

# WATER POLICY: WHO SHOULD DO WHAT

**Theodore M. Schad**

Consultant on Water Resource Management

## ABSTRACT

National water policy formulation has been pursued in an ad-hoc manner during the past few years in response to episodic events of floods, droughts, and other man-made and natural hazards, and particularly by the needs of the environmental regulatory agencies. The Council on Environmental Quality serves as the only central coordinating mechanism for environmental protection policies which now dominate federal water resource management policies. This has led to an almost intractable problem-solving problem, acted out under the rubric of “watershed planning” in a way which contrasts the principles of traditional multiple objective water resources planning and management espoused by the U. S. Water Resources Council and the narrower, single-objective regulatory perspectives of the Environmental Protection Agency based on its own interpretation of the uncoordinated environmental regulatory laws. If the nation is ever to achieve the goal of a collaborative, integrated water resources management approach, which includes environmental protection objectives, along with the traditional water resources purposes of serving human needs, there needs to be a new federal water policy coordinating body to resolve emerging resources management issues. The water resources community must continue to promote the rational analysis of all competing water resources purposes through the balancing of economic efficiency, social well-being, environmental quality, and equity considerations underlying the U. S. Water Resources Council’s former Principles and Standards and which also represent the conceptual underpinnings of the President’s Council on Sustainable Development.

## INTRODUCTION

In the quarter of a century that has passed since the publication of “WATER POLICIES FOR THE FUTURE (U. S. National Water Commission, 1973) much has been written, a great deal of energy has been expended, and a lot of wheels have been spinning in the search for a national water policy. There has been a great deal of

progress in the direction suggested by the National Water Commission but the United States has yet to achieve a sound water management policy that will guide the nation to solution of the more stringent water management problems that must be faced in the years ahead.

In the introduction to this issue of *Water Resources Update*, Viessman has referred briefly to the efforts that have been made to reshape national water policy in recent years. A more extensive discussion of these efforts is contained in a paper prepared by this author for the Journal of Soil and Water Conservation (Schad, 1990) under the title “Do We Have a National Water Policy”. The conclusion to the rhetorical question at that time was that there is no coherent national water policy and the prediction was made that for the foreseeable future the water policy of the federal government is going to be an uncoordinated amalgamation of the actions for which funding is provided in the annual budget of the United States, as modified each year by congressional action. In the more colloquial presentation of the paper at the annual meeting of the Soil and Water Conservation Society, the policy was stated as “the squeaky wheel gets the grease”.

Not much has changed in the past eight years and it is probably a forlorn hope that the Congress will ever enact a national water policy. No less an expert than Abel Wolman, one of the earliest proponents of sound water policy and an opponent of “pork-barrel” politics, gave up on this over 25 years ago. At a symposium organized by the House Committee on Science and Astronautics he expressed his frustration, which he recalled in giving his oral history to Dr. Walter Hollander many years later, in the following words:

“...In most instances primary or fundamental proposals for public decisions and legislation of all of them [water policy study commissions or committees] have never been followed, except those pieces of it that are reflections of the particular crisis which resulted in their creation... I was a participant in all but the last one, which was appointed by President Ford. All of this reminds me that some

twenty years ago, having been through all of this, I made an appearance at the Congressional Committee [on Science and Astronautics] at their request. I testified that I am no longer in the business of designing national water policy; one, because you don't want it - the President doesn't want it - the Senate doesn't want it - the House doesn't want it, and nobody else wants it. The reason you don't want it is now very clear to me, having struggled with it a long time. I'm giving up on that particular pitch because you consider that a legislative statement of national water policy interferes with your political decision-making, and you just don't want it on the books." (Hollander, 1993, pp. 241-2.)

Nevertheless, in spite of the cogency of Abel's words, this author is unwilling to give up. It is up to the professional and scientific community to continue efforts to establish principles that will help the Nation to reach better political judgments on matters affecting the Nation's water resources.

A review of recent literature and the proceedings of water-related meetings undertaken by the author (Schad 1997) reveals a great variety of views as to future water policy. There is no consistent pattern except that almost all writers stress the need for better coordination of the many federal programs that affect water management. The following sections of this paper are based on that review.

## **WHAT IS HAPPENING OR THE REORIENTATION OF FEDERAL PROGRAMS**

The shift in national priorities from development of water resources to restoration and enhancement of water quality that was discerned by the National Water Commission in 1973 has intensified in recent years. As we near the end of the long period of federal water resources development that began shortly after the beginning of the twentieth century we seem to be entering into a new era which has the objective of improving water management through decreasing changes in the water environment resulting from human activity.

The conservation movement at the beginning of the development era had as its basic premise the management of water for the use and benefit of the human race. Rivers were to be developed and controlled to enhance navigation, to reduce flood damages, and to conserve flood waters for development of irrigation and hydroelectric power. The primary objective was increasing economic development to provide greater

opportunities for growth and the improvement of the human condition. The role of the federal government was seen as that of a benevolent partner in carrying out developments that exceeded the abilities of state and local governments and the private sector.

The new era owes much to the philosophies espoused in previous centuries by Jean Jacques Rousseau and Henry David Thoreau. Its primary sponsorship comes from supporters of the environmental movement that grew up in the 1960s as a reaction against the over-emphasis on material wealth and consumerism made possible, at least in part, by the successes of the development era. Drawing substance from its success in bringing the era of large dam building to a close, the environmental movement participated in planting the seeds of a major change in water resources policy in the federal water pollution control legislation. Based largely on a superficial examination of the use of the sewage effluent from the city of Melbourne, Australia to irrigate pastureland during a portion of the year, and the claims of environmentalists that such a technique could be used to dispose of sewage effluent in the United States, the Congress legislated the goal of eliminating the discharge of pollutants into the waters of the United States as a part of the Federal Water Pollution Control Act Amendments of 1972. This enactment, followed by the Endangered Species Act and other environmental legislation, has provided the policy basis for moving federal water resources related programs of the development era into an era which might well be called the era of federal water management through regulation.

The literature search and the discussions at water resource related meetings reveal (Schad, 1997) that there is a great deal of concern and unease among water management professionals regarding this drift towards a more stringent, piecemeal regulatory approach to water management without addressing what are essentially multiple objective water resources needs. There appears to be an internal contradiction between the desire to conduct comprehensive and integrated water resources management that meets sustainable development goals (economic efficiency, social well-being, environmental quality and equity) and the ultimate outcomes of so-called watershed planning processes which frequently seem to end up as ever more stringent regulatory constraints.

It is apparent that there has been an unwillingness, since President Carter's failed Water Policy Initiatives of 1978, for the federal government to develop a coherent and consistent federal water policy that would guide the actions and decisions of all federal water and related environmental regulatory agencies, including the Corps of Engineers, Environmental Protection Agency, Federal

Energy Regulatory Commission, and the Fish and Wildlife Service, for example. It is ironic that the U. S., through various international agencies, promotes the formulation of comprehensive national water policies in every developing nation, yet fails to heed its own advice in this important area. Federal water policy lurches from crisis to crisis; from ad hoc drought contingency measures during the drought of 1988-89, to hastily conceived flood protection policies in the aftermath of the 1993 upper Mississippi River flood. Even though there are successes; freshwater withdrawals have decreased steadily from their high in 1980; water pollution is decreasing; and aquatic ecosystems are rebounding, without a coherent federal water policy the less than efficient amalgamation of regulatory policies will increasingly hamper the effectiveness of and prospects for innovations in watershed management and ecosystem management.

Almost by default, federal water policy has been shaped during the past two decades by the emerging and proliferating needs of federal environmental policy which is essentially regulatory in nature. The irony is that Federal environmental policy is being coordinated centrally through the Council on Environmental Quality (CEQ), which is greatly influencing the shaping of federal water policy, albeit on an ad hoc basis, in response to floods and droughts. This episodic, rather than coherent, development of water policy is used to further environmental and ecosystem protection goals, largely neglecting legitimate and traditional water resources development needs.

The deficiencies in this approach to policy have been noted by several authors. Whipple (1996) highlighted the contradiction between the tradition of multiple objective analysis inherent in water resources planning, as promoted in the U. S. Water Resources Council's (1983) "Principles and Guidelines", and that of the single-objective environmental and regulatory planning of the federal environmental protection agencies. Each of the major federal water resources agencies (Corps, Bureau, NRCS, TVA) espouses integrated water resources management (IWRM) with watershed planning as the vehicle for achieving it. The environmental agencies promote IWRM and watershed planning as well, but do not accept the concept of economic analysis which is part of multiple-objective planning. Yet, according to Whipple, "this duality of approach exists despite the fact that comprehensive planning or multiple-objective planning is generally considered to be superior to more narrowly oriented approaches.

Stakhiv (1996) has made similar points. The integration of water quantity, quality, and aquatic ecosystem needs

have been the grist of federal agencies since well before the enactment of the Water Resources Planning Act of 1965. This Act expressly required the development of "comprehensive, coordinated joint plans" for river basins. Stakhiv notes further that the new integrated water resources management framework at the watershed level requires a high degree of collaboration among the various federal agencies. The main barrier to such collaboration is the absence of a uniformly applied planning and evaluation framework, echoing Whipple's (1996) main conclusion that "...the requirements of the various regulatory approaches are making it almost impossible to construct major (new) facilities for any purpose, and are raising questions about the operation of existing structures for their authorized purposes."

Peter Rogers (1994) in his book on "America's Water", notes that "the present goal of policy reform in the water area... should be to achieve coherence in federal water activities with a proper relationship to the states and the nation, and not necessarily to create new policy initiatives". Rogers advocates a reform of the federal water policy process "so that the unfinished business can be dealt within a timely and efficient manner".

Since World War II, there have been five major federal government examinations of the federal role in water resources planning, development organization and policy. The common thread has been to separate policy formulation from implementation by the front line agencies, and to bring the policy setting process under the auspices of some central policy-oriented entity, like the now-defunct Water Resources Council that was abolished by President Reagan. Implementing water policy reforms in a piecemeal manner through the indirect mechanisms of congressional project authorization and environmental, health and safety regulations is clearly an inefficient way of dealing with the evermore complex suite of problems facing this nation. Yet, for the past decade, this has been the process for dealing with water resources problems. So, despite the fact that almost all of the recent resource planning management literature calls for more integrated approaches, the reality is that exactly the opposite is occurring in practice.

## **EXTENT OF FEDERAL RESPONSIBILITY**

One major issue which underlies any discussion of water resources management policy is the lack of definitive agreement as to the proper division of responsibilities among the various levels of government. A related issue is whether any level of government should take over responsibilities that compete with, or could be handled by, the private sector. Although the Constitution of the

United States makes no specific mention of water resources, a proliferation of federal programs has been authorized under the Commerce, National Defense, Foreign Relations, and General Welfare clauses of the Constitution. A bureaucracy evolved, fostering the creation of a number of so-called "iron triangles" in which beneficiaries of the programs team up with bureaucratic agencies to encourage members and committees of the Congress to appropriate funds to keep the program growing. The two "Hoover Commissions" created in 1947 and 1953 were supposed to deal with this subject but failed to provide any politically acceptable basis for changing any of the basic responsibilities, probably because of the strength of the "iron triangles".

As entitlements consume an ever increasing share of the federal budget and the pressure for devolution of federal responsibility to the states grows, there is an increasing need for reassessment of the role of the federal government in water resources management. The failure of the previous "Hoover Commission" approaches suggests that this is not likely to be successful. The federal bureaucracies will continue to play their roles. This makes it even more necessary to find ways to coordinate the myriad federal programs in order to ease the task of state and local agencies when they find conflicts in regulatory policies as they take on former federal responsibilities.

### **THE NEED FOR COORDINATION OF FEDERAL PROGRAMS AND REGULATION**

There are literally hundreds of separate water related programs authorized by legislation and managed by a proliferation of federal agencies. Progress on each is monitored from time to time by the authorizing committees and annually by the appropriations committees responsible for acting on the President's requests for appropriations. But there is very little coordination among the Congressional committees that carry out these reviews. Once authorized, programs seem to take on a life of their own, governed by policies adopted by the administrators of the programs who tend to favor their agency's own interests rather than any consistent and coordinated national policy.

The annual preparation of the President's Budget should provide an opportunity for coordination of related programs, but in actuality it does not. Review of agency programs is segmented in the various organizational units within the Office of Management and Budget (OMB) and there is very little opportunity for interchange of program information among the units. Each unit tends to look after only the programs for which it is responsible and the

work load is so heavy that the Budget Examiners are usually unable to do much more than handle their own specific programs. Upper echelons of the OMB management might be expected to give attention to coordination of programs of the different agencies administering water resources programs, but the programs in the water resources area, which used to comprise as much as two percent of the national budget (before consolidation with the various trust funds), now total such a small part of the \$1.6 trillion budget that they are unlikely to receive much attention from top management.

The situation with respect to coordination of programs on Capitol Hill is not much different. Authorization of new programs stems from deliberations within one of a myriad of committees and subcommittees in both Houses of the Congress, each of which handles the responsibilities which have been assigned to it without paying much attention to what other committees are doing except to make sure there is no usurpation of its own responsibilities. While items in water resources appropriations are frequently the subject of intense political negotiations, there is little consideration given to the broader issues of the overall water management program or its relationship to the broader national agenda.

Most members of the Congress are well aware of the need for coordination of all of the federal water related programs and do what they can to cover it legislatively. The Federal Water Pollution Control Act Amendments of 1972, frequently referred to as the Clean Water Act, are replete with provisions calling for coordinating water pollution control programs with the programs of other federal, state, and local agencies. This suggests that the Congress had no intention of establishing a program that would be independent of the multi-objective water resources programs of other agencies. But the administrators of the EPA program seem to have chosen to conduct it independently of the other programs which has made it impossible to develop a long term strategy for dealing with all of the nation's future demands for water and water-related services.

Efforts made under Section 208 of the 1972 Act, which provided authority for development of area wide waste treatment management plans, are indicative of the difficulties resulting from the unilateral approach taken by EPA. The efforts of the regional planning groups that were established under Section 208 were frustrated by the inability of EPA to agree with the compromises necessary to coordinate its program with those of other federal, state, and local agencies. At the same time the availability of large federal grants that conformed to

EPAs “one size fits all” philosophy eliminated the need for planning and led to large expenditures for facilities that would be hard to justify on economic, environmental, or social grounds.

An independent study by the National Academy of Public Administration (NAPA) (1995), pointed out that the EPA

has never had an effective process for strategic planning at any time since its creation in 1970. The agency’s planning efforts did not clarify objectives in understandable terms which would permit setting specific priorities or support agency decision making. These deficiencies led to failure of EPA’s regional officials to use the strategic plan, so they made up their own plan as they went along. This may explain why EPA has been unable to work with other agencies toward common goals for water resources. To be truly “strategic”, the NAPA said, the plan would have to consider explicitly the roles of other federal agencies, state and local governments, and industry.

The EPA unilaterally proposed national environmental goals, including goals for water resources, in 1995, with benchmarks for the year 2005, but the NAPA felt that this effort had two significant limitations which needed to be rectified as they refined the goals. These were the lack of heavy participation by other federal departments in what ought to be a more comprehensive Government-wide effort, and the limited involvement by the general public. The NAPA suggested a stronger role for the Council of Environmental Quality in the Executive Office of the President to help promote interagency cooperation.

The EPA has responded to criticism of its unilateral single-purpose approach and to the failure of the Section 208 approach to development of area wide waste management plans by promoting a redefined watershed approach toward planning. While the watershed had always been the obvious focus of the planning activities of the old-line water management agencies of the federal government, the Bureau of Reclamation, Corps of Engineers, Natural Resources Conservation Service, and the Tennessee Valley Authority, their approach, with the exception of NRCS, had the appearance of being from the top down, under policies formulated in Washington. The redefined watershed approach purports to start from the bottom, coordinating public and private sector efforts to address problems at the grass-roots level, with preservation of the environment as the primary objective. The watershed groups or organizations which have been formed frequently have no governmental powers, so they are unable to enforce their decisions or deal with intractable problems such as irreconcilable conflicts

among stakeholders within or outside the watershed, or conflicts with the interests of other watersheds. In some instances, such as the groups set up to deal with the San Francisco Bay Delta problem area and the anadromous fish problems of the Pacific Northwest, federal and state officials have been included in the hope of reversing this deficiency.

From the viewpoint of the EPA the watershed process is characterized as being action oriented, driven by broad environmental objectives, and involving all of the key stakeholders. The EPA sees its role as a catalyst or facilitator, providing advice along with financial and technical assistance. The objective is to establish “place-based” environmental management that is driven by the key environmental problems that occur in particular geographic areas. It remains to be seen how effective this approach will be in dealing with the myriad of water uses and problems such as flood damage mitigation, fish and wildlife preservation and propagation, endangered species, international treaties on migratory birds, drought management, and other programs which cut across the lines of the watershed partnerships that have been formed. The basic flaw of this approach is that it attempts to deal with multiple demands on water resources by essentially reallocating all water to serve environmental purposes and treating other legitimate demands (municipal water supply, hydropower, navigation, etc.) as impediments to achieving sustainable development goals. So far the efforts of watershed groups have had little effect on national problems of the type usually dealt with by other federal agencies, but some drastic solutions are being proposed. For example, stakeholders attempting to find solutions to so-called watershed problems in the Columbia River basin have proposed breaching or removal of the four hydroelectric power dams on the Lower Snake River in Washington and the lowering of the John Day and McNary reservoirs on the Columbia River in an effort to rebuild the anadromous fishery runs which are nearing extinction.

It seems apparent to this writer that the role of water resources development as an important part of the nation’s infrastructure is now being subordinated to the objective of preserving the natural environment. The nation is being led into a new era of water resources management based on achieving broad environmental objectives as defined by EPA and enforced by myriad federal regulations. Preservation of the environment has replaced national economic development as the driving force behind national water policy. Bottom-up citizens involvement and “place-based” decision-making, guided by EPA’s regulatory powers are taking the place of the

top-down approach to water resources management guided by the previous national policies. But national water resources problems remain on the nation's agenda as the climatic fluctuations that seem to be induced by global warming continue to create severe problems.

The more thoughtful studies of water policy suggest that there is an unmet need for better inter-agency and inter-

governmental policy coordination. For example, the Galloway report by the Interagency Floodplain Management Review Committee (1994), the Harvard University study (1988), and recent book on American water policy by Peter Rogers (1994), recommend reactivating and strengthening the federal Water Resources Council and the field river basin commissions. The National Academy of Public Administration (1995), in its report on a review of the program of the Environmental Protection Agency, suggests that a stronger role for the Council on Environmental Quality would help promote needed interagency cooperation in achieving environmental quality goals. But EPA has been unwilling to follow the Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation approved by President Reagan in 1983 to guide water resources programs, nor has it developed its own procedures for analyzing the costs and benefits of its programs, so there is no basis for coordination with the programs of other agencies.

In the absence of a coordinated approach to planning for water resource management which encompasses all participants in water related programs, the Nation will continue to attempt to find solutions to remaining national problems in an ad-hoc manner, only when they reach crisis proportions.

## **POLICY OPTIONS FOR THE FUTURE**

The implementation of the water pollution abatement goals of the Federal Water Pollution Control Act Amendments of 1972 has brought about what might be considered a sea change in the management of the Nations water resources. The long-term policy of development and management of water resources to meet the demands of the human race for water and water related services seems to have been replaced by a policy based on minimizing the impact of human activities on broadly defined ecosystems or watersheds. Federal policies based on promoting active multi-purpose / multi-objective water resource management to foster such diverse purposes as environmental quality, flood damage

mitigation, hydroelectric power production, irrigation, maintenance of instream flows, municipal and industrial water supply, outdoor recreation, and water transportation are being over-ridden by a policy based on regulation of human activities involving water with the elusive and undefined objective of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters. The policy shift appears to have taken place without thoughtful study of its effect on the ability of the nation's water infrastructure to meet future societal demands. Something needs to be done. There are a number of possible options for guiding the future of water policy that are discussed in the following paragraphs.

### “Business as Usual” Option

There appears to be considerable public support for making water pollution control and preservation of the environment the overriding purposes of water resources management. Everyone wants a clean environment. At the present time the Nation is enjoying such prosperity that it can afford the costs without having to worry about whether the benefits justify the expenditures. So the most easily attained option for charting the course of water management over the next few years is to continue on the “business as usual” path we are currently following. This means attempting to solve water resources problems locally, by negotiation among the stakeholders, watershed by watershed, and formulating national water policy as needed, on an ad-hoc basis.

Practitioners of this approach, which is being supported by EPA, use the terms “place-based decision making” and “integrated resources planning” to describe this option. The latter term has its roots in the electric power industry which has used it to find the most efficient way to meet demands with the least disruption of other activities. With support from the U. S. EPA the American Water Works Association (AWWA) has attempted to adapt the integrated resource planning process developed in the electric utilities industry to the municipal water supply industry. This requires finding, for each location, appropriate mixes of demand-side and supply-side alternatives for meeting objectives, and weighing them against impacts on environmental quality, economic development, and other societal goals to form the basis for reaching a consensus. The AWWA report suggests that there may be as many variations of the integrated resource planning process as there are practitioners of the method.

But this option falls short of solving all of the problems of water resources management such as where the interests of one watershed conflict with the interests of other watersheds or where intractable problems exist,

solution of which may require a decision overriding the interests of some stakeholders. Nor does it attempt to deal with all of the problems that have typically called for intervention by the federal government such as those that affect several river basins or states. Likewise, it assumes that the federal government will always be there and have the means in place to help at times of crisis caused by major floods and droughts. And it does nothing to help with the problems and deadlock resulting from conflicting federal regulations and requirements of federal laws which establish unfunded mandates.

As mentioned earlier in this paper, a number of thoughtful participants in the debate over water resource management policy have suggested the need to revive efforts to coordinate the efforts of the federal agencies and to straighten out overlapping and conflicting policies. There are several options for dealing with the coordination problem.

#### Coordination of Federal Policies Through a Water Resources Council

Establishment of a reconstituted Water Resources Council as an independent agency in the Executive Office of the President is the option that has the most support among well-informed analysts of water policy, going back as far as the National Water Commission (1973). More recently this solution to the obvious need for reconciling conflicting federal laws and regulations and approaches to problems has been espoused by the Interagency Floodplain Management Review Committee (1994), the Harvard University study (1988), and in the Peter Rogers book (1994). Several possible organizational patterns have been suggested. Most of them call for the reconstituted agency to have an independent chairman, having a rank equivalent to that of an Undersecretary of a Cabinet department, reporting directly to the President and with departmental representation at the Assistant Secretary level. Staff should be independent of the constituent departments and agencies. Many analysts want the Council to include representatives of the states. Legislation would be required to implement this option.

Experts on the organization of the federal government have argued that water resources management is not an important enough segment of federal policy to justify an independent agency in the Executive Office of the President. Some have suggested that the coordination role should be handled by the Council on Environmental Quality which is already a part of the Executive Office. In the face of a declining role for the federal government, as various functions devolve to the states, it is unlikely, based on previous experience, that a water resources

council could develop enough of a constituency to survive in the fight for federal appropriations.

#### Coordination of Federal Policies through the Council on Environmental Quality

In its review of the issues facing the Environmental Protection Agency a panel of the National Academy of Public Administration, after pointing out that the lack of participation of other federal agencies was limiting progress toward establishment of national environmental goals, suggested that a stronger role for the Council on Environmental Quality (CEQ) in the Executive Office of the President could help promote interagency cooperation in this effort. Since the CEQ chairman is a high level presidential appointee, and the agency is already in the Executive Office of the President, the option of assigning the responsibility for coordination of the federal water resources agencies to it, in lieu of reestablishing the Water Resources Council, ought to be considered.

This would be a major expansion of the CEQ role but it might make sense in the light of the direction in which federal water policies seem to be heading. The agency would have to be expanded to include expertise to permit it to deal with representatives of the other departments and agencies having water related programs. Revising the mission of the CEQ would require legislation. Consideration of such legislation would have the salutary effect of forcing the Congress to reconsider the relationship of the environmental quality goal in relation to other water related goals, which it tried to do without success when it enacted the coordination principles of the Water Pollution Control Act Amendments of 1972 and 1977.

This option assumes the continuation of the existing federal agencies and programs. In the present budgetary environment it might be advisable to revive proposals for consolidation of federal water agencies that arose in the Task Forces of the two Hoover Commissions.

#### Consolidation of Federal Water Resources Agencies

The first Hoover Commission in 1949 proposed consolidation of the civil functions of the Corps of Engineers and the Bureau of Reclamation into a Water Development and Use Service in the Department of the Interior. One of the Commission's task forces recommended consolidation of all water programs into a Department of Natural Resources. The Corps of Engineers was considered to be sacrosanct and this recommendation was rejected by the full commission. Legislation to create a Department of Natural Resources

to consolidate various functions into a single department was introduced in several Congresses during the 1950's and 1960's. Now that federal programs are being downsized because of budgetary constraints and responsibilities that had been assumed by the federal government are devolving to the states and local governments, it might be possible to overcome the resistance to the earlier proposals and consolidate the water resources agencies. A recent proposal was made by Bruce Driver (1993) in a report prepared for the Western Governors Association. He proposed consolidating the water resources functions of the Corps of Engineers, the Bureau of Reclamation, and the Environmental Protection Agency into a single agency. To the best of the writer's knowledge there has been no recent public discussion of this proposal. It makes a lot of sense if a strong administrator could operate the resources management functions of the three agencies under the same principles and guidelines and could resurrect the provisions of the Federal Water Pollution control Act dealing with comprehensive programs for water pollution control (33 USC 1252 & 1288) to coordinate federal regulatory and development programs with those of the states.

#### Devolution of Responsibility to the States

As the Clinton Administration and the Congress continue their obsession with cutting taxes while moving toward a balanced federal budget, one very obvious option for water resources management is devolution of federal responsibilities to the states to reduce federal expenditures. A major stumbling block for this option is the problem of how to deal with the transfer of the massive water management infrastructure created under federal programs. Ownership of dams and other water control works located within a single state could be transferred to that state or to water users' associations without any unprecedented legal problems other than the difficulty of reaching agreement on the terms of the transfer. There are indications already that the State of California would be delighted to take over ownership and management of the Central Valley Project on its own terms but might be unwilling to accommodate all of the federal purposes of the project.

Interstate water management systems such as the Columbia River basin projects could be transferred out of federal ownership by creation of an interstate institution to take over their functions. The hydroelectric power revenues would make it possible to accomplish this on a self-financing basis, although it is problematical whether such an institution would be willing to fund all of the functions included in the federal projects. In other basins

that are not so richly endowed with revenue producing facilities it would not be easy to find support for a new water management institution unless there were to be a continuing federal subvention.

Management of federal projects such as the Mississippi River and Tributaries project and the federal inland navigation system could never be financed without federal financial help although it might be possible for non-federal valley authorities to be formed to manage the water resources of major tributary basins such as the Arkansas, Ohio, and Missouri. There are many other federal responsibilities, such as those stemming from treaties with Canada and Mexico dealing with water resources and the migratory bird treaty, that could never be devolved to non-federal interests unless the federal government continued to provide financing.

Previous attempts to transfer federal projects to local interests or states have foundered because of lack of public support and efforts to establish more river basin authorities raise the specter of establishing a new layer of government.

#### **THE NEED FOR REDEFINITION OF THE FEDERAL INTEREST IN WATER RESOURCES**

It has been almost 175 years since Chief Justice John Marshall, in the landmark *Gibbons v. Ogden* case, defined the power of the Congress under the Commerce Clause of the Constitution as comprehending "navigation within the limits of every State in the Union, so far as the navigation may be, in any manner, connected with commerce with foreign nations, or among the several States, or with the Indian tribes". At that time navigation was the primary use of the waterways and it became the slim reed on which most of the federal programs affecting water resources through the end of the 19th century were based. In the 20th century the Congress expanded federal activity in water management under the Property, Treaty Making, and General Welfare clauses of the Constitution. By a series of legislative enactments over a long period of years the Congress has essentially defined the federal interest in the Nation's water resources without any attempt to evolve a consistent policy.

Conflicts and overlaps among programs became commonplace and long-lasting. In the early years of the 20th century, President Roosevelt created an Inland Waterways Commission to forge a comprehensive approach for federal multiple-purpose river basin development. Many of the Commission's recommendations became the basis for planning for water resources development in later years but its proposal to

authorize the President to create a National Waterways Commission to bring into coordination the programs of the Corps of Engineers, the Bureau of Reclamation, the Bureau of Soils, and other branches of the public service having work related to the inland waterways, was never adopted. The subsequent National Waterways Commission created by the River and Harbor Act of 1909 was composed of members of the Congress and dealt primarily with programs of the Corps of Engineers. In its report it declared that “the authority of Congress reaches to the remotest sources in the mountains of every navigable stream”. It went on to reject the view that the federal government must limit its activity to matters pertaining solely to navigation, saying that the government may “constitutionally extend its jurisdiction to questions more remotely connected with the rights of navigation, or even wholly unrelated”.

A long series of expansions of federal activity in water resources management ensued, including flood control on the Mississippi and Sacramento rivers, the Federal Power Act, the Boulder Canyon Project Act (Hoover Dam), the Mississippi River and Tributaries project legislation, the general flood control act, the Fish and Wildlife Coordination Act, and others. During the 1930s a great many projects were undertaken under the emergency powers granted to the President to counteract the Depression. In 1950 President Truman created his Water Resources Policy Commission to study and make recommendations to the President with respect to federal responsibility for and participation in the development, utilization, and conservation of water resources, including related land uses and other public purposes to the extent they are directly concerned with water resources. Legislation was actually drafted to implement the Commission’s recommendations, which might have provided a statutory basis for a coordinated water policy had it been enacted. But the proposal legislation was never considered by the Congress.

The next attempt to define federal water resources policy other than in special purpose legislation and annual appropriations, was the creation in 1959 of the Senate Select Committee on National Water Resources. But the Committee was unable to respond to its mandate to study “the extent to which water resources activities in the United States are related to the national interest” within the short span of its existence. Instead, the Committee recommended ways to improve the programs under way. The National Water Commission in 1968 to 1973 also confined its studies to find ways to improve or eliminate existing programs that had been authorized.

Each of the federal water resource related programs has been authorized by the Congress and is administered by

the Executive Branch of the federal government subject to annual review by the Congress. From time to time, when programs are challenged, the Courts have upheld their constitutionality. But there is still great controversy as to the proper role of the federal government and particularly over the proper division of responsibilities among the several levels of government. Changes are being made as agencies attempt to redefine their roles in the light of changing conditions and in the light of the political leadership. Public interest groups are gaining strength and are becoming more successful in influencing the Congress and the Administration to make changes in water related programs.

As long as the Congress is willing to continue the present approach to water policy by making it up as we go along, there is little hope of resolving the policy and programmatic conflicts that have ensued. Unless the professional water resources community can find some way to prod the Congress into taking action we will have to wait for the next crisis to jar the nation into action.

#### **THE PATH AHEAD: WHAT SHOULD BE DONE**

Growth in the nation’s economy and population is placing increasing demands on water resources. Water resources management problems are becoming more difficult to handle. Yet we have decreased our ability to deal with them by dismantling basin wide planning efforts and decreasing research on water management. Heedless of the lesson attributed to King Canute, we are devoting a great deal of effort to an attempt to slow down the global warming and cooling cycles of the Pleistocene Epoch while allowing our water infrastructure, which should be our first line of defense against climatic uncertainty, to decay.

If future demands are to be met, there must be a reconciliation of the single-objective environmental and regulatory planning used by the EPA, which is the dominant federal water resources management agency, with the multi-purpose, multi-objective planning system which evolved over a long period of time to guide federal investments in water management. This could be done by requiring all federal water-related programs to be governed by the Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies (U. S. Water Resources Council 1983). Administration of the coordination function should be either by a reconstituted Water Resource Council in the Executive Office of the President or by the Council on Environmental Quality as discussed earlier.

We must accept the fact that there will continue to be

floods and drought and we should direct our programs to learning to live with them, rather than fighting them. As a small first step we should expunge the words “flood control” from our government water programs, replacing them with a more accurate terminology such as “flood damage mitigation”. The recommendations of the Interagency Floodplain Management Review Committee (1994) should be used as a guide for future action in this area.

There appears to be no likelihood that the 105th Congress, will take any action toward improvement of national water policy. The soon to be released final report of the Western Water Policy Review Advisory Commission may

be the subject of hearings, but the inability of the Commission to achieve unanimity does not bode well for positive action.

It is hard to dispute the wisdom of Abel Wolman referred to at the beginning of this paper. We will probably have to wait for the next crisis for the Congress to take any action to straighten out national water policy.

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