

GREAT SCHEME FOR IRRIGATION.

Utah Arid Land Commission Submits a Most Comprehensive Plan.

IT INCLUDES THE TWO LAKES.

Work Will Cost Five Million Dollars And Increase Land Values Thirty Million.

WELL RECEIVED IN WASHINGTON.

Project Embraces Five Counties and Three of the State's Richest Valleys.

One of the greatest irrigation schemes ever presented to the people of this state and by them submitted to the government of the United States, is that just made public by the Utah Arid Land Commission. The scheme comprehends the expenditure of \$5,000,000 for the conservation of the waters flowing into and through five of the state's most populous counties and embracing, without a doubt, three of the richest valleys in the entire west. The project provides for the deepening of Utah lake as already proposed; the construction of a diverting canal across the head waters of the Duchesne and Strawberry rivers; the building of a reservoir in Strawberry valley and a tunnel through the mountains so that the water can be made to flow into Spanish Fork river, the building of a long high line canal along the Wasatch mountains, above the valleys clear to the Bear river; the improvement of Bear lake as a reservoir; the diversion of the headwaters of the Blackfoot river into a reservoir and across into the Bear river; the building of a canal to supply lands on the west side of the Bear river; the utilization of the Ogden-Luch cut-off as a dam to cut off the arm of the Great Salt Lake and making it dry, thereby reducing the area of the lake and the loss by evaporation and preserving this body of water, which in the past few years has been fast diminishing.

A point urged in connection with the proposed scheme is that the territory affected is already well under cultivation and settlement and embraces cities and towns whose people are thrifty, prosperous and progressive citizens. It is estimated that the project will reclaim close to 1,000,000 acres of choice land, making room for 1,000,000 additional inhabitants, or on a basis of one acre to every individual person, and increasing land values in this state at least \$30,000,000. The scheme has been well received by the government and is fully set forth in the following statement presented to the secretary of the interior:

TEXT OF THE PETITION.

Salt Lake City, Utah, Jan. 27, 1904. To the Honorable, the Secretary of the Interior, Washington, D. C.—Sir—The arid land reclamation fund commission of Utah respectfully represents that since the filing of its application to have Utah lake considered as one of the projects to be developed under the act of Congress of June 17, 1902, entitled, "An act appropriating the receipts from the sale and disposal of public lands in certain states and territories to the construction of irrigation works for the reclamation of arid lands," further investigation has disclosed the fact that Utah lake is now properly part of a larger plan than an entire one, as at first contemplated. The commission therefore submits a more comprehensive project (which includes Utah lake) for the enlargement and extension of the water supply for Cache, Salt Lake and Utah lake valleys in the state of Utah, and asks that it may receive your early and favorable consideration.

CONDITIONS PREVAILING.

The peculiarity of the situation in Utah with respect to the water supply seems to demand the following brief description of the conditions which generally prevail. The total area of the state is about 53,000,000 acres, a large part of which is fertile and arable land. The water supply is so meagre that when fully utilized not more than six per cent of the land of the state is irrigated.

Your Heart

May Be Weak. One Person in Four Has a Weak Heart.

One of the surest signs of a weak heart is shortness of breath after exercise. Your heart is not able to pump the blood fast enough to your lungs. Some of the other symptoms of Heart Trouble are: Pains in the Side, Back and Shoulder; Fainting or Weak Spins; Dry Cough; Swelling of Feet and Ankles; Cold Feet or Hands.

No one can afford to allow a weak heart to go without medicine, because weak heart means poor circulation, and poor circulation means weak lungs, stomach, liver, kidneys, etc.

If, therefore, you suspect heart trouble, begin taking Dr. Miles' New Heart Cure. The Heart Cure will do you good, as it is especially tonic for the blood and nerves, and will revitalize your entire system.

Finally, remember, Dr. Miles' New Heart Cure is sold under a guarantee that the first bottle will give you good. If it doesn't—your money back.

"I was afflicted with heart trouble for three years. I would be apparently all right and without a moment's warning would fall as though shot. The attacks were frequent, and a terrible dread possessed me, as I never knew when or where I would be attacked and whether I would be able to get up. I consulted and was told by some of the most eminent physicians from this state, that I was suffering from heart trouble, and that I must take heart medicine. I bought a bottle of Dr. Miles' New Heart Cure, and began to take it. I used ten bottles, and my heart was cured. I have not had an attack since. I have not lost a day's work, and I am now as well as ever."—MRS. J. H. BROWN, Chicago, Ill.

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As You Like It

That is about the way The Mutual Life Insurance Company of New York issues policies in these days of varied requirements in business and family life. Mr. Ebe Walter, of Clarksville, Del., writes:

The feature which I particularly like about my policy is that the longer I live the more I get and that during the balance of my life there is nothing more for me to pay.

(From Wilmington (Del.) News, Nov. 27, 1903.)

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RICHARD A. McCURDY, President

RULON S. WELLS, Manager, Salt Lake City, Utah.

state can be supplied with water for irrigation. At the present time only about one per cent of the total area of the state is irrigated, and the production of agricultural crops is impossible without irrigation.

With the exception of Green river and its tributaries, all the streams of the state have their sources within the borders of the state and none terminate beyond its boundaries. All are torrential streams subject to great fluctuations and very little has been done to equalize the variability of the flow. Great scarcity in the water supply is experienced during the low water period of each year, although not more than about one-fourth of the whole annual supply has been utilized, the other three-fourths being wasted by absorption and during the flood and winter seasons.

FLOW MUST BE REGULATED.

From the foregoing it is evident that to regulate the flow of the streams by means of storage reservoirs and to extend the irrigated area are matters of paramount importance to the future growth of the state. It is also clear, when the disproportion of land to water supply is considered, that the greatest care should be exercised in selecting the land upon which the water is to be ultimately used. Only such lands as will return the greatest possible value for the water applied should be considered as worthy of the water, and the less costly lands should be put to some subordinate auxiliary use without water. Because of the shorter seasons and the liability to late and early frosts in the higher valleys of the state, it is the rule that the lands of the lower valleys are most worthy of the water.

THREE VALLEYS AFFECTED.

The Wasatch and Uintah mountains are the sources of practically all of the water supply of the northern half of the state and the greater portion of the water flows naturally into the Great Salt Lake, where it is dissipated by evaporation. The water in passing from mountain to lake traverses the three principal valleys of the state known as Cache valley, Salt Lake valley and Utah valley, respectively. Salt Lake valley is the lowest valley in the state, the elevation being about 4,200 feet above sea level. Utah and Cache valleys are higher, the latter being about 4,500 feet above sea level. With respect to climate, scenery, character of soil, etc., it is doubtful if these three valleys are excelled by any in the world.

PIONEERS IN IRRIGATION.

The first irrigation institutions in the United States were established in these valleys nearly 60 years ago by the pioneer settlers of the state. The plan then initiated and subsequently adhered to was one of small farms, intensive methods and co-operative ownership of all irrigation works. As a result of operations during these 60 years all of the water supply that can be made available through individual or ordinary co-operative effort has, under this system, been put to use and there is no further opportunity for great development, except through extensive and complicated works that involve engineering, legal and financial problems quite beyond the power of the previously potential co-operative methods.

WEALTH OF COUNTIES.

These three valleys comprise Cache, Boxelder, Weber, Davis, Salt Lake and Utah counties, having about 175,000 people and contain property assessed on the basis of \$52,000,000. There are altogether about 1,000,000 acres of irrigable land in the three valleys, less than one-third, or about 200,000 acres being at present irrigated, the remainder, or about 800,000 acres having no water supply. This irrigated area is apportioned among about 16,000 owners, making the average size of the irrigated farm about 30 acres. There are, however, about 688,000 acres out of the 1,000,000 acres that are in private ownership, so that the average size of the farm owned by about 68,800 acres, more than half of which, or 36 acres, is without a water supply. In extreme cases the estimated value of the right to the use of water in Salt Lake valley is as high as \$100,000 per second foot for city purposes, and \$70,000 per second foot for irrigation. While these figures should not be taken to indicate the market value of the water, they are fairly suggestive of its possible worth.

A FEW FIGURES.

The productivity of the soil and the possibilities of these valleys are best indicated by the great variety and value of crops that have under favorable conditions been already produced, some of which are as follows:

Sugar beets, per acre.....	32½ tons
Alfalfa hay, per acre.....	100 tons
Wheat, per acre.....	300 bushels
Onions, per acre.....	1,100 bushels
Peaches, per acre (net).....	\$ 400.00
Cherries, per acre (gross).....	925.00
Raspberries, per acre (gross).....	800.00
Strawberries, per acre (gross).....	800.00
Drumsticks, per acre (gross).....	1,200.00

OTHER RESOURCES.

The present population consists of rough, energetic, prosperous and enterprising communities whose constantly increasing numbers would naturally overflow onto and occupy the immediately adjacent lands, but who, because there is no water supply for these lands, are now forced to find footing elsewhere to their own great detriment as well as that of the state. A public school system that will compare favorably with that of any other state has been established. Churches and other public buildings have been provided which are ample to accommodate a much larger population that could be cared for. The water supply would permit ample transportation facilities are already provided, the mining industry affords an excellent local market for all the products of irrigation, the sugar factory and several auxiliary stations in each of the three valleys create a sure and profitable market for about 200,000 tons of hay and produce about 100,000 tons of sugar annually.

WOULD SUSTAIN A MILLION.

The present density of population as related to the irrigated area

Name given by Postum Co., Battle Creek, Mich.

All stimulants shorten life. Cut out coffee 10 days and use Postum Food Coffee and learn the truth about coffee. There's a reason.

Look in each package for the famous little book, "The Road to Wellville." Every reservoir may be released, and discharged into the headwaters of the Spanish Fork river and conveyed with the water of said river into Utah valley. The construction of a diverting channel in about the 4,500-foot contour from near the mouth of Spanish Fork canyon in a general southwesterly direction to or near the town of Coalbrook, and a similar channel from near the mouth of Spanish Fork canyon on about the 4,800-foot contour in a general northerly direction to some suitable point in Salt Lake valley, also a branch from said channel crossing the Jordan river at a point at or near the Jordan Narrows for conducting the water on to the high lands west of the Jordan river.

5.—The construction of such channels, embankments, dams, etc., as may be necessary to convert Bear lake into a reservoir for all the surplus waters of Bear river and its tributaries, including the local streams of Bear Lake valley, and for subsequently releasing such stored water into the channel of Bear river.

6.—The erection of one or more dams of about 100 feet in height for the purpose of impounding the flood and winter waters of the Blackfoot branch of Snake river, in the several basins or valleys at or about an elevation of 6,100 feet above the sea.

7.—The excavation of a channel 12 or 15 miles in length in which to conduct the stored water of the Blackfoot over the divide and into the channel of Bear river at a point near Soda Springs in the state of Idaho.

8.—The construction of a channel to divert the commingled waters of Blackfoot and Bear rivers and conduct them on or about the 4,500-foot contour along the west side of Cache valley for a distance of 20 to 30 miles, with a possible extension to Malad and Blue Creek in Salt Lake valley.

9.—The construction of a canal to divert water from Bear river at a point in the canyon through which said river runs in passing from Cache valley into Salt Lake valley and extend it along the base of the Wasatch mountains on or about the 4,500-foot contour to a connection in Salt Lake valley with the channel hereinafore described as extending northward from the mouth of Spanish Fork canyon.

10.—The construction by either the government or some body of such sums as the Ogden, Weber and Provo rivers and on all of the smaller local streams as may be necessary to conserve and regulate the waters of each, together with such channels as may be needed to properly distribute the same.

11.—The execution of such work as may be needed for conserving and utilizing the waters of Utah lake according to the plans already partially developed.

12.—The utilization of the embankment of the Luch cut-off of the Southern Pacific railroad as a dam to restrict the area of the Great Salt Lake to that portion lying south of the cut-off, thus reducing the loss of water through evaporation and insuring the permanency of the lake but on a smaller scale; regulation of the reduced lake to be effected by means of sluice gates placed in the embankment and through which any surplus water may be discharged into the abandoned portion of the lake bed. While included in the general plan, it is not expected that this will be made part of the reclamation works but is suggested as incidental thereto.

CALLS FOR PROMPT ACTION.

To insure the most complete success of the project it seems necessary that such timely action should be taken as will secure all the water sources that will be needed to consummate the entire enterprise.

It will be readily seen that in view of existing conditions the people of Utah are not in a position to take hold of this project and develop it themselves. Action on the part of the general government is required to effectively execute the proposed plan; one of the sources of supply consisting of water on an Indian reservation and other sources being situated either wholly or in part in other states.

WILL GET MONEY BACK.

That the government can be amply secured in the repayment of whatever money may be expended by it in the execution of the proposed plan is apparent. The majority of the water users will be old settlers having other improved lands and sufficient means to enable them to pay the annual installments as they become due. The ability to pay will be greater in the case of new colonists, and in the existence of such property and assets will be assurance that the obligations will be promptly met.

While most of the lands that would be irrigated under the proposed plan are held in private ownership and might be properly classed as semi-arid, there are very potential reasons why they should receive the benefit of the reclamation fund. As has been shown, the conditions as to location, climate, altitude and productiveness are most favorable. Part of these lands are already owned and occupied by bona fide settlers whose magnificent achievements in the colonization, irrigation and redemption of the great American desert prove their entire worthiness of the trust to be reposed in them and afford ample assurance that the best possible use will be made of the precious water that may be confided to their care.

ALREADY WELL ESTABLISHED.

These people have schools, churches and other institutions of civilization that a new colony could not possibly acquire in less than a generation. Without a substantial increase in the water supply the commonwealth cannot prosper. Indeed, many of the present inhabitants of these valleys are now seriously contemplating removal to other localities where an ample supply of water can be obtained. Already many families have left this part of the state because of the scarcity of water, and some have gone beyond the confines of the republic. Is it not a striking harmony with the human spirit and purpose of the day to have it applied as to preserve homes and communities already established, as in this case as well as to provide new homes and communities for the future? This commission is in hearty sympathy with every effort to reclaim arid lands and establish new homes, it cannot avoid the conviction that preference should be given to such propositions as contemplate the preservation of existing homes and the enlargement of communities already established.

The benefits that the plan here outlined and offered cannot of course, be correctly measured, but the commission confidently predicts that within ten years after its accomplishment, and within the time in which the cost of the works is required to be paid, the population and wealth of these valleys will both have increased three-fold.

In consideration of the foregoing and of the great aid which the present and future experience of the people of these valleys must contribute to an entire plan of this kind, it appears plain to the commission that no more worthy place or people can be found than is here afforded for the successful application and operation of the reclamation law, and it is earnestly requested that immediate steps be taken to that end.

Respectfully submitted,

UTAH ARID LAND RECLAMATION FUND COMMISSION.

BY A. E. DOERNER, Chairman.

F. H. MCRAE, Secretary.

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stops the cough and heals the lungs and prevents serious results from a cold.

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Gentlemen:—FOLEY'S HONEY AND TAR cured me of consumption after I had suffered two years and was almost desperate. Three physicians failed to give me any relief and the last one said he could do me no good. I tried almost every medicine I heard told of without benefit until FOLEY'S HONEY AND TAR was recommended to me. Its effect right from the start was magical. I improved steadily from the first dose and am now sound and well, and think FOLEY'S HONEY AND TAR is a God-send to people with Throat and Lung Trouble.

Yours very truly, Mrs. Mary Ambrose.

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contains no opiates and does not constipate like ordinary cough medicines.

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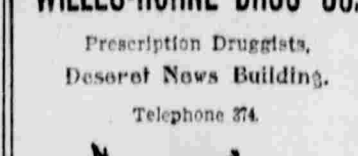
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