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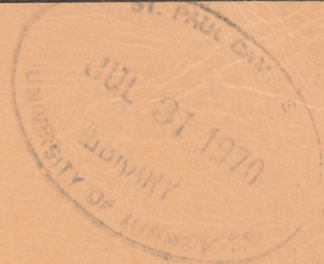
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# INSTITUTIONAL FACTORS AND THE TEXAS WATER PLAN

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Early in 1969, the Texas Water Development Board released to the public "The Texas Water Plan". It is an ambitious proposal to develop the water resources of the state, to supplement these resources by an import of water from the Mississippi, and to distribute supplies throughout the state via several coordinated transfer systems. The Board has declared the plan to be feasible and is giving it further detailed study.[12]

It seems obvious that a plan of this nature should present many problems to those responsible for its implementation. Problems of engineering will be formidable; economic problems of feasibility, cost-sharing, financing and water pricing will be critical; and an analysis underway has identified some institutional factors which may present problems more important than any of these. Institutional arrangements necessary for interstate diversions, for management of impoundments and transfer systems, for establishing and maintaining claims to water resources, and for developing repayment capabilities among water users will be essential to the implementation of the plan. They will require careful study, considerable private and public discussion, and finally some reasonable political-economic decisions.

Several institutional factors have been recognized as important to the diversion of water from the lower Mississippi River. This proposed source of supplemental water is an interstate stream; its waters are shared by several states through which the river flows. It is navigable for a considerable portion of its length. It supplies water for agriculture, municipalities, industries, and recreational uses. There are existing water rights which must be recognized and protected from any diversion. There is considerable economic dependence on water within the basin. For many people "Old Man River" has significant subjective value. There is and will be important personal and public resistance to any diversion of water. But to make a water transfer system functional, a diversion in perpetuity is necessary, the rights to the diverted water must be granted, and an agreement relative to compensation (if any) for the diverted water must be negotiated. The Congress will be called upon to judge the feasibility of the proposed diversion, to insure the rights to whatever flow may be diverted and to provide for federal participation in this phase of the total water development. To this end, studies of the flow of the river, the uses of water in the basin, and the existing institutional arrangements associated with uses are underway.

If diversion is approved, the transfer system must be created. This will require consideration of other institutional factors. What will be the interests of federal, state and local governments in this system? How will they cooperate to design and construct its facilities? How will the system be financed?

The federal government will be concerned with such matters as (1) an equitable apportionment of "surplus" water among states and regions receiving it, (2) an equitable sharing of costs among states and the federal government, (3) the coordinated management of the system in the water transfer, flood control and conservation storage which will be provided, and (4) the indiscriminant application of federal conservation and reclamation policy. The state will be interested in such things as (1) allocation of water among various uses according to state established priorities, (2) the distribution and use of water without unwanted restrictions, (3) pricing and sale of water according to policies and procedures developed by the state, and (4) management of the system to serve the special interests of the state. Local governmental entities, including special districts, authorities and county governments, will be interested in (1) maintaining their activities in water supply management, which probably serve a local interest, (2) guarding their investments in facilities and protecting their positions as debtors, and (3) preserving other interests for which they may have been specially created.

Some interests of these various governments may be harmonious; some may be conflicting. To the extent that each government represents different constituencies and different points of view, we can expect conflicting interests. There must be resolution of conflicts through negotiation involving legislators, agency heads, important interest groups and other concerned persons and groups.

For the purpose of creating and managing the transfer system, we have conceived of three alternative, cooperative relationships of federal, state and local governments. Each has precedence in various existing institutional arrangements; each one is a possible relationship with respect to the Texas Water System.

One is a relationship dominated by the federal government. It would reflect the considerable federal interest and would give the System a "project" orientation. Development would proceed within the framework of the Federal Reclamation Act, as amended. Design and construction of the transfer system would be a cooperative endeavor involving state and federal agencies. Costs would be shared in traditional ways, with the federal government assuming the responsibility for flood control while municipal and industrial water storage would be a responsibility of state and local governmental entities. Management will probably be characterized by that of the larger, reclamation projects of the western states which involve deliveries and sales of water to municipalities, industries and agriculture. The restraints of the Reclamation Act would be imposed on agricultural water users, unless the Congress specifically exempts them from the Act's provisions. [14] Emphasis would probably be given to the agricultural use of water, since this has been the orientation of reclamation projects.

A second, possible intergovernmental relationship would not reflect dominance by any particular government. It would provide for a "partnership" approach to the planning for and development of the system. It could be organized as an intergovernmental council or commission, with representatives from federal, state and local governments and with advisory groups as required for the expression of various interests and points of view. Such an organization might develop some significantly new approaches to water development, e.g. cost-sharing arrangements based on projections of benefit accrual at all levels might be developed. This would be quite different from legislatively-defined interests in water developments. This approach should provide for management which would give more attention to municipal, industrial and recreational uses of water. A council or commission responsible for management may tend to question traditional priorities in water use and base their allocative and pricing policies on concepts of multiple use and measures of value of water in various uses. Vesting of the managerial function in a commission might also increase the chances for a congressional exemption from the land limitation provision of the Reclamation Act. Relief from this restraint will be eagerly sought by agricultural users of water. Perhaps the broader scope of interest and activity of a commission might serve to influence congressional decisions to provide for flexibility in management of this large water supply system.

A third method for organizing various levels of government in a planning and developmental effort would give the intergovernmental relationship a state-and-local interest bias. Texas has recently reorganized its state "water agencies" so that it has a relatively strong Water Development Board. [11] The Board, with some technical assistance from federal agencies, local authorities and districts, and technical consultants could take principal responsibility for the design and construction of the transfer system. Cost-sharing and financing would be worked out by federal, state and local governmental entities. It seems likely that this approach to the creation of the system might require the state to assume a greater share of costs than would a different approach, e.g. the first intergovernmental relationship described. Acquisition of the greater decision-making powers may require a larger contribution by the State. This intergovernmental relationship would also provide for a strong state-local responsibility in management. The legislation prescribing the responsibilities of the various governments could even provide that the transfer system would be turned over to the state for operations and maintenance after all or a major portion of it were complete. There are state and local agencies which would welcome such a delegation of managerial authority because it would allow them to serve the state's interests as they see them.

These alternative, intergovernmental relationships have been suggested to stimulate thought about possibilities for organizing the efforts of various levels of government in the implementation of the Texas

Water Plan. Each of them, plus some other alternatives perhaps, need careful economic evaluation. Their effects have only been hypothesized so far.

At the user level, there are important problems of institutional arrangements to provide for the contractual purchase of water, its distribution and use. Prospective users of imported water have already been warned of the need for quasi-governmental agencies-master districts or import authorities-with powers to contract with state and federal governments, to tax users in various ways, to acquire lands for distribution systems and to sell water as retailers of that good. [12] Organization of master districts will not be easy in the established, irrigation areas of the state. One obstacle will be the existing organizations of water user. [4] These include irrigation districts, drainage districts, fresh water supply districts, navigation districts, etc. Each has special authority, responsibility and a large share of autonomy. Most will tend to guard their special interests jealously.

Many water users will not want to give a master district the powers it will need to function as a retailer and distributor of imported water. To give important rights such as eminent domain and the taxing power to another governmental entity will be difficult for some.

Another critical problem involves the rights to certain water supplies. Some important users of water in Texas pump it from underground aquifers, to which they have exclusive right. [8] If imported water should be stored underground, these aquifers would be recharged, and landowners would realize windfall benefits. It would seem to be necessary that the state or the master districts involved acquire these rights to underground water. With them they can control water use and can manage the underground and imported surface waters to achieve optimum use of both. Even without underground storage of imported water, some problems of rights and use may develop. Attempts to use conjunctively public surface water and private underground water may cause considerable conflict, especially for the master district that has contracted to purchase water from the transfer system and pay for it by sales to users.

The benefit-cost evaluation of the proposed transfer and distribution system suggests strongly the need for an efficient institutional structure to support the system. (1) While institutions incorrectly devised can be corrected at a later date, the time lag is of consequence. Adjustments usually come only after a problem becomes acute, and in the meantime resources are inefficiently used.

If the Texas Water System ever becomes a reality, it is not likely to fail-not in the ordinary sense of that word. But it could fail to efficiently perform because of unnecessarily high institutional overhead, i.e. excessively high taxes and tolls, disputes over use of water, poor repayment experiences and an overall rate of output below the system's potential. Perhaps this kind of failure can be avoided by careful attention to the institutional arrangements as the plan is implemented.

- (1) The ratios of primary benefits to costs, with a discount rate of 3.5 percent, is 1.1.

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