

Some Papers on the Subject of

NATIONAL AID IN THE
STORAGE OF WATER ❁
FOR THE IRRIGATION
OF THE ARID WEST ❁❁

The following Papers have been written from time to time since the opening of Congress, as they have been suggested to the writer by the State papers to which he has referred and the action of the various Congressional Committees.

BY WM. A. HANCOCK.

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National Aid in the Storage of Water for the Irrigation of the Arid West.

Phoenix, Ariz., Dec. 21, 1901.
Hon. Francis G. Newlands,
Washington, D. C.

Dear Sir: I am just in receipt of a copy of your speech of anuary 9, 1901. on water storage, for which accept thanks. I read it soon after its delivery in congress. I also read your bill on the same subject. I have also read with much interest that portion of the president's message on the subject of irrigation. Also the statement of Secretary Hitchcock. I try to read pretty much all that is written on the subject. I have not omitted to read the synopsis of the bill prepared by the committee of seventeen published two days ago.

The great trouble is that very few if any of our lawmakers really understand the subject from the standpoint of the practical irrigator. I have the advantage of you in that respect. Of course I do not understand all the conditions in the arid region on the eastern slope of the Rocky mountains as I do here.

The interstate question does not affect us in Arizona. Another point I want to apprise you of in regard to our condition in central Arizona. The Salt River valley, in the center of which the capital of the territory is located, is irrigated by the water from the Salt and Verde rivers. We have now about 275,000 acres under our ex-

isting canals for which we have acquired title from the United States.

The natural flow of the water from these rivers is not sufficient for the irrigation of this land. The watershed of the Salt river and Verde combined is about 15,000 square miles, or 9,600,000 acres, much of it in a high mountainous region, and yet my observations here for the past thirty-six years, as an engineer, canal builder and practical irrigator, satisfies me beyond a doubt that we require all the flood water from this vast watershed to furnish an ample supply for the complete irrigation of our 275,000 acres. We have the best sites for dams and reservoirs in the world; one on Salt river and two on the Verde, where all this flood water can be stored.

As an engineer I state that the cost of constructing the works to conserve and deliver the water to the consumers would be (if the work of construction was properly conducted) approximately \$4,000,000, or \$14.54 per acre. This land with its present water supply is not worth, taking the average, more than \$30 per acre. With the storage water added to the present supply it will pay to the owners of the land more than 15 per cent on \$100 per acre. You can readily see that the owners of the land can well afford to pay \$1 per acre per annum for fifteen years besides

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the cost of maintenance of the works and delivery of the water. You can also understand that we do not want this flood water stored by any party that would propose to deliver it upon any terms whatever upon other land, public or private, outside of our present canal systems.

I also want to call your attention to the fact that you are, all of you, (I mean members of congress and the government officers generally) over-estimating the amount of land that can be reclaimed by the storage of the flood waters of the streams in the arid west. No substantial success can be realized by any irrigation proposition, either by the government or private individuals if they attempt to irrigate more land than the available water will thoroughly irrigate. An irrigation proposition to be successful must make success possible for the farmers. That is where the money is to come from. The farmers cannot succeed with a half supply of water. I have extended this letter much beyond what I intended, but I have not really found any place to stop until now.

Very respectfully,

WM. A. HANCOCK.

NATIONAL IRRIGATION.

This subject is treated by the president in his message to the congress of the United States in a broad and liberal manner. His treatment of the subject shows that he has earnestly considered it in relation to our national conditions. It nevertheless shows that he does not understand it as the practical farmer and irrigator does in his own locality. The president is most emphatically right when he says, "Whatever the nation does for the extension of irrigation should harmonize with and tend to improve the condition of those now living on irrigated lands." Unfortunately this suggestion of the president is entirely overlooked by the committee of seventeen in the preparation of the bill about to be presented to the congress, just as the principle involved in his suggestion has been overlooked or avoided in every bill heretofore introduced in congress on the subject of national irrigation.

Very much has been accomplished by individual enterprise and and by the associations of settlers toward the irri-

gation of the arid west. Almost without exception, in any of the states, people have settled upon the land and acquired title thereto from the government far in excess of what can be amply supplied with water from the natural flow of the streams from which they expected to derive their water supply. In many cases the water supply was apparently ample and could the early settlers have been protected in their appropriations prosperity would have resulted. Unfortunately the streams upon which they located and from which water appropriations were made had their source in other states.

As the settlement of the arid west continued appropriations of water were made from these streams in other states far above them. In a short time the supply of water for these older settlers was inadequate for their necessities. As the later appropriators were residents of other states no remedy was offered by the laws of the state or in the courts. I cannot refrain from quoting again from the president's message: "A high degree of enterprise and ability has been shown in the work itself; but as much cannot be said in reference to the laws relating thereto. The security and value of the homes created depends largely upon the stability of titles to water."

Here it is apparent the president recognized the fact that the person or persons who construct the canals and divert the water from the natural streams in conformity with the laws of the state should have some title to it, or the right to the use of it, provided the person or persons so constructing the canal and taking out the water from the natural streams have the beneficial use for it.

Fortunately for Arizona there is no room for equivocation in regard to our statutes. When persons associate themselves together by corporation or otherwise for the purpose of diverting water from the natural streams for a beneficial purpose the title to the water rests in the person or persons so diverting the water to the extent of the beneficial use, so long as such use continues.

When the president says "Whoever controls the streams practically controls the land it renders productive, and the doctrine of private ownership

of water apart from the land cannot prevail without causing enduring wrong," he states a truism in one sense certainly.

But under the laws of Arizona no person or persons, corporation or association, can control the stream or the natural flow of the water therein unless by diverting it for a beneficial use, and the irrigation of the land must be the primal use. When it is diverted for the purpose of irrigation the title to the water is vested in the person or persons so diverting it, and if subsequently taken for mining purposes even, the owners shall be entitled to damages from the persons diverting it for mining purposes.

If the settlers, the farmers, choose to form an association or incorporate for the more convenient management of the property, it cannot be material. The persons forming the association or the corporation own and control the water diverted, if they have the beneficial use for it upon the lands of the stockholders or shareholders.

Suppose one who joins in the enterprise, in order to aid in the speedy construction of the works, advances more money and takes more shares than is required for his land, can he not rent one of his shares to a less fortunate neighbor for his land until such time as the neighbor can buy a share? When the neighbor becomes able to purchase a share of stock in the canal is his share worth any more or less than any other share in the canal? Why, then, I say, should we be harping about the water being appurtenant to the land.

The president says, "In the arid states the only right to water which should be recognized is that of use." I agree with the president there, except I would say "beneficial" use.

So long as the company diverting the water, whether it be an association of persons or a corporation, has the beneficial use for the water they should have the right to divert it from the natural stream and when so diverted it is no longer public water.

Both the president and Secretary Hitchcock assert that any action taken by the government in the construction of irrigating works must not interfere with vested rights under state or territorial laws; that the one important thing in the upbuilding of the arid

west is the creation of homes for our people.

I am fully in accord with this principle. The upbuilding of our home country must not be overlooked or neglected while we are doing so much for our insular possessions. In regard to the arid west, the object should be to make home building successful for those who seek to establish homes upon our public domain. While we are doing this we must not forget the pioneers who have broken the road for us. In Arizona they have located their homes, firmly believing that the water available for diversion from the streams would enable them to build up homes for their families.

The experience of a few years shows them that too many people have innocently settled upon the public land depending upon the natural flow of the streams.

They have paid the government for the land and have devoted the labor of years in improving it, trusting that in some way, by some means, the flood waters would be conserved, and they would be enabled to secure enough of this water for the irrigation of their lands. They are willing to pay whatever it may reasonably cost to impound and deliver this flood water, under careful, business-like management, even to the extent of one dollar per acre per annum for fifteen years, if it should be required.

Take for example the conditions in central Arizona, the Salt River valley. We have 275,000 acres of the best land on earth under our present canal systems to which our people have acquired title from the government. The major part of it is now owned and occupied by the pioneers who sought to build up homes for themselves and their children. They knew that it was in the arid west where crops could not be produced without irrigation. They saw the Salt river, wide and deep, for several months, a stream impassable except by ferry. Shall we blame them if they had faith to believe those conditions would continue? Our people know now that for the proper irrigation of the land under our present system of canals we need all the run-off water from the watersheds of the Salt and Verde rivers.

We are trying now to devise some means to secure the money to con-

struct the system of reservoirs to conserve this water to use on our lands. We know that it will be a profitable thing for us to do.

We have the best sites in the world upon which to construct the dams to conserve the water. It will not cost to exceed \$15 per acre and it will add \$50 per acre to the value of the land. Every twenty acres of this land properly irrigated will support a family of five or more people in comfort. This means a population of more than 100,000 people in our city of Phoenix. We believe in the upbuilding of our country; we want to see happy and comfortable homes over every acre of it that can be made conducive to that end. We know from sad experience that in the arid west this condition must be limited to the extent that it can be furnished with an ample supply of water for its irrigation. The investment of money in the construction of the dams to create the reservoirs to conserve the run-off flood waters from the watersheds of the Verde and Salt rivers will be safe and profitable for private capital, or for the government.

It will not cost to exceed \$4,000,000 if the work of construction is properly conducted. We can pay \$300,000 per annum for the use of this water if we can get it. The cost of the maintenance of the system and delivery of the water should not exceed \$50,000 per annum. Our people can afford and will gladly pay \$5 per acre in annual installments of one dollar per acre, commencing after the construction of the first reservoir. This would be \$1,375,000. We can safely promise to pay off the whole debt, principal and interest, in thirty years. From that time the water should not cost our farmers over \$1 per annum per acre.

If this flood water is so conserved and devoted to the irrigation of this land it will support a population of more than twice the number of people now in the whole territory. It will mean the upbuilding of prosperous homes on every twenty or forty acre tract of land in the valley.

If from any unfortunate concatenation of circumstances this run-off flood water should be diverted to what is now public land outside of our canal systems, it would destroy the hope of future prosperity that many of our people have relied upon, and, what would

be worse, induce many people to settle upon outside public land that never can receive an ample supply of water for its irrigation. I have used this one instance to illustrate my position. It is not an isolated case. The same conditions to some extent are to be found throughout the arid west. By this I do not mean to say that no more of the public land in the arid west can be made productive without injury to the present occupants of the land, but I do mean to say that congress should carefully consider the suggestion of the president and Secretary Hitchcock on the subject.

The president has taken a broad, sensible and comprehensive view of the whole situation and congress cannot do better than to follow his suggestions, if it desires to further the upbuilding of prosperous homes to the greatest extent that can be accomplished by impounding the flood waters from winter storms and melting snows for irrigation.

The president says: "Whatever the nation does for the extension of irrigation should harmonize with and tend to improve the condition of those now living on irrigated lands. * * * Laws so vitally affecting homes as those which control the water supply will only be effective when they have the sanction of the irrigators; reforms can only be final and satisfactory when they come through the enlightenment of the people most concerned. * * * Our aim should be not simply to reclaim the largest area of land and provide homes for the largest number of people, but to create for this new industry the best possible social and industrial conditions; and this requires that we not only understand the existing situation, but avail ourselves of the best experience of the time in the solution of its problems."

Secretary Hitchcock also in his report discusses the irrigation question in a liberal and comprehensive manner, showing that he is thoroughly informed on the subject as a national question and that he fully realizes what it means for the future development of the country, if it is properly understood and treated by congress.

On one point in the secretary's report I want to say a word in explanation. He says: "Enough work has been done by private capital to demonstrate the

fact that water conservation and the diversion of large rivers are practicable, but, like many other works of great public importance it cannot be made a source of profit. The works of reclamation already constructed have, as a rule, been unprofitable, and capitalists are no longer seeking opportunities for investment."

I say without fear of contradiction that the primal cause for the failure of many of the irrigation propositions is that the promoters have sold water rights for and have attempted to irrigate far more land than they could supply with an ample amount for its irrigation.

Many other propositions have failed for the reason that they were merely schemes gotten up by promoters for the purpose of beating the capitalist out of his money. Others have failed by reason of the bad management of the promoters who had no practical knowledge of the work of construction or of irrigation.

The secretary says again: "Two distinct conditions are to be clearly distinguished in the problem of water conservation for the development of the west. On the other hand there are locations where the agricultural lands along the rivers have been brought under irrigation, and there is a demand for water to an extent far exceeding the supply, and where all of the flood water, though stored, would not suffice to satisfy the demands of the lands now partly tilled. The other contrasting conditions is where there still remains vast bodies of public land for which water can be provided by means of reservoirs, or by means of diversion from large rivers whose flow cannot now be used. Here the construction of works of reclamation in no way affects lands now in private ownership."

The question of national aid to irrigation has been before the people and before congress for the past ten years. Up to the present time little if anything has been accomplished.

No bill embracing the broad and liberal ideas and suggestions of the president's message and the report of Secretary Hitchcock has ever been presented to congress. The bill formulated in the committee room of Senator Warren by the committee of seventeen, about to be introduced in congress, is but a little in advance of the Newlands

bill last year.

The provision that where a large portion of the land that can be irrigated by the water from any reservoir, constructed under the provisions of the act, is now occupied, the owners thereof may secure a water right for an eighty-acre tract, is but a mockery. Those lands have been secured under the homestead and pre-emption laws and in a great measure are now owned and occupied by the pioneers who pushed their way into the unbroken wilds of the mountains and deserts, securing water for the partial irrigation of their lands.

The recurrence of a few unusually wet seasons has in many places led to the settlement of more people and the occupation of more land than the natural and permanent supply of water would justify. These old pioneers have lived in the hope that by some means the storage of the flood water would eventually enable them to achieve success. If the government proposes to aid in the conservation of the flood water for the more complete irrigation of the arid west why should not these old settlers come in and secure a sufficient supply for their land, provided they pay for it.

They can afford to pay all it will cost to impound and deliver the water and will be glad to do it. The distribution of the water to the old settlers and new ones to the extent that the water will fully supply will be more conducive to the prosperity and upbuilding of our country than any other course the government can adopt.

If congress cannot take hold of it in this equitable, broad and comprehensive spirit the quicker it drops the whole subject the better it will be for the country. The agitation of the subject of national aid, without any result, is a serious impediment in the way of those who seek to secure the investment of private capital in meritorious irrigation enterprises.

WM. A. HANCOCK.

NATIONAL AID IN IRRIGATION.

The bill prepared by the committee of seventeen seems to be dead before it is introduced in congress. If it should be introduced it would seem that it would lack 140 votes of passing the house. That is the best that could be hoped from any such bill.

The Lacey bill, prepared by Congressman Lacey of Iowa, purports to follow the suggestions of the president in his annual message to congress, and Secretary Hitchcock in his report. However, it does not follow the suggestions of the president and Secretary Hitchcock, not even half way. Both the president and Secretary Hitchcock call attention to the fact that in many instances settlers have located upon and acquired title to more land than can be sufficiently irrigated by the natural flow of the streams and that if all the run-off water from the watersheds tributary to those streams could be stored it would hardly supply the necessities of the old settlers.

The Lacey bill makes no provision for the old settlers. The idea that the government will find 1,000,000 acres of land in one body, or lands that can be irrigated from one reservoir, or from any number of reservoirs on one stream or contiguous streams, is simply preposterous. Such a condition does not exist in the arid west, and Congressman Lacey ought to know it. He, as well as the committee of seventeen overlook the vital question in the movement for national aid to the people of the arid west in the storage of water. The bill of the committee of seventeen has been amended so that the old settlers can get water for 160 acres instead of 80 acres. This does not come up to the suggestions of the president or of Secretary Hitchcock, nor is it the best thing for the government to do. The upbuilding of prosperous homes in the arid west is the strong point made in the president's message. To accomplish this the government must take hold of it in the broad and enlightened spirit suggested by the president. The policy must be to accomplish the greatest good possible with the water that can be stored. To accomplish this we must confine ourselves to the limited area of land that can be supplied with an ample amount of water; that is, such an

amount of water as will enable the farmer to produce the utmost that the land will produce, when properly irrigated. If congress should propose to pass a bill providing for the erection of storage dams in two or three feasible locations where the cost would not be extreme and the water from the watershed above the dam would enable the owners of the land to pay back to the government in fifteen or twenty years the entire cost of the works, it would be a very proper thing for the government to undertake to do, and would be in accord with the suggestions of the president and Secretary Hitchcock.

Take, for example, the San Carlos dam on the Gila river in Arizona, which is one of the sites proposed by those who suggest that two or three sites should be selected to experiment upon if anything is done at this session of congress.

The idea is advanced that by the construction of this dam sufficient water can be stored to supply the Indians upon the Pima and Maricopa reservation, and in addition to that 100,000 acres of public land can be supplied with water for irrigation.

The people who advocate this idea disregard entirely the suggestion of the president that the old settler must not be forgotten. Do they not know that a large area of the Gila valley, east west and south of the town of Florence, extending even to Casa Grande and Arizola, on the Southern Pacific railroad, is settled upon and owned by private individuals. The Florence canal owned in part by the owners of the land extends to the south and west from Florence a distance of thirty miles approximately. This canal when in good repair will carry all the water stored by the San Carlos reservoir over and above what the Indians will require, to the land where it can be used. The people who own the land can afford to pay to the government one dollar per acre per annum for ten years besides a reasonable amount for the care and maintenance of the dam and canal. They can secure an ample supply of water for the irrigation of their land.

Shall these old settlers be overlooked and their rights disregarded? Will the government propose to construct a canal parallel to this old canal, or is it expected that new settlers will construct the canal for themselves?

Suppose the government expends one billion dollars to construct the San Carlos dam and makes some equitable contract with the people who own the Florence canal and the lands under it on the lines suggested. Is it not plain and certain that within fifteen years at the farthest the one million dollars will be paid back into the treasury, and it will not just as certain that it will build up a large and prosperous community outside of the benefit it will be to the Indians? This would be a step accomplishing what the president suggests.

I have read with much interest the criticism of Congressman Tongue, chairman of the arid land committee of the house of representatives, published in the press dispatches of February 15, in the bill prepared by the committee in seventeen. It occurs to me that nothing more need be said on that subject.

I do not want it to be understood that I am in the slightest degree opposed to the principal of national aid for the irrigation of the arid west. I would like to see some action taken by congress on this very vital question for the arid west, if it can be accomplished in some practical and business-like method. No such proposition has ever been presented to congress. Every bill that has ever been presented to congress on this subject has a million-dollar steal in it, or a million-dollar gger in the woodpile. As Congressman Tongue says, "Every state and every territory having lands to irrigate, or whose officers think they have lands to irrigate, every owner of great and grants, every transcontinental railroad, every individual or corporate land grabber, will maintain an organized lobby at Washington and will attempt to strip for the fray."

Mr. Tongue might have referred to the fact that within the last year some of the transcontinental railroads have succeeded in having large forest reserves established, including many hundred thousand acres of their worthless lands, for which they secure an order for lien lands to be located anywhere on the public domain. Large quantities of this lien land scrip may have passed into the hands of parties to by their influence or otherwise, and the railroad companies in securing the orders for these forest reserves, it is not quite possible that these peo-

ple are also stripped for the fray? We know enough of that class of people to know that they do not care one cent whether the people who buy their land will ever obtain water sufficient for its irrigation or not, provided they can by some means induce the interior department to locate a reservoir site and prepare for the construction of the reservoir that may possibly afford water for the land upon which their scrip can be located.

The upbuilding of prosperous homes for new settlers in the arid west is not a question which they consider for a moment. They are working for the opportunity to sell their lien land scrip or the land upon which they may locate it. Congressman Tongue has them spotted just about right. I can readily see that the United States government might very properly take some action in regard to the storage of the flood waters in the arid west that would be in accord with the suggestion of the president, and that such action would be a forward step in the development of our whole country just as the improvement of our rivers and harbors by money appropriated from the national treasury was a very important forward step in the development of the resources of our country at that time. Since the inauguration of that policy, after a long and hard struggle in congress, millions on millions have been expended by the government in the continuance of that work. It was necessary for the development of the resources of our common country. The politicians who fought against it used the same arguments that are now used in opposing the policy of national aid for the storage of the flood waters of the arid region for irrigation.

The one great reason why national aid is required is because on the eastern slope of the Rocky mountains the rivers that carry off the flood waters run through several states on their way to the ocean, or in other words, on their way to the Mississippi river, the common outlet for all. In other words it is an interstate question that the congress of the United States alone can control.

The question has now been agitated for ten years and more and absolutely nothing has been accomplished. No bill has ever been presented to congress from which any good result in the direction of inaugurating a policy for

the development of the agricultural resources of the arid west to the utmost extent of the water supply could possibly come. To attempt to go beyond this point means failure, utter and absolute, to the policy, and utter and absolute ruin to all homeseekers who might be induced to seek to build up homes for themselves and their posterity in the arid region. It is up to congress now to try and inaugurate the policy, and start in the right direction regardless of all schemes and schemers, or else admit that it cannot and drop the whole subject.

W. A. H. H. H. H.

