

The World's Largest Open Access Agricultural & Applied Economics Digital Library

# This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search http://ageconsearch.umn.edu aesearch@umn.edu

Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.

## GOVERNMENT INVOLVEMENT IN WATER USE AND DEVELOPMENT: MORE OR LESS, AND AT WHAT LEVEL?

#### Roy R. Carriker University of Florida and L. Tim Wallace University of California — Berkeley

The purpose of this paper is to outline some of the arguments for and against federal involvement in water resource policy, sketch some of the water issues confronting policymakers, review some implications of recent national water policy decisions, and pose some alternative strategies to resolve the nation's growing concerns about our water resources.

In many ways this debate revolves around the appropriate roles of: (1) the federal government versus some other public entity in determining water policies; (2) the public and private sector opportunities and responsibilities in establishing and carrying out those policies; and (3) what the rights and responsibilities of individuals and the body politic are in helping create and enforce those policies.

Essentially, we are searching for a balance of values in determining goals about the development and use of water, and in setting policies to guide and evaluate actions taken to achieve those goals. Economics and political trade-offs will be inevitable among people because of differences in benefits received and in realized costs. Both of those depend on the policy alternative chosen and enacted.

#### Arguments for Federal Involvement in Water Policy

Water policies initially involved the federal government as a result of people viewing water as a common resource capable of being subject to eminent domain, and potentially useful in developing the territories west of the Appalachian mountains. (5,6,7) In addition, few, if any, states or territories were able to finance and engineer the large scale water development and use projects that were conceived through the 1950s, and therefore it was administratively and politically feasible to delegate water issues to various federal bureaucracies for handling. While administrators of these agencies change periodically in response to voters preferences, there is continuity of programmatic service which provides stability and flexibility to water policy efforts. These bureaucracies have included: the Bureau of Reclamation, U.S. Army Corps of Engineers, the Department of Interior, the U.S.D.A. (Soil Conservation Service, A.S.C.S., Extension, and Forest Service), the Environmental Protection Agency, the Public Health Service, and the National Water Resources Council.

In addition to the financial aspects, federal involvement in water policy was justified because it allowed a wider and deeper scope of project to be considered than if only a single state was involved, it provided an allegedly larger political base of support so that narrow parochial interests would not prevail, it provided a bureaucracy used to dealing with large scale projects, it allowed access to a wider range of technical skills, and it was capable of producing high quality results.

Evidence for these comments is seen in such multipurpose projects as the T.V.A. and the Colorado, Columbia, Mississippi and Ohio River Projects. All of these river projects addressed the important aspects of high levels of interdependence among water users in a watershed and among water basins within a single watershed. These projects also established precedent on working with a common resource which crosses both international and state boundaries.

A prime purpose of federal involvement has been to ensure national economic growth by implementing and/or helping facilitate state water resource development. The logic here was that where abundant, inexpensive, and high quality water exists, people will follow and prosper. Since the 1950s, economic concerns have been complemented by broader and longer run social concerns about environment, and efforts to prevent monopolistic exploitation of the benefits obtained through use of the water (externalities).

Another rationale was that many people felt that if the federal government did not take a leadership role in the planning, coordinating, and implementing of water resources policy, no one else would; this leadership gap was incompatible with the political consensus that some sort of national water policy was better than no water policy at all. It was increasingly clear that the nation's water resources could be, and were being, abused.

A final point of federal involvement in water policy was that a centralized authority was simply more acceptable and effective in times of national emergency, or in mitigating regional emergencies through relief measures related to flood and drought. The point is that a federal entity could act more quickly to help the general welfare than could the scattered and uncoordinated efforts of the states.

However, conflicts emerged as the national responsibility and authority for water policy began to be articulated. Since water policy resolution had to be focused on site specific issues, conditions and resources, local interests sometimes clashed with actions by national agencies. As a result, all the outcomes of water policy implementation were not acceptable to all groups involved. This adversarial position was predictable since the consequences of policy decisions have different impacts on groups depending on their political and material stances. While many of these conflicts could be resolved, many could not, and the courts stood as a final arbiter. (9,10)

Ultimately, problems evolved from differing views of proper roles for the water policy actors, differing extents of economic interest, and differing political involvements into: how to determine whether federal involvement is justified in policy or its implementation, whether some compensation is due as a result of an actual or proposed water policy, and if it is due, how to compensate the affected parties? At this point the solutions to these questions seem more political than technical.

The role of the judicial system cannot be overlooked in helping fashion national water policy. From the 1940s through the "liberal" U.S. Supreme Court of Warren and Douglas the interpretations of water law bent toward more control by a federal constituency. Since that time, however, a more "conservative" court has urged a federalism, i.e., a return to the states, and regions, of authority to render decisions and urge actions concerning water development and use in their areas.

#### Arguments Against Less Federal Involvement in Water Policy

The dominant theme protesting federal involvement in water policy decisions is that the decision making process for federal water resource programs is fragmented, tied to a cumbersome structure dominated by pork barrel politics. The result is that federal expenditures for water resource investments are often allocated according to parochial political priorities and not according to an ordered assessment of regional or national resource management priorities.

Critics offer dramatic examples of the problems they see in the federal government's ordering of priorities for water resource investments: the federal government has committed \$621.7 million to the Tennessee-Tombigbee Waterway since 1971, but it has spent only \$600,000 to study implications of the impending depletion of groundwater in the Ogalla aquifer (which is said to support 40 percent of the nation's cattle industry, a fourth of its cotton crops, and much of its grain production). Cities such as Boston and New York chafe at their inability to gain federal assistance to repair or replace inadequate or crumbling water supply systems while huge federal outlays support water supply systems for cities in the southwest through the multipurpose dam and irrigation projects built by the Corps of Engineers and the Bureau of Reclamation.

Closely related to the issue of priorities for water resource investments are those pertaining to the manner in which the federal government share of project costs are established. Critics point out that cost-share requirements vary among programs, purposes, and agencies. Moreover, cost-sharing differentials favor structural over nonstructural measures for achieving program goals. They also favor high levels of waste treatment over other alternatives for pollution control, and favor capital intensive construction alternatives instead of alternatives which have lower initial capital costs but higher operations and maintenance costs.

Cost-share provisions are generally blamed for fostering investment decisions based on favorable cost-share arrangements rather than on priority of need. In the case of water pollution control, a federal construction grants program for sewage treatment plant construction may have actually retarded progress toward achieving clean water goals: Since federal funds were always less than community needs, many municipalities did nothing to abate pollution, using the excuse that they were waiting for federal grants to come through.

The federal role in water resource investments has been criticized in other ways. According to the Water Pollution Control Federation, federal red tape causes construction delays in sewage treatment facilities; increasing the time span from concept to startup of a municipal treatment plant from an average of 5 years, prior to 1972, to an average of 10 years -- largely due to more than 50 federal laws that must be complied with during construction of a project.

A related criticism relates to what critics call excessive costliness of federal cost share progams. They point out that the money a state may get in the form of construction grants came from the state's taxpayers to begin with; but when it comes back to the state, it has shrunk by the cost of operating the Washington bureaucracy. It is more efficient, according to this argument, not to send the money to Washington to begin with.

Another criticism of existing federal water resource programs is that the national interests which once justified federal programs have either changed or have been achieved, but the federal bureaucracies persist. Specific examples include federal irrigation projects originally justified on the basis of a perceived national interest in developing Western agricultural resources but which now, perhaps, can no longer be justified by the national interest argument. Similarly, the sewage treatment construction grants program may have achieved sufficient improvement in water quality nationwide to justify reduction in future appropriations for new sewage treatment facilities.

While some analysts conclude that the nation's water management problems are not being addressed effectively because the United States lacks a viable national water policy, there is ample evidence to suggest that a national policy cannot survive under present conditions. The nation's current water policy structure has evolved piecemeal from governmental responses to specific needs, such as irrigation for Western agricultural development, flood damage protection, and inland waterways improvements. The structure is an accumulation of random events grafted onto one another rather than a structure designed and based on good information about the nation's water needs.

This view of policy especially pertains to the Corps of Engineers and Bureau of Reclamation projects. Typically, well organized interest groups unite with their representatives in Congress to lobby with the authorizing and appropriating committees, supported by plans drafted by the Corps or the Bureau. Adversaries of present policies see that channeling technical competence and money from higher levels of government to lower levels of government, this policy structure tends to: (1) withhold responsibility and competence from local governments; (2) make it difficult for local interests to properly weigh alternative policy choices on the basis of what they are willing and able to pay for them; and (3) promote agency responses to individual interests instead of tying choices to competitive group, or social, needs.

One example of a state's effective rebellion against federal control of the development and use of its water is the California State Water Project of 1964. Talked about, planned, debated, and submitted to a decision by the state's voters, the State Water Project currently delivers over 2.5 million acre feet of water to 30 prime contractors, most of whom distribute the water to other buyers. The project is financed by state general obligation and revenue bonds; and is, in turn, paid for at the local level by user charges and ad valorem taxes.

#### Water Policy Issues

Most of the documents assessing the national water policy issues list the same general types of concerns: water supply coordination for irrigation, municipal and industrial uses, hydro-power, recreation and the environment; research needs for new technology, pollution reduction, conservation, water law and other institutional guidelines; funding including block-grants, cost-sharing, and help in-kind; conjunctive use of water between basins including the Great Lakes, large groundwater basins and aquifers and rivers; planning for coordination, goal and priority setting; navigation; flood prevention; and emergency relief. (1,3,15,16)

These same reports are also quick to underscore that these issues lack resolution mostly due to the strength of parochial interests, too limited a scope of the problem, too limited a range of local input, too little public discussion of the broad range of water policy options and their implications, and almost no action plans developed on the basis of the technical information provided.

Perhaps one of the most penetrating ideas taken from the issue commentaries was the concensus that: (1) there was a limited amount of current national information concerning water resources available; (2) there was little, if any, continuity of funding or staff to keep water data information up to date; (3) there appeared to be only a minute amount of federal, state or private research money available for exploring institutional solutions to the present water issues as compared to a vast majority of funding allocated for technical studies; and (4) there was little communication about performance expectations based on the research findings. It is easily understandable why there is confusion and differences of opinion about what constitutes an effective water policy (or set of water policies), and how state, regional and national interests might be meshed into productive action.

#### **Alternative Water Policy Strategies**

There are several national water policy strategies which include continuing the status quo, and encouraging each state to develop its own policy coordinating it with adjacent states or those within the same basin. There are also policy possibilities between these polar positions. Clearly the status quo option has not produced a viable national water policy, and the odds are against it doing so. On the other hand, expecting a national water policy to emerge from the independent activities of 50 states is perhaps expecting the impossible.

Several premises underly suggestions for a viable national water policy process. (4) First is the premise that the overall role of all governments is to promote the general welfare within the context of the political economy in which the government exists. A second is that the public interest in water resource systems will, in many cases, be best served collectively because water resource systems are shared resources and cannot meet the needs of one interest or constituency without affecting the needs of others. A third premise is that priorities are best established, and conflicts over resource allocation are best solved, at the lowest possible level of government to which the issues are internal. If we accept these premises, then a national water policy represents a choice among competing economic, environmental, and social considerations for the resolution of conflicts and the guidance of decisions about water. For example, the conflict between the desire to prevent loss of life and property from flooding, and the desire to prevent negative environmental and social effects from building a dam, might be resolved by a policy that rejects dams in favor of local protection works or measures such as improved flood warning and community preparedness.

The application of values in the formation of policies to resolve issues as they occur further describes the policy guidance process. Having a policy guidance process which anticipates and averts crises saves the community many costs of crisis management and allows for conflict resolution at appropriate levels of government, starting with the lowest possible level.

If such a process had a viable organizational entity, it could: (1) allow public participation; (2) permit transfers of conflict to success

sively higher levels of government if issue complexity transcended the boundaries of the local basin or watershed; (3) link policy guidance with the management, planning, and project authorization functions; (4) integrate water management with economic growth management; (5) apply a basin-wide perspective to the water management decisions of individual citizens; (6) provide an institutional home for watershed constituencies, allowing inter-local cooperation and legal standing in relationships with higher levels in the policy structure; and (7) provide for relationships among levels of government, between the private sector and the public sector, and between management agencies and the water resource constituencies. If there were such a process and organization, the product emanating from that group would represent a national water policy built from the grassroots up. It would be distinctly different from a federal government water policy built from the top down.

#### Assessing the Existing Water Policy Decision Structure

One important barrier to effective local, state, and regional participation in a policy guidance process is the lack of statewide water policy in most states. Furthermore, formation of effective statewide water policy guidance processes is often prevented, because there is no organization for effective policy input from the local and substate regional levels. Some exceptions exist, however, including the interesting structure for administrative water law adopted by the state of Florida.

Congress as a lead agency for creating a national water policy injects a fragmenting, rather than a unifying influence to the policy process. This situation is due to the internal organization of Congress with its separate subcommittees which make key decisions for various components of the total federal water program. For instance, authorizations for Corps of Engineer projects are considered by one committee, authorizations for U.S.D.A. projects by another, and authorization for EPA projects still another.

The Water Resources Council (WRC), formed pursuant to the Water Resources Planning Act of 1965, represented the federal management agencies. While it provided interagency communication, it was unable to commit its members to collective policy decisions, it tended to operate outside the main cabinet structure (thereby lacking administrative accountability), it lacked strong ties to non-federal interests and to this extent lacked authority and accountability to constituencies.

Currently, the Cabinet Council on Natural Resources and Environment, which the Reagan administration created to replace the WRC, provides a mechanism for federal interagency coordination (more fully under presidential control) but it is not very accessible by non-federal interests. Further, it is not designed to develop a national water policy nor to resolve inter-local conflicts, and it cannot assert collective discipline over water policy structure in the national, as opposed to the federal, interest.

On another tack, the Title II interstate river basin plans did not commit intergovernmental structures to collective policy and were not designed to provide a continuing water policy guidance function either. Organizations for river basin management are usually controlled by management agencies, not by local governments. Assignment of primary policy guidance responsibility to a bureaucracy, rather than to representative, constituency-based institutions, violates basic democratic principles. The Water Resources Planning Act of 1965 demanded too much of management agencies and asked too little of public constituencies, especially local governments.

Is it realistic to expect that any structure to foster a national water policy guidance process can be developed? The current era of federal withdrawal from grants programs creates the opportunity for the evolution of a "bottom-up" structure for policy guidance.

Such programs and project subsidies have induced local dependence on federal funding, thereby at times, impeding institution-building at local levels for the achievement of local autonomy and the effective participation in a local policy guidance process. Local constituencies may need political, technical, and financial help to assert their collective interests at the outset. Leadership may also be necessary from state legislatures in establishing inter-local water policy structures around hydrologic units.

### Implications of Current Administration Policy

The Reagan administration does not advocate a national water policy, and it does advocate a new federalism for the state role. In some cases it tries to combine an increased marketing approach with increased use of state's rights. This philosophy manifests itself in varying ways. For example, in the case of EPA administered sewage treatment construction grants program, the Reagan administration announced in 1981 that it would hold future appropriations to \$2.4 billion a year (down from an average of \$3.9 billion per year since 1973) and slash future spending from \$90 billion or more to just \$23 billion. The administration warned that even this reduced appropriation would not be approved unless Congress enacted several administration backed reforms in the sewage treatment plant program which would eliminate loans to secondary plants designed to accommodate future growth. The whole idea is to bring communities up to a certain level of performance and then let them develop and assert their own growth facilities.

Although the Reagan administration has not yet developed a comprehensive legislative proposal for cost-sharing reform, a number of statements by administration spokesmen offer some clues as to what such proposals will contain. The administration is committed to cost recovery from project beneficiaries and to increased reliance on nonfederal sources of up-front financing. (14) Any vendable service produced by a water resources project should be paid for by its direct beneficiaries. Examples of this kind of initiative include administration proposals to impose user fees to recover federal expenditures in the inland waterways and deep draft port areas.

The 97th Congress is considering legislation which would grant builders of coal slurry pipelines the federal right of eminent domain. Proponents argue that the pipelines would reduce energy costs to consumers by providing a low cost alternative to rail transportation of coal. However, the Reagan administration has said that allowing the federal government to grant eminent domain powers to pipeline companies would be a blow to states' rights. (8) The administration's cardinal rule of federalism says that the states, not the federal government, should settle local issues such as land use disputes. It should be added that the railroad lobbyists were not overly enthusiastic towards this proposal, nor were other interest groups which saw private industry being granted public powers.

These and other examples of administration support for primacy of the states in matters of government, including water resources, point to a favorable climate for the evolution of a "bottom-up" policy guidance process for the nation's water resource decision makers. However, calls for water policy reform are not new. Political forces favoring the status quo for federal water program formulation will not be easily moved. Nevertheless, the case for reform is compelling and will figure significantly in future debates over the federal government role in water use and development.

#### REFERENCES

- "Assessing the Nation's Water Resources: Issues and Options," A report prepared by the Congressional Research Service of the Library of Congress for the Committee on Environment and Public Works, U.S. Senate, USGPO, Washington, D.C., December 1980.
- (2) Davis, Joseph A., "Water Projects, In a Decline Since Carter's Era, May Start Moving Again on Capitol Hill," *Congressional Quarterly*, June 19, 1982, pp. 1461–1463.
- (3) "Federal Water Resources Research: A Review of the Proposed Five-Year Program Plan," A report prepared by the Water Resources Research Review Committee, Commission on Natural Resources, National Research Council, National Academy Press, Washington, D.C., 1981, pp. xiii-xv.
- (4) Harrison, David C., "Institutional Barriers to National Water Policy," Water Spectrum, Vol. 14, No. 2, Spring 1982, pp. 1–7.
- (5) Holmes, Beatrice Hort, History of Federal Water Resources Programs and Policies, 1961-70. U.S. Department of Agriculture, Economics, Statistics, and Cooperatives Service, Miscellaneous Publication No. 1379, September 1979.
- (6) Holmes, Beatrice Hort, A History of Federal Water Resources Programs, 1800–1960. Washington, D.C.: U.S. Department of Agriculture, Economic Research Service, Miscellaneous Publication 1233, June 1972.
- (7) Infanger, Craig L., "Governments' Roles and Responsibilities in Water Resources Management: A Discussion," paper presented at the conference on *Emerging Issues in Water Management and Policy*, Virginia Tech., Blacksburg, Virginia, June 7-8, 1982.
- (8) Jackson, Dawn P., "Preserving Western Water Rights A Key to Coal Slurry Pipeline Bill," National Journal, May 9, 1982, pp. 820–821.

- (9) Lord, William B., "Conflict in Federal Water Resource Planning," Water Resources Bulletin, American Water Resources Association, Vol. 15, No. 5, October 1979, pp. 1226–1235.
- (10) Lord, William B., and B. A. Paulsen, "Federal Water Resources Planning: A Problem Analysis and Research Assessment," Policy Sciences Associates, Research Report 80-2, Boulder, Colorado, July 1980.
- (11) Mosher, Lawrence, "When Is a Prairie Pothole a Wetland?" National Journal, March 6, 1982, pp. 410–414.
- (12) Simmons, Malcolm, "Water Resources Development: Budgetary Restrictions," The Library of Congress, Congressional Research Service, Issue Brief Number IB 81093, June 29, 1981, updated March 19, 1982.
- (13) Simmons, Malcolm, and Karla Perri, "Reclamation Reform," The Library of Congress, Congressional Research Service, Issue Brief Number IB 81031, April 15, 1981, updated January 5, 1982.
- (14) Viessman, Warren Jr., and Christine De Moncada, "Water Resources Development: Water Project Cost Sharing and Financing," The Library of Congress, Congressional Research Service, Issue Brief Number IB 81173, November 23, 1981, updated February 16, 1982.
- (15) "Water Resource Planning, Management, and Development: What are the Nation's Water Supply Problems and Issues?" U.S. General Accounting Office, Washington, D.C., July 1977.
- (16) "Water Resources and the Nation's Water Supply: Issues and Concern," U.S. General Accounting Office, Washington, D.C., April 1979.