Remarks of C. G. Stamm, Assistant Regional Director
Bureau of Reclamation
Before Upper Snake River Valley Water Users Protective Union
Idaho Falls, Idaho ---- February 24, 1959

It is a real pleasure for me to meet with you today, since
this is the first opportunity I have had to discuss items and problems
of mutual interest with you. Regional Director Harold Nelson has
asked me to offer his regrets at his inability to be with us today.
There are a number of items regarding Bureau of Reclamation activ-
ities in this area that I would like to cover at this time.

Transfer to O&M Status

The Palisades Project was placed in an O&M status in
July last year. For all practical purposes, construction is now
complete on the project. Full responsibility for all project facili-
ties and activities, including the minor construction items still to
be done, are now the responsibility of the Superintendent of the
Minidoka Project in Burley, Mr. Merle Tillery.

Last Year's Operations

This coming season will be the first year of full-scale
operations of the 1, 400, 000 acre-foot Palisades Reservoir. Last
year, however, our operations were nearly full-scale. The usable
storage in the reservoir reached a maximum of 1, 113, 000 acre-feet
on June 10 and 11. Because of a painting program in the outlet
water through lease and use to water users in the Upper Snake River area during the past irrigation season. Without this additional water, these irrigators would have run quite short. Palisades Reservoir also contributed considerably to our holdover water in the Basin. This holdover storage, some 300,000 to 900,000 acre-feet, is largely responsible for the present good position that we find ourselves in as far as water supply goes in this area this year.

**Water Supply Outlook**

Present indications are that streamflow in the Upper Snake River area for the coming season will be near normal. However, this will depend, to some extent, on the weather for the next few months. Although there is the possibility that natural flow supplies for the coming season may be a little deficient, we believe that normal irrigation water supplies will be available on nearly all projects because of the availability of reservoir storage. Present storage in the six reservoirs in the Upper Snake River area (Jackson Lake, Palisades, Island Park, Grassy Lake, American Falls, and Lake Walcott) is over 2,600,000 acre-feet. This compares with a total usable capacity of about 4,000,000 acre-feet. We believe there is a good chance that all reservoirs will be
tunnel, the outlet capacity at Palisades Dam last spring was somewhat restricted, making it necessary to provide a little more flood control space than we ordinarily would have needed. For this reason, we did not fill to the total active capacity of 1,200,000 acre-feet. I might add that net generation at the Palisades Power-plant totaled 556,486,490 kilowatt-hours during Calendar Year 1958.

Last year’s operations of the Palisades Reservoir clearly illustrated the value of this additional storage on the Snake River system to the area. The Corps of Engineers estimated that flood damages of about $300,000 in this area were prevented by our operations at Palisades last year. In addition, flood damages of some $44,000 were prevented in the Jackson Hole area by reason of storage in Jackson Lake. These estimates of flood control benefits are significant, particularly in view of the fact that streamflow last year was not unusually high. The peak natural inflow of the Snake River above Heise last spring was about 33,000 cubic feet per second. Through storage in Palisades Reservoir and Jackson Lake, this flow was controlled to a maximum of about 19,000 cubic feet per second at Heise.

In addition to the benefits that this storage provided through flood control, it also provided about 150,000 acre-feet of
filled. We do not expect to have any flood problem along the main river this year.

**Contract Negotiations**

On September 29, 1958, all of the forty-two irrigation districts and companies who had contracted for space in the Palisades Reservoir were informed that the reservoir was complete and ready for storage of water as of October 1, 1958. This served to initiate payments by Palisades contractors under their contracts with O&M payable immediately, and on construction repayment on December 31, 1961.

We are proceeding as rapidly as possible with negotiations for the remaining uncontracted space in Palisades Reservoir, and are now negotiating with some 130 individual water users who are stockholders in Palisades Water Users, Inc.; or Craig Mattson Canal Co.; with the City of Pocatello; with Food Machinery Corporation; and with J. R. Simplot Co. The last three had requested an allocation space which, if covered by contract, is intended to offset depletion of underground storage by pumping. Negotiations are also pending with four or five other irrigation districts, and with the Utah-Idaho Sugar Co. In addition, modification of contracts heretofore executed will be required as a result of agreements made to complete the contracts with the Minidoka Irrigation District.
Operation Problems

There are several problems which either arose during construction, or which have appeared during our operation of the Palisades facilities, on which I would like to comment briefly. During construction, a fire occurred on generating unit 4, causing internal damage to the unit. The contractor, Oerlikon Engineering Company, Switzerland, assumed full responsibility for correcting the trouble, which, in effect, required a complete re-insulation of stator coils and some repair to stator iron.

Inspection following completion of repairs disclosed serious corona conditions in the windings. Because of the need for power during the irrigation season, and the considerable loss of revenue which its outage would entail, it was decided to defer repairs until fall. The contractor accepted the responsibility for correction of the trouble, and satisfactory repairs were completed last November.

Security Measures

In July 1958, the Department of Defense declared the Palisades Dam and Powerplant essential to national security, and it was placed under the cognizance of the Sixth Army for inclusion in the Industrial Defense Plan of the Northwest area. This, of course, must be considered in our operational plans and in the handling of
The annual inspection disclosed cavitation on Unit 3 runner of advanced and serious proportions with maximum pitting depth of approximately 3/8 inch. Approximately 10,000 square inches of turbine vane and draft tube areas required welding with stainless steel.

Unit 3 had operated approximately 12,000 hours, Unit 2 10,000 hours, and Unit 1 7,500 hours. To avoid damage found on Unit 3, it was decided to weld Units 1 and 2 prior to the next irrigation season.

A mechanical engineer, experienced in modern methods of stainless steel application was placed in charge of work and two extra welders from outside the project were secured in order to complete the work prior to 1959 irrigation season. Unit 3 repairs were completed January 30. Work is now in progress on the other two units.

Stainless steel is highly resistant to cavitation, and once a proper welding is accomplished, only minor welding repairs are required annually to maintain the runners in good condition. Cavitation is expected on new runners. It is cheaper to let cavitation pattern develop, then put on stainless steel, than to make whole runner of high-cost metal.
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Recreation

The Palisades Reservoir was the first Reclamation reservoir in this area to have recreation facilities authorized as part of the project. As a result, it has been a model development both because of the authorization, and the excellent way the planning and construction of these facilities were handled by the Forest Service in accordance with an agreement between the two agencies. Under this agreement, the Forest Service prepared an over-all recreation plan for the area with detailed plans of the areas to be developed within the $148,000 authorized financing. These plans have been approved by the National Park Service and the Bureau of Reclamation. The Forest Service has now completed construction of public-use areas (campground and picnic areas), organization camp areas, and summer homesite areas. They are also seeking concessioneers to provide services needed in the area.

Despite its remoteness from centers of population, the reservoir is receiving heavy recreational use, and will, no doubt, receive even heavier use whenever the desirability of the area is better known.

A bill was passed during the last Congress to bring into the U. S. National Forest the portion of the reservoir area not already encompassed in a U. S. National Forest—which now gives
the Forest Service a legal authority to operate the facilities.
(The Forest Service previously was authorized to construct, but
not operate, facilities, since Bureau of Reclamation funds were
involved).

**Down-River Construction**

You may be interested in the present status of Bureau
of Reclamation construction activities in the area immediately
downstream. Construction on the Michaud Flats Project, near
American Falls Reservoir on Snake River, is practically complete.
At the end of June 1958, facilities were ready to serve some 10,000
acres on this project, and 1959 marks the first year in which water
will be available for all lands for the full irrigation season.

Just downstream, the North Side Pumping Division
of the Minidoka Project is also nearing completion. Facilities
were ready to serve some 70,250 acres on this project as of
June 30, 1958. Ultimate development is expected to serve about
80,000 acres.

Work is well underway on the enlargement of the Little
Wood River Reservoir, which will benefit lands of the Little
Wood River Canal Company near Carey, Idaho.

**Burns Creek**

I know that you will also be interested in hearing of
the present status of the Burns Creek Reregulating facilities. During the 85th Congress, hearings were held in both Houses on this proposed project. Authorizing legislation was not enacted; however, the fiscal year 1959 appropriation includes $500,000 for preconstruction and construction activities. Use of the money is contingent upon authorization of the project by the Congress. Legislation has again been introduced in the present Congress to authorize construction.

The Burns Creek Dam, Powerplant, and appurtenances, would be located on Snake River in Bonneville County, Idaho, about 38 miles by road east of Idaho Falls. The proposed facilities would be integrated electrically, hydraulically, and financially, with the Palisades Project for the purpose of smoothing out peaking releases from Palisades Powerplant, producing at-site power, and providing 100,000 acre-feet of holdover irrigation storage capacity as a supplemental water supply to lands in the Snake River Valley whose water supply is diverted above Milner Dam.

Burns Creek Dam will be a rolled earth-fill structure, 176 feet high above streambed, with a crest length of 1,900 feet. The reservoir will have a total capacity of 234,000 acre-feet, and the powerplant will have an installed capacity of 90,000 kilowatts.
General Investigations

There is another phase of our activities in this area which I am sure will be of interest to you. In our General Investigations program, we are investigating possibilities for additional storage on the Snake River and its tributaries above Palisades; the possibilities of irrigation development in the Teton Basin; and a reconnaissance study of a possible means of recharging the groundwater resource of the Snake River Plain.

Snake Narrows Project.--The field phase of the investigation of multiple-purpose storage above Palisades for irrigation, power, and flood control is drawing to a close. The development will be presented in a report on the project, based on a storage reservoir of about 1,078,000 acre-feet total capacity at the Alpine site. Our Snake River Development Office expects to have the field draft of the report completed within a month.

I want to reaffirm our announced intention to publicly present the available data regarding alternative development possibilities before any recommendation concerning further development is made by this office. Since the field draft of the report has not been finalized, the specific conclusions concerning the project are not now available.
Teton Basin Reconnaissance. --The investigations program now before Congress for fiscal year 1960 includes a reconnaissance study of the Teton Basin. The possibility of storage on the Teton River at the Driggs site, five miles northwest of the community of Driggs, will be evaluated. We will also consider the irrigation purposes that might be served by multiple-purpose flood control storage under study by the Corps of Engineers at the Fremont site in the canyon 3-1/2 miles northeast of Newdale. Supplemental irrigation and flood control are the principal purposes to be served by the new developments being studied.

Groundwater is an important water resource in the Upper Teton Basin related to further irrigation development, and it will be considered. In this regard, one test well and three observation wells were drilled in the Upper Basin last summer, and the results are being studied cooperatively with the Ground Water Branch of the Geological Survey.

Snake River Recharge. --During fiscal year 1960, we have scheduled a reconnaissance study for the purpose of analyzing possibilities of an economically justified feasible development plan for the introduction of surplus flows of the Snake River into
the vast underground storage reservoir for the multiple purposes of flood control, stabilization of river flows for power production, and sustaining groundwater levels for present uses and for the expansion of irrigation from groundwater.
RECLAMATION OFFERS "PARITY OF OPPORTUNITY"

In the vast region known as the Nation's arid and semiarid western half, the availability of dependable water supplies spells the difference between growth and stagnation, both in human and in economic terms. From the historic viewpoint, the development of western water resources has played a primary role in converting a once-barren wasteland into a great national asset. From the perspective of the present, the dry West today is the best and most important client, customer, branch office and factory, of the long-established East. It is also the most rapidly growing sector of our economic geography. Putting the focus on the future, we find that population growth and natural resource use are parts of a national budget which must be kept in balance; continued orderly development of the West's water and related land resources through the multipurpose Reclamation Program assures this balance. For the West's water-dependent agricultural industry, moreover, the Reclamation effort has yet another meaning—it offers parity of opportunity to the family farm.

Western Water Problems - The Physical Setting

The spatial and temporal variability in the distribution of United States water supplies has been a focal point of recent investigations conducted by the National Academy of Sciences—National Research Council at the request of the President. The findings show that this variability relates primarily to the partial or nearly total absence of precipitation during the high demand season and the highly erratic seasonal runoff experienced in the semiarid and arid western Reclamation States. It is in this western setting that water becomes a basic economic good which justifies large but profitable investments, both private and public. In the humid East, we are only now beginning to take stock of the real value of water—our concern having been triggered by large-scale problems of pollution. In the West, on the other hand, there has long been a growing realization that water shortages are a real threat to the continuing growth of many areas and regions. Already a very real problem in many large and heavily populated areas of the western economy, water shortages threaten to increase our water bill, to take a larger fraction of the Gross National Product, even to restrict further economic development.

From the physical view, the remaining developable water supplies in many parts of the West grow shorter with the passing of each day. As competition for the resource has exhausted the more ideally located sources and sites, it becomes increasingly necessary to reach over greater distances to secure needed supplies. In this setting, optimum development and conservation of remaining supplies becomes a variable largely dependent on the scope and scale of the projects yet to be built. And it is here that modern multipurpose Reclamation projects, which benefit the economies of entire river basins and even larger areas and regions, and which embrace the entire range of beneficial uses, play their most important role.
Reclamation--An Important Complement of Western Agriculture

Agriculture is the West's largest single industry--just as it is the Nation's largest single industry. There is one all-important difference, however, which distinguishes the two. That difference is water. In the humid East, natural rainfall allows crops to grow and mature. In the arid and semiarid West, perpetual droughts during the crucial seasons of plant growth require that needed soil moisture be applied artificially--drawing on water supplies conserved and stored in the winter and spring rainfall seasons and conveyed to the places of need at the proper time. With the help of these facilities, water becomes a controlled factor of production, and the western farmer regains a basic tool which was never denied to his more fortunate neighbors in the humid East.

Within this framework, the Reclamation Program functions to make needed water supplies available from Federally-constructed facilities to family-sized, family-owned and family-operated farms whose soils have been found suitable for sustained irrigation. The 129,000 irrigated family farms on Reclamation projects throughout the 17 Western States have rolled up a record of successful, efficient and diversified farm production which amply supports the finding that irrigation farming represents the most intensive and competitive use of the western farm land resource. Irrigation farming supports the maximum number of people per unit of farmland and secures for them an adequate livelihood. While the provision of irrigation water to suitable lands is but one facet of the multipurpose Reclamation Program, it is thus an important complement of the programs of agriculture in seeking to provide parity of opportunity for the American farmer.

Reclamation - A Key Factor In The Growth Of Private Enterprise

To put the matter of private and public irrigation activity in perspective, we note that the 1959 Census of Agriculture reported a 48-State total U.S. acreage of 1,287 million acres of cropland, pasture and range, of which only 33 million acres, or 2.6 percent, were irrigated. The 17 Western States accounted for 93 percent of the 33 million acres irrigated nationwide; Reclamation projects provided full and supplemental water supplies to irrigate roughly one-fourth of these western lands. Private investment in irrigation facilities--wherever available water supplies permit the installation of wells or the construction of modest facilities for storage and surface conveyance--thus plays an important role in rendering western soil productive. Unfortunately, the limited financial resources available to private enterprise are today rarely sufficient to permit the optimization of the water resource to meet present and anticipated demands by all beneficial uses. Nor can it be expected that private irrigation interests or small public bodies such as irrigation districts find it proper to invest borrowed capital on behalf of water uses which are not a part of their investment objectives. This, then, is the proper place and function of the Reclamation program--to act as a banker for the private sector in order that the scarce resource may be optimized in order that private enterprise may grow and make its contribution to our national strength and well-being.
Investment in Reclamation water resource development is a public investment designed to aid the private sector by providing the financial resources unavailable to the latter. Its virtue is financial accountability and prudence; its reward is the growth of private enterprise; its dividend is the expansion of the national tax base. Its accomplishments are a matter of record.

Reclamation—A Stabilizing Influence In The Rural-Urban Transition

In the context of resource problems besetting the predominantly rural areas of the West, Reclamation water development is no less important than it is in the setting of transition from agricultural to rapidly growing urban, suburban and industrial water demands. In many thinly populated western regions, agriculture has been, and continues to be, the sole economic base. Here, too, a reliable water supply is essential to a successful farm economy sufficiently diversified and efficient to be competitive in the marketplace. The experience on Reclamation projects gives ample proof that the introduction of irrigation farming in areas blessed with suitable soils and sufficient water creates "stable, efficient and viable local economies which are a liability to no one. The investigations of the Second Hoover Commission confirmed these conclusions only 10 years ago: " . . . The justification for Federal interest in irrigation is not solely to provide land for farmers or to increase food supply. These new farm areas inevitably create villages and towns whose populations thrive from furnishing supplies to the farmer, marketing his crops, and from the industries which grow around these areas."

In view of the rising concern of public policy with the problems of urban America, it is important that we do not destroy the usefulness of those programs which have brought economic stability and self-sufficiency to agriculture-based rural economies. In the water-short West, the provision of water to irrigable farmlands through the multi-purpose Reclamation program counts among the most effective of such stabilizing efforts. An enlightened public policy, which is responsive to the rising concern with the very real economic and social costs of the recent "flight from the farm" and with the multiple problems inherent in the absorption and assimilation of the farm population within the urban economy, will regard the Reclamation program as a powerful and effective ally.

Reclamation—A High-Yield Insurance Policy To Meet Our Long-Range Needs

From the long-range view, we can ill afford to lose our overall perspective of the Nation's future needs in relation to her stock of natural resources. Experts of the Department of Agriculture anticipate that a population of 500 million Americans by year 2020 would require our Nation's agricultural plant to increase its output 175 percent. At the same time, we are told that with the best use of her land and water resources the United States could irrigate about 67 million acres of crop and pasture land as a maximum. The record shows that we are already irrigating more than one-half of this area. On balance, there
is very little margin when we have a finite supply of land suitable for irrigation and at the same time are threatened with rapidly dwindling opportunities to bring the needed water supplies to that land.

There is no contradiction inherent in the proposition that we should seek to continue private and public irrigation programs even while we ponder over the alternative uses for about 50 million acres of cropland excess to our 1980 requirements. We are not talking about the same lands. Recent findings of the Department of Agriculture show that nationwide there are some 25 million acres of cropland which are presently worked even though they are not suitable and should not be cultivated, and that there are another 49 million acres which have very severe soil limitations. It is these lands which should be put to alternative uses, partly because we do not now need the crops produced on them, and partly because they do not yield an adequate livelihood for their owners. In stark contrast, our irrigated lands are among our most efficient and valuable farmlands. These lands produce about one-fifth of the total value of crop output in the U. S., on a far smaller fraction of our total farmland. Estimates show, moreover, that irrigated farming contributes about $4 billion to the Gross National Product, and that agriculturally related industries whose location is influenced to some extent by the location of irrigation contribute another $25 billion to the GNP.

It is the production on irrigated lands which yields for us the most vivid picture of the efficient family farm and the bustling commerce of surrounding cities and communities. This is what we mean when we speak of a viable rural America. In the ordinarily brown coloring of the Western landscape, this rural America is identified by the large, though scattered, patches of green—where water has been put to work by and for the people. For the rural West, water is the single substance without which it is—and will continue to be, impossible to establish the "parity of opportunity" of which President Johnson spoke so eloquently in his February 1965 message on Rural America.

Only Limited Development Opportunities Remain

There is evidence at every turn that the Administration and the Congress—on both sides of the aisle—recognize the important contribution to the continued prosperity of our entire economy which results from an efficient agricultural plant run by the family farm. Where the available water resources permit additional development not in conflict with higher uses, the provision of dependable water supplies under the Reclamation program to the remaining portion of our irrigable western land supply is in that sense fully as important as the modernization of industrial plant in the nonfarm sectors of the economy. Of course, the opportunity to irrigate all of our remaining irrigable land supply will never materialize.

Our ever-growing demands on the available stock of water, particularly for nonagricultural uses, are making it exceedingly difficult to conserve it in quantities adequate for irrigation farming. In many western areas, moreover, the expansion of private enterprise irrigation—largely through
private wells pumping from below ground--has served to deplete renewable groundwater sources and has led to groundwater "mining" in varying degrees. In these areas, Reclamation's obligation is to rescue, shore up and stabilize existing economies faced with actual or impending water shortages whose impact would bring with it irreparable economic and social harm. In other areas, Reclamation-developed water supplies successfully convert dryfarm economies with little or no supporting industry save a grain elevator into highly productive and diversified economies which attract a variety of processing industries, and support the business sectors and residents of surrounding towns and communities on a self-sustaining basis. In still other regions, notably those experiencing rapid growth (traceable in large measure to the availability of Reclamation water supplies developed earlier), Reclamation projects serve to satisfy the entire range of water demands while placing ever-increasing emphasis on the needs of the nonfarm and nonrural sectors.

Given this composite picture, then, the Reclamation program is one of the sharpest and most effective tools of a public policy which seeks to remain responsive to the changing needs of our growth. This view is implicit in President Johnson's telegram to the 1964 convention of the National Reclamation Association: "I am certain that my views on the vital importance of developing an adequate water supply for future economic and population growth of our great society are well known to most of you. I also believe that you are aware of my continuing support of water resource development. As you survey 1965, and beyond, in your convention proceedings, you can be confident that, with the support of the newly-elected National administration and the Congress, the reclamation program will continue to forge steadily forward in the years ahead."

Strengthening Our Renewable Natural Resources

From the standpoint of resource policy implementation, there has been a deplorable lack of public understanding--and consequently a lack of support--of some of the basic premises which serve to shape such policy. While it is a true and accepted premise that it is organic nature which furnishes our renewable resources, it is far more difficult to grasp the truth that organic nature constitutes a complex dynamic system which has no isolated parts but whose components are interacting and interrelated in mutual dependency. Mannmade alterations of this equilibrated system thus have repercussions which may serve either to strengthen or to weaken it; whichever takes place, repercussion is inevitable. This fact alone draws a primary distinction between actions which alter and affect our renewable resources, and actions which merely reshape a resource into a product--even though the latter may carry a more glamorous popular appeal.

But where manmade alterations serve to strengthen our renewable resources without offending the basic law of living nature, there is yet a deeper meaning. By fitting ourselves into this most complex ecological network while reinforcing its structure, we are sharpening and improving the tools basic to our continued survival and necessary to our continued well-being. Within this larger thought, it is ironic that the far-reaching beneficial economic and social impacts of strengthening our renewable natural resources seem to go largely unappreciated in the face of more "exotic" technological advances in other fields.
For that matter, even the difficulties inherent in the optimization of our natural resource yield are neither fully understood nor widely appreciated. The irrigation of suitable lands in the arid and semi-arid West--acknowledged to be a most powerful tool to secure efficient new production from the earth--is a case in point. There are three primary physical elements, or inputs, essential to successful irrigation farming. They are: (1) suitable soil; (2) adequate moisture; and (3) sunlight. To optimize the production of food and fiber from irrigation farming, we must combine these elements. But we cannot combine them indiscriminately. To quote from a recent report of the National Academy of Sciences--National Research Council:

"... Plant growth does not depend locally on the average amount of water available, but on the availability at the proper soil depth at the right season within a tolerable margin between drought and flooding; not on the total amount of light, but on the proper ratio and timing between light and darkness; not on the total freedom from admixtures of other (not directly needed) forms of life, but on the presence of the right proportions of particular populations of microbes, other plants and animals of indirect benefit in their complex contributions to more immediate environmental prerequisites for optimal growth ..."

The Loss Of Renewable Resources Must Be Minimized

But even after we have found the best ways and means to satisfy these biological requirements delineated by our scientists, we are not comforted that the results will be equal to our long-range food and fiber needs. Our rapid national growth brings with it demand-occasioned changes in resource utilization which threaten to diminish the stock of land and water resources needed for efficient food and fiber production and which thus curtail our capacity to gear to the demands of the future. Recent and anticipated developments associated with the Nation's response to urban and suburban needs tend to reinforce this apprehension.

The ongoing large-scale and almost totally uncontrolled reallocation of prime and level irrigated western croplands to urban and industrial uses exemplifies these developments. Although irrigated land has a far higher net value product per acre than dryfarm agriculture and often serves as the foundation for highly developed processing industries and related economic activity, it is nevertheless quickly priced out of the land market by nonfarm land uses at the margin of urban-industrial development. Nearly all such shifts tend to be irreversible, if only because of the extensive use of concrete and the accompanying breakdown of the existing soil structure. Keeping in mind that our supply of land suitable for sustained irrigation is finite, we are giving up a portion of our productive strength each time that we allow an acre of irrigable land to be shifted to nonfarm uses. Most importantly, each acre so lost ceases to be a renewable resource and will require additional investment for its replacement.
Severe Tests Guarantee Success Of Resource Enhancement Through Reclamation

It frequently is not realized by the general public that proposed public investments under the Reclamation program are subjected to scrutiny and tests far more rigorous than those conducted by most private bankers and investors. In fact, Reclamation projects meet more tests of more kinds than almost any other program conducted by the United States Government. They must meet the tests of technical engineering feasibility, the tests of economic justification from the local, regional, and national viewpoints, and the tests of financial feasibility as judged by the ability of the local people to repay their assigned shares of project costs. These are truly rigorous tests of public expenditure, especially when it is considered that the amounts invested annually in land and water resource development always have comprised a relatively small proportion of the Federal budget—usually less than 2 percent. In simple contrast, and without prejudging the value of Federal spending in other fields, the total sum which Congress appropriated for Reclamation construction in the 62 year period, 1902-1964, is $900 million less than the U. S. aid extended to South Korea during the 17 year period, 1946-1963.

There is another facet of Reclamation land and water resource development which has generally escaped the attention of the American public. It is largely procedural in nature but nevertheless indicates the very great and real extent to which private enterprise cooperates with Reclamation in improving our natural resources. No Reclamation project has ever been forced down the throats of the people. On the contrary, it is the people in the local communities and areas who request that the Bureau of Reclamation conduct studies to see what can be done with regard to their particular problems. It is the people themselves who contribute voluntarily to help meet the costs of the investigation. It is the people themselves who give their wholehearted support when a project plan has crystallized—knowing full well that it is they who will be required to reimburse the government for the costs of building the project. It is the people themselves who form legally constituted districts under their respective state laws to assume the formal obligation of reimbursing the government via the instrument of a contract reviewed and sanctioned by state courts. There is no giveaway, no hornswoggle, no boondoggle. There is only the prima facie evidence of voluntary and cooperative participation of western people, who suffer from the handicap of limited and grossly mal-distributed water resources and who act responsibly to overcome the shortcomings imposed by nature.