farmers who wish to protect their agricultural investment.

Recently a member of our staff traveled to Washington, D.C. to attend a conference on the environment. While there he had the good fortune to meet a Mr. R. Neil Sampson, a Soil Conservation Service employee and member of the S.C.S. task force which is considering ways to preserve prime agricultural land in the United States. The Plan Commission is quite interested in having Mr. Sampson as one of the principal speakers at the fourth land use meeting where alternatives to the local problems will be discussed.

Mr. Sampson, in turn, has expressed an interest in our project and has informed us that in order to participate he will need an invitation from Mr. Cletus J. Gillman, the Indiana State Conservationist. We hope that such a request could be extended as soon as possible to that we can proceed with scheduling. The tentative date for this fourth meeting is the first week of September. We would also appreciate your communicating to Mr. Gillman that we would be happy to pay for Mr. Sampson's travel expenses to Fort Wayne, if that is appropriate.

The success of the first two public meetings to discuss The Future of Agricultural Land in Allen County is due, in large part, to the support of the S.C.S., the Allen County Soil & Water Conservation District and the Allen County Cooperative Extension Service. We extend our special thanks to Dan McCain, District Conservationist, Jim Lake, County Conservationist, Ellis McFadden, Chairman of the District Board and Ernie Lesiuk, Extension Agent.

Respectfully,

GIL LATZ,
Project Director.

ALLEN COUNTY PLAN COMMISSION,
Fort Wayne, Ind., April 3, 1975.

DR. MARTIN SULLIVAN,
Executive Director,
Indiana Committee For The Humanities,
Indianapolis, Ind.

DEAR MARTIN: Enclosed you will find a copy of an article concerning the Allen County Plan Commission's project: The Future of Agricultural Land in Allen County.

This newspaper account is a very fair discussion of the day's events. The academic humanist from Indiana University, Hank Sparapani, also attended and seems to have enjoyed the overview granted by the bus tour.

Following the tour an informal discussion took place over coffee and donuts. Perhaps the most interesting comment concerned the issue of individual rights. One farmer noted that his neighbors are against zoning control because it takes away their individual rights. "And yet," he added, "residential development along county roads curtails farm activities, too." These are questions which strike at the heart of land use planning; community awareness may indeed lead farmers to take advantage of the "zoning" tools which could order society in their best interests.

There was not time to inform you of this tour in advance. The formal public discussions are slated for this Summer, after June 15. Active participation by academic humanists will take place at that time. A schedule is forthcoming.

For the record we want to thank you for the prompt attention you have given to this project. Everyone on this end is quite pleased with I.C.H.'s efficiency. It is our hope that this end of the stick will be held up with an equal amount of concern. If there are any questions please don't hesitate to contact me.

Best,

GIL LATZ.

Enclosure.

[Reprinted from the Journal-Gazette, Apr. 3, 1975]

THEY VIEW A HODGE-PODGE—TOUR POINTS UP PLANNING LACK

(By Virginia Bensheimer)

Allen County is a hodgepodge.

Urban development fronting on marsh or pasture. Four or five soil types in one field. Livestock feedlots next door to city homes.

Not much land use planning in the past—that shows in the number of "leap-frog" developments, houses strung out along a road, carved from the edge of a field.

About 25 farmers, farmers' wives, a banker or two Soil Conservation Service officials, and Ernest Lesiuk, the county extension agent, took a tour yesterday, and went visiting farms. They spent the afternoon jouncing along country roads, some of them barely wide enough to take the PTC bus, inspecting, evaluating, and thinking about the problem of land use planning.

They decided there is a problem, and it needs to be discussed further. Not just with the farmers who were there—farmers from the eastern section of the county who are aware of the situation and already want to do something about it, but with farmers who, at the moment, don't see a thing wrong with the way things are going.

The tour, paid for by a matching grant from the Indiana Committee for the Humanities, was over the northern townships in the county.

The first thing the busload of farmers saw was land which five years ago had produced corn. St. Joseph Township, near Georgetown Shopping Center, is now covered with homes—single family, apartments, and school buildings are going in.

A running commentary was furnished by Lesiuk about land uses and by Daniel McCain of the SCS about soil types and the Maumee glacial basin.

There is a great deal of inappropriate land use in the county, the men and women agreed. For instance, in many cases, home developers begin encroaching onto excellent farm land because initial development is easy. In a few years, one man noted, things often begin to go wrong for the person who bought the house—the soils are inadequate for the septic system, the clay shifts, causing house walls to crack—any number of things.

Much of the land in the northwestern part of the county would be good for homesites, Lesiuk pointed out. The land is more hilly, less desirable for farming and would initially cost more to develop. But it would pay off in the long run, the group agreed.

Development is slow because of the downturn in the economy right now, Lesiuk said. "Maybe it's the right time to step back and look at our planning."

There are various plans in the works for solving such problems and encouraging growth in the proper sectors of the county, Lesiuk said, and these are getting the attention of the County Plan Commission also.

But it has to be attacked from within—the farmers themselves, enough of them to shout and be heard, must want some changes, and the group which assembled yesterday is a beginning Lesiuk said.

One problem involved uncontrolled metes and bounds development. Each farmer is allowed to sell two house lots per year, without Plan Commission approval. This allows strips of houses to be constructed along country roads, several group members said.

"It's strange," one man noted. "In one part of the county the farmers have sold bunches of lots." But just down the road a few miles, he continued, you come to an entire township where the farms are intact and used for farming.

The Plan Commission will hold a series of educational workshop sessions in the rural high schools to discuss land use planning and the future of agriculture in Allen County this summer.

STATEMENT OF JOHN V. N. KLEIN, COUNTY EXECUTIVE, SUFFOLK COUNTY,
NEW YORK, REPRESENTING THE NATIONAL ASSOCIATION OF COUNTIES

Thank you for this opportunity to speak before the Senate Subcommittee on Environment, Soil Conservation and Forestry. I have read S. 1280, and we in Suffolk are deeply involved in 208 work. My testimony today, however, deals only with S. 1616, a bill to establish a national policy for the protection of agricultural, range and forest land.

First, let me say that as the chief elected official of New York State's largest agricultural county, I think S. 1616 is a significant bill, and I strongly favor measures to support local agriculture. The importance of local farming to local economies cannot be underestimated and, before I discuss the specific provisions of S. 1616, I would like to describe our experiences in farmland preservation in Suffolk County.

Farming in Suffolk is a \$70 million a year business. Suffolk has 920 square miles of land and a population of 1.3 million persons. For many years, we have been grappling with the problems of rapid growth, and a large part of our concern is the disappearance of rural lands. It was not too long ago that the five western townships in Suffolk were still farming communities, but the tide of development sweeping eastward from New York City has turned our west end into typical metropolitan suburbs. The east end, which is still largely rural, is, in turn, threatened by these same severe developmental pressures.

In 1976, there were 55,000 acres of farmland in Suffolk County, 41,000 acres of which were used for harvested crops. However, a decade ago, there was 60 percent more farm acreage in our county. In addition, about 60 percent of the existing farmland is now held by speculators and only leased to farmers. Those speculators are not waiting for any crops to ripen but rather for the time to be ripe for development.

A view from an airplane shows dramatically the difference between the tract developments and shopping centers and the green fields. It was just such a view about five years ago that prompted me to mount an all-out effort to save our farmlands. Working with farmers, we developed a unique plan to acquire the development rights to prime agricultural land as the cornerstone in an overall effort to maintain agriculture as an industry in Suffolk.

Having the county acquire the development rights should solve several problems in one stroke:

It should alleviate the liquidity problems of farmers. Too often, when a farmer dies, although his family wants to remain in farming, it must sell its land to pay the inheritance taxes. Our program, however, should give the farmer cash assets with which his family can meet its tax obligations on the death of the farmer, without forced liquidation.

It leaves fee title in the hands of the private owners. If the county were simply to buy or condemn property, the county would then be in the awkward position of having to lease the property to be farmed. Neither we nor the farmers felt that would be a good idea. It would remove much of the incentive for the farmer—who would only rent and not own the land—to maintain the property adequately. And it would put the county in the landlord business.

It removes the incentive for development. We have seen programs to encourage farming through tax advantages and tax penalties fail because ultimately the benefits from selling to developers vastly outweigh the tax penalties incurred. By having the county hold all rights except that of possession and cultivation, we insure that while ownership may be transferred, the land cannot be subdivided and developed.

It reduces and stabilizes the farmer's property tax burden by buying out a significant portion of the value and therefore its taxable value.

It satisfies substantially the attraction to the farmer of selling to developers to obtain cash security.

Suffolk was the first place in the nation to conceive and to act on this program. The county legislature has appropriated \$21 million for the first phase of the program, which will involve the acquisition of development rights to 3,800 acres of farmland. The land was selected in a process that began in February, 1975 with the submission of sealed bids by farmers and other property owners. We received bids on 17,948.5 acres for a total value of \$116,596,770.

A special committee, comprised of county officials, farmers and planners, recommended acquisition of the development rights on 13,938.79 acres. The recommendations were based on soil quality, contiguity, size and price. Since then, we have been having the recommended parcels appraised two ways: for their value as farmland and for their full market value. The difference between the two will be the fair price per acre of the development rights.

Ultimately, we hope to acquire the development rights to some 12,500 to 15,000 acres by voluntary sale and by condemnation to fill in the holes to create contiguous areas. The total cost of the program is expected to be \$54 million.

I have gone through this background to show what innovative programs can be done at the local level. For Suffolk, agriculture is part of our heritage. Our earliest settlers were farmers and fishermen. It is an integral part of our economy. Not only is agriculture a \$70 million a year industry, but it also is a prime tourist attraction, and tourism and recreation contribute about \$1 billion annually to the local economy. It is an enormous environmental resource and an instrument toward balanced growth.

Perhaps more fundamentally, I believe it is of utmost importance to maintain local agricultural markets. Having local food supplies helps keep the price of produce down in the summer and fall. Why should Long Islanders have to get every vegetable and fruit shipped in from Maine, California, Florida, Oregon and the mid-west. Yet, if we allow our farmlands to be developed, that is what will happen.

Thus, not only am I most anxious to see local farming preserved, but I think it would be wise national policy for the federal government to be involved in agricultural preservation.

With respect to the specifics of S. 1616, I want to make the following points:

There must be greater local involvement in land preservation. Counties particularly have been extremely active nationwide in farmland and forest preservation, and it is counties who ultimately implement federal and state programs. This legislation does not require local participation at any level. Under Title II, Section 201, there should be a specific requirement for local government representation on the agricultural land review commission.

In addition, I feel Section 202(c)(1), which limits research grants to institutes of higher education, is too restrictive. It would prohibit, for example, a county like ours, which has many concerns about agriculture, or our Nassau-Suffolk Regional Planning Board, one of whose functions is to perform such studies, from doing necessary research on this issue.

The level of support recommended in the bill for Titles II and III is, I feel, inadequate. Sixty per cent funding for pilot projects may not be enough for hard-pressed municipalities. Furthermore, \$8 million for studies and \$5 million for pilot projects is simply inadequate. The State of New Jersey, which is funding a development rights acquisition program on an experimental basis in one community, has authorized \$5 million. The first phase alone of Suffolk's development rights acquisition program, which only includes 3,800 acres, will cost the county \$21 million. There must be a greater commitment of federal funds if the policy set forth in S. 1616 is to be effectually implemented.

Under Section 201, the Secretary of Agriculture appoints the members of the advisory commission. I feel there would be greater accountability if the Congress and the President appointed all or most of the members.

I want to commend the subcommittee for including in the scope of the advisory commission's responsibilities, reviews and analyses of the effects of federal, state and local laws on land preservation. This is an area that has received little attention in the past, but it is of vital importance. Too often, the ancillary consequences of unrelated legislation are not recognized until too late.

The funding of projects under Titles II, III and IV must include municipalities that are already carrying out programs. Undertaking a program such as ours at the local level is costly and difficult. I am concerned that Suffolk County, which took a bold step on its own, will receive no help under this legislation, while other

municipalities, which may not have previously considered programs, will be rewarded for their waiting. This is an extremely important issue in my jurisdiction.

Finally, let me say I consider S. 1616 a major step toward solving a national problem.

We in Suffolk have had requests for information about our program from many states of the union, including Montana, the New England states, California, New Jersey, Washington, Indiana, Colorado and Michigan. S. 1616 shows that our legislators at the federal level understand how vital it is to preserve our productive land.

STATEMENT OF GEORGE R. BAGLEY, PRESIDENT, NATIONAL ASSOCIATION OF CONSERVATION DISTRICTS

Mr. Chairman, members of the committee, I am George R. Bagley of St. Joseph, Louisiana—a farmer, a supervisor of the Tensas-Concordia Soil and Water Conservation District, and President of the National Association of Conservation Districts (NACD).

NACD is composed of the nearly 3,000 local soil and water conservation districts in the 50 states, Puerto Rico, and the Virgin Islands. Conservation districts are subdivisions of state government, established under state law to conserve land, water, and related natural resources. They are managed by 17,000 elected and appointed officials who contribute their time and services to the operation of the conservation programs within their districts.

NACD and its member conservation districts have been deeply involved in the water quality planning process initiated under the provisions of Section 208 of Public Law 92-500. Many conservation districts have provided technical data and background studies to the water quality planning agencies, especially data on agricultural and other rural water quality problems. Our National Association has recently compiled and published a guidebook for the use of conservation districts in their participation in 208 planning. Several of the state soil conservation agencies have also been directly involved in the development of 208 plans at the state level.

From this involvement in water quality planning, we believe that many, if not most, of the rural sources of water pollution can be controlled through the proper application of sound soil and water conservation practices. Such practices, designed to keep the soil in place and to maintain its productivity over the long term, are also practices which will improve and maintain water quality.

We also believe that there is a public interest in getting these conservation practices established on the land. There is a long-standing history of this public interest. The establishment of the Soil Conservation Service in 1935 to provide technical assistance to landowners for soil conservation purposes is a prime example of this interest.

There is also a need for the public to share the cost of installing these practices on the land to achieve water quality goals. Installation of conservation practices, or "Best Management Practices," as EPA calls them in most instances do not return a profit to the landowner, especially in the short term. It may require changes in rotation which will take land out of crop production in some years and may take land out of production permanently. These adjustments in the farming enterprise will reduce the landowner's income. The construction of waterways, diversions, terraces, and other such practices create an out-of-pocket expense which today's crop prices cannot support. Further, most of the water quality benefits are downstream from the farm.

Water quality planning agencies and conservation districts are concerned about the future implementation of 208 plans. They have expressed the hope that Congress will provide the means whereby best management practices can be installed to help meet the goals of the water quality act.

The National Association of Conservation Districts supports the concepts of S. 1280 and its emphasis on enduring conservation practices, its use of existing institutional arrangements to accomplish water quality purposes, and the inclusion of provisions for long-term contracts with landowners.

We have a few suggestions which we believe would strengthen the bill. First, we question the advisability of appending this legislation to the Rural Development Act of 1972. This act, which we felt has several very commendable provisions, has a very poor track record in terms of being funded. We would recommend that the bill be free-standing as separate legislation.

Second, we believe it is unnecessary for long-term cost sharing agreements between the Secretary of Agriculture and landowners to be approved by two other organizations. One approval should suffice. Therefore, we recommend that line 7 on page 6 be amended to read, by the conservation district.

With these minor changes, we fully support this legislation and encourage your committee to recommend its passage.

AMENDMENT TO STATEMENT BY NATIONAL ASSOCIATION OF CONSERVATION DISTRICTS

"SEC. 706. The Secretary may enter into agreements with soil conservation districts, State Soil and Water Conservation agencies, or State Water Quality agencies to administer all or part of the program established under this act under regulations developed by the Secretary. Such agreements shall provide for the submission of such reports as the Secretary deems necessary."

We believe that such a provision is a necessary addition to this legislation to expedite the implementation of the program, reduce duplication where there are already similar state programs, and to help offset the limitations of present federal personnel ceilings.

The protection of prime agricultural lands against irresponsible conversion to nonfarm uses is a major NACD objective. We support S. 1616, we commend its author, and we urge your Subcommittee to act favorably on it.

The wise use of land for all human purposes has been at the core of the conservation district movement since its inception. In many of these conservation districts today, the issue of retaining prime and unique farmlands in agricultural production is a top priority concern. This concern is reflected in the policy positions developed by NACD.

Our policy positions originate with the officials of individual local conservation districts, are considered at state and regional meetings, are reviewed by national NACD committees, and are then adopted at the annual meeting of our NACD Council. Each association of districts in the 50 states, Puerto Rico, and the Virgin Islands is represented on the Council.

Our current policy position related to prime and unique lands as is follows: "Acreage suitable for orchards, vineyards, and the production of truck crops is becoming less plentiful each year because of the spread of non-farm uses of land. This poses a special problem affecting not only the production and availability but the cost and quality of fruits and vegetables for the consumers of America. We favor legislation that would preserve these unique and limited lands for agricultural use.

"We are also concerned about the conversion and potential reduction in the supply of 'prime' agricultural lands. We support efforts underway to identify 'prime and unique' agricultural lands, to estimate the supply of such lands in relation to oncoming needs, to assess the hazards to maintenance of such lands in agriculture and horticulture, and to preserve these lands in agricultural and horticultural use wherever possible.

"NACD supports the principle that landowners be compensated by state or local governments for the loss of development rights in preserving prime and unique agricultural lands."

In a further policy statement, we recommend that our member districts concentrate efforts on the "preservation and enhancement of prime and unique agricultural, range, horticultural, and forest lands."

In our opinion, S. 1616 squarely addresses one of the most important resource issues that America will face in the next few years. The trends give some cause for alarm. One estimate is that we have ample land to meet agricultural production needs for 20 years; another estimate is 35. That may sound as if we have time, but we don't have much. I submit that it is time for action, not for complacency. It is *now* that we must begin the discussions, gather the facts, make the assessments, and develop the action programs. We therefore suggest that the proposal for a three-year study on this subject is the right response to the issue of farmland retention, at precisely the right time.

People are concerned all over the nation. They know that we cannot continue to lose a million acres of our best farmlands each year, which is the most recent Soil Conservation Service estimate. They know that the need to produce food and fiber for domestic production and export is growing and will continue to grow. The land base that supports our food production is America's most basic, most vital resource. Part of that resource is being lost or damaged:

Through land use changes that suburbanize it, build roads and airports on it, and take it out of production forever;

Through erosion, from wind and water; and

Through more indirect means, as farmers are forced out of farming by high taxes, land use conflicts, or uncertainty about the future.

People realize that these problems exist, but they do not necessarily see their severity, understand the many complex factors that affect the use of American agricultural land, or agree on the proper role of government in solving the problem. The Commission approach proposed by S. 1616 is a logical first step.

NACD has some special concerns that can be addressed by the Commission, and we would urge this Committee to provide strong guidance to see that these concerns are included in the Commission's activities.

First, we feel that the viewpoints of farmers and ranchers should be an important part of the Commission's consideration. The retention of America's agricultural lands in production is a concern of all our nation's citizens, and so all voices must be heard; but we think it is particularly important to include farmers themselves. When we develop programs to retain land in agricultural production, we must also retain the ability of farmers to farm it. We can save the lands, and it can be beautiful open space, but it won't be prime producing farmland unless farmers can afford to farm it. Involving farmers in developing programs will help assure this. We would suggest that a farmer or two be members of the Commission. We further suggest that the Commission have hearings, workshops, and meetings throughout the nation, in order that the voice of ordinary citizens and farmers can be heard.

Second, we feel that regional and local differences must be recognized in dealing with the farmland issue. Most of the adverse impacts of the current trends in farmland conversion are felt at the local level, and these impacts vary widely across the country. Many of the programs that are being discussed to protect agricultural land are products of the local or state tradition. The program in my home state is innovative and appropriate there but might not be acceptable or necessary in Kansas. Such differences must be recognized in any recommendations for national action. S. 1616 provides a mechanism for this flexibility, and we would urge that its language and legislative history show clearly that this is the intent of the Congress.

Strong emphasis on field hearings, workshops, and meetings that I suggested earlier would help to surface regional differences. In the administration of Title III, the Secretary of Agriculture should assure that the pilot projects funded under this program represent the broadest possible range of geographic situations, types of programs, and kinds of land situations. In this way, the pilot projects will reflect the diversity and complexity that will eventually need to be accommodated in any program for agricultural land protection.

Third, NACD is concerned about the continued care and stewardship of agricultural lands of the nation. It is important to prevent unique and prime lands from being urbanized or taken out of agriculture for other uses, but it is equally important to assure that those lands are given proper soil and water conservation treatment in the future. It does not make sense to protect prime land from the bulldozer and let it be destroyed by wind or water. The conservation districts of America are dedicated to the conservation, wise use, and orderly development of the nation's land resources. We would urge the Congress to assure that the Agricultural Land Review Commission established under S. 1616 studies the need for a strong soil and water conservation program as an essential part of a national policy for retaining and protecting agricultural lands.

Finally, we want to voice our strong concern for the role that private landowners and users must play in implementing any program for American agricultural land. Nearly three-fourths of the land in the contiguous 48 states is privately owned. Here is where the largest and most difficult job of resource management is being performed—and where it will have to be performed in the future. The future quality of the American environment will be determined largely in the countryside. What we do with these rural lands will ultimately determine how well we live. The people who own and operate this vast and productive land have demonstrated that they will accept the responsibility for its wise use and conservation if they are fully informed and provided the assistance and cooperation needed to supplement their own knowledge and resources.

That is our belief and our experience. Much of what is harmful to America's land today is happening not because government is doing nothing, but rather because government is doing the wrong things. Interstate highways through fertile valleys, regional trunk sewers through prime farmlands, and tax policies

that force farmers to sell land to urban developers are not caused by private neglect—or government inaction. Farmers all over America are trying to save prime farmland—often from governmental actions. We must cooperate with and reward the farmer's efforts, not penalize them.

These are vital factors that must be considered in any program to retain America's vital land resources. A national commitment to action, an intensive study to bring out the facts and involve as many people as possible in discussing the issue, and continued encouragement to the innovative and imaginative programs now being developed throughout the country will point to solutions. These are the elements of the bill we are discussing today.

The National Association of Conservation Districts is pleased to be able to support this important piece of legislation.

We appreciate your invitation to present these views.

STATEMENT OF JOHN D. ESSEKS, ASSOCIATE PROFESSOR, CENTER FOR GOVERNMENTAL STUDIES, NORTHERN ILLINOIS UNIVERSITY, DEKALB, ILL.

Mr. Chairman, I teach public administration at Northern Illinois University in De Kalb, Illinois. One of my responsibilities there has been to study and teach about land-use problems facing public administrators in the counties, cities, and towns around Chicago. A major problem continues to be urban sprawl at the expense of good farmland.

According to the Census Bureau's every five-year survey of agriculture, the amount of land in farming in the six-county Chicago region (Cook, Du Page, Lake, McHenry, Kane, and Will) decreased by 27 percent (about 400,000 acres) in the 20 years 1954 to 1974. The number of individual farms dropped by more than 50 percent. In the most recent comparison period, 1969-74, the rate of cropland loss accelerated. Two counties, Kane and Will, both lost more than 12 percent of their farmland in only those five years. At that rate they will soon be like Du Page County, with most of their once fertile prairie land covered by subdivisions, shopping centers, etc., but with enough black-earth patches remaining here and there, and enough decaying barns and other farm buildings still standing, to remind the observer of the rich farming economy which once flourished there. One might argue that the urbanization of cropland is necessary to meet housing needs. However, are the needs being served those of low or moderate-income families; or is much or most of the farmland now being lost going to house the wealthy, that is, persons who can afford the one-acre or higher minimum-size lots required by many jurisdictions in the rural and semi-rural areas around Chicago where development is accelerating? The "Research Program" envisaged in Title II of S. 1616 could help us in Northern Illinois answer this critical question.

Kane County, which includes the cities of Elgin and Aurora and about 200,000 acres of fertile cropland, has become the target of intense development pressures. Last May 17th the county's government declared a two-month moratorium on accepting new applications for subdivision approval. County officers were overwhelmed with work on pending projects, and some of them were deeply disturbed by the volume of farmland involved. In recent years in Kane County, the number of cropland acres lost to subdivisions annually had averaged 6,000. But by May of this year, more than 7,000 acres had already been approved for development or were likely to be.

The pressures to locate new housing on Northern Illinois cornfields will probably not abate, at least not as long as there are abundant mortgage money, gasoline for commuters' automobiles, and other resources which sustain urban sprawl. However, I have met many county-level and city officials in the region who wish to divert the expected development away from the most productive farmland onto parcels with relatively poorer soils or who want, at least, to make the development more compact, so that the costs of serving new dwelling units will tend to be less than if they were scattered. Compact development tends to be less expensive also in terms of farm production lost. The more it is a scatter pattern, the more farm acres will be neighboring to developed areas and, hence, victims of their water runoff, of human trespassing, and other yield-reducing effects (see the attached map of the Flint, Michigan, area; we need maps like this, which show the quality of land onto which urbanization spreads, for Northern Illinois; perhaps the Research Program under Title II of this bill will help fund the preparation of such maps).

Officials in Northern Illinois who seek to curb or rationalize development at the expense of good farmland face at least three kinds of information gaps which S. 1616 could help to close.

(1) One gap concerns the quality of the land being taken out of agriculture. We tend not to know, with sufficient precision, how much prime land has recently been lost and how much more is being held by speculators and hence is likely to be converted in the not-too-distant future. The Census Bureau's data tell us only the gross number of acres taken out of farming since the last survey; there is no differentiation among grades of cropland. The USDA apparently cannot now help us with this question. In a February 1977 letter to me, the Illinois office of the USDA's Soil Conservation Service states: "We do know that 40,000 to 60,000 acres of agricultural land are converted to other uses each year [in Illinois], but we have not gathered data on how much of that acreage would meet the criteria for prime farmland. This would have to be analyzed county by county to arrive at reliable state figures." The Soil Conservation Service carried out a county-level inventory of land quality and use in 1967, but none has been done since, apparently for lack of budgeted funds. The \$8 million authorized for S. 1616's Title II may help bring about another county-level study, at least for those regions (around Chicago, in New Jersey, etc.) undergoing rapid urbanization.

Such a study can be made comparable to the 1967 inventory, so that valid comparisons will emerge and will probably show to Chicago-area policy makers that disturbingly large losses of prime farmland have occurred over the ten years or so. Developers have been attracted to the area's flat, well-drained farmland because it tends to be the most profitable for construction purposes. The same qualities attract speculators who buy up land for future resale to other speculators or developers. But in the interim, the speculator-owners are less likely to invest in maintaining the land's agricultural productivity than if it had remained in farmer hands.

Speculator activity has contributed to a phenomenal rise in the prices of Illinois farmland. In just two years, from November 1974 to November 1976, the average price per acre rose 69 percent, from \$885 to \$1,497. In 1976 the carrying costs of Illinois farmland (principal and interest payments plus property tax) averaged 47 percent of gross receipts, whereas in 1972 it was 27 percent. Family farmers are finding it increasingly difficult to compete in such a land market. Many of them are being outbid by doctors, lawyers, and other individual or corporate investors attracted to the high appreciation of the area's farmland.

The Research Program of S. 1616's Title II could help Illinois jurisdictions identify both the amount of prime land recently lost and the quantity held by speculators. I suspect that, when confronted with reliable data on these two dimensions, many of the area's policy-makers will be prodded to take significant steps to curb the destruction of their communities' land resources.

(2) However, if they are not persuaded by such data on cropland, they may be prodded to act by a second category of information which S. 1616 could help to provide—data on the fiscal and environmental costs of scattered development in rural areas. Many observers in Northern Illinois are convinced that much or most new development in our region occurs in a scatter pattern. In Lake and Kane counties, for two examples, many hundreds of acres of subdivisions have been built each year on farmland which is relatively far from the sources of police, fire, educational, and other public services. Because of the distances, these developments are costing taxpayers more than comparable-size subdivisions near to or within the borders of municipalities. School bus routes are longer, police and fire department responses require more time, sewer lines are more extensive, etc.

A related cost of sprawl is the detrimental effect on farming operations located around scattered developments. As discussed above, farmers of adjacent lands tend to have their yields reduced by such factors as water runoff from subdivisions or access roads, by damage caused by trespassing humans and pets, and also by ordinances engineered by subdivision residents to curb their use of fertilizers, herbicides, and other "nuisances" to the non-farming neighbors.

Yet another important cost of urban sprawl may be environmental damage, such as in the forms of soil erosion, stream pollution, and loss of scarce flora and fauna.

In sum, sprawl-type urbanization tends to be fiscally more costly than compact development; it is also more expensive in farm production lost; and it may be more costly in environmental damage. However, many or most local governments lack the resources to develop valid estimates of such costs. The staffs of their land-use regulation departments are typically too small or burdened with day-to-day ad-

ministrative tasks to do the necessary research, themselves; and their budgets tend to be too lean to hire competent research resources from outside. Here, then, is a policy area where federal tax money can be fruitfully returned to local communities—to close important information gaps.

(3) Let us assume that many county and state governments are persuaded of the need to curb or rationalize the loss of prime farmland. A third kind of information gap concerns what steps to take to reach that objective. Title III of S. 1616 promises to encourage much-needed experimentation with, and evaluation of, techniques of farmland conservation.

(a) New York State has applied since 1971 the technique of *agricultural districting*. In the "agricultural districts," landowners voluntarily commit their land to farming for eight years in exchange for lower property tax assessments (i.e., based on farm value rather than development potential), protection from local government ordinances which limit their farming operations (such as restricting their use of herbicides), and other benefits. Illinois is presently considering the adoption of a districting bill patterned after New York's legislation. However, where can Illinois find information about the real effectiveness of that legislation since 1971 in encouraging farmers to hold on to their land and to invest in maintaining its productivity, rather than sell to speculators or developers? According to agricultural economists at Cornell University, such information does not yet exist. This is not surprising, since good evaluation research is often too costly for financially pressed state and local governments to underwrite. Here, then, is another area where federal tax money can be fruitfully applied—to evaluate New York's agricultural districting program so as to aid Illinois and other interested states in deciding to adopt that approach and/or how to adapt it to their local conditions.

One of the great advantages of our federal system is our ability to experiment with a policy in one jurisdiction, to study its success or failure, and to inform policy making in other jurisdictions from such study. However, we cannot realize this advantage if evaluation of the experiments fails to take place and the results disseminated. Through S. 1616 we might see the establishment of a clearing house on techniques of farmland preservation which would make available, in convenient form, information as to where, when, and with what success (including before the courts) various techniques have been applied.

(b) A technique of interest to one important county in Northern Illinois is the *transfer of development rights*. In this approach, government does not purchase the rights (i.e., the right to develop the land for nonagricultural uses), but it sets up the machinery for private transfers. The technique aims to prevent development on land considered especially well suited for farming by (1) designating such land as belonging to an "agricultural preserve" and (2) compensating its owner(s) for loss of development-oriented sales by vesting him/her/they with "transferable development rights." Persons seeking to build homes or commercial or industrial enterprises on the remaining, non-protected land in the same jurisdiction would be required to purchase specified quantities of development rights from the owners of the protected land. Through this process the latter owners would be compensated, perhaps gradually but hopefully fairly.

This complex but potentially promising technique of farmland preservation has apparently not yet been applied on a significant scale. However, with federal financial assistance available under S. 1616, such as for mapping soils to determine a county's or township's best farmland and for establishing the administrative mechanisms for the transfer of development rights, local governments may be encouraged to experiment with this technique.

(c) Another preservation technique being considered in Northern Illinois is *public-sector purchase of development rights*. Farmers who do not want to sell out but yet who receive attractive offers for their land cannot be expected to reject the offers unless somehow they are fairly compensated for their lands' development potential. They may balk at the complexities of the transferable rights approach, so that the only feasible compensation technique may be direct public-sector purchase. As this technique is now being implemented in Suffolk County, New York, and on a pilot in New Jersey, farmland owners are asked voluntarily to sell to government the right to develop the land for nonagricultural purposes, with the sale price being the difference between the land's per-acre market value and its farm-use value. The private owners retain the right to farm and to sell the land to others who will farm. It. This newly applied preservation technique (implemented beginning only in 1977) needs careful evaluation, with the research effort starting as soon as possible so as to maximize the quality of the resulting

studies. According to my inquiries, no significant evaluation study is now under way for either program. Title II or III of S. 1616 may provide the funding necessary for such studies. If we in the Midwest are going to persuade ourselves to buy development rights, it would greatly help to have strong supportive evidence from these Eastern experiments.

(d) Yet another preservation technique being considered in Illinois is *zoning to minimize urban sprawl*. The promoters of this approach hope that, with sufficient information on the fiscal and environmental costs of sprawl, they can develop zoning ordinances which make for compact growth and will stand up in court. These officials hope to direct growth onto land which can "carry" it the sense of being situated relatively close to existing sources of public services and of not threatening, because of drainage and other linkages, excessive damage to the environment around it. Federal financial assistance could be fruitfully employed to build up the data base needed to assess such relationships.

In summary, I am arguing that many people in Northern Illinois are concerned about the loss of fertile cropland to urban sprawl spreading out from Chicago. And our region would likely benefit from the programs projected by S. 1616 to assist in (1) defining the particular farmland conversions problems which we face (that is, the amount of prime land being lost, the fiscal and environmental costs of sprawl in our area), (2) encouraging experimentation with different techniques to curb the loss of highly productive land, and (3) evaluating those experiments and disseminating the results of the evaluations.

[The following material was submitted by Mr. Hampton:]

NATIONAL WILDLIFE FEDERATION RECOMMENDED REVISIONS TO S. 1616

General: Delete the words "range", "forest", "forestry" and "private forestry" wherever they appear in the bill.

Specific:

Page 4, line 5: Add "or where soil erosion is a significant problem."

Page 5, line 11: Delete "for maximum yields"; substitute "for food and fiber production within the constraints of sound soil conservation technology."

Page 8, line 1: Add after "land" the following words: "while enhancing its peripheral values for mankind and wildlife."

Page 10, line 8: Add after "fiber" the words "or from being subjected to unwise practices leading to, or exacerbating, soil erosion."

Page 13, line 16: Add after "nonessential uses" the words "or which is being lost to soil erosion."

Page 13, line 25: Add after "uses" the words "or which is being lost to soil erosion."

Page 14, line 22: Add after "utilization" the words "and protection."

Page 17, lines 20-24: Funding authorizations should increase by annual increments of at least \$5,000,000 starting with \$10,000,000 in fiscal year 1978 and ending with at least \$30,000,000 in fiscal year 1982.

RESOLUTION No. 1.—MAJOR CONSERVATION ISSUES, 1977

From knowledge as an association of independent state organizations and their affiliated local groups, the National Wildlife Federation believes that an alert and fully-informed public will demand sound management of natural resources. Public education, therefore, is the solid foundation upon which conservation practices must be based.

The National Wildlife Federation continues firm in its conviction that conservation of energy is essential to the National well-being, and calls upon industries, businesses, groups, and individuals to make substantial sacrifices to conserve their uses of energy. Further, this organization supports the principle that mandatory conservation measures should be imposed if such a program is necessary to prevent the U.S. from becoming more dependent upon foreign sources of energy.

Otherwise, the National Wildlife Federation believes that contamination of the environment, unwise management of resources, and losses of natural areas and other wildlife habitats, complicated by population growth and energy shortages, constitute the primary problems of the age.

It is in light of this background that the National Wildlife Federation invites the attention of all Americans to what it considers the major conservation issues of the year 1977:

Water Pollution.—This organization is convinced that the basic provisions of the Federal Water Pollution Control Act which are designed to achieve fishable-swimmable water quality goals by 1983 must be retained unweakened. Further, it is essential that the Federal Government provide adequate funding to ensure that these goals are achieved. Protection must continue to be given to ecologically-rich and biologically-productive wetlands. Particular emphasis should be directed to planning and implementing measures to control non-point sources of water pollution.

Air Pollution.—The Congress must move quickly to extend stringent regulations designed to protect the quality of vital air resources. It is critical that the quality of air over pristine areas be protected from further degradation. Economic growth in specific areas should be permitted only when it does not impact adversely upon the achievement of those air quality goals which are so necessary for the maintenance of a healthy biosphere upon which all living organisms depend.

Toxic Chemicals.—Since many chemicals pose serious threats to human health and the welfare of other living organisms, it is essential that the Federal Government devote adequate funding and personnel to full implementation of the Toxic Substances Control Act enacted in 1976. This organization is firmly convinced that the U.S. must establish and develop a better toxic substance data base upon which sound judgments relating to human health and environmental hazards can be made.

Endangered Animals and Plants.—The National Wildlife Federation continues to believe that man has a basic responsibility to take every reasonable means, including financial expense, to ensure that his actions do not result in the extinction of any animal or plant. Further, it is believed essential that units of federal, state, and local governments must work together closely to preserve areas of critical habitat, prepare and manage recovery plans, and enforce regulations protecting rare, threatened, or endangered species, enlisting the aid of interested citizen groups and individuals to the degree possible.

Population Control.—Convinced that people merit pleasant and productive lives in quality types of environments, including the natural world, rather than merely struggling for survival, the National Wildlife Federation deplors the adverse impacts which a steadily increasing human population exerts on conservation efforts. As a result, this organization lends its encouragement to zero population growth as a world population goal, educational efforts and tax incentives in the U.S., and conditions on assistance to any areas whose populations are outrunning their resources.

Land Use Planning.—The United States has reached the point where it must develop a comprehensive plan to identify and classify the best uses of land resources, both public and private, with the capacities of the land. If coordinated between the appropriate federal, state, and local governmental agencies, such a plan should result in determination of those priorities of land use which are best suited for the overall public good. Suitable incentives then can be developed to encourage conformance to the priorities which are developed.

Energy.—This organization recommends in the strongest possible terms that the President and the Congress develop a realistic and environmentally responsible comprehensive national energy policy, identifying attainable short-term, mid-term, and long-term goals. Such a policy should stress energy conservation and provide funding for highly-accelerated programs designed to develop and implement clean and safe sources of power, using wisely placable fossil fuels, especially natural gas and oil.

Parks, Refuges, and Recreation Areas.—If people are to enjoy wholesome outdoor recreational and educational experience, it is necessary that existing facilities are operated at a viable level and that additional facilities such as parks, wildlife refuges or management areas, seashores, lakeshores, and recreational areas be established on national, state, and local levels. As a consequence, the National Wildlife Federation urges executive and legislative branch agencies on all levels of government coordinate their activities to ensure that funds are sought and appropriated in amounts suitable to acquire and manage natural areas for the best public purposes.

Life Styles.—The National Wildlife Federation encourages the American public to adopt "leaner" life styles, giving the utmost consideration to the husbandry of natural resources, recycling solid wastes, and utilizing the most efficient modes of transportation and temperature controls in homes, businesses, and industries.

Wildlife Habitat.—The National Wildlife Federation invites hunters and non-hunters to join in coordinated efforts to provide increased and improved habitat, the essential key to healthier, more abundant, and diverse wildlife populations of value to everyone.

RESOLUTION No. 11—AGRICULTURAL CONSERVATION PROGRAM

Whereas, the Agricultural Conservation Program (ACP), a cost-sharing program administered by the Secretary of Agriculture, has evolved over the years since its establishment in the mid-1930's into a program aimed principally at increasing agricultural production by providing federal matching funds for many short-term production-oriented practices; and

Whereas, the program was designed to get conservation practices applied on farmlands; and

Whereas, Title X of Public Law 93-86 (the Agriculture and Consumer Protection Act of 1973) was intended to reorient the ACP into a program designed to obtain needed conservation on farmlands beyond that which the farmer would be willing to undertake unassisted but which is in the public's greater interest, such as wildlife conservation, tree planting, shelterbelt construction, and other long-term, enduring soil, water, and woodland conservation practices; and

Whereas, Title X of Public Law 93-86 provided for the establishment of national, state, and county ASC committees and program administrators to select environmentally-sound ACP practices; and further provided authority for the purchase of perpetual easements to promote sound use and management of flood plains, shore lands, and aquatic areas; and

Whereas, the ACP has, in spite of Public Law 93-86 continued to be operated as a program principally designed to increase farm income by subsidizing short-term production-oriented farming practices rather than long-term conservation practices; and

Whereas, Advisory boards have not been established in many states, as required by Section 1007(a), Title X, Public Law 93-86; and

Whereas, the national advisory board, though established, has never met to carry out its responsibilities under Section 1007(b), Title X, Public Law 93-86; and

Whereas, the Administration has never sought funds to purchase perpetual easements to promote sound use and management of flood plains, shore lands, and aquatic areas: Now, therefore, be it

Resolved, That the National Wildlife Federation, in annual meeting assembled March 19-21, 1976, in Louisville, Ky., hereby recommends that the ACP be reoriented into a program designed to encourage long-term enduring conservation practices which are in the interest of the greater public, as intended by Title X, Public Law 93-86; and be it further

Resolved, That the Secretary of Agriculture appoint and convene a complete set of state advisory boards as provided for in Public Law 93-86; and call an annual meeting of the national advisory board provided for in Public Law 93-86 to review the proposed ACP before regulations and/or guidelines are promulgated and distributed to state and county ASC committees.

RESOLUTION No. 23—PRESERVATION OF AGRICULTURAL LANDS

Whereas, much of the country's farmland is an irreplaceable resource which should be protected and improved, both for its ecological significance and because of its contribution to the Nation's economy; and

Whereas, little progress has been made in developing a coordinated and unified approach to land use planning; and

Whereas, if the fate of agriculture and agricultural land is left entirely to a future land-use plan it is very likely that it will be too late to deal adequately with this extremely important land category; now, therefore, be it

Resolved, That the National Wildlife Federation, in annual convention assembled March 14-16, 1975, in Pittsburgh, Pennsylvania, hereby supports the establishment of an agricultural preservation program; and be it further

Resolved, That this program be instituted before the agricultural industry and its open space are irreversibly decimated.

STATEMENT OF JOSEPH M. HINSON, NATIONAL FOREST PRODUCTS ASSOCIATION

Mr. Chairman and members of the committee, I am Joseph M. Hinson, a professional forester with the National Forest Products Association. Headquartered in Washington, D.C., NFPA is a federation of 26 regional, product and species associations, as well as direct member companies. It represents the growers, manufacturers and wholesale distributors of solid wood products throughout the United States. We welcome this opportunity to testify on S. 1616, the National Agricultural, Range, and Forestland Policy Act, and will restrict our remarks to that bill.

The forest industry has contended for many years that too much productive land is being diverted to non-food and fiber production uses and is pleased to see that concept embodied in this bill. We agree further that the policy of the county should be to keep an optimum amount of land in a productive capacity. We submit, as well that any transfer of productive land into nonproductive uses should be made only when it can be proven that such specific land withdrawals are clearly in the public interest.

The federal government plays a major role in encouraging the shift of land from food and fiber production to nonproductive uses. This occurs not only by decisions affecting land in federal ownership, but through federal actions which influence or dictate the way in which non-federal owners manage their land. We would like to highlight briefly three illustrative federal actions which result in or encourage the shift of productive land into uses which preclude food and fiber production.

On federally owned land, governmental actions which most affect productive capability are the management decisions made by the administering agency for the lands under its jurisdiction. The Forest Service's current roadless area review and evaluation is an excellent example of this. In carrying out this review, the Forest Service made the administrative decision to withdraw approximately 60 million acres, one-third of total National Forest ownership, from productive use until a final decision can be made over which portion of this land should be designated as Wilderness.

The push to administer much of Alaska's interior lands as National Parks or Wilderness preserves, rather than through resource management agencies, such as the Forest Service or BLM, will have a tremendous effect on these lands as commodity-producing areas.

The federal government also either encourages or causes the transfer of productive land to nonproductive uses through the establishment of environmental laws and regulations. Recently established regulations, such as those issued under Sections 404 and 208 of the Federal Water Pollution Control Act Amendments and regulations governing the use of herbicides and pesticides, discourage landowners from managing productive lands. This federal influence over the management of private lands is extended through limitations on management. Shortly, the House will be considering legislation which would not only take private lands as additions to Redwood National Park, but would also dictate management practices on lands adjoining the Park. Another example is the easements usually sought along designated Wild and Scenic Rivers. Within these easements no management is allowed which would detract from the aesthetic values of the river and its immediate surroundings.

Finally, direct federal acquisition of productive lands has a marked effect on this country's ability to produce food and fiber. We have already mentioned the expansion of Redwood National Park as a federal acquisition of private land for non-food and fiber producing purposes.

We recognize that private institutions also influence the withdrawal of productive agriculture, range, and forest lands. Utility companies may use powers of eminent domain in order to build power lines, pipelines, and power plants on otherwise productive land. Land holding and development firms may buy productive farm and forest lands near urban areas of population and hold this land for speculative purposes. This nearly always results in this land being removed from production.

These federal and private actions which cause or encourage the withdrawal of land from productive capacities cannot be characterized, in themselves, as good or bad. Many times such land withdrawals are definitely in the public welfare.

However, all too often these decisions are made without adequate knowledge of their consequences, and the effects upon the ability of these lands to produce food and fiber are unknown. As we understand it, S. 1616 would be a major step toward eliminating this kind of decision-making in a vacuum. We hope that this bill, if enacted, would provide federal, local and private institutions with information and guidance enabling logical, intelligent decisions within their current responsibilities about the use of productive forest, range and farm land.

In order to provide this information and guidance to federal and local decision-makers, it is necessary that they have the knowledge which will enable them to reach intelligent land management decisions. The basis for such knowledge rests in an accurate inventory of productive land and an analysis of the relationship of this land to the supply and demand for food and fiber. This inventory provision is well-defined in the bill. Any such inventory must be designed to plug gaps in knowledge of all the nation's productive lands. Much of this information concerning forest lands has already been documented through the Resources Planning Act Assessment compiled in 1975. This Assessment will be updated in 1980, and S. 1616 should be coordinated with the Forest and Rangeland Renewable Resources Planning Act.

The forest industry sees almost daily the effects of land withdrawals. Mills and subsidiary industries are closing because the land on which they depend for their timber supplies is being withdrawn or restricted from productive uses. It is our hope that a public policy to reduce the amount of land lost to nonproductive uses would call attention to this.

Finally, there is definitely a need to oversee the myriad of laws and regulations and analyze their effects upon the ability of our productive land to produce food and fiber. To our knowledge, there is no one agency of the government with this responsibility. As a result, laws and regulations, often conflicting with one another, are established with little consideration of their effect on food and fiber production. Oversight and coordination of these laws and regulations is a function of government which very definitely should be filled.

Although we agree there may well be a need for this legislation, we would like to emphasize the importance of protecting the rights of private land owners in implementing such an act. We fully support Section 307 of the bill designed to protect the rights of private landowners. There is little enthusiasm within the agriculture and forestry community for further government intervention or federal land use controls for whatever reason. It is a responsibility of government to set policies and to provide information which will enable government to work within these policies. This legislation should not result in yet another regulatory agency. This does not seem to be the objective of this legislation.

In studying this bill, we did have some comments and we did identify some concerns over the specific language of the bill. We offer these comments for your consideration.

On page 2, lines 6 through 8, the bill addresses projections of timber production. We point out that projections of timber yields are possible and that these projections are well documented in the RPA Assessment and Program.

In lines 13 through 15 of the same page, "availability" should be added to the terms "amount, quality, locations and financing of agricultural, range and forest land."

In line 1 of page 3, the bill states that the federal government must establish a national policy to help landowners and state and local governments "protect," their agricultural, range and forest land. We question the use of the word "protect," since this has a number of different connotations, especially as used in safeguarding forest land from fire, disease and insect infestation. Perhaps "insure productivity" or "insure availability" would be a better term.

In line 4 on the same page, the term "insuring production and availability" should also be added to the phrase "establish a national policy of maintaining, protecting, and improving agricultural, range and forest land."

Throughout the bill there are a number of instances where land is referred to as "agricultural." In these instances, forestry purposes should be identified along with agricultural purposes. Finally, throughout the bill, there are a number of references to non-vital or non-essential uses. These terms are vague and subjective in their definition. More definitive words should be used.

The forestry industry agrees with the concept of this bill. We cannot stress too greatly the importance of the country's productive forest, range and agricultural land, and the importance to both the economy and to human welfare of keeping this land in productive capacity.

We have offered what we feel are some constructive changes in this bill. We hope that our changes will be considered in the future work on this legislation. Thank you for the opportunity to testify.

WILDLIFE MANAGEMENT INSTITUTE,
Washington D.C., August 1, 1977.

Hon. DICK CLARK,
Senate Office Building,
Washington, D.C.

DEAR SENATOR CLARK: Your invitation to testify on S. 1280 and S. 1616 is appreciated very much. Unfortunately, some critical meetings had been scheduled for August 4 before your thoughtful letter arrived.

The two bills were reviewed carefully, with our pertinent views summarized below for your consideration.

S. 1280. *To improve water quality in rural areas.*

This bill seeks to correct serious existing erosion and pollution situations. However, it is silent on preventing such situations from developing. This is a long-standing weakness in federal, state and local agricultural programs. Landowners and operators abuse land and degrade waters in seeking short-term profits. When resource problems become sufficiently serious, landowners and operators voluntarily seek help through various technical and financial assistance programs to resolve them. In other words, taxpayers are called upon to correct such problems. Without adequate preventative actions, there is little hope for curtailing erosion-pollution situations. A mechanism should be included in 208 plans and follow-up actions, as well as in the proposed S. 1280 to help avoid serious erosion-pollution situations from developing. In the absence of such an approach, taxpayers will be asked to accept an increased burden to correct abused situations. In view of our nation's economy, that unwarranted economic demand should be prevented.

S. 1616. *To protect agricultural, range and forestry land.*

The overall thrust of this bill is reasonable, but incomplete. Insuring availability of lands for farming, ranching and forestry is one thing. Another is helping assure appropriate management of the land and water resources used in those important activities. This phase of a total program is slighted in the bill's language. This weakness should be corrected. If it is not, the points outlined for S. 1280 will prevail.

We appreciate the opportunity to provide these summary comments. If we can be of further help, please contact me.

Sincerely yours,

LAURENCE R. JAHN,
Vice President.

STATEMENT OF RONALD A. MICHIeli, AMERICAN NATIONAL CATTLEMEN'S
ASSOCIATION AND THE PUBLIC LANDS COUNCIL

Industry Background

The American National Cattlemen's Association (ANCA) and the Public Lands Council (PLC) are pleased to offer comment on legislation pending before this Subcommittee, specifically, S. 1616, the National Agricultural, Range and Forest Lands Policy Act.

ANCA is the national spokesman for all segments of the nation's beef cattle industry, including cattle breeders, producers, and feeders. We are an 80-year-old non-profit trade association representing approximately 260,000 professional cattlemen.

Historically, as is evidenced by our 80 years of service to the beef cattle industry, our members have been witness to and part of the dynamic changes that have occurred in agricultural land use over the span of time.

Many of those changes have been brought about in part by the industry itself, which saw a need to protect all resources necessary to maintain their livelihoods.

The Public Lands Council, formed in 1969, represents Western domestic livestock producers of both sheep and cattle who hold grazing permits for use of the federal range lands. The constituency of the Council is comprised primarily of ranchers who have lived next to or in proximity to the federal rangelands and who

have actively participated for many years in efforts to improve and protect the the Nation's rangeland and the resources which are vital to their operation and livelihoods.

Industry Philosophy

Land as a commodity, held in private ownership, blessed with economic incentives inherent within our system of government, has enabled farmers and ranchers to achieve the efficiency of production resources that American consumers enjoy today. For example, one U.S. farm worker now provides food for 56 persons. Ten years ago, he produced for only 29.

Cattlemen believe in the efficiency of land utilization and economic freedom and object to market and property right interferences that have an acute effect upon distribution of resources and income. It is in support of that philosophy that we are expressing our concerns relative to S. 1616.

Section 2—Findings and Purpose

We question seriously the need to establish a national policy concerning agricultural lands. While we concur that a study of agricultural lands could be beneficial consistent with the inventory and evaluation provision of S. 1616, we do not support the establishment of a national policy concerning agricultural lands. Simply, the findings of the proposed study should be the basis for determining policy if the supportive data warrants that consideration.

ANCA does not hesitate to point out that the capabilities for conducting the proposed study already exist. Rather than create legislative authority for such a study, we ask that the Subcommittee review and direct the Department of Agriculture to carry out the study capability as outlined in the Secretary of Agriculture's Memorandum No. 1827 dated October 26, 1973 and Supplement I to that Memorandum dated June 21, 1976.

Further, it is evident pending legislation embodied in H.R. 75, the Soil and Water Resources Conservation Act of 1977 has a similar capability. This is not to acknowledge that such capabilities are already authorized and in the implementation phase under the Forest and Rangelands Renewable Resources Act, the Water Quality Act Amendments of 1972, the Clean Air Act, Endangered Species Act of 1973, the Toxic Substances Control Act and the National Environmental Policy Act of 1969, but to name a few. Suffice it to say, any one of these existing authorities will identify prime agricultural lands; provide the data, technical expertise and direction necessary to meet land use planning requirements at the most local level of government.

Section 201—Agricultural Lands Review Commission

Consistent with the above comments, we see no need to create another Federal Commission. Such action would only serve to alarm the countryside that another Federal agency is in the making. In the countryside this action is viewed as another impediment to a decision making process already overburdened by Federal regulation; otherwise, another extension of the governmental bureaucracy impacting farmers and ranchers.

Section 301—Pilot Projects

Demonstration programs while recognized as a valued component in carrying out a program of this magnitude, in our opinion would contribute little towards the goals and objectives of the proposed effect. As was indicated earlier, existing authorities and programs will suffice to fulfill requirements of S.1616.

Conclusion

S. 1616 at best serves as an alternative to comprehensive land use planning. Bothersome to ANCA is the precedent this type of legislation could establish. The Federal land use direction advocated by key environmental organizations incorporates many of the features of this measure. In a recent report entitled "The Unfinished Agenda"¹ knowledgeable and professional environmental leaders set forth future recommendations relative to the environment. One section dealt with the subject of Private Land Use Regulation. The position advocated was as follows: "It is clear that the nation's land use problems will increase" . . . "The key environmental provisions of a federally funded land-use program would require participating states to inventory, designate, and regulate areas of critical environmental concern. Such areas would include shorelands, ecosystems, key

¹The Unfinished Agenda—The Citizen's Policy Guide to Environmental Issues—A Task Force Report sponsored by the Rockefeller Brothers' Fund.

wildlife habitats and migration routes, historic sites, natural hazard areas, and renewable resource lands, such as aquifers and prime farmlands."

In addition environmentalists recommend that national land-use planning legislation:

Protect lands adjacent to parks, historic landscapes and sites, small towns, and rural areas; and encourage careful urban restoration rather than the usual practice of demolition followed by skyscraper construction.

Strengthen coastal zone protection, to include all barrier islands, marshes, estuaries, and shorelands.

Provide for careful federal and state standards for management of the nation's privately owned forests, based on ecological principles of forestry.

Preserve prime agricultural lands for farming purposes only, and provide extremely careful management of marginal agricultural lands to prevent erosions, fertilizer runoff, and spreading of pesticide residues.

ANCA appreciates the opportunity to have expressed our views and concerns relative to this measure as it relates to and impacts on the nation's beef cattle industry.

U.S. DEPARTMENT OF AGRICULTURE,
OFFICE OF THE SECRETARY,
Washington, D.C., October 26, 1973.

SECRETARY'S MEMORANDUM NO. 1827

STATEMENT ON LAND-USE POLICY

1. *Purpose.*—The Department recognizes that major responsibility for land-use policy (planning and regulation) rests with local and state governments. The Department also recognizes the rights and responsibilities of landowners and users in making land-use decisions within this framework. Fifty-eight percent of America's land is in private hands, 75 percent held by farmers and ranchers. Another 8 percent in National Forests and National Grasslands is managed by the Department, while 6 percent is owned by state or local governments. Through its agencies the Department administers some 80 programs that influence private as well as governmental landholders' land-use decisions—urban as well as rural. This memorandum establishes Departmental policies to help assure sound public policy to maintain and improve the nation's natural resources.

2. *Background.*—Land, water, and air are basic assets to be used and managed wisely to protect, conserve, and enhance their productivity and quality for all Americans. Public interest in these basic assets calls for an effective planning and decision-making mechanism that complements local governments' responsibilities for land-use limitations. The nation is challenged to reconcile competing uses for land, and the impacts of such uses on water and air to assure the maximum possible advantage to the nation.

3. *Delivery System.*—The Department's research, educational, technical, and financial assistance services are available in every county and state of the nation. Its agencies now assist all levels of government in land-use planning and implementation efforts. The Department's nationwide delivery system for land-use information includes several thousand county offices of agencies, more than 3,000 conservation districts, research centers of all State Land Grant Universities, and cooperative efforts with State Forestry and State Agriculture Departments. At local and state levels, the Department has unparalleled working relationships with decision-makers. The Department has capability to obtain new land-use information (research), to deliver the information to those who can use it (education and action programs) and permit the Department to administer effectively technical, consultative and financial assistance to local and state units of government.

4. *Definition.*—Land-use policy is a facet of our general decisionmaking process on the use of our resources. It is a tool to carry out governmental development policies evolving from decisions on interrelated policies arising from economic, social, or environmental problems. Land-use policy and its consequences provide a focal point to identify and resolve conflicts growing out of competing land uses. Land-use policy is the expression of society's determination of how its resource, land, is used. Land-use policy refers to the total of all those national, state, and local laws, ordinances, and attitudes affecting the short-term or long-term uses of land, private or public, through such mechanisms as ownership, inheritance, taxation, condemnation, zoning, redevelopment, building regulation, master planning and legislative fiat.

5. *Policy.*—The Department will:

Adapt present pertinent programs to help enhance and preserve prime agricultural, range, and forest lands for those uses.

Promote and help influence the management of rural lands to assure adequate sources of high quality water.

Intensify establishment of permanent soil and water conservation on the erosion-vulnerable lands returned to cultivation to help increase production of crops and livestock.

Expand the Department's efforts to assure wider understanding of how its programs and responsibilities contribute to improved land uses.

Cooperate fully with other Departments in terms of responsibility policy and leadership.

Further coordinate the work of the Department's agencies at the state level to make all its land-use efforts relevant and harmonious.

Provide timely information and assistance including non-farm interpretations of soil surveys, small watershed hydrologic data, and economic information to local, county, and state land-use decision makers.

Strengthen and expand the Department's capabilities in harmony with others for surveying and monitoring land and related natural resources and to provide resource condition evaluations to local, county, state, and federal governmental land-use decision-makers.

Help protect rare and endangered plant and animal species and their ecological systems as well as historic, cultural, scientific and natural systems.

Help conserve and develop significant waterfowl habitat lands.

Assist in the reclamation of land surfaces used for the extraction of non-renewable resources such as coal, minerals, oil, and gas.

Work with other agencies to discharge fully the responsibilities authorized and directed to the proposed Interagency Advisory Board on Land Use Policy.

6. *Land Inventorying and Monitoring.*—In providing additional resource information to local and state-governments the Department will expand at the earliest feasible time its surveys and studies to include:

A nationally recognized system of land classification.

County, state, regional, and national inventories of available soil, water, and related resources and projections as to land-use potentials.

Guidelines to identify critical environmental problems to be considered in state and local land-use policy planning.

Physical, social, economic, and institutional information for evaluating national policy questions concerning agricultural, forestry, and other rural land uses. Also analyses of factors producing land-use changes.

Identification, location, and productivity ratings of farm, range, and forest land.

Research on emerging issues concerning land resource and water use, supplies, and requirements. In so doing take into account alternative environmental, institutional, and demographic factors and both short- and long-term national and international needs.

7. *Program Emphasis.*—Department agencies will direct their programs to the extent possible—including redefinition or modification of their policies—to:

Increase production of detailed soil surveys.

Establish land-capability criteria to help direct the flow of urbanization to land areas least suited to crops and forests.

Help guide urban growth to preserve prime farm lands, minimize fragmentation of land holdings, provide adequate water supplies, equalize taxes, dispose waste properly, and provide adequate public health, recreation and safety services.

Plan and guide effectively land-use in the rural-urban fringe areas, aid in recreation or second home subdivisions.

Control erosion and reduce sedimentation.

Minimize the impact of surface mining on rural land uses.

Locate sites for solid waste disposal as an increasingly important land use.

Give attention to need for small watershed, flood plain, wetlands, and coastal zone management programs based on comprehensive land-use planning incorporating ecological considerations.

Encourage multiple-use management of forest lands to assure a continuous supply of forest goods and services with environmental objectives.

Manage farm, ranch, and forest practices to minimize adverse effects on the environment.

8. *Implementation Guidelines.*—The Department and its agencies will be guided by the following purposes in policy implementation:

- (1) To conduct programs within state and Federal environmental standards.
- (2) To conserve and improve land and related resources.
- (3) To enhance the amenities and social assets of rural America.
- (4) To seek fair returns for farms, forests, and ranches as economic units.
- (5) To support research and education on land-use planning.
- (6) To promote economic development in the rural areas.
- (7) To assist all citizens and agencies to obtain technical data needed for planning.

(8) To continue to act in concert with Federal, state, multi-jurisdictional planning and development agencies and local agencies. Also with quasi-public and private organizations and individual landowners and operators.

EARL L. BUTZ,
Secretary of Agriculture.

[Corrected Copy]

U.S. DEPARTMENT OF AGRICULTURE,
OFFICE OF THE SECRETARY,
Washington, D.C., June 21, 1976.

SECRETARY'S MEMORANDUM No. 1827—SUPPLEMENT 1

STATEMENT OF PRIME FARMLAND, RANGE, AND FOREST LAND

The continued loss of lands well suited to the production of food, forage, fiber, and timber, and the degradation of the environment resulting from those losses is a matter of growing concern to the Nation. Major consideration must be given to prime lands and the long-range need to retain the productive capability and environmental values of American agriculture and forestry. Developments that result in irreversible land use changes represent a loss of valuable natural resources. The process is dramatic in some local areas. At the national level, individual losses appear small, but the cumulative effect can adversely impact domestic and international production.

The concerns about wise use of prime lands are local, Statewide, and national in scope. The loss of land suitable for sustained crop and wood production in a region or locality can influence the viability of supporting supply, processing and marketing facilities. Continued loss of farmland, range, and forest land production affects the economy locally, influencing employment and income levels. In addition, it limits other qualities essential to the well-being of our people.

Land use alternatives are generally available that can minimize impacts on prime lands. Such alternatives should be explored carefully, particularly where Federal funds are involved. When possible, land use decisions should be avoided which irrevocably commit prime lands to nonfarmland, nonrange, and nonforest-land uses, thereby foreclosing the options of future generations. USDA will urge all agencies to adopt the policy that Federal activities that take prime agricultural land should be initiated only when there are no suitable alternative sites and when the action is in response to overriding public need. The long-term implications of these land use conversions on the productive capacity of our farmland, range, and forest land, as well as on environmental impacts, should be evaluated and made known to the public.

The Department, through the Land Use Committee, counterpart State and local committees, and the activities of all concerned agencies, groups, and organizations will advocate the protection of prime and unique farmlands, range, and forest lands from premature or unnecessary conversion to nonagricultural land use. Urban or built-up uses and water impoundments that preclude utilization or recovery to high quality agriculture or forestry purposes are of particular concern.

State and local interests in retaining prime farmland, range, and forest land for production are often based on concerns other than the demands for food, forage, fiber, or timber. Open space, environmental quality, visual quality, and local economic impacts are often cited as reasons for protecting these lands. Many of these lands have modest production capability, but are valued because of location and other unique factors that make them of State or local importance. Retaining farmland, range, and forest land enhances local values and protects resource options for the future. The Department will make specific efforts to

assist States and localities to identify lands of State and local concern and support efforts to protect these lands from premature or unnecessary conversion to other uses.

The Statement on Land Use Policy (Secretary's Memorandum No. 1827) and the following specific policies are set forth for the guidance of the agencies in this Department in regard to prime lands:

1. Advocate the protection of prime lands from premature or unnecessary conversion to other land uses. Priority will be given to prime lands threatened by conversion to irreversible land uses.

2. Assure that environmental impact statement procedures and review processes thoroughly consider and evaluate the impact of major Federal actions on prime farmland, range, and forest lands.

3. Emphasis will be placed on programs to inventory, assess and evaluate the Nation's farmland, range, and forest lands to assist decision makers and the general public's understanding of the kind, extent, location, and current status of prime lands.

4. Cooperative effort with States, local governments, and universities will be initiated to assure concerns for food, fiber, and wood production are recognized and emphasized in the identification of prime lands.

5. USDA agency actions and programs will give thorough consideration to the local, State, and national concerns for the retention of prime lands. The necessity of conversion of these lands to other uses will be considered only after a determination that feasible alternatives do not exist or that overriding public needs warrant the action.

6. The agencies in the Department will review their programs to insure consistency with the intent of this supplement.

JOHN A. KNEBEL,
Acting Secretary.

STATEMENT OF PETER HUESSY, SPECIAL ASSISTANT TO THE PRESIDENT, THE
ENVIRONMENTAL FUND

SOIL, PEOPLE, AND CIVILIZATION

Mr. Chairman and members of the subcommittee on Environment, Soil Conservation and Forestry; the legislation now before you, S. 1616, introduced by Senator Clark, is perhaps one of the most important bills to come before Congress in the decades since the establishment of the U.S. Soil Conservation Service.¹

The preservation of our agricultural land, our soil resources—whether dairy farms in New England, wheat and corn farms in the Midwest, fruit and vegetable farms of the Pacific Coast, or the orchards and soybean farms of the South—is intimately connected with the survival of democracy in America and the continuation of a dignified and decent standard of living.

It is not an exaggeration to say that soil erosion by wind and water, and the loss of agricultural land due to population growth, is reaching staggering proportions. The General Accounting Office has recently released a study of major U.S. farm areas and has concluded that soil erosion and loss of agricultural land is a serious national problem and deserves immediate attention. It concluded that 84 percent of the farms in its sample were experiencing soil losses in excess of the maximum acceptable level. At the same time, most of the funds appropriated for Federal soil conservation programs are not being spent for that purpose.

Five years ago, a research team at Iowa State University reported that the U.S. was losing the equivalent of a train load of soil, circling the globe 24 times every year, 33 percent more than in 1934.

The Council for Agricultural Science and Technology reported in January of 1975 that more than one-third of the U.S. cropland was suffering annual soil losses in excess of the limit at which soil productivity can be sustained over time. Two months later, the Senate Agriculture Committee concluded that the U.S. was less able to control soil losses on lands with serious erosion problems than we were 15 years ago.

As the GAO report wisely noted:

" . . . the greatest single fault of mankind through the annals of recorded history has been his failure to preserve and protect the natural resources which provide the basic necessities of life—food, clothing and shelter."

¹ Similar legislation has been introduced in the House by Congressman Jeffords and 15 of his colleagues.

Arnold Toynbee has pointed out that every single civilization in human history has been built upon one common denominator—good, fertile soil. At one time in history, there was quite a lot of it. But today, there are now more man-made acres of desert than there are acres of arable land.

No civilization has survived the destruction of large amounts of its agricultural land and its soil's fertility. History is littered with the scattered ruins of civilizations which through greed, ignorance and short-sightedness, have turned God-given gardens into man-made deserts. It seldom works the other way.

Dr. Reid Bryson, Director of the Institute of Environmental Studies at the University of Wisconsin (Madison), writes in his newly published "Climates of Hunger" of one culture after another disappearing because of its inability to keep *its numbers and activities* in balance with the carrying capacity of the environment.

Think a moment about Mesopotamia and the Legendary Garden of Eden. By the time the Hittites roared through the valley of the Euphrates, they did not find the land of milk and honey, but a decimated civilization, with a few dry, dusty villages bearing mute testimony to man's foolishness. Whether one examines the Mayan, Aztec, Hindi, Persian, Roman, Chinese, Mycenae, Greek, Chinese or Nubian civilizations, one common thread runs throughout. Civilizations were built upon good soil with available water. Human populations, once small, multiplied into large cities and urban civilizations.

The precipitous rise in human numbers coincided with the rise of past civilizations. With it came widespread epidemics in the crowded and filthy cities; famines and wars were the order of the day. Grasslands were over-grazed, slopes were burned-over, irrigation systems salinized and dams silted. No matter how careful resources are managed, too many people will make such practices useless. Excessive populations thus brought about the disappearance of one civilization after another. Pliny tells us of the farmers of Babylon who harvested two annual crops of grain and grazed sheep on the land between crops before the year 2000 B.C.

But by the twelfth century, Otto of Freising could write in *Chronicon*: "But what now is Babylon . . . ? A shrine of sirens, a home of lizards and ostriches, a den of deserts." Today, less than 20 percent of the land in modern Iraq is cultivated. The landscape is dotted with the mounds of forgotten towns and deserts cover what was once lush grassland. Old irrigation works are covered with silt, the product of soil erosion. The ancient capital of Ur is buried 150 miles from the ocean under 35 feet of silt. Modern Iran, the great center of the Persian Empire, now *imports* a net of 2 million metric tons of grain, equivalent to 33 percent of its total production. At the same time that Iran is losing large segments of its agricultural land to the expansion of deserts, its population of 37 million is doubling every 24 years, placing even greater demands upon its meager agricultural resources.

In Northern Africa, on the coastal plain of Tunisia, Rome established the city of Thydrus, with a great coliseum for 60,000 people. This area became the granary for the Roman Empire. But today, only the small, wretched village of El Jem marks the spot of this once thriving commercial and agricultural center. Sparse vegetation and isolated olive groves overrun by grazing animals is the sole reminder of past agricultural plenty.

Ancient Greece—in fact the whole of Asia Minor—was once covered with lush forests, ample water and productive soils. But Plato, in his *Critias*, warned of the deforestation, over-grazing and soil erosion that would occur. Left with only 12,500 square miles of useful agricultural land for a population of 9 million people, Greece now imports fully 25 percent of its food.

Reay Tannahill, in her excellent book, "Food in History", explains that in Greece "While the human population was small, the farmer and his family lived off the land in modest comfort. They grew a little wheat or barley, tended their olive and fig trees and a few vines, reared pigs, and kept a goat to provide milk and cheese. If they were rich, they might have a small flock of sheep, or a pair of oxen or mules."

But about 650 B.C., many of the people of Greece were "living a marginal existence on marginal land. As the population increased, good land became scarce. The hillsides had been denuded of many of the trees to provide timber needed for houses, for the ships on which the Greek states depended for trade and transport, for the charcoal which was being swallowed up in ever-increasing quantities by the demands of metalworking."

Ms. Tannahill goes on to point out that while formerly the rains were held in the ground by tree roots, the now denuded hills of Greece were incapable of absorbing the water:

"Now, instead, the rains became destructive, pouring down on the naked hills too heavily to be absorbed, and then thundering on to flood the plains. Gradually the hills lost their soil and the valleys their fertility."

As Greece's population grew, her agricultural exports—upon which she depended—were reduced. At the beginning of the sixth century B.C., Solon forbade the export of any agricultural product other than olive oil from the country.

When the British assumed the rule of India over 2 centuries ago, her population was about 50 million. Since that time, an additional 600 million people have been added to a land area one-third the size of the United States. Consequently, there is less than one-half of one acre of arable land for each Indian.

For the past century, deforestation, over-grazing, erosion and siltration in India—the result of attempting to support such an enormous population on limited resources—have substantially reduced that country's ability to produce enough food.

In Egypt, for example, the annual spring flooding of the Nile has been for millennia the natural manure of her agricultural land. Extensive irrigation systems were established before 2000 B.C. The country was the granary of the Roman Empire and her agriculture flourished there for over 4,000 years.

But with the inexorable growth of population, the soils are deteriorating, the land is being over-grazed. In desperate attempts to increase food production, the Aswan Dam was built; when completed it was to add 33 percent to the total agricultural land in the country. But during the period of construction—10 years—the population of Egypt also increased 33 percent; thus Egypt was no better off than before. Unfortunately, the dam stopped the annual replenishing of the Nile River Valley soils. It also denied nutrients to the sardines in the Mediterranean on which the Egyptians were largely dependent for rich protein. It also greatly spread the dreadful disease schistosomiasis. But, worst of all, the dam is silting up, and even its questionable benefits will come to an end.

The United States is also not immune from the population pressures and poor land practices that have characterized ancient civilizations. In fact, contrary to popular belief, *the United States adds more people to its population each year—3.4 million—than any other nation in the world with the exception of India and China.* Should this rate of growth be continued, the U.S. population will pass 440 million soon after the year 2021.

While historically people had the option of abandoning fallen cities and wasted farmland, we do not have the option of our predecessors. There is, literally, no place for us to go.

In 1939, Dr. Hugh Bennett, testifying before the U.S. Congress, said:

"In the short life of this country we have essentially destroyed 282,000,000 acres of land, crop and rangeland. Erosion is destructively active on 775,000,000 additional acres. About 100,000,000 acres of cropland, much of its representing the best cropland we have, is finished in this country. We cannot restore it . . . We are losing every day as the result of erosion the equivalent of two hundred forty-acre farms."

Today, in 1977, 4 to 5 million acres of American farmland is lost to erosion and non-agricultural uses such as homes, hospitals, highways, power plants, shopping centers, sewage plants, strip mines and water projects, largely engendered by an expanding population. A recent report of the National Academy of Sciences warns us that the yields from our major crops are levelling off. We are mining the ground water of the Texas High Plains faster than it can be replenished. California's water supply—primarily used for farming—is in a precarious position as other states get ready to exercise their legal rights over the waters of the Colorado River.

An additional 95 million Americans have been added to our population since Hugh Bennett's historic testimony. The result has been an unprecedented demand upon our agricultural land for food products. Lowell E. Gose, President of the Iowa Farmer's Union, testified at U.S. Senate field hearings in July of 1976 about the result of such demand:

"Well, we are here today to deal with soil and water conservation, a subject in which I say there needs to be a really serious revival of interest. *With the rise in demand from food deficit countries and the lifting of acreage restraints in this country, we are beginning to pound our land pretty hard.*

"On too many farms now, there are no grasses or lagoons in the rotation, no sod waterways, no countering or terracing on erodible slopes. Every heavy rain brings down another fan of silt to follow the lower ground and to damage the productivity of the higher ground."

A doubling of the U.S. population to over 440 million people is going to take an incredible toll on our land. Any legislation attempting to help preserve, protect and enhance the agriculture and forest lands of this nation must deal with the population of population growth. We cannot simply dismiss the addition of 3.5 million more people to this country every year nor the almost 90 million more people added to the world's population annually.

Every year, an additional 30 million metric tons of grain have to be produced—over and above last year's crop—to feed the increased numbers of people in the world. Land not suited to farming is brought into production. Shelter belts are cut down; conservation practices are sacrificed.

Each year, 3.4 million additional Americans use an additional 200 million barrels of oil, most of which needs to be imported. This requires the production of even more grain just to pay for the imported oil. It also requires an additional 8½ billion gallons of water, a resource already in short supply and becoming increasingly difficult for farmers to obtain. The two million new cars required by our population increase will further escalate the demand for gasoline, new and larger highways, covering and dividing still more farm land.

Each year, just to stand still, American farmers must find the additional food for a U.S. population equivalent to that which lives in Rhode Island, Delaware, Idaho, Nevada, and Montana put together. In about 40 years, the U.S. population will nearly double, should current growth rates continue. One high ranking international development official has recently estimated that within a generation, 60 million Mexicans will have migrated to the United States as widespread poverty and unemployment engulfs Mexico.

WHAT TO DO?

The protection and preservation of U.S. agricultural land will not be easy nor inexpensive. Forty years after the creation and establishment of the U.S. Soil Conservation Service, the U.S. is still losing billions of tons of topsoil to wind and water erosion and non-agricultural purposes. Between 1945 and 1970, according to Professor David Pimental of Cornell University, between 100 and 200 million acres of America's farmland has been either totally ruined by soil erosion or has been so seriously eroded that the land is only marginally suitable for crop production.

This amount of land is greater than the arable land of Egypt, Algeria, Libya, the Sudan, Morocco and Tunisia combined. It is greater than the arable land of any country of West Africa, East Africa, Middle or South Africa; greater than the total arable land in Southwest Asia and about half the arable land in India or China, the two largest producers of grain in the world, with the exception of the U.S. and the U.S.S.R.

In the span of one short generation, the United States has lost a resource that few other countries in the world ever had. As I said earlier, the loss of land is accelerating in spite of the efforts of the SCS, land use planning commissions, zoning laws and land use policies.

Many states, especially New York, New Jersey and Vermont, for example, have passed tough land use statutes, aimed in part at reversing the loss of agricultural land to development, urban sprawl and highways. In New Jersey, in just one generation, the loss of agricultural land has been reduced from 60,000 to 5,000 acres annually.

In Pennsylvania, on the other hand, half of the prime agricultural land is directly in the path of urban expansion. In the short span of twenty years, Lancaster City grew in size by about 400 percent. And statewide, 100,000 acres of agricultural land went out of production.

In this year, when the press is full of reports of crop surpluses, the National Association of Conservation Districts estimates that the continued loss of U.S. agricultural land is leaving the United States with only a 20 year grace period before U.S. agricultural demand outstrips production; the Virginia-based research group, Forecasting International, in a 1976 report prepared for NASA, estimates that the period is less than that, perhaps 15 years (although fiber was included with food).

Whether the actual figure is 15, 20 or even 30 years is not important. What is important is that time is short and little is being done to reverse the current trends. With the U.S. population increasing by more than 3 million people a year, the U.S. will soon demand more agricultural goods than it can produce. Where will we turn for the remainder? How are we to pay for our imported petroleum? How much oil will the U.S. be able to import without the \$27 billion in foreign exchange received from selling our agricultural produce abroad?

As Dr. Culter of the U.S.D.A. noted in his testimony before the House Subcommittee on Family Farms and Special Projects on June 15, 1977, the continued security of a sound agricultural base depends not only upon—

good land,
adequate climate conditions,
stable and cheap supplies of energy,
continued technological improvements in agricultural production, and
an end to population increase (emphasis added).

Without a halt to population growth, other improvements will, at best, just allow us to stay in place by running very fast.

We cannot, however, continue to count on the continuation of cheap energy or good climate. The work of Dr. Reid Bryson at the University of Wisconsin strongly suggests that the benign and excellent agricultural climate of the past 30 years will no longer be the norm. In addition, actual supplies of energy are being reduced at the same time that demand is soaring. As a result, energy prices will go up.

A close look at the problems of California indicates why the protection of agricultural resources in this country is intimately tied to our population and its growth rate. In 1966, California was adding 1,460 people to its population of 19 million every single day. Now, California's population has reached 22 million and is expected to climb to 30 million before the end of the century.

This fantastic growth in people is largely responsible for the daily destruction of 475 acres of prime agricultural land, an increase of 100 acres a day from 1966. While California residents enjoyed the use of 750 acres of land per person in 1750, by 1900 that figure had been reduced to 67 acres. Today, if all the land in California were equally divided among her 22 million residents—including mountains, lakes and deserts—each citizen would be able to use one-half of 1 acre of land.

While it is prime agricultural land which is too often removed from production to meet the escalating demands of 22 million Californians and 225 million Americans, it is marginal and poor land which has recently been brought into production. The capital costs of bringing such land into cultivation are enormous. In 1960, to yield a farm income of \$5,500, an investment of \$111,000 was necessary. Today, a 500 acre farm would cost \$1 million in land costs alone, plus an additional \$175,000 for operating costs and machinery.

Last year, the price of farmland in the U.S. increased by 41 percent. In Illinois, for example, 47 percent of farmers' gross receipts simply went to pay for the principal and interest on farms. As the demand for good farmland increases—especially in areas surrounding our metropolitan centers—the cost of farming will increase.

America's greatest resource and the center of our power as a nation rests in the hands of 8.3 million American farmers. This is about one-half the U.S. farm population of 1960. According to a recent article in the Christian Science Monitor, farming will soon be for the rich only. Schemes such as the Ag-Land Trust may very well be portents of things to come as farming becomes dominated by the world of high finance and investment.

SUMMARY

When environmental organizations speak of endangered species, they usually are referring to the bald eagle, or the whooping crane or the black-footed ferret. It can be said, however, that the American family farmer is also an endangered species.

In the future, people will live on agricultural land—it is too costly to live on mountains or deserts. There will thus be more people to feed on less land. There will be fewer resources—especially fossil fuel energy and water—to grow the food needed by the increasing numbers of people. It strikes me as astonishing that people can still believe that one can take finite and increasingly limited resources—such as fertile soil, water, energy, fertilizer, benign weather and capital—and produce an infinite amount of food for an infinite number of people.

Most of the legislation designed to preserve our remaining acres of agricultural land are aimed at stopping urban sprawl, but not the population growth behind it. A city may no longer expand in area, but if the number of inhabitants continue to increase, the demand for resources and food will continue to escalate. *Only a limited number of people can live within a fixed environment with a limited carrying capacity on a renewable basis.*

If the 3.4 million new Americans added to this country's population each year are restricted to living in existing urban or metropolitan areas—as the recent California land use plan proposal would suggest—this will still mean that the existing farmland will have to cope with the pressure of an additional 3.4 million customers.

A look at Europe illustrates this problem. Europe has effectively coped with the sprawl of urban settlements. Cities are compact. Farmland is conserved and if disturbed by surface or strip mining, for example, it is rapidly reclaimed. If Europe had not also been able to send millions of her people to North and South America (during her “demographic transition”), her population would now be so large as to pull the entire continent down into abject poverty. Even with the safety valve of emigration, Europe is still one of the most densely populated continents on the face of the earth. It also imports over 28 million metric tons of cereal grains every year.

The United States, however, does not have the luxury of untouched continents to which we can emigrate. We must, in a very short time, stop both our metropolitan sprawl and our population growth. If we refuse to bring our population growth under control, nature will do so for us by raising the death rates. That solution will be cruel and once upon us, impossible to reverse. We cannot afford to wait until we start running out of food, or water, or energy, before we tackle this problem in earnest and bring it under control.

Arnold Toynbee has warned us that past civilizations were built upon good soil. Each has, in turn, destroyed that resource. Any global relief map records this phenomenon. Where once agriculture flourished, deserts now march. A study by the United Nations Environment Programme indicates that while 7 percent of the earth's surface is man-made desert, fully 50 percent of the total cultivable land in the world will have been made into deserts by man by the year 2000 if present trends begin.

Western civilization is probably built upon the last good piece of real estate in the world. We owe it to our children to preserve what we have inherited. Not to do so would be a tragedy of mammoth proportions—for it will affect all the generations to follow.

The task of controlling our human numbers and of stabilizing the U.S. population will be a formidable one. Writing in 1923, Professor Edward East of Harvard, in the great classic on food and population entitled “Mankind at the Turning Point,” noted why this task has to be completed:

“We who are passing along the great highway at the present moment of time are trustees for our descendants, not owners; and if we do not treat our trusteeship seriously and with due reverence, then we have no moral right to leave descendants.”

MAY 13, 1977.

HON. JIMMY CARTER,
President of the United States,
Washington, D.C.

DEAR PRESIDENT CARTER: On April 7, 1977 Senator Clark from Iowa introduced Senate Bill 1280 which is of vital importance to every farmer in North Carolina and the Nation. This bill would amend the Rural Development Act of 1972 to provide for technical and cost-sharing assistance to farmers in complying with management plans developed under Section 208 of Public Law 92-500.

During the last decade environmental concerns have come to the forefront as a national issue, and rightly so. Along with these concerns have come constantly increasing constraints and regulations by the Environmental Protection Agency which drastically affect all the consumptive and non-consumptive users of natural resources.

Many worthwhile accomplishments have emerged in the environmental area, but some inequities have developed which I believe Senate Bill 1280 will go a long way toward correcting.

This bill would specifically provide a mechanism for implementing Section 208 of Public Law 92-500 in the rural sector. At the present time no such mechanisms exist except through “thou shalt not” type regulations. Given this situation there is little reason to believe that plans developed under Section 208 would or could be implemented. This would be a tremendous waste of manpower as well as monetary resources and accomplish little or nothing with regard to environmental quality.

This bill would also add equity to the environmental program for the rural sector. Billions of dollars are being spent to subsidize municipal treatment plans. The funds for this subsidy come from the United States Treasury to which the rural people of the United States have contributed heavily. Senate Bill 1280 would allow the rural agricultural sector to participate in the cost-sharing process.

It is my firm belief that management practices imposed on and instituted at the expense of farmers to reduce pollutions are as much in the public interest and provide for achieving the same national goals as treatment plants.

I strongly urge your support for Senate Bill 1280 in the interest of keeping agriculture as a viable component of the United States' economy, and also in the interest of protecting our natural resources.

With all good wishes.

Cordially,

JAMES A. GRAHAM, *Commissioner.*

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