WATER DEVELOPMENT AND PLANNING FOR NEW MEXICO

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An orderly treatment of the subject of water development and planning in New Mexico seems to me to require at the outset some discussion of the fundamental law governing the appropriation of water in our state. While this law may not be immutable it must be the point of departure in planning and rights heretofore established under it must be protected.

Our constitution provides that the unappropriated waters of the natural streams of the state, perennial or torrential, belong to the public; that these waters are subject to appropriation in accordance with law; that beneficial use is the basis, the measure and limit of a right to the use of the public waters; and that priority of appropriation gives the better right.

Our surface water code which was enacted in substantially its present form in 1907, and our groundwater code, which was enacted in 1931, have these provisions as their cornerstones. Thus, the appropriation doctrine of water rights is the basis of New Mexico water law. In fact, the appropriation doctrine was followed first by custom and then by law in New Mexico long before the state constitution was adopted in 1912.

Under our surface water code no one may initiate construction of works for the appropriation of water without a permit from the state engineer. The state engineer may approve an application for a permit only upon a finding that there is unappropriated water available for the benefit of the applicant.

With a permit from the state engineer an appropriator of water may change the purpose for which the water was appropriated or may change the place of diversion, storage or use of his water provided that no change shall be allowed to the detriment of others having a right to the use of the public waters.

Similar provisions are applicable to our groundwaters except that the jurisdiction of the state engineer extends only to underground basins declared by him. When the state engineer finds that the waters of an underground supply have reasonably ascertainable boundaries, and when he so proclaims, he assumes jurisdiction over the appropriation of such waters. He proclaims or declares an underground water basin by the issuance of an appropriate order and publication of a description of the boundaries. Thus far, the state engineer has declared 22 such basins embracing a total of a little more than 27,000 square miles - more than a fifth of the state's area.

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Groundwater outside the declared boundaries of underground water basins belongs to the public and is subject to appropriation, but anyone may develop this water and put it to beneficial use without a permit from the state engineer.

In addition to our constitution and statutes, seven interstate compacts and the Supreme Court decree in Arizona v. California, et al., govern the appropriation and use of water in New Mexico.

Our statutes authorize the creation of irrigation and conservancy districts as political subdivisions of the state. These agencies are empowered to contract with federal agencies for water projects and to levy water assessments and ad valorem taxes to pay the costs of construction and operation and maintenance for surface and underground water projects.

Since its creation by an act of the state legislature in 1935, the New Mexico Interstate Stream Commission has been deeply involved in the planning of the development of the state's water resources. The state engineer is by law a voting member and secretary of the Commission. The eight other members of the Commission are unsalaried and are appointed by the Governor to represent major irrigation districts or sections of the state.

Section 75-34-3, N.M.S.A. 1953 Comp. provides in part as follows:

> "Said Commission (the Interstate Stream Commission) is hereby authorized to negotiate compacts with other states to settle interstate controversies or looking toward an equitable distribution and division of waters in interstate stream systems, subject, in all cases, to final approval by the legislature of New Mexico; to match appropriations made by the Congress of the United States for investigations looking to the development of interstate streams originating in or flowing through the state of New Mexico; to investigate water supply; to develop, to conserve, to protect and to do any and all other things necessary to protect, conserve and develop the waters in the stream systems of this state, interstate or otherwise; . . ."

The Interstate Stream Commission has had major responsibility in the formulation of the state's position and decisions on major water projects and in the interstate and intrastate negotiations so essential to the authorization and funding of these projects. This important work of the commission has included public meetings at which the views of the various local interests were heard and carefully weighed. The Interstate Stream Commission staff has worked closely with the federal agencies in the development of water resources plans.

Most of the comprehensive water resources planning in New Mexico to date involves surface water. Many hundreds of thousands of dollars have been spent in the state's program in cooperation with U. S. Geological Survey to investigate and evaluate our groundwater resources and this work has provided a basis and a plan for the administration of those resources. But little has been spent on plans for comprehensive projects for the development and use of groundwater. This results mainly from the circumstance that groundwater is susceptible to development by private enterprise, without major federal or state projects, and that has been the course of the development of our groundwater resources.

At the present time, more than 90 percent of the 3.08 million acre-feet of water diverted annually in New Mexico is used for irrigation and, speaking generally, competition among various types of use is not intense. Such competition has not yet reached a peak because the industrialization and urbanization which the experts anticipate for New Mexico is just beginning. In 1950 our population was 681,000. In 1960 our population was 951,000. And experts predict that our population may increase to about 1.8 million by 1980. Whether or not these increases will occur depends, of course, on a number of factors, including the manner in which we manage our water resources.

Snipping the record at the limits of my own stream of consciousness of water resources planning and development in New Mexico - which begins in August 1955 - it appears that $525 million worth of water projects have been authorized or completed. And an additional $170 million worth of water projects are presently under consideration for authorization or under feasibility grade investigation.

These figures do not include water projects undertaken by private enterprise or political subdivisions of the state. Nearly all of the projects included are those of the Bureau of Reclamation or the Corps of Engineers. There is in the totals about $7.5 million spent or to be spent by the Department of Agriculture under the Public Law 566 program and about $5 million spent by the New Mexico Interstate Stream Commission on the construction of the Ute Dam and Reservoir project on the Canadian River.

To put the New Mexico program in perspective, I want to spend a few minutes outlining some of the works recently completed, recently authorized, or under active investigation.

Under the Colorado River Compact of 1922 and the Upper Colorado River Basin Compact of 1948, New Mexico may deplete the flow of the Upper Colorado River system by about 800,000 acre-feet annually. Current depletions chargeable to New Mexico amount to about 150,000 acre-feet per year - or about one-fifth of what we are entitled to under the compacts.

The Colorado River Storage Project Act of 1956 authorized a comprehensive plan for the development and use of the Upper Basin share of the Colorado River water. The Bureau of Reclamation has planned New Mexico's share in this development in close cooperation with the state.

The first major unit of the Storage Project to be completed was Navajo Dam and Reservoir on the San Juan River in New Mexico just south of the Colorado line. This unit, with a storage capacity of 1,700,000 acre-feet will store water for the authorized 110,000 acre Navajo Indian Irrigation Project which is under construction and for the recently completed small Hammond Irrigation Project. The reservoir can also furnish an estimated 200,000 acre-feet annually for diversion for municipal and industrial or other uses. It is already providing one of the best boating and fishing lakes in the Southwest.

Also authorized and presently under construction is the San Juan-Chama transmountain diversion project, which will divert an average of 110,000 acre-feet of water annually from the tributaries of the San Juan River in Colorado through 27 miles of tunnel and closed conduit for use in the water short Rio Grande Basin in New Mexico. This diversion through the Continental Divide will provide about 52,000 acre-feet of water for irrigation and 53,000 acre-feet for municipal use by the City of Albuquerque. It will furnish 5,000 acre-feet to maintain a permanent pool of 1200 acres for recreation in the Corps of Engineers Cochiti Reservoir which is under construction on the Rio Grande just above Albuquerque.

Total cost of work completed or under construction in New Mexico as a part of the Colorado River Storage Project is about $270 million.

The Central Arizona Project legislation approved by the senate in the last session of the congress would also authorize the Animas-La Plata Project in Colorado and New Mexico as a participating unit of the Colorado River Storage Project. This project would irrigate about 16,700 acres in New Mexico and would supply 13,500 acre-feet of municipal water to communities in northwestern New Mexico. Project costs allocated to New Mexico are about $26,000,000.

The Central Arizona Project bill approved by the senate would also authorize Hooker Dam and Reservoir on the Gila River in New Mexico as a unit of the project. The legislation would authorize 18,000 acre-feet of consumptive use in New Mexico in addition to the 31,000 acre-feet decreed to New Mexico for its present uses by the Supreme Court in Arizona v. California, et al.

The supply made available by the Hooker unit would probably be used principally for municipal and industrial purposes. The unit also would yield substantial recreation and fish and wildlife benefits. The Hooker unit is estimated to cost about $25,000,000.

One of the most serious water resources problems facing New Mexico among other western states is the large and increasing depletion of water supply by nonbeneficial plant growth such as salt cedar in and along our streams. Water lost in this manner in New Mexico is variously estimated at from one-half to one million acre-feet annually.

An attack on this problem was launched with the authorization of the Middle Rio Grande Project in 1948. Under this authority and subsequent authorizations of additional project units the Corps of Engineers and the Bureau of Reclamation, in a splendid example of interagency cooperation, have completed more than $75 million worth of flood and sediment control works, channelization, drainage improvement and salt cedar eradication. When works now authorized, including the Cochiti and Galisteo flood control reservoirs, are completed expenditures will total about $138 million.

This figure does not include the cost of flood and sediment control works on Rio Puerco and Rio Salado currently under feasibility investigation by the Corps of Engineers. Preliminary estimates indicate that these works will cost in the neighborhood of $23 million. With the authorized units of the Middle Rio Grande Project on the river, the Rio Puerco and Rio Salado, if uncontrolled, will contribute nearly all of the annual sediment load of about 7,000 acre-feet but only 6 percent of the water to Elephant Butte Reservoir.

It is estimated that these accomplishments by the Corps and the Bureau along with work being done by the state will ultimately salvage about 165,000 acre-feet of Rio Grande water annually. Results of the work already completed account in a large measure for the fact that New Mexico is steadily reducing its debt under the Rio Grande Compact which amounted to 382,400 acre-feet on January 1, 1968.

We are also plagued by nonbeneficial growth on the Pecos River. The Bureau of Reclamation has estimated the total amount of water that could be salvaged from such plants under present conditions on the river in New Mexico and Texas at about 150,000 acre-feet per year. A Bureau report emphasized that unless corrective action is taken nonbeneficial consumptive uses may be expected to increase markedly in the next 50 years, ultimately depleting the river by some 340,000 acre-feet annually - or almost the entire flow. In 1964 the congress passed legislation authorizing the appropriation of $2.5 million for the suppression of salt cedar on the Pecos River, and the work is now underway.

Los Esteros Reservoir was authorized for construction by the Corps of Engineers on the Pecos River about 7 miles above the town of Santa Rosa in 1954. This unit, which will have a capacity of 505,000 acre-feet, will be operated in conjunction with the existing Alamogordo Reservoir to

provide flood control on the Pecos River. The unit will also serve the purpose of extending the life of the Carlsbad Irrigation District's upstream irrigation storage capacity. Storage capacity in the District's Alamogordo Reservoir which initially had a capactiy of 156,000 acre-feet, is being lost by siltation at the rate of 1,700 acre-feet per year. The estimated cost of the Los Esteros unit is about $12 million. The congress has appropriated $100,000 for preconstruction planning in this fiscal year.

The Bureau of Reclamation has underway a feasibility investigation of the Brantley Dam and Reservoir project on the Pecos River near Carlsbad.

Brantley Reservoir would have a capacity of 520,000 acre-feet and would cost in the neighborhood of $35 million. One of the principal purposes of the Brantley project would be replacement of the existing McMillan Reservoir which provides about 33,600 acre-feet of terminal storage capacity for the Carlsbad Irrigation District. McMillan Dam has been found unsafe under the Bureau's present-day standards and subject to modification.

The Brantley unit would provide desperately needed flood protection for the city of Carlsbad. Construction and operation of the unit also would make it possible to salvage a considerable amount of water by clearing the salt cedar from the delta of the McMillan Reservoir. Clearing of this salt cedar has been deferred to avoid accelerated ensiltation of the remaining storage capacity of the McMillan Reservoir.

In 1963 the New Mexico Interstate Stream Commission completed the 110,000 acre-foot Ute Dam and Reservoir project on the Canadian River near Logan, New Mexico. The project was financed by a mineral severance tax bond issue authorized by the state legislature in 1959.

Allowing for a permanent pool of 50,000 acre-feet for recreation, it is estimated that Ute Dam and Reservoir can serve a diversion demand of 25,000 acre-feet annually. The Bureau of Reclamation has estimated that the installation of spillway gates at Ute Dam could increase this yield to nearly 50,000 acre-feet.

The Commission has set the price of water untreated in the reservoir at 3 cents per thousand gallons, but has entered only one long-term contract. This contract, with the State Parks and Recreation Commission is for 50 acre-feet annually. The Bureau of Reclamation is presently investigating a pipeline transmission system that would take water from Ute Reservoir to eleven eastern New Mexico communities which are now meeting their needs by groundwater mining. Preliminary estimates indicate that such a project will cost in the neighborhood of $68 million.

The Department of Agriculture has contributed substantially to water resources conservation and management in New Mexico. The program for the rehabilitation

of community ditch systems in New Mexico has been particularly effective. In this program the Soil Conservation Service provides technical assistance, the Association of Soil Conservation Service pays up to 70 percent of the cost of the work, the state pays up to 15 percent of the cost and will lend the water users the remaining 15 percent at 2½ percent interest. In a period of about 3 years 133 systems have been rehabilitated at a cost of about $1 million to the Department and $150,000 to the state. This program literally starts at and then nurtures the grass roots.

Considering that New Mexico has only about 2.5 million acre-feet of surface water available annually under our seven interstate compacts and the decree in Arizona v. California et al., I think I would not step out of bounds by saying that we have a pretty fair comprehensive plan for the control and use of our surface water resources. The plan makes provision for irrigation, municipal and industrial uses as well as for the growing demands for water based recreation and fish and wildlife habitat. And we are pretty well along in the construction of that plan.

Almost without exception, the federal agencies working with water resources in New Mexico have coordinated their efforts and have cooperated well with each other and with the state. These agencies have been appropriately sensitive to the wishes and objectives of the state. This desirable situation is attributable in considerable measure to the fact that the state, for many years, has been diligent in working with the federal agencies and to the fact that New Mexico's congressional delegates have very effectively represented the state's interest in water resource matters. We cannot reasonably complain that the federal government has dominated water resources work in New Mexico to the detriment of the state's interest. We would like to see the water resources activities of the federal agencies expanded.

We are withdrawing about 1.6 million acre-feet of groundwater annually for irrigation and other purposes. Most of the 1.6 million acre-feet of groundwater pumped is being "mined" - that is, in many areas, the average annual withdrawal from the aquifer exceeds the average annual recharge and water levels are declining. A large portion of the renewable surface water resources available to New Mexico within the limits of the interstate compacts and the court decree have not yet been put to beneficial use but the prospects are that this supply will have been put to such use under the projects and plans which I have outlined within a few decades.

There is some prospect that New Mexico's useable water resources can be augmented by desalting and by weather modification. Rainmaking techniques that would cause increases in runoff economically significant to our region are not yet sufficiently well established for us to rely on them in planning for the decades ahead.

Techniques for desalting are sufficiently well established to set a floor on water supply, or if you prefer, a ceiling on water cost. A supply of

fresh water adequate for all conceivable needs is available if the value of the use for which it is needed is high enough. The prospects for using desalted water for irrigation in New Mexico do not seem imminent.

Thus it appears that one of our most pressing problems is to find a water supply beyond our current entitlements to continue the economy based on groundwater mining.

The goal of developing a water supply beyond our current entitlements suggests a look beyond our state borders and participation in comprehensive regional planning. And the importance of the goal is emphasized by these points.

1. Our current irrigation economy cannot be sustained without tapping new sources.

2. At the right price, the demand for water for irrigation in New Mexico is virtually limitless and this demand cannot be met to the extent that is probably feasible without tapping new sources.

3. Projected municipal and industrial requirements cannot be met without tapping new sources or cannibalizing our existing irrigation economy. Some current requirements are being met by such cannibalization.

Recent developments in technology such as improved pumps, equipment such as "moles" for tunnelling and prospects for low-cost energy from nuclear-fired generators make it more reasonable now to consider what once seemed grandiose schemes for regional water transfers such as exportation from the Columbia River to the Colorado River, the North American Water and Power Alliance concept which would bring water from as far as Alaska to the entire western United States and the tapping of the Mississippi-Missouri River system for west Texas and eastern New Mexico - a proposition currently being studied by the Bureau of Reclamation and the Corps of Engineers.

Recent recognition of water supply as a national problem - arising in large measure out of the 1961 report of the Senate Select Committee on Water Resources - has brought about changes in political thinking which were necessary to serious consideration of regional water transfers. The report recognized a need for increased state participation in water resources planning and development and paved the way for important legislation such as:

The Water Resources Research Act of 1964

The Water Resources Planning Act of 1965

The Water Quality Act of 1965

The Land and Water Conservation Fund Act of 1965, and

The Federal Water Projects Recreation Act of 1965.

Each of these acts contains provisions to encourage and implement state participation in water resource studies, planning and development.

As most of you know, New Mexico's Senator Anderson played an outstanding role in the preparation of the Senate Select Committee report and the passage of this legislation.

The Water Resources Planning Act, which was introduced by Senator Anderson, created a federal Water Resources Council. The members of the Council are the heads of the five principal water-oriented departments of the federal government. A function of the Council is coordination of water and related land resource planning activities of federal, state and local agencies.

The Act authorized the creation of river basin planning commissions composed of representatives of the affected states and federal agencies; provision is also made for representation of interstate compact agencies and international commissions where appropriate. River basin planning commissions may be formed for a river basin or group of related river basins under conditions carefully specified in the Act.

Title III of the Act authorizes federal grants to the states to assist them in developing and participating in the development of comprehensive water and related land resources plans. Under this program, the federal government, within the limits of funds allocated, matches dollar for dollar the state money spent for comprehensive water resources planning over and above the amounts spent by the state for that purpose in fiscal year 1965.

On May 5, 1966, the Governor designated the Interstate Stream Commission as the "state agency" to administer New Mexico's program under Title III of the Planning Act. New Mexico's application for financial assistance under the provisions of Title III was dated June 3, 1966 and was the first to be submitted.

Our budget for the Title III program in this fiscal year is $80,200 - one-half state and one-half federal money.

In 1959, the New Mexico legislature created the State Planning Office. The act directed the State Planning Office to function as the governor's staff agency in planning for the long-range comprehensive, balanced development of the state's water resources, the orderly expansion of public facilities and other planning matters.

A 1961 amendment to the planning act deleted the specific reference to water resources planning and broadened the activities of the State Planning Office by providing that it "shall function as the governor's staff agency in planning for the long range, comprehensive, balanced development of the state's natural, economic and human resources and public facilities. . ."

Under its authority, dating from 1959, the State Planning Office is preparing a comprehensive resource plan for the state. This comprehensive planning is being accomplished in part with funds made available under Section 701 of the Housing Act of 1954. The Planning Office has given the Interstate Stream Commission and the state engineer responsibility in the planning of the water and related land resource aspects of the comprehensive plan and has transferred Section 701 funds to these agencies to carry out the assignments.

It is our present intention that the Interstate Stream Commission will direct the comprehensive water planning to be done under Title III independently of the Planning Office but in careful coordination with the other comprehensive resource planning activities of that office.

In very broad outline, we see the job somewhat as follows.

The first phase of the planning work requires an inventory of the natural resources of New Mexico and the current state of development and use of those resources. The State Engineer Office with the cooperation of the Interstate Stream Commission has completed an inventory of the water resources of New Mexico and the current uses of those supplies for all purposes.

The second phase of the program will include the development of projections of the distribution of population and economic activities in the state. This portion of the program is underway and is being done for the Planning Office principally by the Bureau of Business Research of the University of New Mexico.

The third step, involving water and related land resources, will be to determine the manner in which water requirements for the projected distribution of population and economic activities might be met with supplies available to the state under existing interstate agreements and the United States Supreme Court decree in Arizona v. California, et al.

This third phase of the program will include:

1. Study of alternatives for the use of water remaining available under contract with the Secretary of the Interior at Navajo Reservoir on the San Juan River;

2. Study of alternatives for the use of water potentially available from the Gila River system by exchange through the proposed Central Arizona Project;

3. Study of alternatives for the use of water available under contract with New Mexico Interstate Stream Commission from Ute Dam and Reservoir and other works on Canadian River;

4. Study of ways and means of reducing consumptive use of water by uneconomic plants and reservoir evaporation and means of improving irrigation practices;

5. Study of the potential for meeting water requirements arising from the anticipated urbanization and industrialization of the state's economy by the redistribution of water among types of use within the framework of New Mexico law; and

6. Reconnaissance grade studies of storage and transmission facilities needed to serve the projected distribution of population and economic activities.

The federal agencies and the state already have studies of varying intensity under way on several of the items of the third phase of the program and it is quite possible that conclusions on these items will be reached soon.

For example, as I have already mentioned, the Bureau of Reclamation has under way a feasibility investigation of a project that would use Ute Reservoir water that New Mexico is entitled to under the Canadian River Compact to serve 11 communities in eastern New Mexico. Also, the congress has recently authorized the Secretary of the Interior to enter contracts for water from Navajo Reservoir that will consume about one-half of the 100,000 acre-feet of consumptive use that the Secretary has found can be served from Navajo Reservoir. Water delivered under the contracts authorized will be used in industrial cooling, largely for power generation by huge coal-fired plants in San Juan County.

The fourth and last step in the program will be to determine the prospects for importation of water and possibly desalting of saline waters

to 1) maintain present uses and 2) furnish projected requirements that cannot be met with presently available supplies. What I have said about the prospective early commitment of all or most of our surface water entitlement and the extent of groundwater mining in New Mexico indicates the importance of this last step.

Comprehensive water resources planning for New Mexico can be - and I believe it must be - fitted into the national program being directed by the federal Water Resources Council under the Planning Act of 1965.

It is the goal of the Water Resources Council to have regional framework studies - or Type I studies - covering the entire United States completed by 1973. The Council contemplates that the product of these studies will be comprehensive plans providing projections of economic development translated into demands for water and related land resource uses, along with projection of water availability as to both quantity and quality. Using these projections, the plans would outline the characteristics of projected water and related land resources problems and the general approaches appropriate for their solution. The framework studies would provide general guides to future water resource development.

The Council contemplates that these Type I regional framework studies will be made by river basin planning commissions created pursuant to the Water Resources Planning Act, by interagency committees, such as the Pacific Southwest Inter-Agency Committee, or by other federal-state cooperative mechanisms.

No river basin planning commissions have yet been created for any of New Mexico's river basins; but five Type I studies covering New Mexico's river basins are now, or soon will be, under way. The river basins to be covered in New Mexico are:

The Upper Colorado River Basin, which includes the San Juan River system in New Mexico.

This study is being coordinated by the Pacific Southwest Inter-Agency Committee, composed of representatives of appropriate federal agencies and the seven states of the Colorado River Basin.

The Lower Colorado River Basin, which includes the Gila and Little Colorado River systems in New Mexico.

This study is also being made under the general guidance of the Pacific Southwest Inter-Agency Committee.

The Arkansas-White-Red River Basins, which include the Canadian and Dry Cimarron River systems in New Mexico.

This study probably will be coordinated by the Arkansas-White-Red River Basin Inter-Agency Committee, composed of representatives of the federal agencies and the states of New Mexico, Colorado, Missouri, Kansas, Arkansas, Oklahoma, Louisiana and Texas.

The Rio Grande Basin, which includes the Rio Grande and Pecos River systems in New Mexico.

The leadership in this study effort has been assigned to the Interior Department, which will coordinate the efforts of the federal agencies and the affected states.

The Texas-Gulf Coast Basins, which includes Running Water Draw and other minor tributaries in New Mexico.

Coordination of this study probably will be assigned to the state of Texas, since that state has already completed most of the work needed for a Type I study.

New Mexico will participate in these Type I studies, using funds available to us under Title III of the Water Resources Planning Act, along with funds appropriated for water resources investigation by the state legislature.

We have asked Region 5 of the Bureau of Reclamation to take the leadership in pulling together the product of the Type I regional framework studies into a New Mexico Basins report on a comprehensive state-wide water plan. Work on this report is now under way; it will draw on and furnish input to the Type I studies.

Region 5 undertook such planning work for the states of Kansas and Oklahoma earlier and I expect that the Bureau will undertake to prepare such reports for some of our other neighbor states.

In this New Mexico Basins project, the Bureau will use the wealth of information and ideas already available as a product of the planning efforts of the Corps of Engineers, the Soil Conservation Service and other federal and state agencies, along with the continuing output of these agencies.

It will be the responsibility of the Interstate Stream Commission, as a part of its Title III program, to coordinate the activities of the various federal and state agencies having capability to contribute to the development of a comprehensive water plan for New Mexico.

A few examples of the kind of input to a comprehensive water plan that can be arranged under the Interstate Stream Commission Title III program might be appropriate at this point. We are cooperating with the Water Resources Research Institute of New Mexico State University in its attempt to develop a mathematical decision model for design and operation of the water supply of the Pecos River system in New Mexico, with the thought that the availability of such a model could have wide and useful application in comprehensive planning.

We are also cooperating with State University in a study to determine consumptive use requirements of the major irrigated crops in various areas of the state.

The Water Research Institute, under a contract by which a part of our Title III money is transferred to the Institute, is determining the potential irrigable acreage and potential irrigation water demands in New Mexico.

A part of our Title III money is being used to finance the participation of the State Engineer in the United States Department of Agriculture Type IV River Basin Surveys in the Rio Grande and San Juan River Basins. These surveys are directed toward a study of water and related land resource problems amenable to solution by application of the programs of the Department of Agriculture.

New Mexico is currently spending about $260,000 annually in the United States Geological Survey cooperative program for water resources measurements and investigation. The information acquired in this program is essential, not only for current administration of water under our law, but also for comprehensive planning for the future. This program should be expanded, but budget restrictions are forcing us to limit the program so that we can participate in the regional planning activities generated by the Water Resources Planning Act. Since the Geological Survey cooperative program uses federal matching funds, we cannot use the matching funds available under Title III of the Planning Act to expand this program. We have reduced the amount of state money contributed to the Geological Survey program only slightly, but because of the increasing cost of doing business, there has been more of a decline in activity under the program than we like to see.

As I have already indicated, our comprehensive planning will include a look beyond our state borders for water supplies beyond our current entitlements. Obviously this is a matter of some concern to our neighbors. A state having an apparent surplus of water will - as it should - jealously guard its future. The 1965 laws which I mentioned earlier contain provisions limiting even the study of water transfers from one area to another. Nonetheless, I believe that the information being gathered and the ideas being exchanged in the preparation of the Type I regional framework studies in the western United States will show, before it is too late, that these limitations can be adjusted without jeopardy to any interests. I am convinced that inter-regional transfers, which will benefit both the area of surplus and the area of deficit in water supply, can be worked out.