
Appendix E
“Let’s Get Back to Work”
Speech to Water Resources Congress
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Let's Get Back to Work

The time has come for the Water Resource Developers of this country to start rolling up their sleeves and getting back to work. We have been holding back long enough. In fact, we have been resting so long that we have gotten somewhat out of condition, and before we can truly get the machinery of water resource development into high gear I expect we will have to go through a training period. Two years ago-and even last year to some extent-I did not feel as optimistic or confident as I do now that there will be a major upturn in the development of our nation's water resources. Today I will review with you some of the reasons for this change in attitude and prospects for the years ahead.

In looking back over the resource development program in our country there are several periods which seem to have clear identity and character and which we need to recognize and understand - "Understand" because each has taken a logical place in the process of adjustment associated with American Water Resource Development. These periods are relatively short and generally quite recent.

Some here might be surprised to learn that several major Corps of Engineers projects started as make-work projects in the depth of the Depression: Fort Peck in Montana, Bonneville Dam on the Columbia River, Lake Texoma on the Texas-Oklahoma border and Conchas Dam in New Mexico, to name a few.

The 1927 flood on the Lower Mississippi took over 300 lives and drowned thousands of miles from Cairo to the Gulf, and the hurricane-spawned flood at Lake Okeechobee in 1928 took 1,836 lives. In the 1930s there were floods in Kansas and Pennsylvania, California and Kentucky, New England and in the Ohio and Mississippi Valleys. The latter alone left a million people homeless. At almost the same time our prairies were stripped and dust filled the air and covered the earth over thousands of square miles.

Consequently, from the mid 1930s to mid 1960s there was a strong national movement to control the nation's waters to recover from drought and also to prevent loss of life and property from flooding. There was an equal enthusiasm to develop our waterways and hydroelectric power productivity after World War II. Admittedly, there were lulls during these periods such as the no-new-start policy of President Eisenhower and a very strong opposition to "Pork Barrel" development such as expressed by Harold Ickes and Justice Douglas.

Environmental Period

For a variety of reasons the steam began to go out of the development attitude in the early 1960s. Some of the reasons included the growing competition for monies in Southeast Asia, the national concern over the environment, the emerging preservationist attitudes, and, probably of more importance, the complications of economic analysis and over-emphasis of the value of benefit-cost ratios. In any event, by the late 1960s the passage of the National Environmental Policy Act brought a leave-it-alone philosophy based on a belief that only nature can improve on nature.

We can relate to the 1970s as the decade of the environment for the water programs—a decade of diminishing investment, increased regulation and changing methods of doing business. In my opinion, we have emerged from the 1970s with a 10-year record of lesser growth than our national interest in natural resources deserved. On the positive side, we have accommodated the national environmental objectives in our planning and project development to the point that a return to a period of development could be accommodated with full and proper responsibility for the environmental effects of such development. It was an interesting period. Some of you still remember the Cross Florida Barge Canal and the Alaska Pipeline controversies; Judge Ritchey and Lock and Dam 26; the issue of the constitutionality of the Appropriations Committee authorizing construction; the struggles of Merrimac Park, and the Cache River. And let's not forget the Snail Darter and Mrs. Furbish's Lousewort or some 85 lawsuits. As for regulation, I would guess we issued 175200,000 permits in the 1970s and probably we spent well over \$1 billion in writing EIS's and in delays in projects associated with NEPA.

Conservation Period

So you may ask are we ready now to embark upon a major investment program in the water resources area? You and I may be, but I do not believe the Nation is ready.

We could surely do it, but there seems to be yet another period through which we must work our way before we have exhausted the alternatives to development, and also learned how to develop our resources in a manner which truly best serves the national interest and future generations. That period, and the one we are entering as we start the decade of the 1980s is a period of conservation.

This new emphasis on conservation may turn out to be one of the most significant features of water resources management and development in the decade ahead. I believe we are going to see the conservation ethic dominate public policy in the eighties as strongly as the environmental ethic dominated the seventies.

At present I cannot tell you how long this will last. However, it will take some time to develop fully and define clearly President Carter's national policy for conservation and then to implement that policy within the Executive Branch.

What is conservation? This is the first question. We in the Corps of Engineers have worked for two years to define conservation and with some success. It will take at least that much longer to educate ourselves and the public even if we assume our definition acceptable. To us, conservation is not merely using less. In the case of water, it also means saving and conserving in an economical fashion. This view is not unanimously accepted.

The conservation period will also involve new and modified activities including a complete review of operating procedures, emergency planning for drought, reuse of waste water, reevaluation of all consumptive uses of water, and others. Certainly, our experiences with energy shortages should be ample cause to manage our water efficiently.

Certainly, another water shortage is in the future. We should soon be able to demonstrate that reductions of the total national need for water by conservation measures, while quite valuable, will in themselves be insufficient to manage the Nation's water resources properly and prepare judiciously for times of shortage. We, as a Nation, will have to do more to assure a good supply of water to all our people. We will have to store during time of plenty, and to transport large quantities of water during times of shortage. But first we must demonstrate that the need surpasses the fruits of merely using less. Then the conservation period will be on its way into our history and in proper balance with the environmental objectives.

Impediments to a Development Investment Program

Besides needing to resolve the requirement that a good national conservation program must precede a new developmental program, there are several remnant procedural problems which also must be solved before we could proceed rapidly with a major investment program. Even if the green light came on tomorrow, we are not ready. These procedural problems include cost sharing and our national policy and review capability.

Cost Sharing: Most of the cost sharing decisions seem either to be behind us or are now being considered by the Congress. After years of fighting, the water resource operators have accepted, happily or otherwise, a waterways user charge. That tough issue is no longer holding good navigation projects hostage. This step alone should clear the way for much needed investments in the Nation's water transportation system. Other cost sharing issues remain. Perhaps the most complicated and delaying is Section 221, which is presently causing 35 states difficulty in agreeing to formal cost sharing with the Federal Government on recreation and water supply. Until this is relieved, we will continue to have many investment opportunities beyond our reach.

National Policy and Review Capability: The water resources program has been delayed all too often because of the absence of a strong decision-making process at the Executive level of Government. The Water Resource Congress has known for years what to do and that is to establish a National Water Resource Council under a strong, separately-appointed leader, comprised of agencies with principal interest in water resource development and which has the responsibility and authority to review policy matters and make decisions.

We must be careful to keep project review separated from policy review or the Water Resources Council, as I envision it, would become bogged down in detailed engineering matters at the expense of policy decisions. Leave the engineering to the agencies that will ultimately be responsible for building the project.

Prioritizing Investments

If we can remove cost sharing constraints and policy delays, then we are well on our way to starting up the water resource development machinery.

But there does remain one additional and critical matter...in many ways the most difficult to handle. It has to do with the credibility not only of the program but of the

individual projects in the minds of the people of the country and, of course, the Congress.

Before I start this, I would like to make it clear that I am not against benefit-cost ratios, and I am certainly not advocating their abandonment.

In recent years I have gradually but surely reached the conclusion that as valuable as the benefit-cost ratio may be, it has become an over-used and misused tool.

Its value in establishing investment priorities has been weakened because few people really understand the details of deriving the benefit-cost ratio. It is a target for attack by those who oppose the project...a target not only because of the arithmetic on which it is based, but also as the symbol of indifference to environmental and other non-computable costs and benefits.

Further, history has proven time and again that economic analyses are so ultraconservative that the costs are invariably on the high side and the benefits; without exception, on the low side.

Last year's flood damage prevention record of \$19.4 billion, compared to total historical federal expenditures for our flood control program of \$18.2 billion, supports the view that we've been conservative overall in estimating the benefits which will be achieved by our projects. Incidentally, that \$18.2 billion expenditure figure includes all design, construction, and operation and maintenance costs incurred through fiscal year 1979.

The authorizing document for the St. Louis, MO, local flood protection project was 1.07 to 1. The project, essentially complete in 1975, cost \$81.3 million. Through 1978 the project had prevented \$292.5 million, in damages over three times the cost of the project.

Additionally, the benefit-cost ratio has led us to make some very serious mistakes. Perhaps I am too hard on the benefit-cost ratio and should be speaking more about its philosophy. Today, every functional element of a project has to be individually supported economically and the last added increment must return greater benefits than its cost. This latter view has frequently caused the head of navigation to be immediately downstream from major man-made or natural obstacles, thereby assuring that any extension of the waterway must first overcome a major cost.

In another case, our economic analyses have forced us to define projects too **narrowly**. In the Missouri River, the Pick Sloan Plan is really six separate projects

which go from the dam to the headwaters of each of the six reservoirs between Gavins Point and Fort Peck. Initially, this seemed to make good sense. But, in fact, this solution has left relatively short stretches below the dams which are subject to extensive erosion problems and, unfortunately, benefits from the projects have already been allocated. The value of the land eroded cannot offset the extremely high cost of bank protection.

What all of this adds up to is my belief that with the environmental objectives and the conservation objectives, economic analysis is only one part instead of the whole...and, I believe, a less important part than we have allowed it to appear.

Having developed our water resources to the extent that we have, I strongly advocate an approach which resolves problems based on national need rather than on pure economics.

Had this approach been used on the Missouri River, we would have one project from Gavins Point to the headwaters at Fort Peck. Thus the erosion problems, which must now be addressed as individual problems, would have been part of the total project and properly charged against total major project benefits.

Of immediate importance is the ongoing National Navigation Study. My hope is that that study will identify the best water transportation system which the natural features of this country can support. It should be a total system, and we should not require that each and every segment, addition or improvement meet some arbitrary, economic test. We need the entire system to be that which best serves the total national interest.

Similarly, in the hydropower study, we should never repeat the serious errors of the 1960s by failing to provide power because of an economic evaluation predicated on such volatile data as the cost of alternative sources of fuel. This Nation needs all the energy which can be reasonably obtained through competent engineering and design, and we should provide that energy in the national interest. We need not be constrained by economic evaluations other than to identify the least expensive investment to meet the Nation's needs.

In summary, I definitely believe and sense that there is an emerging national attitude which, in due course, will lead us to another period of development of natural resources and particularly water. However, before this attitude bears fruit, we must wring out all of the water to be gained by a well thought out and mature national conservation program. And equally important, we must get our act together on identifying projects which will be developed. These projects will be of a character

which will be fully compatible with the environmental objectives which were clearly established in the 1970s and conservation objectives being developed in the 1980s.

There is important work to be done. And the way now, for the first time in years, seems to be clear. We will get there by keeping our eyes on selected targets and by working diligently within the mainstream of our national objectives. The logic of proper development of our Nation's water resources is now acceptable to most of America. Still, the credibility of the program needs attention. Basically, the likelihood of undertaking such a program will increase proportionately to its credibility...that is, a program which conforms to environmental and conservation objectives and follows an acceptable system for setting investment priorities. That is where the Water Resource Congress can be most effective.

Happily, your efforts are already being felt in the cost sharing, project review and priority-setting areas. I would suggest you keep up the good work to resolve those procedural steps as soon as possible. Then you, as the leader in water resource development undertakings, will be in a good position to roll up your sleeves and get back to work.

Before concluding, I'd like to tell you about what Senator Bob Kerr of Oklahoma said in a speech to the people at Wichita, Kansas, who were interested in extending navigation on the Arkansas River from Tulsa to Wichita, Kansas. That was on 26 November 1962. At the conclusion of that speech he said something I will always remember. He said, "Be careful what you dream...it might come true."

I think that statement could apply today. I really do believe that the circumstances that we now have in this country are encouraging. We are really conquering environmental problems. We are willing to face the conservation ethic head-on. If we get those two issues behind us and integrate them in our project planning, there is no reason in the world why we cannot get back on a positive investment program in water resource development.

In my judgment, it's dreaming time again...but you'd better be careful.

Thank you very much.