

Committee Report Gives Interesting Figures on Tumalo Irrigation Plan

Interesting statistics concerning the Tumalo irrigation project are contained in the report of a special Commercial club committee, composed of J. P. Keyes, H. W. Skuse and H. J. Overturf, who investigated the feasibility of diverting water from the Deschutes river to Tumalo Creek to aid in watering the lands included in the Tumalo project. The report was given yesterday at the Commercial club luncheon, as follows:

"The Tumalo project originally was designed to irrigate 22,500 acres; 4300 acres of land under this system have been sold and put under cultivation the past season, and it has been found that there was sufficient surplus water to permit the irrigation of 8000 acres altogether, and this is the limit allowed by the state of sales until more water can be provided. Nothing has developed since the completion of the Tumalo dam to discredit the engineers' original estimates that there was enough water in the water shed of Tumalo Creek and its tributary streams—such as Crater Creek, Bull Creek Spring, etc.—to irrigate the full estimated tract of 22,500 acres, and, in fact, the 10,500 acres additional for the so-called Tumalo extensions. The whole difficulty to date is the failure of the reservoir site to hold water. Attempts have been made to plug up the leaks in the ground, and some success has been met with, but at best it is a slow process, and the ultimate success of making it water-tight throughout is still problematical.

"Now it is desired to divert water from the Deschutes river to supply sufficient water to make up the deficiency of the Tumalo and its tributaries for irrigating 22,500 acres or more. This would mean enough additional water to irrigate at least 14,500 acres, since experience to date shows only 8000 acres can be irrigated by the Tumalo alone from its natural flow.

"It is admitted by the sponsors for this project that it would be impossible, on account of prior rights, to secure this amount of water, or in fact any at all from the natural flow of the Deschutes river during the irrigation period of six months each year, and hence it will be necessary to build a reservoir somewhere south of Bend to impound the waters of the Deschutes river during the non-irrigating season, and hold them there for use during the irrigating season. The estimated cost of this project, based on costs of 1914, is approximately \$340,000,000, including \$175,000,000 for constructing a diversion canal from the Deschutes river to the Tumalo system. It is admitted by the engineers who made this estimate that on the present cost of labor and material this estimate would have to be increased at least 25 per cent, making a total of \$425,000,000, of which the canal itself would take approximately \$220,000.

"We do not pretend to pass on these estimates, nor upon the feasibility of the project as a whole. All we can do is to rely on the reports of engineers qualified to do so. For this purpose we have referred to the reports made by the co-operating offi-

cers of the State of Oregon and the Reclamation Service, dated December, 1914. Most of you will remember that in that year the state and the United States Reclamation Service each appropriated \$50,000 for a survey of this region, and one of the objects of the investigation, to use the words of this report on page 19, was 'the providing of storage (a) in a reservoir on Deschutes river just above Benham Falls, as earlier co-operative work, referred to above, had disclosed the possibilities of storage by a dam located just above the falls; (b) in a reservoir at Crane Prairie; (c) in a reservoir at Odell Lake; (d) in a reservoir at Big Marsh.' To make a long story short, this investigation resulted in nothing very definite on these points, and we quote again from the same report on page 102, as follows:

"As a practical consideration affecting the selection of a storage reservoir in a region such as this, where the formation is admittedly fissured and cavernous and where heavy underflows are known to exist, it must be recognized that there is an element of chance in any of these surface depressions, termed reservoir sites, forming tight reservoirs.

"It is impracticable to determine these matters by examination or experiment. All that can be relied on are results, achieved in reservoirs in other volcanic regions having similar characteristics.

"Now, it is admitted by those who have investigated the subject that the geologic formation underlying all of this country from north of Tumalo reservoir to south of Crane Prairie is almost monotonously uniform. At the time the above quotation was written; the Tumalo reservoir had not been completed, but in the light of experience since, it must be assumed that if this reservoir cannot be made to hold water then there is little hope of finding a water-tight basin above Benham Falls. The proposition appears to us—to paraphrase the language of a famous poet, 'like flying from those ills we have to others that we know not of'.

"We do not wish to take the stand of objecting to any scheme of irrigation which appears feasible and practicable, and we should heartily endorse appropriation of funds for making the present Tumalo project a success if possible. As the matter now stands, enough water is now going to waste in the Tumalo drainage area sufficient to irrigate approximately 24,500 acres—see pages 80 and 81 of the co-operative report—and every effort and means should be exhausted to conserve that water before attempting to divert water from another drainage area into it.

"Some success has already been obtained in sealing up the leaks in the main Tumalo reservoir, and in our opinion, this work should be continued as fast as practicable until it is definitely proven whether the whole reservoir can be sealed up or not. This work can be done at comparatively small cost, say \$10,000 or so per year, and the sealing of the leaks can be done progressively and the reservoir used as fast and to the extent they are closed up; and the result will be known consequently ap-

proximately as fast as the money is expended.

"On the other hand, to secure any water whatever from the Deschutes river would require, according to the sponsors for this scheme, approximately \$425,000 before anything would be known as to its success. Furthermore, it seems an economic waste to spend \$225,000 on a canal to divert water from the Deschutes river to another water shed when there is abundant use for its entire flow, including what might be impounded during the non-irrigating season, in its own natural basin where the expense of distributing on the land is very much lower.

"In conclusion we are, therefore, obliged to recommend that the petition for \$2900, or any other amount, to be used in surveying the canal mentioned in the beginning of this report, be not approved by the Bend Commercial club. On the other hand, we would recommend the appropriation of state funds as suggested in the foregoing for continued efforts in filling up the leaks in the main Tumalo reservoir."

TUMALO PUZZLE TO BE FEATURE

IRRIGATION CONGRESS WILL PAY ESPECIAL ATTENTION TO PROJECT'S PROBLEMS, DECLARES H. H. DE ARMOND.

(From Saturday's Daily.)

That especial attention will be devoted to the Tumalo project problem at the coming session of the Oregon Irrigation Congress in Portland in January was the statement this morning of H. H. De Armond, member of the executive committee of the congress, just returned from a trip to Portland, where the program for the 1918 convention was outlined.

Reports will be filed on all the irrigation projects in the state, in order that comparisons with next year's reports, to show progress, may be made, Mr. De Armond mentioned, while another feature will be short talks by farmers relating their experiences on irrigated lands, and the results attained.

In regard to the Tumalo project, it has been suggested that private parties, who are interested in the development of irrigation projects in the state, may lay a proposal before the desert land board in the near future under which they would agree to take over the work, complete it, market the lands and reimburse the state for the \$450,000 expended on the project. Engineers have recently made a careful examination of the Tumalo reservoir, and it is known that the reports made by them are now being considered as a preliminary to putting the new proposal up to the board.

Boy Accidentally Shot by Brother After Rabbit Hunt

(From Monday's Daily.)

While removing shells from a .22 calibre revolver yesterday afternoon, Robert Ingemann shot his 11 year old brother, George, in the right side. The bullet lodged in the spine and caused total paralysis of the lower limbs.

The two boys had been hunting rabbits on the Sather ranch east of town and were preparing to return home about 4 o'clock. Robert, who is 15 years of age, had the gun and was unloading it. His finger caught in the trigger and the gun went off, the charge striking his brother, who was standing near by. The child was taken to the Bend hospital and left on the evening train for Portland, accompanied by his mother and brother. An operation for removal of the bullet will be performed by Dr. K. A. J. McKenzie.

The boys are sons of George Ingemann, a carpenter.

Complaint Almost Gone.

"Foley's Honey and Tar is great," writes L. W. Day, 65 Campbell Ave., E. Detroit, Mich. "It relieves bronchitis quickly. My complaint has almost gone and I hope never to have it again." Time and the experience of thousands have proved that there is no better medicine for coughs, colds or croup. Get the genuine. Sold everywhere.—Adv.

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IRRIGATIONISTS' SESSION IS SET

WILL BE JANUARY 2 IN PORTLAND.

Executive Committee Meets and Outlines Program to Cover Four Days—Technical Discussions to Be Eliminated.

PORTLAND, Nov. 23.—Meeting here for its seventh annual convention, the Oregon Irrigation Congress will open on Wednesday, January 2, at the Imperial hotel. The session will extend over four days. This is the decision reached by the executive committee of the congress, composed of H. H. De Armond, of Bend; George Russell, of Prineville; Harry Gard, of Madras; Jay H. Upton, of Prineville; Ralph Cowgill, of Medford; J. W. Brewer, of The Dalles, and J. N. B. Gerking of Tumalo, at their meeting here. Joseph T. Hinkle, president, and Fred N. Wallace, secretary of the congress, met with the committee to aid in mapping out the formal program for the next session of the irrigationists.

Program Outlined.

All of the four days will be occupied by the congress in running through the formal progress here in Portland, with the exception of Thursday evening, January 3, and the following day, which will be spent at Corvallis. An invitation was extended by Professor W. L. Powers, head of the irrigation and drainage department of the Oregon Agricultural college, who came before the committee as the representative of President Kerr, requesting that the delegates to the congress be present at a banquet in Corvallis on Thursday evening and meet in joint convention on Friday with the annual meeting of the State Drainage association.

Lane Sought As Speaker.

The program now being mapped out for the convention will eliminate, as far as possible, all technical discussions, and turn the convention over to the practical irrigationists of the state who are actually working upon the land. An effort will be made, however, to secure Secretary of the Interior Franklin K. Lane, Judge Will R. King or some other prominent official of the department, to address the convention in explanation of the Chamberlain bill now pending before congress providing for the government guaranty of irrigation and drainage district securities.

The state irrigation securities law, the Tumalo project and various other Oregon subjects, will have a prominent part on the program, while the theory will undoubtedly be presented that the state and government should unite in an attempt to enact such legislation as will make it easy for soldiers and sailors returning from active service to enter upon and acquire irrigated farms.

Desert Land Board Men Will Inspect Deschutes Project

(From Thursday's Daily.)

SALEM, Nov. 22.—(Special to The Bulletin.)—Attorney General Brown and State Engineer Lewis in the near future will visit the Suttles Lake Irrigation project and the Deschutes project at La Pine. The first project will be visited to investigate relative to irrigation district bonds and the second to see if some means cannot be found to solve the problems which confront the Deschutes project. A controversy has arisen between J. E. Morsion of the project, and A. A. Aya, of La Pine, as to abandonment of the East Side, and the two Desert Land Board members will report on this subject to the Desert Land Board.

CITY VALUATION IS UP QUARTER MILLION

(From Friday's Daily.)

An increase of over a quarter of a million dollars in the assessed valuation of the city of Bend for the present year is indicated in the preliminary statement of the valuation, made known by Assessor W. T. Mulroney yesterday. Without the public utility valuation, the assessment is \$797,410 or an increase of \$253,960 over last year's figures which included the utilities. The utilities

valuation should be well over \$60,000.

The increase is due to the inclusion for the first time, of the valuation of the sections west of the river and to the great growth of the city since the building of the mills here.

WILL HOLD BAZAAR.

The Baptist ladies will hold a bazaar on December 11. The meetings now on are being given over to preparation for the pre-Christmas sale. One cent a word is all a little. Want Ad will cost you.

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