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FINANCING WATER PROJECTS: WHERE DO WE GO FROM HERE?

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WESTERN WATER LAW IN TRANSITION

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Ten years ago at the 1975 National Conference on Water in Washington, D.C., I asserted that the Federal water resources development program was politically dying, if not already dead (Caulfield, 1975). This statement was viewed as shocking, coming from one of the architects of the Water Resources Planning Act of 1965 and the Director of the U.S. Water Resources Council from 1966 to 1969.

Senator Gary Hart had my full analysis published in the Congressional Record (June 19, 1975). But he made it clear, as was politically prudent, that my views did not represent his views. Governor Lamm, as you will recall, then strongly supported development of water resources via the Bureau of Reclamation without equivocation. The concept that the State of Colorado and its local public bodies would need to gear up to shoulder the full burden of intrastate water resources development was not then perceived, or if perceived, not publicly voiced. The late former Congressman Aspinall, after review of my full statement, fundamentally agreed with my position and stated privately to me in 1975 that "perhaps the States should begin to finance their own water projects, except those which are of interest to them in interstate streams" (Letter of June 6, 1975). But, in February 1977, Aspinall said publicly in a telephone newspaper interview that the coalition in "support for water
resources in the South, the West and with some of our friends in the East" had been "broken" (Rocky Mountain News, February 27, 1977: p. 6).

Now, in June 1985, we know that the Bureau of Reclamation has had no significant new authorizations since the Colorado Basin Projects Acts of 1968, which authorized the Central Arizona Project and certain Upper Basin participating projects in Colorado. And the last Omnibus River and Harbors Act, authorizing planning studies and projects for the Army Corps of Engineers, was in 1976.

The Reagan Administration came into office politically supporting water resource development projects. However, it adroitly avoided positive actions during its first term in support of bi-partisan Congressional efforts to obtain new authorizations. Also, as would be expected in the current budgetary situation, the Administration has sought to avoid appropriations to the Bureau of Reclamation and the Army Corps of Engineers for new starts and to pare down appropriations for current construction.

In 1984 much Congressional effort went into the formulation and passage of Omnibus River and Harbors bills, but adequate political support was not to be found. This year that effort is continuing with some modest encouragement and support from the Administration (Dawson, 1985).
In both the Carter and the Reagan Administrations, the principal issue has been identified as greater cost-sharing by states and other non-federal interests as well as sharing in up-front financing. One might think, given highlighting of this financial issue, that, once resolved, Federal water resource development activities then would renew their historic course. This possible happening, I very much doubt.

Briefly, the major points in my analysis of why the Federal water resources development programs of both the Bureau of Reclamation and the Army Corps of Engineers are "dying, if not already dead," are these:

First, with the achievement now of multifaceted economic development throughout the country, the national interest is no longer conceived by most relevant political actors as requiring Federal water resources development as a key public means to encourage settlement and economic development of the West, first the humid Middle West via navigation projects of the Army Corps of Engineers and then irrigation/hydroelectric power projects for the arid West. Also the national interest is no longer conceived as calling for economic development of underdeveloped regions (e.g., the Tennessee Valley or the Missouri River Basin) via comprehensive multiple purpose interstate river basin planning and development. The major river basin developments have largely been accomplished on the Columbia, Colorado, Missouri, Ohio, Tennessee, Arkansas,
Rio Grande, Delaware, Susquehanna and St. Lawrence Rivers. Many river basin plans have been formulated for rivers, particularly in the East such as the Potomac and the Connecticut Rivers; but local political support has never been sufficient to obtain much, if any, development.

Second, the political emergence of a national urban majority in the latter half of this century, supported by the Supreme Court's "one man, one vote" rule, in the election of Congressmen, provides a fundamental underlying explanation. Irrigated agriculture and other traditional Federal resource development concerns are not a major interest of this relatively new national majority; they are foreign to it. The urban majority is primarily concerned with urban problems: housing, transportation, health, welfare, and water pollution, urban open space and recreation areas, energy, etc. Urban water supplies have always been the responsibility largely of city government. Except where Federal multiple-purpose projects can most economically add to urban water supplies, local water supply interests are not interested. They are not about to abdicate their general responsibility to, say, the Army Corps of Engineers (see Note 1). Also, an active, educated segment of this urban majority is concerned with the rural and natural hinterland, expressed effectively now for more than twenty years in the environmental movement. These urban people (not
rural people) strongly support establishment of wilderness areas, national parks, wild and scenic rivers and fish and wildlife enhancement. For many of them a "dam project" can never be justified.

Third, the futility of reservoir storage as the primary means of flood control has been widely recognized since the mid-1960s. Much of the credit for this change in national thinking can be attributed to study and promotional effort over many years by Dr. Gilbert White, Emeritus Professor of Geography at the University of Colorado. As a result of his efforts and those of his followers, "non-structural" measures such as flood insurance, flood plan zoning, warning systems, flood-proofing of buildings, etc. came to be seen as the most appropriate means to be employed in flood hazard mitigation. And most of these measures require largely state and local (not Federal) non-structural implementation.

Fourth, continuing agricultural surpluses argue against, from a national point of view, further Federal irrigation development or even major rescue projects where agriculture dependent upon groundwater is involved. This issue of agricultural surpluses has been involved in irrigation project authorizations for some thirty years or more. During this period, few if any irrigation projects have been authorized without a clause prohibiting the production of surplus crops.
with the Federally provided water for the period of then expected surplus. Now the expectations of surpluses are continuing and even greater.

There is no question, however, that there is much land, for example, in Arizona, that could be developed for irrigation if water were available. Also, there is no question that the Ogallala aquifer—which now sustains substantial irrigated agriculture production in Texas, New Mexico, Oklahoma, Kansas, Colorado, Nebraska and South Dakota—will be largely depleted in the next century. Civil engineers, also without question, could bring water from the Columbia River or the Yukon River in Canada to the lower Colorado River Basin and from the Missouri, lower Arkansas and/or the Mississippi River to replace much, if not all, of the Ogallala groundwater. Given the continuing agricultural surpluses in the foreseeable future, it is equally clear that economic and political factors argue very strongly against any further major Federal irrigation investments (Caulfield, 1984).

The Carter Administration, and so far, in the Reagan Administration, the Executive Branch and the Congress have refused to deal head on with the fundamental policy problem of redetermining the national interest in water resources. They and the Congress have chosen, as I have said before, to see it only as a cost-sharing and finance-sharing issue. If and when
an Administration does choose to deal with this fundamental problem, it will need to come to grips with this basic question: what is the future national interest in Federal water resources development, operation, maintenance, rehabilitation and conservation? I would guess that such future Administration would find that much, if not all, of the 13,000 miles of commercial navigable inland waterways should continue to be a Federal operation, maintenance and rehabilitation responsibility with a high proportion of total costs borne by commercial navigation interests. I would guess, further, that major flood control, such as on the Mississippi River would be found to be in the national interest as a non-reimbursable Federal cost. Also, I would guess that any other major water resources development or redevelopment project directly impacting a multistate region would be found to be in the national interest if justified by benefit-cost analysis from a national point of view. Finally, I would guess—but with as much less confidence—that the national interest would be found to justify block grants to states for intra-state water resource development and redevelopment, either singly, or as part of a general public works infrastructure program, in which sewage treatment grants might also be included. The "carrot" of such Federal grants might be tied, of course, to the "stick" of reforms in non-federal
financial and conservation practices, and requirements for environmental safeguards.

On the basis of this past, present and future reading of Federal water resources development policy, what should state, local governments and private enterprise do? Actually several of the states and local governments in the West already have seen this handwriting on the wall for some time and have taken their own actions in response.

The Governor of Wyoming proposed to the legislature in 1982 that the state appropriate $100 million per year for six years to develop the state's water resources. The legislature responded by authorizing an initial $50 million program. One gets the impression from newspapers in recent years that the program has not gone full speed ahead. But Wyoming clearly has decided to look largely to its own resources for further water resources development and not to the Federal government.

Montana and Oregon, are also acting in the direction of taking major responsibility for intrastate water resources development. In 1982, Montana authorized a water resources development program, based upon financial resources derived from mineral severance taxes, that will enable the state to participate financially in federal projects or undertake them itself if this is more advantageous. After the drought of
1977, Oregon's voters authorized the issuance of bonds totalling $600 million to develop water supplies for irrigated agriculture and other purposes in eastern Oregon. California and Texas have long had active water resources development programs of their own, based upon their own financial and technical capabilities; they will undoubtedly continue such development as they perceive the need.

Colorado has also seen the handwriting on the wall while, at the same time, not giving up its pressure and hope for funding of currently authorized Federal projects. Politically important water leaders of Colorado, both inside and outside of government, appear to believe increasingly that the state, in cooperation with local public bodies, should see to the development of the state's remaining water supplies sooner rather than later. Much of the water available to Colorado for consumptive use is now being utilized. The remaining undeveloped water involves the state's claim to some 700,000 acre-feet or more of unappropriated Colorado River water plus the water which in the few years of markedly above-average precipitation "wastes" to contiguous states. This "wasted" water provides the contiguous states (e.g., Nebraska) with more water than Colorado is obligated to provide them under interstate compacts and judicial decrees. Within the internal political context of Colorado,
presently and in the foreseeable future, state and local public action could well be taken to develop these remaining supplies for municipal and industrial use, including energy production. Thus the adverse effect of expected growth in Colorado's population and industry upon the state's irrigated agriculture, via transfers of water use out of agriculture, could be minimized.

Underlying the internal politics of Colorado, an ideology would appear to be strongly held that involves the goal of preservation of the state's agricultural industry. This industry is strategically based upon irrigated agriculture. Belief in agricultural preservation would appear to be held by a wide array of leaders including urban leaders. This would appear to be true despite the probable fact that purchase of water rights from agricultural interests would be cheaper, in the short run, to meet increasing municipal and industry water needs than development of the state's remaining water supplies. This ideology, in a rapidly urbanizing state, is clearly different than that operative nationally in Washington, DC.

In 1981, with support of both urban and rural political leaders, the Colorado Water Resources and Power Authority was established by the Legislature and approval of the Governor with a $25 million trust fund.
and authority to issue tax-exempt revenue bonds for
the purposes of planning and participating in the fi-ning of federal or non-federal water resources de-velopment projects. And in 1985, in response to a
statewide coalition of water leaders, the Colorado
Legislature has given very serious consideration to an
increase in the state sales tax of one-fourth cent
that would be dedicated to provision, in effect, of
long term equity capital for water resources develop-
ment.

Local governments and public districts also pos-sess the capability to undertake water resources de-velopments, particularly to meet municipal and indus-trial water needs. In the 1970s Fort Collins built
Joe Wright Reservoir up near Cameron Pass, with finan-cing under the Small Reclamation Projects Act adminis-tered by the Bureau of Reclamation. But there is no
doubt that the City could easily have financed the
project with its own bonds. Also, the Northeastern
Colorado Water Conservancy District has constructed
and fully financed, through revenue bonds, the bring-ing over from the western slope of the Rocky Mountains
of 48,000 acre-feet of water annually at a total in-
vestment cost of $80 million, for municipal and indus-trial use. In this way the pressure to transfer water
out of agricultural use for municipal and industrial
use is being relieved on the eastern slope.
To the greatest extent practicable, I foresee that development of the remaining water supplies of Colorado will be undertaken cooperatively with private industry, particularly energy and other mineral industries. No doubts are expressed that Colorado has all the technical talent that is needed for water resources development without planning by, or technical assistance from, the Federal government. Thus the situation of the nineteenth century and the first half of this century, when both financial capacity and adequate technical talent were not available to the state, no longer exists.

All of what I have said is only by way of prologue to the remarks of the speakers to follow. They will discuss several different means of financing water resources development in some detail.

In closing, I would merely like to list the means, singly and in combination, as I conceive them, in financing of water projects:

1. Federal grants and/or loans to states and local governments;
2. Colorado Water Resources and Power Authority revenue bonds and bonds of local governments and public districts;
3. Dedicated state tax revenues (e.g., dedicated sales tax revenues);
4. Financial grants or low interest loans from the state to needy local governments and public districts;

5. Private developments with investment tax credit and other Federal tax advantages;

6. Tax-free industrial revenue bonds sponsored by a public body on behalf of a private enterprise;

7. Purchase of water rights by urban interests from willing agricultural sellers; and

8. Contractual arrangements (or sale and lease-back arrangements) between cities and high priority agricultural water right holders so that cities are assured adequate water supplies during extended droughts.
NOTES

1. Army Corps of Engineers. In the mid-1960s the Corps initiated the conduct of some dozen or more urban water supply studies. None of them materialized into Corps projects. This was true even where the studies involved major interstate urban areas, such as Metropolitan New York, New Jersey and Connecticut and Metropolitan Chicago, Northwestern Indiana, and Southeastern Wisconsin.

