

ADDRESS BY KENNETH W. MARKWELL, ASSISTANT COMMISSIONER
OF RECLAMATION, BEFORE THE ANNUAL MEETING
OF THE ASSOCIATION OF WESTERN STATE ENGINEERS
in Boise, Idaho, at 7:30 P.M., on Wednesday, September 10, 1947

Members of the Association of Western State Engineers: Commissioner Straus sends his best wishes and his sincere regrets that because of the pressure of work in getting under way our 1948 construction program, he can't be meeting with you again this year as he did last year.

He has asked me to tell you something of Reclamation's projected seven-year construction program and of the liberalization of laws needed to implement this work and to serve best the interests of the states that you represent.

Since your association convened a year ago in Jackson, Wyoming, and passed resolutions calling for liberalization of the Reclamation laws, certain events have taken place that may well change the pattern of Reclamation during the next fifty-five years. For as we round the corner on a century of modern irrigation in America, we are mindful of the fact that we are rapidly approaching the half-way mark on this agency's first one hundred years of service to the West and to the Nation.

The time is not too far distant when Reclamation's one hundred year record will be evaluated. I know you are concerned as much as the Bureau of Reclamation in perfecting this record. You who have helped to shape our policies in the past will be called on again and again for your cooperation, counsel, and guidance in helping us achieve a full water-resource development program.

The 1948 construction program commands our first attention. I'm sure most of you, because of your intense interest in irrigation and multiple-purpose developments for your state, have read the news of what came out of Reclamation's programming conference held in Salt Lake City about a month ago.

At that time we drafted work schedules not only for the current fiscal year but looking ahead through 1954 -- a seven-year program laid out to accommodate an economical rate of construction on all projects. Our long-range goal, on a seven-year basis, contemplates both full and supplemental irrigation water supplies for 3,875,000 acres of land comprising 40,000 farms; the installation of 2,250,000 kilowatts of hydroelectric power capacity, and other stream-development benefits such as flood, salinity, and silt control, fish and wild life, and recreation. During the current year 184,449 acres of new land will be irrigated and 7,520 acres will receive supplemental water, and 574,000 kilowatts of power plant facilities will be installed.

Our immediate 1948 work program is based on regular appropriations, and supplemental funds provided to expedite construction of multiple-purpose dams on the Missouri River Basin so that flood control benefits can be realized sooner. Our work program also includes carryover of funds from the preceding fiscal year and the assumption that the Congress will provide supplemental funds totalling an estimated \$36,000,000 to avoid closing down five important construction projects.

Funds cannot be interchanged among construction projects -- this means that we may have ample money to build one project and insufficient amounts on another. The five projects which are expected to be short of funds this year are the Columbia Basin and the Yakima-Roza in Washington, the Colorado-Big Thompson in Colorado, the Davis Dam on the Arizona-Nevada border, and the Central Valley Project of California. I need not tell you the seriousness of this situation. Because you are engineers, you realize the extra costs that will be piled up; the delays of halting such large construction work as is now going forward on these projects.

And now just a few words about appropriations for operating and maintaining Reclamation structures. The appropriation act for the fiscal year 1948 contains a total of \$9,812,300 for operation and maintenance of irrigation and power projects. Of this amount, \$3,069,000 is made available by direct appropriation to be reimbursed by the water users; \$4,996,700 is derived from power users, and \$1,976,600 will be advanced by the project water users. These O & M funds of nearly \$10,000,000 are vital to the smooth and efficient operation of Reclamation projects.

Replacements and rehabilitation of structures are most important phases of this work, both on the irrigation and power systems. It would be a poor businessman who did not keep up his property, and the same principle applies to protecting the Government's investment in Reclamation structures. We anticipate that the appropriation budget for the fiscal year 1949, in addition to the regular O & M items, will probably include a special item for major rehabilitation work to overcome maintenance which was postponed during the war or delayed because of material shortages.

There are other problems besides the amount of funds on Reclamation projects -- problems for which we are trying to find the right answer. Restrictions on force-account operations and on limitation of expenditures in Denver for centralized design and specification services are giving Bureau officials more than their share of headaches.

This is what we are doing about the latter. I would like to explain it in some detail for I believe that you can help us make the system work.

You see the financial limitation on the amount which can be spent for the benefit of the various projects for engineering services at Denver will provide 40 percent less than was available in the fiscal year 1947, yet the Bureau of Reclamation is committed to start construction on a greater number of dams this year than ever before, and the need for construction drawings is far greater.

Obviously, a curtailed staff in the Denver office cannot handle the load of design and specification work required. Thus, to comply with the appropriation limitations for the Denver engineering offices and also meet the requirement for designs, we are setting up about 25 field design offices. Of course, reassignment and movement of the design engineers is going to interfere with work schedules and cause some delays. These limitations imposed upon us will prove costly and result in inefficient utilization of our design staff. It prevents us from exercising our best engineering judgment as to how and where our designs will be made. During the transfer of functions a transition plan will be used. Denver will continue to turn out the more fundamental and complicated engineering designs. The field design offices will be responsible for the production of the detail designs on minor structures, such as camps, roads, transmission lines and substations, and irrigation distribution systems.

We are selecting these field design centers as carefully as possible, and we are staffing our construction organization offices as quickly as we can so that we can get right on with the job -- there are a lot of jobs that can't be delayed. One is the important Missouri River Basin.

As you know, a supplemental appropriation of \$6,400,000 in the closing days of the Congressional session calls for starting construction on 9 additional dams in the Missouri River Basin and for speeding construction on several others now underway. Floods and droughts wait for no man.

I would like for each of you to note the location of the Reclamation design office in your state. There will be many times when the engineers will need your advice even as all of us have in the past.

Whenever possible, we are staffing these offices with Bureau experienced men. Some recruitment, of course, will be necessary and this will offer new opportunities for qualified engineers, giving preference to veterans in accordance with Civil Service regulations.

Now to consider for a moment or two the question of the limitation placed on force-account. Here again we are prevented from using our best engineering judgment as to the most economical method of constructing a given item of work. There are times when contractors do not want to take on the small jobs needed to keep a project rolling. This is where force-account operation is needed. In no way does it set a precedent for the Bureau building its own structures. Competitive bidding among American contractors is and will continue to be the preferred method for constructing our works. We have depended for many years on contract construction rather than on force account work. With minor exceptions during the past 23 years practically all Reclamation construction has been performed by contract.

I have been glancing over Reclamation's construction record for the fiscal year 1947 that ended June 30. I note that we let more than 3,000 contracts totalling over 125 million dollars to contractors, construction material suppliers, and equipment manufacturers.

The largest single Reclamation contract for the year, one for \$9,359,011 went to three Iowa firms for work on Potholes Dam on the Columbia Basin Project.

Potholes Dam about 12 miles east of Ephrata, Washington, will be the fourth longest dam in the United States, measuring 19,000 feet at the crest.

The second largest contract -- for \$5,888,695 -- covered construction of the Tracy Pumping Plant and Discharge lines and the 2½-mile Delta-Mendota Intake Canal on the Central Valley Project, California. This award went to a group of three corporations and an individual of Oakland, California.

This Central Valley contract was the first to be authorized by the Commissioner under an order of Secretary Brug's in which authority is

delegated to the Commissioner of Reclamation to enter into contracts regardless of dollar value. Before this all contracts in excess of \$500,000 were authorized only upon specific approval of the Secretary.

The largest equipment contracts went to Pennsylvania and to Virginia firms for generating units at Grand Coulee power plant. Minnesota, New York, Missouri, Utah, Idaho -- Boise in fact -- and many other states, North, South, East and West, figured among contract awards.

For though Reclamation projects are located in the West, these Government contracts, large and small, for both equipment and construction jobs, are awarded on a competitive basis to private industries all over the country.

Force-account work has never played a very large part in Reclamation building. The reason this limitation handicaps us is, as I said before, there are certain small jobs which contractors don't want to bother with and it will delay us six months in transferring this work from force account to a contracting-basis -- at an increased cost to the water and power users. We are almost completely at the mercy of the contractors.

Well, there are going to be some big contracts awarded during the coming year. Just glancing ahead a little bit, we can see about 99 major construction jobs totalling somewhere in the neighborhood of \$118,000,000 to be let in the fiscal year 1948. Each of these contracts will be in excess of \$100,000 to carry out our 1948 schedule. Then \$9,700,000 worth of work on plans and specifications in the Denver office or delegated work must be performed. And 27 repayment contracts are scheduled to be signed.

So much for the construction program and some of our problems in keeping it rolling forward. I'd like for you to look for a moment at another real problem -- one that is out of Bureau hands -- the troubled waters of the

Colorado River Basin. If you have some good oil I hope that you of the Basin states will start pouring it on.

We hate to think that we'll have to wait until Reclamation's centennial celebration to start work on the Colorado River Basin job. These projects are needed, your states want them -- yet nothing has been resolved. A little over two months ago Secretary Krug gave an interim report on the Colorado River Basin to the Congress. This interim report made available to the Congress the comprehensive inventory report, which had been submitted to the seven basin states in June of 1946, together with the comments returned by the states.

The Secretary could not make a recommendation because the states had not determined their individual rights to use the waters of the Colorado River system.

The only thing the Bureau of Reclamation and the Department of the Interior can do in accordance with existing Congressional authority is to proceed with engineering and economic studies and to hope that some early agreement will be reached so that the waters of the Colorado will not continue to waste to the sea.

The Colorado basin states' population growth even now is outstripping its developed water and related resources with a 27% population gain, 1940 to 1946. And speaking of census reports, the West is far ahead of the rest of the country in population gains. The latest census report shows a 33.9 gain in the Pacific States alone with 12.7% gain in all 17 Western States compared to 3.4% in the states outside the Reclamation area.

Need for irrigation water, for domestic and industrial water and hydroelectric power is acute in many sections of the West. You have the facts on this -- you know the danger of waiting until too late to build needed irrigation and power projects. It has taken many cycles of drought

and flood to arouse the country to the need for basin development --- how many cycles of power shortages will it take to rouse us to the need for making the most of the latent energy in our rivers?

One of the outstanding accomplishments during last year was the completion of a proposed report on a comprehensive plan for the development of the water resources of the Columbia River Basin. About half of the engineers present here today are acquainted with that "Blue-Book" of the Department of the Interior. I do not have time to go into the details of the proposals presented in the report, but I am certain that it has warranted, and will continue to warrant the full consideration of the engineers from the States of Montana, Wyoming, Utah, Idaho, Nevada, Oregon, and Washington. In the report it is proposed that 11 projects be authorized and three small projects be reauthorized under the regular provisions of the Reclamation Laws. In addition, the report lists 224 additional projects for possible development in the future which would greatly expand irrigation and power development in the Columbia River Basin.

The Columbia River Basin report has been submitted to the Secretary of War and to the affected States for their use and recommendations in accordance with the provisions of the Flood Control Act of December 22, 1944. In addition, the report has been submitted to the Departments of Commerce and Agriculture and to the Federal Power Commission for their views and comments as members of the Federal Inter-Agency River Basin Committee, which meets once a month in Washington to correlate and coordinate activities of mutual interest relating to investigations and reports of the respective departments. We hope to submit this report and the comments to the Congress at the next session. Other reports too will be submitted to the Congress for consideration.

The Congress in recent years past had appropriated sufficient funds to carry on a well balanced planning program and the results of such appropriation began to show in an increasing number of reports that we expect to complete this fiscal year and during 1949. However, due to restrictions in our planning activities necessitated by appropriation of less than half of the funds that we had last year, the Branch of Project Planning of the Bureau of Reclamation has found it necessary to cutback the investigational program. This cutback consists mainly of dropping investigations which are in the early stages and which would not be possible to complete with the funds available. Those funds that are available are being spent on fewer investigations, but with the same or increased intensity that has been given to most of the investigations here in the last few years.

We in the Bureau of Reclamation look forward to continued splendid cooperation with the State engineers and other agencies throughout the 17 Western States on the development of plans for utilization of the remaining valuable water supply that is now unused in the Seventeen Western States.

I promised you that I would spend a part of my time talking about legislation -- liberalization of Reclamation legislation. For without the laws to implement our program we can't get very far with any plans.

Last year, when he was talking to you in Jackson, Wyoming, Commissioner Straus invited your attention to the proposition that the Federal reclamation laws might well need some overhauling.

He said in part:

"... a law which served well to aid the easy and simple single-purpost project, now all built and turning out some water on some public land acres in a desert, is not a modern instrument of legislation for today's and tomorrow's complex multiple-purpose projects which must be

conceived and executed on a valley- or basin-wide scale to meet, as they should meet, the demands of your states."

I am sure that all of you followed the proceedings of the First Session of the 80th Congress, and that you are well aware of the fact that, including other matters of vital interest to the Bureau of Reclamation and to you, the Congress considered a series of bills dealing, among other things, with the standards upon which authorization of reclamation projects shall be predicated, with the repayment period for power, and with the use of interest on the power investment to aid irrigation. After weeks upon weeks of hearings and after the most painstaking consideration of the evidence before it and of the issues involved, the Public Lands Committee of the House has reported and there is now pending before the House of Representatives, ready for action during the next session of the 80th Congress, a bill known as HR 2873.

HR 2873 in the form in which it now awaits action by the House of Representatives is a vastly different bill from HR 2873 as it was originally introduced. In many respects this bill is a progressive and forward-looking piece of proposed legislation. It takes account of the fact that the Federal Reclamation Project of today is in the main a multiple-purpose project serving not only to aid navigation or flood control, to provide irrigation storage and the delivery of waters for irrigation, and to produce hydroelectric power, but also playing an important part in the control of silt, in salinity repulsion, in the preservation and propagation of fish and wild life, and in providing recreation.

Recognition of the role played by Federal Reclamation projects in the preservation and propagation of fish and wild life is not new. Such recognition was granted in an act approved August 14, 1946. The new element

in HR 2873, in connection with fish and wild life, consists of that portion of the bill which would authorize the Secretary of the Interior to reexamine existing projects with a view to determining whether or not they have made a contribution to the preservation and propagation of fish and wild life and if they have made such a contribution, authorizing the Secretary of the Interior to allocate a part of the costs of such projects on a nonreimbursable basis to such purposes.

Now there's another important point, if HR 2873 is enacted, it will authorize the Secretary of the Interior to reexamine existing projects for the purpose of determining whether any part of their costs may be allocated as well to salinity control, silt control or recreation and to make appropriate allocations in such cases.

These provisions in HR 2873 are good news to the water users and the power users in your states who are repaying the reimbursable costs of Federal Reclamation projects. In other words, HR 2873 would make it possible to remove the burden of these costs from the backs of our water and power users on existing projects as well as to make appropriate allocations on a non-reimbursable basis of such costs in the case of new projects. Furthermore, the feasibility status of prospective projects would be improved.

There are other beneficial aspects of HR 2873. For instance, it reduces the rate of interest on the capital investment in power features from a minimum of three percent per annum, as prescribed in existing law, to a minimum of two and one-half percent per annum. This new minimum rate is more nearly consistent with the average cost of money to the Government. In our judgment, and I am speaking quite frankly, it would have been even more nearly consistent with that average cost if the rate of interest had been reduced to a flat two percent per annum.

I know that many of you have followed with appreciation of its deep significance to the Federal Reclamation program, the power-revenues debate which has persisted almost since the time that famous opinion was handed down three years ago this September by the Solicitor of the Department of the Interior. This opinion held in part that rates for power produced at Federal Reclamation projects could be fixed in such a way as to take into account the fact that revenues derived from the interest component of power rates are, by reason of the requirements of the Hayden-O'Mahoney amendment, applied on the Bureau of Reclamation's books as payments on account of principal. Of course, as soon as the Solicitor's opinion was made known to us, we disclosed it fully to the Congress.

To put it lightly, that opinion dealt with a complicated subject. Rate-making is one of the most involved subjects there is. Dealing as it did with such a complicated subject, the opinion was not easily understood by the laymen or by the lawyer. It is no wonder that this opinion became the subject of lively disagreement both in and out of the halls of Congress.

Actually this debate has had value. During the course of extensive hearings held by the Public Lands Committee of the House in the first session of the 80th Congress, and even before this in extensive hearings held by the Irrigation and Reclamation Committee of the House, during the