

Committee Report

On

Federal Actions Necessary For the Conservation and Environmental Preservation of The High Plains Aquifer

**Presented to
Director, Kansas Water Office**



October 27, 2000

Member	Community	Representing
Cliff Mayo, Chair	Garden City	Local Governments
Lon Frahm	Colby	GMD #1, #3, and #4
Rep. Carl Holmes	Liberal	KS House of Representatives
Dr. Marc Johnson	Manhattan	KSU Ag Experiment Station
Larry McCants	Goodland	Local Economics
Rep. Dennis McKinney	Greensburg	KGS Advisory Council
Sen. Steve Morris	Hugoton	Kansas Senate
Don Paxson	Penokee	KS Assn. Of Conservation Districts
David Pope	Topeka	KDA/Div. of Water Resources
Gordon Schmidt	Inman	GMD's #2 and #5

October 31, 2000

Al LeDoux, Director
Kansas Water Office
901 S. Kansas Avenue
Topeka, KS 66612

Dear Al:

Enclosed is the committee report recommending the federal High Plains Aquifer Conservation and Environmental Preservation Act. This report completes the work of your committee to identify actions that should be taken by the federal government to conserve the High Plains Aquifer.

The recommendations in this report were designed for the federal government to help individual water users, local units of government and the states in carrying out their responsibility for management of the High Plains Aquifer. The committee discussed ideas and incentives that could be considered by the state to ensure the proper management of the High Plains Aquifer. Individual members of the committee would welcome the opportunity to share these ideas with you, the Kansas Water Authority, and the Governor.

The recommendations in this report will only be successful if they are implemented. The Committee discussed implementation of these recommendations during its meetings and would like to assist in the development of a strategy to ensure these recommendations become a reality. These recommendations could be incorporated into the fiscal year 2002 U.S. Farm Bill or as independent legislation.

Sincerely,

Cliff Mayo, Chairman

CM:CD:kf

The High Plains Aquifer Conservation and Environmental Preservation Act

The High Plains Aquifer is the most important water resource in the eight state high plains region. The area overlying the High Plains Aquifer, in general, receives low amounts of precipitation and has limited surface water. For example, in southwestern Kansas, groundwater was the source for over 99% of the reported water uses, and irrigation accounted for 97% of reported uses (1997 Kansas water use reports). The High Plains Aquifer consists primarily of the Ogallala Formation, plus a few other distinct, but hydraulically connected formations. It underlies 33,500 square miles of 46 counties in Kansas, and extends through eight states from South Dakota to Texas.

The High Plains Aquifer has a limited economic life for large volume irrigation and is currently under intense management by most groundwater districts and state governments. It is the principle source of water for irrigation throughout this heavily agricultural region. An estimated 15 million-acre feet of water is withdrawn from the aquifer for irrigation each year.

There are extensive areas in Kansas in which the estimated useable life of the aquifer for large volume pumping is less than 25 years. The High Plains Aquifer is being mined; water is being withdrawn from the aquifer at a much faster rate than it is being recharged. Based on current use demands, the end is in sight for large volume irrigation for many areas in Kansas, Oklahoma, Texas, Colorado and New Mexico.

Section I. Administration of Act.

- A. General Policies. The following general policies should be considered in administration of this Act.
1. Conserving the High Plains Aquifer will require commitments and action at the national, state, local and individual levels.
 2. States are to maintain primary jurisdiction over the allocation, priority and use of water resources within each state.
 3. Federal assistance should support state mechanisms for solutions.
 4. Federal assistance should be for voluntary, incentive-based programs. This approach has been successful in Kansas.
 5. Federal programs should provide a menu of program options for irrigators in the High Plains region. This will allow individuals to choose the best option for their situation thus increasing opportunities for success.
 6. States should identify priority High Plains Aquifer decline areas, and wetlands and streams dependent on the aquifer baseflow. Resources should be targeted to those priority areas by the level of support offered.

7. Water conservation programs funded by this Act shall result in reduced depletion of the High Plains Aquifer.
8. Irrigation is energy intensive. Rising energy costs, particularly with low commodity prices, will be the deciding factor for many farmers in ceasing irrigation. Assistance is needed to educate, plan and transition from water intensive agriculture.
9. The consequence of reduced irrigation will have a direct economic impact on secondary and tertiary businesses. There needs to be assistance for economic development for communities prior to the reduction of irrigation in the region.
10. The environmental benefits of preserving the aquifer are as important and as significant as the economic benefits.
11. This Act has the potential to be revenue neutral to the federal government over the 20-year life of the program, as it would be offset by the redirection of federal dollars.

B. High Plains Aquifer Area

The term "High Plains Aquifer" is the groundwater reserve depicted as Figure 1 in the United States Geological Survey Professional Paper 1400-B, titled Geohydrology of the High Plains Aquifer in Parts of Colorado, Kansas, Nebraska, New Mexico, Oklahoma, South Dakota, Texas and Wyoming. All individual and non-federal entities in this area should be eligible for federal assistance programs. However, highest priority areas for assistance should be targeted to priority groundwater declines with the advice of each state. Assistance is to be provided to states in proportion to the area of severe High Plains Aquifer declines in each state, and the potential amount of economic disruption and environmental impact that could occur with those declines.

C. High Plains Aquifer Coordination Council

A High Plains Aquifer Coordination Council shall be established comprised of two representatives of the federal government, one from the U.S. Department of Agriculture and one from the U.S. Department of Interior, and two representatives from each of the eight states selected by each state's governor, one representing irrigation production agriculture and the other representing state government. The purpose of this council will be for the federal government to coordinate all federal assistance programs of the federal agencies to carry out the provisions of this Act. The responsibilities of the eight state council representatives will be to ensure coordination within each state and to coordinate activities with federal government and other state representatives. The High Plains Aquifer Coordination Council shall

report to Congress every three years on the progress toward the High Plains Aquifer conservation and environmental preservation. In addition the Council shall recommend changes to this Act, if necessary to ensure this Act is successful.

Section II. Federal Assistance for State Water Conservation and Environmental Preservation Programs.

A. High Plains Aquifer Research

1. Federal financial assistance shall be provided to the eight state geologic surveys as each state's lead agency, in the mapping and analysis of the three-dimensional framework and hydrogeology of the High Plains Aquifer. The Secretary of the Interior, working through the United States Geological Survey (USGS), shall assist the states in the mapping and analysis of the High Plains Aquifer in the eight state regions. The purpose of this research effort will be to help the High Plains Aquifer Coordination Council ensure the efficient administration and assessment of programs referenced in this Act.
2. Federal financial assistance shall be provided to land grant universities in the high plains region to enhance research and extension education in water conservation, increasing economic value of agricultural output per unit of water, and crops suitable for low water farming. Additional water conservation research funds are to be made available on a competitive basis to any university or research organization within the high plains region.

B. Groundwater Conservation Assistance Program

1. The federal government shall provide financial and technical assistance to the eight high plains region states for the development of a new or expansion of a state's existing groundwater conservation assistance program. The states are encouraged to administer these programs in conjunction with local units of government. The state program would provide water conservation cost share assistance to water users in the High Plains Aquifer that have state approved certified water conservation plans. This action will extend the economic life of the High Plains Aquifer. The Secretary of Agriculture shall establish within the Natural Resources Conservation Service a groundwater conservation assistance program that provides technical assistance and coordination with each state program.
2. Federal funding shall be provided to be administered through state groundwater conservation programs for water conservation cost share grants for individual farming operations to implement farm water conservation measures approved in certified water conservation plans. States are to target priority High Plains Aquifer areas through weighting the water resource cost share program incentives; participants in higher priority areas would receive a greater level of cost share. The state program options may:

- a. Include an agreement with the landowner to decrease total water usage over a five-year period that is beneath their current five-year total water usage.
- b. Provide cost share grants for conversion to more highly efficient irrigation methods. States would determine which systems are most efficient in their areas and which types of conversions are cost effective for the amount of irrigation water saved.
- c. Provide incentives for removal of end guns, installation of water meters, and innovative programs such as water right banking in which a reduction in actual water usage is required.
- d. Provide cost share grants to farmers to try innovative, environmentally friendly, low water use cropping and livestock practices.

C. Environmental Preservation

Federal financial assistance should be provided to each high plains state for an incentive based, binding agreement with a landowner to permanently stop irrigating specific tracts of land for the purpose of reducing consumption in groundwater declines areas of the High Plains Aquifer. This payment may be for a water right purchase, or an agreement to last in perpetuity with the land. Each state would be required to identify areas of priority, determine eligibility and insure that the water saved will not be used elsewhere. States may choose to make partial water rights purchases an option for farmers that have enrolled land into an irrigated lands reserve or into the Conservation Reserve Program.

D. Education

The federal government shall provide financial assistance to each of the eight high plains states to provide educational programs related to this Act. The states may cooperate with educational institutions, the Ogallala Aquifer Institute or other private organizations in the administration of this program. Education activities shall include but not be limited to:

- 1. Provide farming water conservation workshops to producers, crop consultants, and agricultural groups through the eight states region. Encourage decreases in irrigation levels by educating that maximum yield does not equal maximum profit. Provide guidelines for maximum profit level of irrigation.
- 2. Provide training and periodic update workshops for field staff responsible for implementing water conservation cost share programs through state universities in the eight states region and Natural Resources Conservation

Service and Bureau of Reclamation on current conservation research and best available knowledge.

3. Provide public education and information on the High Plains Aquifer to pre K-16 and adult learners. The education and public information effort would be targeted to state and local decision makers to allow more informed decisions, and to increase public understanding and input into those decisions.

Section III. Federal Farm Programs for Conservation and Environmental Preservation of the High Plains Aquifer

A. Preservation Reserve for the High Plains Aquifer

Create within the U.S. Department of Agriculture, Natural Resources Conservation Service a federal program to provide assistance to farmers for switching irrigated lands to dryland agriculture. The Natural Resources Conservation Service would formulate and carry out the enrollment of lands in an irrigated lands reserve program through use of multiple year contracts for irrigated lands that would result in significant per acre savings of groundwater resources if converted to dryland agriculture. Target by weighting incentives to enroll lands into the irrigated lands reserve that are within High Plains Aquifer priority areas. The states are to provide delineation of the High Plains Aquifer priority areas for Natural Resources Conservation Service use.

B. Conservation Reserve Enhancement Program (CREP) for High Plains Aquifer

1. Expand eligibility for enrollment in a continuous Conservation Reserve Enhancement Program to allow currently irrigated lands to qualify based on being in a high priority High Plains Aquifer decline area.
2. Lands eligible for the Conservation Reserve Program established under 16 U.S.C. 3831 which would result in significant per acre savings of High Plains Aquifer resources if removed from agricultural production shall be awarded at least 90 Conservation Reserve Program bid points, to be designated as groundwater conservation points, in addition to any other ratings the lands may receive.
3. Designate regions where the High Plains Aquifer is hydraulically connected to wetlands or provides the primary baseflow to high priority streams, as regions of special environmental sensitivity and therefore eligible for enhanced assistance under Conservation Reserve Program (CRP), Wetland Reserve Program (WRP), and Environmental Quality Incentive Programs (EQIP).
4. States are to provide Natural Resources Conservation Service with an identification of priority areas for removal from irrigation; wetlands

hydraulically connected to the High Plains Aquifer and high priority streams dependent on baseflow.

C. U.S. Department of Agriculture Commodity Incentive Payments Water Conservation Option for High Plains Aquifer

Create a water conservation option in the U.S. Department of Agriculture federal farm program to provide commodity incentives for irrigators in the High Plains Aquifer groundwater decline areas that switch from a high water intensive crop to a low water intensive crop either through low volume irrigation or dryland production. The payment is to be equivalent to U. S. Department of Agriculture payments they would have been eligible for under the high water intensive crop. Guidelines shall require the average annual water usage for low volume irrigation to remain below a targeted level.

Section IV. Federal Assistance for Economic Stability of High Plains Aquifer Region

- A. Provide federal financial assistance to the eight states to conduct research and assessment of economic health for both near term and long-term future of communities within the high plain region. States should administer programs in partnership with universities, regional economic development centers and individual communities where practical.
- B. The federal government should provide financial support for regional economic assistance centers and telecommunications infrastructure, and offer community assistance planning programs through such centers to assist individual communities and regional areas within the high plains aquifer for maintaining and stabilizing the economy while preserving the aquifer.
- C. The federal government will identify the high plains aquifer area as priority for targeting existing federal economic development assistance programs.
- D. Provide cost share grants to agricultural operators to develop cooperatives to process, package and market environmentally friendly, value added agricultural products, especially high value products that can be marketed to a local urban economy or exported out of the region.
- E. The federal government will provide economic development incentives to communities in the High Plains Aquifer decline area to stimulate growth and expand beyond irrigated agriculture.

Section V. Impact on the Federal Budget

- A. The federal appropriation for carrying out the purposes of this act should, at a minimum, be 250 million dollars a year for 20 years. This amount would be reviewed by the High Plains Coordination Council and revised as appropriate.

- B. The Congressional Budget Office shall conduct an analysis to determine if it is feasible for this program to be revenue neutral over the 20-year life of the program. This analysis should weigh the reduced commodity and economic payment costs as a savings to the federal government, a cost-benefit analysis of economic and environmental benefit to the United States for preservation of the High Plains Aquifer and the opportunity costs of not implementing this program. The results of this analysis should be provided to the High Plains Aquifer Coordination Committee to carry out its recommendations in achieving the High Plains Aquifer conservation and environmental preservation in the most cost effective manner.