
Resource Policy

Liberals escalate regional water issue: are America's wells really running dry?

by Sylvia Barkley

The Eastern press has mounted a growing attack on the use of water in agriculture. In part, this attack is an attempt to counter a move to re-open the debate on a national water policy geared to abundance rather than scarcity, which has recently emerged.

The essential thesis of the articles, including a five-part, front-page series in the *New York Times* Aug. 8-12, is that water must be diverted from "uneconomical" uses, in particular irrigation, and conserved for municipal and industrial needs that would otherwise be unmet. The articles defend the High Plains Study, a five-year, \$6 million analysis conducted principally by Arthur D. Little, of the future of the great Ogallala aquifer, which now supplies water for 11 million acres or 20 percent of the irrigated land in the United States. Contrary to the intent of Congress in commissioning the study, it has become a vehicle for spreading the "doom and gloom"

message that there are no economically feasible methods to continue irrigated farming in the Southwest.

U.S. News and World Report, in a June 24 cover story, maintained that irrigation is "overtaking Mother Nature" and the only solution is conservation.

In opposition to this passivity, scientists and various political forces are beginning to revive the thinking that built the Erie Canal and the Hoover Dam. In an article in *Scientific American* this July, Dr. Arthur Pillsbury, former head of the Department of Agriculture and Soil Science at UCLA, called for large-scale water-transfer programs as the only realistic long-term solution to the problem of salt buildup in irrigated soils and in the aquifers beneath them.

Moves are now afoot in Congress to set up the coordinating mechanisms necessary for carrying out nationwide irrigation plans, such as that introduced by Sen.

Ogallala aquifer: a case study

The Ogallala aquifer is one of the largest water-bearing formations in America, and one of those that has been most fully utilized. It underlies 117,000 square miles of the Western Great Plains from South Dakota to Texas, and contains at present more than 3 billion acre-feet of good-quality water. Since the 1940s use of the Ogallala has been intense, with a present usage at 30 million acre-feet a year, irrigating more than 16 million acres. On this level, sunny land grow crops worth an estimated \$8.6 billion.

The problem is that the Ogallala is being drained more rapidly than it is recharged. In many areas, the depth to which wells must be sunk is increasing, and in certain areas, there is no more water to be obtained. This depletion threatens the entire structure

of irrigated agriculture in the area—the huge sprinkler systems, the network of suppliers of agricultural equipment, the distributors of the corn and other farm products, and in particular the feed lots, where 40 percent of the nation's beef is nourished.

The concerns of the farmers, water planners, and public officials are well founded. But the outlook for the Ogallala is by no means hopeless. The prosperity fueled by the relatively accessible Ogallala water aquifer has provided a sound economic base for undertaking even larger projects to maintain and expand productive agriculture in the High Plains. In Texas, for example, voters are being given the opportunity to allocate half of the state's budget surplus to backing for local water-supply bond issues. In Wyoming, major diversion projects are being planned from the water-rich western part of the state to the east. On a long-term basis, however, the draining of the Ogallala will only be solved by massive projects for importation of water that is now unused, projects that are made economically viable by the extraordinary productivity of the irrigated High Plains agriculture that will be created by such projects.

James Abdnor (R-S.D.). Furthermore, the 1964 plan proposed by the Ralph M. Parsons Company of Pasadena, California to provide abundant water to the Great Plains and the Southwest by transfers from Alaska and Canada, is once again receiving serious attention. The National Democratic Policy Committee is circulating draft legislation calling for a study based on the same criteria that Parsons used, and the proposal has already received the endorsement of one member of the High Plains Study Council, Kansas State Sen. Keith Ferrar.

NAWAPA

The 1964 Parsons plan, known as NAWAPA, the North American Water and Power Alliance, would use the currently untapped flows of water into the Pacific and Arctic Oceans, and in particular the "solar power" that moves most of this water to high elevations in the Canadian Rockies, where it is deposited as rain or snow. If this water can be captured at these high altitudes, the potential energy that it contains can be used to pay for both the movement of the water to the mid-elevation areas where it is needed, and to create excess power, on the order of 40 gigawatts each in the United States and Canada. Admittedly, the project would be expensive, costing some \$150 billion, but because of its large scale, it would be able to supply water at rates of \$7 to \$14 per acre-foot, cheaper than many current rates for farming.

In the face of the unlimited possibilities opened up by projects like NAWAPA, zero-growth forces are attempting to impose a backward move toward dry-land farming, which leaves farmers at the mercy of the weather and forces them to shift crop patterns from corn and other necessary foods to cotton. The 1980 drought, for instance, caused an economic loss of at least \$3 billion. Now the reservoirs are filling again, but urban populations are being told that the only alternative to water rationing for both consumers and industry is the shifting of water away from irrigation of arid lands. Federal assistance to water development projects is regularly branded "pork-barrel" legislation and subject to cost-benefit criteria that impose a *four-year* payback under current interest rates.

In order to weaken farmer opposition to nonirrigated, minimum-tillage techniques, zero-growth think tanks like Arthur D. Little and Resources for the Future have used the technique of "Hobson's choice." In the High Plains Study, for example, because the area from which water could be transferred was limited to the states *contiguous* to the six affected states, the price of importing water was estimated at \$400 to \$800 per acre-foot. Under these conditions, conservation and crop substitution became reasonable alternatives.

Similarly, in California the proposed Peripheral Canal has been put forward as an alternative to the nonirrigation of the southern section of the state, but the canal itself is an incompetent technology, allowing

only a minimum transfer of water from north to south, while wasting a large fraction on the maintenance of the Sacramento Delta. The real solution, again, is an old plan for making a freshwater lake out of the entire northern section of San Francisco Bay.

In general, economic pundits like Alan Kneese, a water expert with Resources for the Future, provide an apparently "hopeful" proposal within only predetermined choices. Kneese, who was cited by both the *New York Times* and *U.S. News and World Report*, suggests conservation, localizing the problem, and reallocation of existing water from farming to energy development.

But the effectiveness of this approach depends on the absence of credible choices. For this reason, the NDPC initiative to reopen and extend the Ogallala study into a nationwide analysis of ways to solve the water shortage that would otherwise occur with expanding population, industry, and agriculture, is receiving considerable interest. Dr. Pillsbury has also been getting the same kind of response to his fight for NAWAPA-style solutions to the long-term problems that will indeed affect high-technology agriculture.

Draft legislation for water development

The following is proposed legislation prepared by the National Democratic Policy Committee.

In order to meet the immediate needs of our Nation for water, including the increases in supply required to maintain the productivity and increase the area of agriculture, to allow for the efficient transport of all commodities, and remove any barriers to the flourishing growth of industries, it is hereby declared that the Congress of the United States mandates the full development of a national plan for water development, based on the fundamental principle of the American System, the increase in apparently finite resources by full use of our human capabilities of scientific and technological achievement.

The necessity for this Act is based in part on recent studies which have demonstrated the essential incompatibility of regionally limited approaches with the fundamental task of "promoting economic vitality" and "increasing water supplies," as mandated in PL94-587 (the Ogallala aquifer-High Plains Study). Therefore, this Act is intended in part to supercede these previous studies, building upon the knowledge gained from them that the destruction of irrigated agriculture can only be avoided through plans that are national in scope and unlimited by any fears of scale or technological boldness.

In order to carry out this mandate, the Chief of the

Army Corps of Engineers, and in cooperation with the Secretaries of Agriculture and Interior, is authorized to complete a full and expeditious study of the potentials for water supply for the United States, and to draw up engineering plans and specifications for the solutions determined to meet the long-range water needs, both of the Southwest and Great Plains states for agriculture and other consumptive uses, and of the entire nation for water transport.

The solution adopted is to be assessed by the following criteria:

1) It must supply sufficient water to the region of the Ogallala aquifer that irrigation and the expansion of irrigated acreage can continue, with appropriate consideration of avoiding soil salinity by overlimiting water application, while ending the mining of water from the aquifer, and moving toward aquifer recharge in areas where significant deterioration in water availability has been experienced;

2) It must supply sufficient water to the Colorado River Basin and the areas now receiving water from the Colorado River that a) no user of Colorado River water shall be forced to decrease his use of water from the river, but instead normal and healthy growth in industrial and agricultural use can be met; b) the quality of the Colorado River is returned to an acceptable level for general consumptive use; and c) sufficient overirrigation is possible such that accumulated saline deposits can be flushed out of the soils which have been adversely affected;

3) It must provide, in association with existing and currently authorized projects, an integrated system of flood control for the Western Great Plains region, and of flow management for the Mississippi and Missouri rivers such that the navigational use of these waterways can be significantly upgraded by higher assured rates of flow;

4) It must provide for the eventual integration of the abundant water resources of the state of Alaska into our national system, with the associated economic benefits to Alaska and the recipient states;

5) It must be capable of supplying significant additional amounts of water to the Republic of Mexico, if such supply is requested by our ally, without detriment to U.S. users.

In drawing up this plan, consideration shall be given to the immediate necessity of reversing the loss of irrigated agricultural lands, both in the southern High Plains areas and in the valleys of California. However, this Act shall not be used to design projects having only the capability of ameliorating these situations, but only to determine which sequence of construction will most expeditiously address them.

In order to carry out the preliminary assessment and the engineering study of the solution deemed most appropriate to the criteria outlined above, the sum of \$10,000,000 is allocated.

Interview

CEQ's Hill discusses a new 'balance'

The following interview with Alan Hill, the new chairman of the Council for Environmental Quality (CEQ), was conducted by EIR's Stanley Ezrol on Aug. 11.

Ezrol: Is there a change in the philosophy of the CEQ?

Hill: No, I really don't think so. . . . The transition paper on the council listed a multitude of options—elimination, retention as is, reduction. The decision was to go with a council of reduced resources primarily because the council over the past few years has tended to become involved in matters that really should be performed by a line agency—areas of concern, areas of study, rather than being an agency which has the ability to look over the entire government and provide advice to the President. . . .

Ezrol: Are you saying that the differences are mainly administrative?

Hill: Well, we're relating to budget action. When you get into other areas, I have been told by a multitude of people that the last chairman of the council tended to pay attention to the environmental community almost exclusively. I feel that to arrive at a solid decision you talk to any interested parties. . . . I've consistently said to the environmental community, to the business community, "My door is open, you have my phone number. Let me hear from you if you have a problem, or something you want to discuss."

Ezrol: What do you see as the CEQ's major concerns?

Hill: I have had a concern initially with how the law is used. Very few people go back and take a look at the actual language of the law because aside from taking a preservationist stance, it also says some things about balance. People in this country are entitled to some economic growth, some economic development on a balanced basis, and we tend to ignore that when we get into a strict preservationist mode. . . .

You know we only do about 700 EIS's a year