FOR RELEASE IN AFTERNOON NEWSPAPERS, JULY 13, 1973

REMARKS BY
COMMISSIONER OF RECLAMATION GILBERT G. STAMM
U.S. DEPARTMENT OF THE INTERIOR
TO THE WESTERN STATES WATER COUNCIL
HELENA, MONTANA
JULY 13, 1973

A LOOK AT THE RECLAMATION PROGRAM IN A TIME OF CHANGE

The opportunity to participate in this meeting of the Western States Water Council provides me a real pleasure. For many years, I have enjoyed a close association with many of you and commend this fine organization for its dedication and leadership in helping to solve the water problems of the West.

In appearing before you here today, I would like to discuss some of the activities the Bureau has planned for the current fiscal year. As many of you know, we are entering a new era of social and economic responsibility in water resource development. We have been called upon to redirect our activities to fit the changing life styles and today's social value structure of the people we serve. In so doing, our program is continuing its trend toward new dimensions in water resource development. The objective of such flexibility is to improve continuously the quality of life for the greatest number of people.
We in the Bureau of Reclamation recognize the need for this change which has emerged in part because of the continuing national shift from a rural to urban society, the growing national awareness of environmental concerns, increasing interest rates affecting project justification, and a Reclamation backlog of $6.2 billion of authorized but unconstructed project work. That backlog continues to rise since the level of annual funding for construction under current national budgetary policies is not sufficient to match the increase in the dollar backlog caused by escalating construction costs. Bringing this construction backlog within manageable limits, will require the decision to eliminate, defer, reformulate, or otherwise fund some of the projects that constitute this accumulated construction pool as well as cooperation of the Congress for implementation. Even with such decisions and legislative support, greater levels of funding may be required to clean up the remaining backlog (which would then be compared of higher priority items) within a reasonable period.

We are under a tight budgetary constraint for F.Y. 1974. In fact, in keeping with the Administration's desire of firm budget discipline to forestall tax increases and suppress inflationary trends, our 1974 budget request was $130 million less than the amount appropriated for 1973; a reduction of approximately 25 percent. This, of course, could change
somewhat as a result of Congressional action on the administration's budget request since the House has added $21.5 million to the President's request. The Senate, I understand, starts markup today.

Nevertheless, indications are that the F.Y. 1974 appropriation will be considerably smaller than that for F.Y. 1973. This precipitates the rather difficult task of developing a program that will conform to the administration's desire to maintain a firm grip on Federal outlays and at the same time honor priority commitments previously made.

In the long run, I foresee larger appropriations simply because, regardless of the arithmetic I go through, it comes out with greater $'s than some appropriations.

In keeping with the administration's guidelines, we have designed a program that will concentrate principally on the continued operation and maintenance of existing project facilities, development of hydropower and municipal and industrial water supply projects, and specific high priority activities that will serve immediate needs.

The major share of this year's funding will be directed to finance the ongoing construction of 12 projects. (Central Arizona Project, Arizona; Central Valley Project, California; Fryingpan-Arkansas Project, Colorado; Curecanti Unit, Colorado River Storage Project, Colorado; Columbia Basin Project, Washington; Manson Unit, Chief Joseph Dam Project, Washington;
Garrison Diversion Unit, Pick-Sloan Missouri Basin Program, North Dakota; Bonneville Unit, Central Utah Project, Utah; Teton Basin Project, Idaho; Palmetto Bend Project, Texas; Tualatin Project, Oregon; and Mountain Park Project, Oklahoma. These projects are scattered throughout the West and represent a wide distribution of Bureau activity.

It is anticipated that new construction starts will be limited to three loan projects. They are the Graham-Curtis Project, Arizona; the Roy Water Conservancy Subdistrict, Utah; and the San Luis Water District, California. Initiation of construction was proposed in F.Y. 1973 on all three of these loan projects; however, all were deferred because of fund limitations.

Under present conditions, new investigations will be curtailed drastically. In fact, because of relatively low priority of large-scale new irrigation developments initiation of planning starts for such projects has been virtually eliminated.

Currently, we are assigning greater priority to investigations concerned with domestic, municipal, and industrial water supplies; energy related opportunities; improvement of water quality; areas suffering severe and chronic water
SHORTAGES WHICH ADVERSELY AFFECT LOCAL ECONOMIES; AND AREAS FACING NEAR-TERM SIGNIFICANT WATER SHORTAGES. INCREASED ATTENTION IS BEING GIVEN, FOR EXAMPLE, TO THE POTENTIAL FOR ASSISTING NON-FEDERAL THERMAL POWER GENERATION BY IDENTIFYING ALTERNATIVE SOURCES AND MEANS OF OBTAINING REQUIRED COOLING WATER SUPPLIES. IN ADDITION, THE ENVIRONMENTAL ASPECTS OF WATER RESOURCE USE ARE CONTINUING TO RECEIVE SPECIAL ATTENTION.

WE ARE PROPOSING TO START FIVE NEW FEASIBILITY STUDIES AND ONE NEW SPECIAL INVESTIGATION IN F.Y. 1974. THE FEASIBILITY STUDIES ARE ALL FOR MUNICIPAL AND INDUSTRIAL WATER SUPPLY. THEY INCLUDE: Cache Creek Project, Oklahoma; Chisaskia Project, Kansas; Gallup Project, New Mexico; Garrison Diversion Unit, M&I Water Facilities, North Dakota; and Oahe Unit, M&I Water Facilities, South Dakota. THE SPECIAL INVESTIGATION IS A TOTAL WATER MANAGEMENT STUDY OF THE CENTRAL VALLEY IN CALIFORNIA.

TOTAL WATER MANAGEMENT INVOLVES A MAJOR NEW EMPHASIS IN RECLAMATION PLANNING. RELATED INVESTIGATIONS WILL EXAMINE CURRENT USES AND FUTURE CAPABILITIES OF EXISTING WATER RESOURCE SYSTEMS TO ACHIEVE MORE EFFICIENT AND EFFECTIVE USE OF AVAILABLE WATER SUPPLIES. EMPHASIS WILL BE PLACED ON OPPORTUNITIES TO MODIFY EXISTING OPERATIONAL CRITERIA, IMPROVE
WATER MANAGEMENT PRACTICES, AND STREAMLINE INSTITUTIONAL controls. The objectives will be to achieve desired water use goals without extensive and costly construction of new facilities. High priority also is given to shortening the time required for investigations and to full implementation of multiple-objective planning principles as developed recently by the Water Resources Council.

The Western U.S. Water Plan Study, which was authorized and directed by the Colorado River Basin Project Act of 1968, is to be completed in 1974, rather than 1977, as originally scheduled. The study will identify areas of critical water requirements in the 11 Western States and will serve as a basis for assigning priorities for investigations and other actions to alleviate problems in those critical areas. Critical water problems in the arid Southwest may be partially resolved through eventual development of geothermal resources, and the Colorado River Water Quality Improvement Program.

The State-Federal planning teams established to assist with the Westwide Study effort, have proven very effective, as a tool in natural resource planning, from both State and Federal viewpoints. There appears to be strong support among the States for continuation of this approach to planning. We hope a way will be found to continue our input.
We have a 6.2 Billion backlog.

Let's do a little arithmetic.

Assume the backlog can be reduced by 2.5 Billion.

Remaining: 3.7 Billion

This will finish work under way. (out of 20)

Finish cost: 12 years - audit but not startup.

3) Clean up by 1990.

2) Future work and cost of only very high priority projects — such as the second G engine unit — costs at Coulter Dam 280 Million.

Total to be funded 475 Million until 1990 — 5.3 Billion.

@ 5% escalation — 500,000,000 / yr.

OR — assume no new audit whatsoever

and a 2.5 Billion reduction in 6.2 Billion.

@ 5% escalation — 380 Million / yr.

Average Cost Budget last 3 years — 280 Million.

To accomplish any current repair, action in the plant by the Congress.

To author legislation, valid existing projects.

To in effect cleanse these projects.

To reauthorize on new bases.

Such as increased interest rates, cost sharing (100%).

The entire backlog is authorized.

For a great deal of it related CRS have been executed.

You can draw your own conclusions as to the results of the CRS money.

The backlog now to be the Council's decision.

A few of all the above may be considered.
OF FUNDAMENTAL IMPORTANCE IS THE RESEARCH THAT IS BEING CONDUCTED TO SUPPORT OUR GENERAL PROGRAM OF CONSERVING, DEVELOPING, AND MANAGING THE WATER AND RELATED LAND RESOURCES OF THE WEST. LABORATORY AND FIELD RESEARCH MAINLY INVOLVES THE MANAGEMENT AND CONSERVATION OF WATER SUPPLIES; WATER RESOURCE PLANNING; ELECTRIC POWER GENERATION, TRANSMISSION, AND CONTROL; HYDRAULIC MODEL TESTING; INVESTIGATIONS OF NEW CONSTRUCTION MATERIALS AND TECHNIQUES; AND TESTING OF ROCK, CONCRETE, AND SOIL.

THE ATMOSPHERIC WATER RESOURCES MANAGEMENT PROGRAM, GENERALLY KNOWN AS "PROJECT SKYWATER," IS A MAJOR RESEARCH EFFORT. THAT PROGRAM HAS BEEN UNDERWAY FOR 11 YEARS AND IS AIMED AT DEVELOPING CLOUD SEEDING TECHNIQUES WHICH CAN BE UTILIZED BENEFICIALLY TO AUGMENT WATER SUPPLIES, PARTICULARLY IN WATER-SHORT AREAS OF THE NATION. THE FINDINGS OF OUR EXPERIMENTAL WORK ARE QUITE SIGNIFICANT AND INDICATE THAT PRECIPITATION CAN BE AUGMENTED AN AVERAGE OF 10 TO 30 PERCENT UNDER CERTAIN CONDITIONS WITH NO APPARENT SHORT-TERM ADVERSE ENVIRONMENTAL EFFECTS. THE F.Y. 1974 PROGRAM PROVIDES FOR EARLY COMPLETION AND EVALUATION OF SEVERAL WINTER EXPERIMENTS. IT ALSO INCLUDES $1 MILLION TO START THE HIGH PLAINS STUDIES IN WHICH MAJOR EMPHASIS WILL BE PLACED ON PROGRAM SUPPORT BY LOCAL AND STATE AUTHORITIES.
In the future, the Bureau of Reclamation will focus increasingly on energy and land use as a priority area of activity. An example of such activity that is presently being conducted is the Northern Great Plains Resources Program, being carried out under the leadership of the Department of the Interior.

As Jack Norton told you in his talk last night, that particular study will serve to foster the integrated consideration of basic natural resource use and protection, including human interests and economic and social development. It is designed to consider the full range of economic, social, and environmental consequences of alternative plans of land and resource management in the Northern Great Plains region.

I'll not repeat what Jack said, except to say that the study area, which includes large segments of Montana, Wyoming, North Dakota, and South Dakota, has been the focus of increasing attention because it contains vast amounts of relatively low sulfur coal. Interest in development of Northern Great Plains coal resources stems primarily from the continuing growth in the national energy consumption and increasing emphasis on improved urban air quality. The possibility of large scale development of the coal reserves has, at the same time, heightened regional concern for effective land use and resource planning; including such
ISSUES AS ENVIRONMENTAL QUALITY, MINED AREA RECLAMATION, COMPETITION FOR SCARCE WATER RESOURCES, DEVELOPMENT OF OTHER MINERAL RESOURCES, AND POTENTIAL EFFECTS ON THE PEOPLE AND ECONOMIES OF THE NORTHERN GREAT PLAINS STATES.

THE PRINCIPAL ISSUE CONCERNS ALTERNATIVES FOR DEVELOPMENT OR NONDEVELOPMENT, OF NATURAL RESOURCES WITHIN THE POWDER RIVER AND FORT UNION AREAS. PARTICULAR EMPHASIS IS PLACED ON COAL RESOURCES. THE PROGRAM WILL PROVIDE DATA AND ANALYTICAL METHODOLOGY, INCLUDING THE DEVELOPMENT OF APPROPRIATE MODELS, TO DEMONSTRATE THE ECONOMIC, SOCIAL, AND ENVIRONMENTAL CONSEQUENCES OF VARIOUS COURSES OF ACTION. THE PROGRAM WILL PRESENT BOTH QUANTIFIABLE AND NONQUANTIFIABLE IMPLICATIONS OF ALTERNATIVE RESOURCE USES. IT IS NOT ANTICIPATED THAT THE FINAL PRODUCT WILL RECOMMEND A PARTICULAR DEVELOPMENT PLAN FOR THE REGION; RATHER, IT WILL PROVIDE ADEQUATE INFORMATION ON THE BALANCING OF VALUES AND NET BENEFITS OF ALTERNATIVE PLANS TO GUIDE DEVELOPMENT OF A COORDINATED FEDERAL-STATE PLAN.

IN ANOTHER AREA, RECLAMATION'S GEOTHERMAL RESOURCE INVESTIGATIONS PROGRAM ENTERED A NEW PHASE IN MAY, WHEN THE FIRST FRESH WATER WAS PRODUCED FROM GEOTHERMAL FLUIDS IN ONE OF THE TWO PILOT DESALTING PLANTS INSTALLED AT THE MESA ANOMALY.
Imperial Valley, California. Waste products from the desalting plants are presently being disposed of in a small holding pond, but a contract has been awarded for drilling a deep injection well. Its completion will permit continuous operations.

Operation of the two pilot desalting plants for at least a year will be necessary if we are to determine whether it is technically feasible and economic to produce fresh water from geothermal fluids.

The Bureau of Reclamation does not contemplate research into electric power production from the geothermal hot water resource. That work has been left to non-Federal interests. However, many of the technical and environmental problems of geothermal development are common to both water and power production. Therefore, our program should also result in speeding up the day when additional electric power is produced from geothermal sources in the United States.

If fresh water from geothermal sources in the Imperial Valley proves technically and economically feasible, it would improve not only the quantity but also the quality of water in the arid Colorado River region. Desalted water from geothermal sources would contain about 50 parts per million of minerals.
Another program with the goal of improving the quality of water in the Colorado River is the Colorado River Water Quality Improvement Program. The program is designed to develop plans and measures to control Colorado River salinity. The objective is to limit the future increases in salinity levels in the Colorado River. Studies and models will evaluate both natural and man-made sources of salinity. The studies also will investigate the effectiveness and feasibility of potential control measures and recommend construction of those that are feasible.

The reason for continued concern over the Colorado River is that the Colorado River Compact allocates more water per year for consumptive use by the seven basin States than the runoff records of recent decades indicate is available.

Also, we have an obligation to deliver 1.5 million acre-feet of water annually to Mexico to satisfy the requirements of the 1944 Mexican Water Treaty. Investigations conducted for the comprehensive framework studies indicate that riverflow augmentation is essential to meet future water requirements.

Compounding the quantity problem are water quality problems. The Colorado River Basin is characterized by highly saline soils and many saline springs, which add significant quantities
of salt to the river. Projections indicate that the salinity of the Colorado River Water at Imperial Dam will continue to increase in the future. The study is designed to determine the need for and the most feasible means of limiting future salinity increases.

Reclamation's current and future activities, as outlined herein, reveal the prevailing priority changes. This shift in emphasis is not only better tuned to the Nation's recent awareness of the environment, but also to the Administration's fiscal and budget objectives.

Change is both the boon and the bane of mankind. With constant change, we as a nation have made some wrong turns and had to retrace our steps. However, without change for the sake of progress, mankind would still be living and starving in caves.

Recognizing this bit of philosophy, it is not inconceivable that the Reclamation program emphasis could return at least partially to more irrigation in the near future. It should be noted that the pendulum of crop surpluses has begun to move to the opposite end of its arc. No longer are crop surpluses a plague as previously believed but, in fact, are now virtually non-existent. If the worldwide food shortage does not correct itself, more irrigated lands
MAY WELL BE NEEDED TO HELP FEED A HUNGRY WORLD. MOST OF THE LANDS THAT HAVE BEEN REMOVED FROM AGRICULTURAL PRODUCTION BY VARIOUS AGRICULTURAL PROGRAMS ARE BEING RETURNED TO PRODUCTIVE USE AND SHOULD HELP THE IMMEDIATE SITUATION. THIS SHOULD HELP ALLEVIATE FOOD SHORTAGES FOR A WHILE. IF CROP FAILURES AND FOOD SHORTAGES REAPPEAR OR PERSIST, POLICIES WITH REGARD TO IRRIGATION LIKELY WILL BE REVISED.

IRRIGATED AGRICULTURE, AS YOU WELL KNOW, HAS A NUMBER OF Advantages OVER DRYLAND FARMING FROM A NATIONAL SECURITY VIEWPOINT. A PROPERLY DESIGNED IRRIGATION SYSTEM FURNISHES INSURANCE AGAINST THE VAGARIES OF NATURE SUCH AS DROUGHT OR FLOOD. IT THUS, CONSTITUTES A DEPENDABLE BASE FOR VITAL AGRICULTURAL PRODUCTION. ANOTHER IMPORTANT ADVANTAGE IN THE CURRENT ENERGY CRISIS IS A SAVING IN ENERGY. IN MODERN MACHINE DOMINATED AGRICULTURE, IT TAKES ABOUT THREE CALORIES OF FOSSIL FUEL TO PRODUCE ONE CALORY OF FOOD. IRRIGATED LANDS USE LESS FOSSIL FUEL PER POUND OF FOOD BECAUSE THEY PRODUCE MUCH MORE FOOD PER ACRE THAN DO DRY LANDS WITH A LESS THAN PROPORTIONAL ENERGY INPUT.

ALTHOUGH WE HAVE SHIFTED PROGRAM EMPHASIS, WE CONTINUE TO EMBODY A HIGHLY SKILLED WATER RESOURCE DEVELOPMENT ORGANIZATION WITH COMPETENT FLEXIBILITY TO MEET THE CHALLENGES OF THE DAY IN THE BEST INTERESTS OF SOCIETY FOR THE BENEFIT
OF PEOPLE BOTH TODAY AND FOR GENERATIONS TO COME.

AND YO

WE NEED EACH OTHER'S SUPPORT IN THIS OBJECTIVE. WE PLEDGE OURS AND SOLICIT YOURS.