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University of Arizona College of Agriculture

EXTENSION SERVICE

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THE PROPOSED WATER CODE

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Near the close of the last regular session of the legislature, a bill was introduced, providing for a modern water code similar to the codes of Oregon, California, Nevada, Wyoming, and New Mexico. But, owing to the deadlock on the appropriation and other important measures, the water code bill received scant attention. It is impossible, however, that the friends of irrigation should be discouraged over the failure of this first effort, and undoubtedly the bill, more or less modified, will be brought before the attention of the next legislature.

In addition to the states named above somewhat similar laws are in operation in Nebraska, North Dakota, Colorado, Idaho, Utah, Canada, and Australia. In fact the only states of the arid West where irrigation is practiced extensively that do not provide state adjudication and administration of streams are Washington and Arizona. In the case of Washington there is a very clear reason, namely the riparian interests west of the Cascade Mountains have blocked the efforts of the irrigated districts, all of which lie east of the mountains. In Arizona, however, there are no riparian interests and the reason for our archaic water laws or lack of laws is not at all apparent. Even in Washington the water masters who distribute the water are appointed by the county commissioners.

The fundamental principles of the modern water code are that the ownership of water flowing in streams rests in the public—that is, the State; that water rights are merely rights to use the water beneficially; that the State should determine the vested and initiated rights to the use of water, and then should exercise complete control of its waters in the interests of the public and of those who use water or in good faith propose to use it. These principles were embodied in the customs and laws of ancient irrigated countries, but modern Europe adopted the riparian theory of ownership. Of our Western States, the first to apply the earlier principles in a com-

prehensive water code was Wyoming, where, under the leadership of Dr. Elwood Mead, such a code was passed in 1891. The adjudication feature of the Wyoming law has been called "the chief jewel of Dr. Mead's accomplishment in the United States" For several years the code was administered by Dr. Mead himself, and at no time in the twenty-five years would it have been possible to induce the state to abandon the code. The Wyoming law has been copied widely by other states, always with some modifications of minor importance. Perhaps the best code today, according to impartial critics, is that of Oregon. This code was written by Judge Will R. King, now chief counsel of the U. S. Reclamation Service, and was passed in 1909. It has been administered efficiently since that time by the state engineer, Mr. John H. Lewis. The Oregon law has been attacked in state and federal courts, but finally the United States Supreme Court sustained it in every point. The California law was fought in the legislature by hostile riparian interests, and when it was passed the referendum was invoked against it, but the people, in 1914, sustained it by a large majority.

In two states, Utah and Idaho, the adjudication feature of the water codes lacks the effectiveness found in the codes of other states, and in both states there is great unrest on this point. In Idaho the last legislature provided for a code commission to revise and codify the irrigation and drainage laws of the State and to draft such legislation as is deemed advisable for the better administration and more rapid development of irrigation and drainage industries. The commission in its recently published report states that water litigation in Idaho is increasing to an alarming extent, that the present methods of adjudication are cumbersome and inflexible, and that some way must be devised by which adjudications may be made less expensive and more equitable. The plan proposed by the commission is, in effect, the same as that in force in Wyoming, Oregon, and five other states. In Utah, as is stated in a recent letter, the people "who are interested in irrigation are hopeful that the state's half-hearted policy in water-right adjudication is nearing its end," and steps are being taken to have the next legislature bring that state also into line with the Wyoming-Oregon system.

It is only a question of time before Arizona, likewise, will adopt the same workable and effective system, and the object of this paper is to present reasons why it should be done at once.

The proposed law provides for a state water commission, whose duties are to ascertain and record all existing water rights, to grant

new rights, for beneficial use of unappropriated waters, to those who make proper application; to protect recorded rights by regulating diversions, and some miscellaneous duties which will be presented a little further on in this paper. These functions and authority may be placed upon a commission of three men, or, perhaps better still, they may be concentrated upon a single officer in the interests of economy, efficiency, and speed, as in the case of our State Land Department. The functions of such commissioner or commission will be discussed in detail separately.

First, the State Water Commission is empowered to determine and record all existing water rights. This is done on the initiative of the commission, or of a very few water users. Instead of accumulating thousands of pages of personal testimony, much of which is prejudiced, conflicting, and nebulous, as is done at present, surveying parties are put in the field to determine the amount of water available, the systems of ditches and their capacities, the amount of land in cultivation, the priorities, the soil and crops raised, and the duty of water. An entire watershed is taken at one time, since obviously all the rights on a single river system are interdependent. All the data and testimony obtained are placed open to inspection for a definite time, and in case of contested appropriations public hearings are held. Finally, an order of determination, establishing the several rights, in priorities and amounts, is made and filed with the clerk of the State Supreme Court, and with the county recorders in those counties through which the stream flows. The court then affirms the determination or remands it to the commission for revision. Any water user has the right of appeal to the court, or, within six months after the court has entered its decree, may apply for a rehearing. There is no possibility, therefore, of an injustice being fastened upon any party or person. When the adjudication is completed, a certificate, in the nature of a deed, is issued to each man who is found to have a valid water right.

The method of adjudicating water rights in Arizona at the present time is unfortunate in several ways. In the first place the rights of only a few litigants, or at most those in one county, are considered in one suit. The Maricopa county court is incompetent to adjudicate the water rights of Yavapai County, and yet the determination of the relative rights in the two counties is necessary before all the land holders can know just how much water they can depend upon in dry years. Water titles should be as secure as land titles, and are so in Wyoming, but they can never be secure under our present laws. The purchaser of land in Graham County, for

example, merely takes his chance on the future. If additional development further upstream requires all the water of dry seasons, he has no reasonable recourse. In speaking of the new code in Oregon, the state engineer said: "No longer will the solemn spectacle be endured of a court being compelled to divide up public streams among several litigants who happen to be parties to a suit, without regard to the rights of others on the same stream, or to the rights of prospective appropriators."

Again, under our present system, no account is taken of the amount of water available in the streams, nor do the courts give due consideration to the duty of water, that is, the proper economic amount needed for the land. In the Salt River Valley the amount of water per acre granted in the Kent decision is nearly twice the amount which the Reclamation Service is delivering to the water users, although the water users are quite satisfied with the amount they are receiving. This condition obviously must discourage new appropriations and further development of our water resources.

The cost of the adjudications is borne by the land owners. In other States it has been found that the average cost to each claimant is from \$3 to \$16.

Second, the next function of the water commission is, logically, the control of new appropriations. Here again the contrast with our present methods is marked. At present, an irrigator goes to the stream and helps himself regardless of other and older rights. His duty consists only in posting a notice at his ditch head and having it recorded at the county recorder's office. No officer is expected to consider the validity or good faith of the appropriations or the adequacy of the water supply. There is no limit to the amount of water that can be claimed, and in the majority of cases the appropriation notice is so worded as to be ridiculous or meaningless.

Two months ago a representative of the legal department of the U. S. Reclamation Service was in Tucson to examine the records of appropriations in the Pima County records. It was found to be a hopeless task. In many cases it is impossible to tell where the water location was intended to be, the amount claimed is not stated, and the acreage to be irrigated is very rarely stated. One notice reads, "All the water running down Canyon del Oro." Another says, "All the water running through ranch"; indeed, in this case two neighbors used the same expression—an excellent foundation for future trouble. Another reads, "All the water in the San Pedro River, or as much as is needed." Other lone ranchers have not hesitated to appropriate all the water of the Santa Cruz, or of the

Gila River. Some entries show simply range and township, or refer to some adobe ranch house which has since become a ruin and forgotten. One record says, "At this stake," a description which would at least make later appropriators sit up and wonder. Sometimes the amount of water is given by stating the dimensions of the ditch. One appropriation is for "All which ditch will hold." Often the amount claimed by individuals is for from 5,000 to 100,000 miner's inches, in some cases more than the maximum flood flows of the stream. Manifestly, under this system it is impossible that a bona fide investor could ascertain the amount of unappropriated water.

Under the proposed law an appropriator applies to the State Water Commission on a standard blank form. If there is no unappropriated water in the stream, then, in justice to existing rights, the application is rejected. If there is a sufficiency, then an amount of water adequate for the irrigation of the particular acreage is granted and a certificate is issued which is analogous to a land deed. In many cases there are flood waters available, and therefore the application is for a storage reservoir. In other states this system has proved to stimulate the building of reservoirs very rapidly. The fees charged for this service are used for the support of the water commission. The fees are small and do not hinder any honest effort, but they do tend to discourage the continued holding of initiated water rights by land speculators.

Third, another function of the commission is the distribution of the water to the various appropriators. This, of course, can be done only after the streams have been adjudicated. Already in three valleys in Arizona the division of water is made by water commissioners appointed by the county courts, and it must be very apparent that continuous administrative work of this kind should be done by an administrative board rather than under the authority of a purely judicial body.

Fourth. The State of Arizona appropriates a sum of money annually for the measurement of streams within the state. This is done in the interest of future development. At present the money is handed over to the U. S. Geological Survey to be expended by their agents. The locations for gaging stations are made by those agents, the records of measurements are sent to Washington, and after some lapse of time are published from there. A State Water Commission should have a voice in the expenditure of the state's money within the borders of the state.

Fifth. It is the duty of the State to investigate its irrigation and power possibilities, another function which devolves properly on a water commission. Last year the State of Oregon appropriated \$65,000, and an equal amount was added by the U. S. Reclamation Service to prepare plans and estimates of cost for the construction of a number of large irrigation and water power projects, so that the people might have conservative figures on the cost of bringing water to their lands, or transmitting power from neighboring streams or reservoirs. With this fund cooperative surveys have been made for twelve projects involving 795,000 acres. The adoption of a similar policy in Arizona would stimulate irrigation and storage activity here as it has done in other states.

Sixth. Arizona is one of seven states vitally interested in the waters of the Colorado River. Who is to protect the interests of this state in those waters? Few people realize that already the entire minimum flow, which occurs in August and September, has been appropriated. There are still large areas of desert land in western Arizona which it is hoped may some day be irrigated. California also is clamoring for more water from the Colorado. There are feasible reservoir projects in the states to the north of us, but will those states permit their valleys to be submerged in order to irrigate Arizona? Big problems are looming up and must be solved in the near future. A well organized State Water Commission fortified by experience in similar problems, is absolutely necessary to protect Arizona's interests in this interstate stream. It is very desirable, too, that the seven interested states should have approximately uniform water laws.

Seventh. Still another function of a State water commission is to examine and pass upon all plans for dams, headworks, and canals to determine their adequacy and their safety. The people living below a dam particularly, are dependent upon the stability of the structure. The failure of the Otay Dam, which caused the loss of life near San Diego last January, would not have happened had the present State Water Commission been in existence. Many dams in Arizona, including the Walnut Grove, the Wolfey, the Lyman, and several expensive dams on the Salt River, have been washed out. It is not only good business but essential to public safety that all plans for such structures in the future be referred to competent engineers, who are not dominated by promoters or penny-wise boards of directors. The plans for headworks and canal structures likewise, require careful checking to determine their capacity and their safety.

Perhaps the best way to estimate the advantages of the proposed water code is to examine the testimony of those states where the code has been in force for some years. From Wyoming official reports I quote as follows: "Wyoming is justly proud of her irrigation laws. In no other state are water rights perfected and held with less resort to the courts for aid and protection." From another Wyoming report: "During this (two years) period 2,127 permits have been granted and a large number rejected, but * * * there has been but one appeal from the decision of the State Engineer." Wyoming has adjudicated all of its streams.

The State Engineer of New Mexico reports: "It has been found that the irrigation law enacted by the State is a great improvement over the conditions that prevailed before that time, and it is undoubtedly the best general system of irrigation law and regulation."

Colorado reports that the state water laws are adequate for the initiation of new rights and are adaptable to the economical adjudication of old rights, but that the law should be modified so that the State will be a party to all adjudication proceedings.

Oregon's testimony is given in an address by John H. Lewis at the Tacoma Water Code Conference last July. I quote as follows:

"The Oregon water code has given general satisfaction to irrigation and water power interests, also to promoters of new enterprises, and to the public generally. A vast majority of the irrigators are pleased with this law for the reason that as soon as their water rights have been determined and recorded, a water master with police power is placed in each district to distribute the water. Injunction suits with their inevitable delays and great expense are no longer necessary to prevent a few "water hogs" from stealing their neighbors' water. Difficulties in distribution can now be promptly adjusted. But few arrests have been made so far. These, however, have been sufficient to cause water users to respect property rights in water, just as they would any other class of property rights

"It has also given satisfaction to the promoters of new enterprises, for the reason that it is now possible to find all available information as to water-supply and vested rights at one central office. If it appears from these records that surplus water is available for new projects, a definite, simple, and inexpensive plan is provided for initiating new rights to such water.

"The public generally is satisfied with the law. It has added value to existing water rights through security of title, and freedom from long and expensive litigation.

"During six years' operation of the water code, over 400,000 acres of irrigated land, or two-thirds of the irrigated area of the state, was surveyed as a basis for water right adjudications. Oregon's record of existing water rights has been nearly completed. To have settled these rights in the courts would have cost an enormous sum and taken an indefinite period. All new rights initiated under this law are just as definitely determined and recorded."

As for Arizona, it can not be said that this state is "different" and does not need the modern water code. Indeed, as a general truth, it may be stated that the more arid a state the more is the need of state ownership and administration of streams. Just now there is almost no irrigation development going on; there are no new canal enterprises, and pump development reached its climax about three years ago. At present, too, there is no cry of water shortage, for Arizona is passing through a cycle of wet years, and the Gila and other rivers are wasting water to the sea. But soon there will come another dry cycle such as those from 1899 to 1904 and from 1910 to 1914, and then we shall hear again the call for reservoirs, and the contention between various canal associations. In the midst of plenty let us not forget how dry Pima and Pinal and Graham can get, when months go by without rain enough to more than lay the dust. Let us give the irrigator such legislation as will protect his rights without recourse either to the shotgun or to the courts. That same protection will attract new appropriators to build reservoirs and to utilize the water which is now lost to the ocean.

Primarily agriculture will be benefited by a new water code, but indirectly other industries are also interested in this matter. Managers of mining companies in Arizona state that one of their most difficult problems is to obtain agricultural supplies. More agriculture means more and cheaper mining. Arizona cities, too, are being drained of much wealth by purchasing their supplies from other states. The money should be kept near home. It should circulate from country to city and back to country again. The cities, therefore, are interested in the proposed code. And the cattlemen are interested. They need storage reservoirs in many localities, and they need alfalfa for fattening stock. All the people are interested because they own the water, and they desire to see it put to the highest possible beneficial use. It is to be hoped that a wise law, utilizing the experience of other states, will be written soon upon our statute books.