

A Water Policy for the American People.

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*Summary of
Recommendations*

FROM THE REPORT OF

THE PRESIDENT'S WATER RESOURCES POLICY COMMISSION

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VOL. 1.—General Report
VOL. 2.—Ten Rivers in America's Future
VOL. 3.—Water Resources Law

A National Water Resources Policy

Including Summary of Recommendations

AMERICA IS A COUNTRY richly endowed with natural resources: fertile land, extensive and varied forests, an abundance of mineral wealth beneath the soil. All these things are gifts of nature, which our people have used to build a civilization unmatched in human history for its material productivity. From the products of our land, our forests, our mines and oil fields, we have raised great cities and spanned a continent with railroads and automobile highways. But without one key resource, water, none of these miracles of human achievement would have been possible.

Water has unique characteristics. Time does not change it. It is the same today as it was 10,000 years ago. Water is active, and affects all other things. It has molded our mountains, carved our great valleys, nourished our forests, created our alluvial plains, played a major part in creating the fertility of our land, and carried off our topsoil. Changes in its quality are only temporary; it does not change in quantity but only in its location and form as it pursues nature's eternal cycle from the raindrop to the land, thence to the sea, and back again to the clouds.

Throughout history, water has dominated human life. The earliest civilizations appeared in the great river basins of Mesopotamia and Egypt. Settlements were limited to coast lines and river banks; trading centers arose at the confluences of navigable streams. Rainfall and drought have set the stage for the drama of

human existence. Rivers, with their life-giving waters, changing at times to swollen monsters bent on destruction, have been principal actors in that drama.

Until recent times, man has not attempted to control water, except in a limited measure for water supply and irrigation. He has for the most part been forced to adjust his ways to its vagaries as nature gave or withheld rain for his crops or overwhelmed him with raging floods. Prayer, magic, and propitiation marked his early gropings for control.

Today, on the American continent, centuries of human history coexist. On their western lands, Indian rain-makers dance their age-old dances while overhead airplane pilots are seeding the clouds.

The attempt to use science and technical skill to force water from the clouds is symbolic of the modern determination to control and use water, rather than to submit to it.

It is an expression of the same scientific determination to use the forces of nature to serve man's purposes as is embodied in such great river basin programs as that for the Columbia, which will ultimately provide 50 million horsepower and bring millions of new acres under cultivation.

In the brief span of a century and a half, American farms and cities have spread over the land from the Appalachians to the Pacific. Great harbors have been built, navigable streams maintained and improved; large cities have been

supplied with adequate quantities of pure domestic water, their wastes carried away by more water; in the arid and semiarid West, deserts have been made to bloom; and large and small dams provide for flood control, hydroelectric power, and irrigation. All these things are the achievements of human ingenuity and enterprise—the work of many pioneering individuals, many men of technical skill, and the cooperation of local, State, and Federal Governments.

On the debit side, man's activities in exploiting nature also have been destructive. We have used water badly, without proper respect for its natural cycle, turning it from a friend to an enemy. We have destroyed forests, leaving barren, denuded mountainsides from which rain water and melting snow pour unchecked; we have overplowed and overgrazed our lands; we have dangerously increased soil erosion, allowing precious topsoil to be carried to the sea, muddying our streams, filling up our reservoirs, and increasing the damage from floods.

We Must Conserve and Develop

These are serious wastes. If they continue unchecked, they will impoverish us and our children. But it is the strength of a free society that it can recognize and correct its mistakes. It is dynamic and flexible. In all parts of the country—among engineers, conservationists, farmers, householders, and other ordinary citizens—there is a growing recognition that we must conserve and develop, as well as use, our natural resources. And in conservation and development, as in use, water is the key resource.

Now, midway in the twentieth century, two facts have become compellingly clear.

The first is that water is limited in relation to the many and varied needs for its use. These needs will grow in size and complexity as the population grows and as industry develops. More water for domestic use is needed by our growing towns and cities. More water must be used to bring new lands into production in the West. New industrial techniques, such as those developed in the chemical industries, synthetic

fuel production, and the harnessing of atomic power, bring with them increasing demands for water.

We can no longer be wasteful and careless in our attitude towards our water resources. Not only in the West, where the crucial value of water has long been recognized, but in every part of the country, we must manage and conserve water if we are to make the best use of it for future development.

The second fact we can now see clearly is that the management, conservation, and use of our water resources is inextricably bound up with the management, conservation, and use of our land and that both are essential to our expansion as a Nation. Floods cannot be controlled by building higher and higher levees, or permanently by building dams, if other things are neglected. The big streams are fed by small streams, and water control inevitably leads us back to the proper conservation of forests and agricultural land.

The farmer who holds the rain water by terracing his fields, the group of farmers who band together to form a soil conservation district, play an indispensable role in water management. The preservation of our forests, our mountain lakes and streams, and our wildlife sanctuaries has ample justification in providing healthful sport and recreation for the refreshment of the human spirit; but it is also an essential part of water conservation and management. In short, if we do not manage and conserve water, we suffer losses, some of them irreparable, in our other natural resources. If we do not manage and conserve these other resources, we shall lose the usefulness of our water: it will rush to the sea, robbing instead of enriching us.

The Source of Policy

A well-rounded national water resources policy to meet this need must be a broad reflection of the lives of the people on their farms, in their villages and cities, in their regions, and in the Nation as a whole. Civilizations are built on a combination of water, land, and people. When

the combination ceases to be infused with a moral relationship between man and man, and man and nature, civilizations decline and give place to new combinations of these elementary values.

The people will drink the water, use it on the land to grow crops, feel the destructive power of uncontrolled floods, learn to use water more intelligently to avoid destruction of the land. They will transport their bulk cargoes on the bosom of streams, perform a multiplicity of tasks with the aid of electric power generated by falling waters, utilize water in their industrial processes, resent its pollution, and enjoy the fishing, boating, swimming, and other forms of recreation offered by the clean waters of lakes, reservoirs, ponds, and streams.

So it is the people that a Nation's water resources policy must be designed to serve. In a democracy such a policy is simply the way in which the people decide, through their local, State, and Federal governments, to utilize water for all these purposes.

Natural Subdivisions

River basins are the natural subdivisions of our water resources, and watersheds are the natural units in these river basins. Therefore, water resources policy will tend to deal with the ways and means of deciding how best to preserve and utilize the resources of watersheds and river basins. People who live in these communities must learn to share in the cooperative application of sound policy to the development of water resources within the basin.

From the pioneering days in which our Nation was born, people have thought in terms of the rivers that were so important in establishing the geographic, economic, and social characteristics of their culture. The many rivers of New England not only contributed to its beauty but turned the wheels of the country's earliest manufacturing plants. The rivers of the Middle Atlantic States not only energized their industries but carried increasing burdens of commerce.

The rivers of the South Atlantic and Gulf areas carried commerce and wove themselves into the

cultural life of the people. Among these, the Mississippi, with its great Missouri, Ohio, Tennessee, and Arkansas tributaries, served and gave character to the entire heart of the continent. Along its many waters, pioneers moved to build a continental nation.

Farther west, where the country becomes more arid, the rivers have been vital sources of water, sustaining the development of agriculture and establishing the necessary foundation for the development of many States. Especially the three great basins of the West—the Columbia, Sacramento-San Joaquin, and Colorado—have become the fundamental sources of strength for rich regional cultures.

New Problems

With the development of the Nation in the great river valleys which gave form to regions, the relationship of people to rivers became more complex, raising new possibilities of use, new problems of conservation, and new necessities for controlling their water. The river made its contribution to a simple regional economy without asking elaborate programs or heavy investment. It was simply a matter of small dams for mechanical power in the headwater streams, piers for small boats wherever there was a pond, lake, or smooth reach of water, and docks for cargo and passenger ships in the lower reaches. Many rivers contributed significantly of their shad or salmon to the regional food supply. In the West, simple impoundments with extended systems of locally constructed gravity canals enabled the waters, contributed by melting snow on the mountains, to turn desert areas into prolific sources of foods and fibers.

But as agriculture and water use developed with the rise of our city civilization, the need for watershed management became more apparent. The steady shift of farming from horse and mule power to tractor power, and the shift of land use from pasture to cropland, were accompanied by a shift from natural to artificial fertilizers, adding to farm costs. At the same

time, the farmer's economic position was unfavorable. His production was unrestricted, but the markets in which he bought and sold were more and more tightly controlled. These factors combined to encourage misuse of the soil to the point where erosion became one of the Nation's most serious problems.

In the same period the rise of the railroads, affording areas without water transportation access to river, lake, and ocean ports, ushered in a new transportation era. The growing interdependence of the entire country, characteristic of the modern commercial and industrial era, led to a tremendous increase in the demand for economical transportation. As far as waterways were concerned, the traditional shallow-draft river and canal became obsolete. A modern system of deep waterways became necessary to transport bulk commodities long distances at the lowest possible costs. The need for waterway improvement became urgent.

Similarly, the tendency of commercial and industrial centers to push their structures, and the location of railroad tracks which join them, down into the natural flood plains of rivers, tended to create a major problem of protection every time a river, swelled by melting snow or torrential rains, overflowed its banks. The need for flood control appeared critical.

Meanwhile, the expanding cities and industrial plants began to overload the streams with their wastes, thus causing pollution which gradually rendered them unfit for beast, bird, fish, or man. Water treatment and pollution control became imperative.

Electric power gave the final impetus to the transition to our modern industrial economy. Each tumbling rapids or waterfall on a stream, whether large or small, became a source of the great energy of modern times, electricity. In the early years non-Federal interests developed the most economical water power sites, constructing projects designed for the single purpose of producing and selling hydroelectric power. But a rising recognition of the many purposes which dams and reservoirs could serve and the approach of the time when huge water power potentials could be tapped only through Federal multiple-

purpose basin undertakings led to the development of Federal power policy as an integral part of water resources policy.

Healthy Regionalism

These changes paralleled the ending of the free land, pioneer stage which opened up the continent. With its ending, a new regionalism began to develop as an economic revolt against the centralization of industrial and commercial wealth in older Northern States. It was directed at the tendency to restrict the new regions to a semi-colonial, low per capita income, raw material-producing status. The revolt struck at all the institutional arrangements which tended to perpetuate this centralization. Particularly it found in the river basin programs a means of developing better balanced rural-industrial economies, which would increase opportunity, hold population, and raise general income levels.

This new regionalism had other important objectives besides the mere correcting of economic maladjustments. Each region had its peculiar climate—products of its geography, its pioneer traditions, observances, customs, and spiritual tradition, and its indigenous economic activities. The people of these regions became increasingly conscious of their regional cultures as the pressure of economic centralization began, through a score of ingenious devices, to impose the cultural pattern of the metropolis, tending to obliterate regional identities. They saw a broad regional economic development which would restore a proper balance of regional opportunity and sustain the regional identity as their only hope of preserving rich regional values.

Evolution of Water Resources Policy

The rise of water resources policy to meet ever-changing conditions provides one of the great examples of the effectiveness of a democratic society in meeting the widely varying needs of its people.

So, in attempting a restatement of national water resources policy, this Commission feels that

it is merely setting forth in an orderly fashion and perhaps carrying a step forward a policy which has developed as a result of the constructive thinking of many able people in Government agencies and departments, special commissions, congressional committees, on the floor of Congress, and in the White House over a period extending back more than a century and a half.

The most important key to the evolution of that policy has been increasing recognition of comprehensive development of an entire river system for many purposes, as the means of achieving public objectives in the use of water and associated land resources. The evolution has taken policy from the earlier single-purpose, single-project approach, through the period of comprehensive single-purpose programs, including many projects in the same basin, to the present state of law governing most water resources planning. This provides for comprehensive planning, in which a number of purposes are subordinate to a specified principal purpose such as flood control, navigation, or irrigation.

This Commission is convinced that the next step forward must be the application of unified responsibility to the planning of multiple-purpose basin-wide developments. This need not be in accordance with the Tennessee Valley Authority pattern so far as organization is concerned. But it must take advantage of what the country has learned from that experiment in unified development of the water resources of basins.

There is today no single, uniform Federal policy governing comprehensive development of water and land resources. Some statutes of uniform application separately control various aspects or functions. Others are geared to a comprehensive approach, but focus attention on individual projects, specific areas, or single river basins. Insofar as it may now be achieved, therefore, comprehensive development of river basins must depend upon a number of statutes, passed at different times, devoted to individual segments of basin development and administered by separate executive agencies.

Efforts have been made to deal with this lack of unity through governmental reorganization.

So far the recommendations along this line have not been accepted. This Commission is therefore recommending the achievement of the necessary coordination through the unification of policy governing the actions of existing agencies, or of a single agency should such be adopted. This unification of policy should be assured through enactment of a single national water resources policy law controlling the activities of the Government departments as presently organized or as they may be reorganized.

From Project to Program

Long before there was legislation contemplating comprehensive multiple-purpose basin programs, Congress was recognizing the interrelationships between the functions which were ultimately to compose such programs. First, it recognized the relationship between navigation and flood control in 1879; then, in 1888, the relationship between irrigation and flood control; 9 years later, in 1897, the relationship between forest cover and flood control, navigation, and irrigation. Finally, in 1906, the General Dam Act recognized the relationship among power, navigation, and fish, while an amendment to the Reclamation Act provided for disposal of surplus power at reclamation projects.

This period culminated in a series of messages with which President Theodore Roosevelt vetoed certain bills authorizing private development of water power and, more particularly, in the reports of President Roosevelt's Inland Waterways and National Conservation Commissions, and in his letter transmitting the Waterways Commission reports to Congress. In these messages, as well as in the reports of the two Commissions, the new concept of a river system as a single unit for development purposes came to the fore. In the letter transmitting the Waterway Commission report to Congress the President said:

Every stream should be used to its utmost. No stream can be so used unless such use is planned far in advance. When such plans are met, we shall find that, instead of interfering, one use can often

be made to assist another. Each river system, from its headwaters in the forest to its mouth on the coast, is a single unit and should be treated as such.

In the same letter President Roosevelt recognized that it was not "possible to deal with a river system as a single problem" because waterways were dealt with through agencies scattered through four Federal departments. He called attention to the report's observation that national policy had previously been one of "almost unrestricted disposition and waste of natural resources," and that it emphasized "the fundamental necessity for conserving these resources upon which our present and future success as a Nation primarily rest."

The report of the Conservation Commission, issued in 1909, laid down a policy which can be merely amplified, not improved, in the breadth of its understanding of basic principles. It said:

Broad plans should be adopted providing for a system of waterway improvement extending to all uses of the waters and benefits to be derived from their control, including the clarification of the water and abatement of floods for the benefit of navigation; the extension of irrigation; the development and application of power; the prevention of soil wash; the purification of streams for water supply; and the drainage and utilization of the waters of swamp and overflow lands.

To promote and perfect these plans scientific investigations, surveys, and measurements should be continued and extended, especially the more accurate determination of rainfall and evaporation, the investigation and measurement of ground water, the gaging of streams and determination of sediment, and topographic surveys of catchment areas and sites available for control of the waters for navigation and related purposes.

The report of the Conservation Commission was promptly approved by a Joint Conservation Conference, including governors of 20 States and Territories, and representatives of 22 State conservation agencies, of 60 national organizations, of Federal agencies, and of the Conservation Commission itself.

But it was not until 1933, more than 20 years later, that Congress authorized a large-scale effort to treat river basins as units for purposes of

development. This has developed the conflicts and confusion which always attend the effort to put new wine into old bottles. With the exception of the TVA Act, the legislative and administrative set-up has not been conducive to full development of the unified basin programs which these early conservationists contemplated.

Need for Reappraisal

Meanwhile, as new needs developed and with them our understanding of the interrelationships of all aspects of land and water management, the necessity to consider whole river basins with their tributaries, including the many brooks, ponds, lakes, and basins of their little waters, has become increasingly apparent. The ideas of conservation, and of multiple-purpose projects, began to pose new problems of coordination, if wastes and cross-purposes were to be avoided.

Irrigation and drainage, navigation and flood control, the maintenance of underground water levels, the control of stream pollution resulting from human, animal, and industrial wastes, the generation of electric power, the protection of salmon and other fish resources, the provision of ample domestic water supply—all these purposes have legitimate claims within any one basin; but if one is developed without regard for its effect on the others, conflicts and losses will result.

Comprehensive, long-range plans must be worked out within each river basin. But a river basin is still not the final unit in an adequate use and conservation plan. The Federal Government has a substantial investment in existing water resources improvements; it will spend in 1951 another 1.2 billion dollars; it has authorizations amounting to 12 billion dollars in the years just ahead. These expenditures will be made for the good of the Nation as a whole; and nothing less than the whole country can be the unit considered in the formulation of Federal policies.

It is for these reasons that the President of the United States appointed this Commission on Water Resources Policy and asked for recommendations for a comprehensive policy of water

resources development, giving particular consideration to the following:

1. The extent and character of Federal Government participation in major water resources programs.

2. An appraisal of the priority of water resources programs from a standpoint of economic and social needs.

3. Criteria and standards for evaluating the feasibility of such projects.

4. Desirable legislation or changes in existing legislation.

Broad Considerations for Federal Policy

The President's question concerning "the extent and character of Federal Government participation in major water resources programs," raises immediately some basic problems of economic and social philosophy. The long-range development of our resources is a vast undertaking, affecting all aspects of American life. How great a share of this investment in the future should be financed by the Federal Government and what should be the division of responsibility between the many agencies of Federal, State, and local government, private groups, and individuals, are matters of proper concern to every citizen.

The broad assumption on which this report is based, which is not explicitly stated in the detailed chapters which follow, is that of an expanding economy.

Our population is growing, and will reach an estimated 190 million in about 25 years. Merely to maintain our present standards of living, therefore, we shall need to husband our water resources and use them to irrigate the fields and produce the power required to meet the needs of increasing numbers of people.

But the goal of the American economy has never been static. It is, and will continue to be, dynamic. We have achieved, and expect to achieve in the future, a constantly rising standard of living for a growing population.

There are no new physical frontiers, no new lands or forests to exploit. Indeed, some of our natural resources have been lost through careless and wasteful exploitation. Today, the problem of economic advance has been expressed as "to make more and more out of less and less." There are immense and inspiring possibilities of continued expansion and advancement; but the new frontier we must explore is not merely physical. It lies in the realms of knowledge and skill, and the wisdom with which we as a people can cooperate to apply them. We need much greater knowledge, determination, and foresight than our fathers needed in order to fulfill the promise of American life. That promise is as great for us as it was for them. The wise development and conservation of our key resource, water, is essential to further economic progress.

But provision of opportunities to achieve higher levels of material well-being for a growing population is not the sole measure of Federal responsibility. Even more important is the fact that on the strength and dynamism of the American economy rests the main hope of achieving world peace and freedom.

We are committed to a titanic contest in which proper utilization of our resources may prove the ultimate determinant of our strength. All our skill, enterprise, and political wisdom will be needed to meet that challenge, not only for ourselves, but in defense of human freedom everywhere.

Democratic Planning

It cannot be too strongly emphasized that planning, for the United States, must mean not rigidity, but intelligent flexibility; not dictatorship and centralization, but cooperative and shared responsibility. The American system succeeds only as it encourages initiative, enterprise, and a sense of responsibility for the common good. No "plan" can be acceptable which weakens or fails to use these qualities. The recommendations of this report do indeed envisage long-range plans for each river basin, and an over-all water resources plan for the Nation as a whole. But

both in the detailed formulation of these plans and in their operation, individual farmers, workers, and businessmen, as well as agencies of local, State, and Federal government, will play an indispensable and fully responsible part.

The Federal Government is clearly charged with responsibility for safeguarding and developing our resources, but it is only one of the agencies involved. Its specific role is one of leadership—the provision of relevant scientific and economic information and coordination, as well as a public investment function on behalf of the entire Nation. These functions aid and supplement, but can never supplant, the work of local individuals and groups directly concerned.

When multiple-purpose dams are built with Federal funds, the Federal Government enters the field of economic enterprise. The justification for this is beyond question. No other agency can command sufficient capital resources or provide the coordination necessary for the construction of these great programs. But government enterprise does not in any way supplant private enterprise. Rather, its purpose is to create the over-all conditions, the framework, in order to provide the opportunity for the further expansion and healthy functioning of a free, competitive economy.

In other words, "planning" in the American sense means planning to maintain and strengthen free competition. Where natural monopolies exist, therefore, it is in accordance with the American system that the Government should itself provide competition, if this is deemed necessary to insure its benefits, as for example by providing low-cost and abundant power. But it is not in accordance with the American system, nor is it any part of the purpose of the plans for water development proposed in this report, that the Federal Government should itself become a great monopolist.

The Economic Responsibility of the Federal Government

The sums which the Federal Government has already invested and will in the future invest in

water resources development are a substantial factor in the total Federal budget, and in the total national economy.

The Federal budget is limited, and water resources development is only one of the claims upon it. How much we can spend for this one purpose, and in what sequence, is a decision which requires the careful weighing of all alternatives. How much need we pay each year for past wars, for national defense, for health, education, postal services, and all other Federal functions? It is the responsibility of the Federal Government to seek to allocate all Federal funds in such a way as to yield the maximum total benefit for the Nation.

Within the budget allocated to water resources development, similar decisions must be made. How can the funds be used in such a way as to achieve maximum benefits? From the point of view of any one region, the policies of the Federal Government must necessarily often appear "conservative." Many worthy projects will be presented, but not all can be undertaken. It is not enough, from the point of view of the Federal Government, that a project be good; it must, in order to justify itself, be the best among alternatives. Consideration of each project from the point of view of the total national interest may involve factors which at first sight seem remote from comparison of dollar costs and benefits for any one project.

For example, water resources development in a populous, low-income region might, by giving the people a chance to raise their own income level, lighten pressures on the Federal budget for such services as aid to education. The promotion of a greater balance between industry and agriculture in certain regions, or the need for industrial dispersal as part of national defense, might also be relevant in assigning priorities.

The magnitude of the sums involved in Federal water resources development makes it necessary, in the interest alike of efficient development and economic stability, for expenditures to follow an orderly, long-range plan. Whatever the merits of public works programs as an aid in minimizing cyclical fluctuations in the field of business, it is undeniable that clearly defined com-



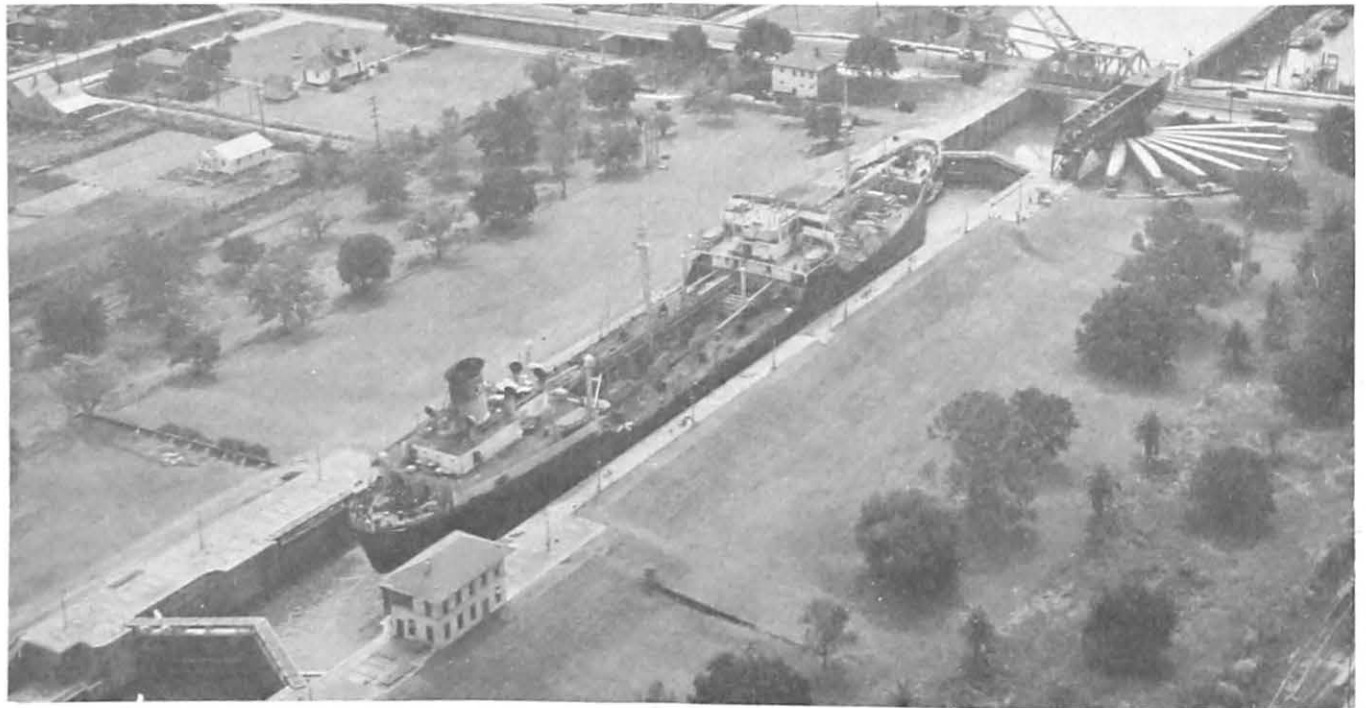
This farmer in Cass County, Nebr., points to sediment that poured down upon his land from untended ground above his on the watershed.



Nearby, in Otoe County, Nebr., a farmer operates a whirlwind terracer to slow down the runoff.



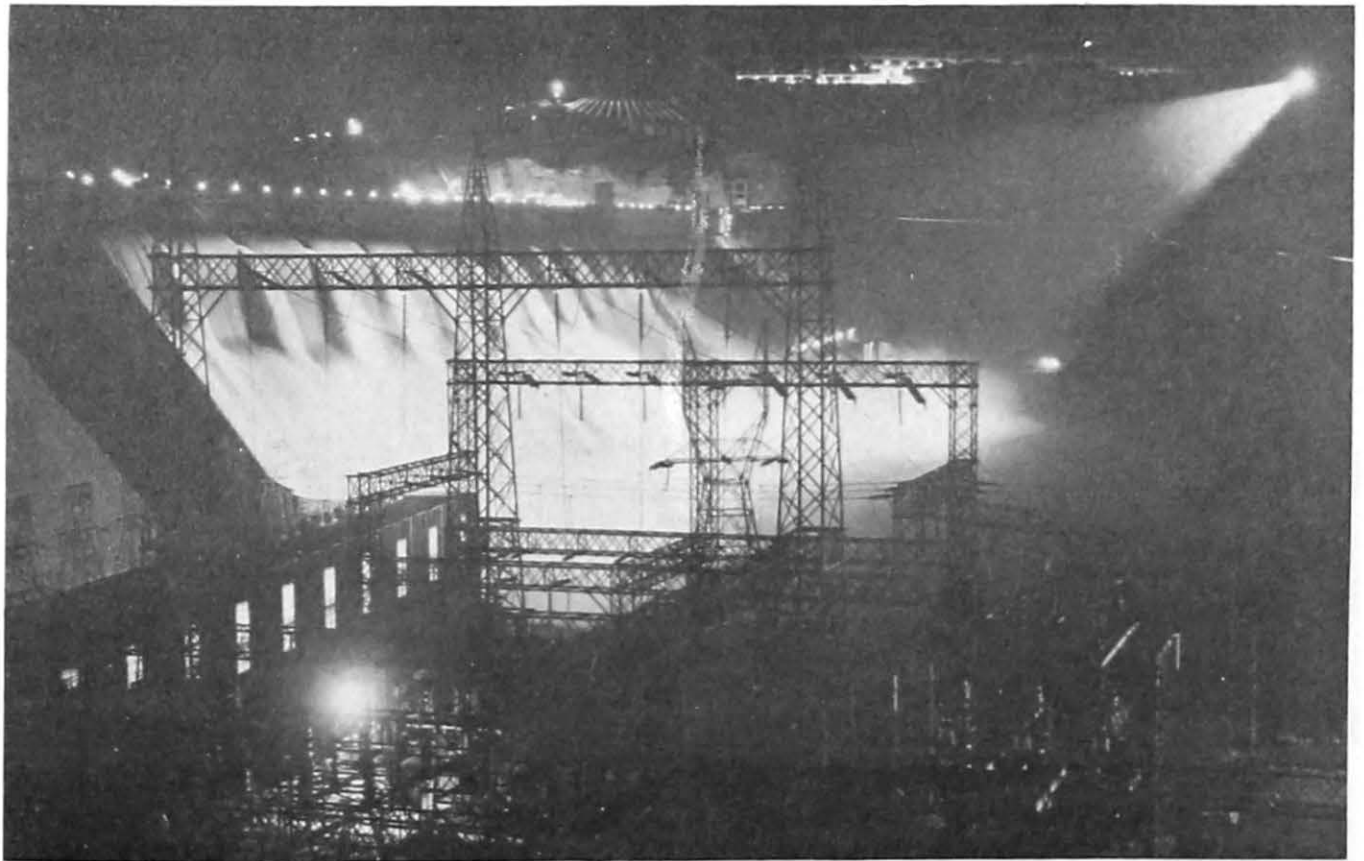
This concrete floodwall protects the Ohio River front at Cairo, Ill., at the confluence of the Ohio and Mississippi Rivers. The Mississippi is at the upper left.

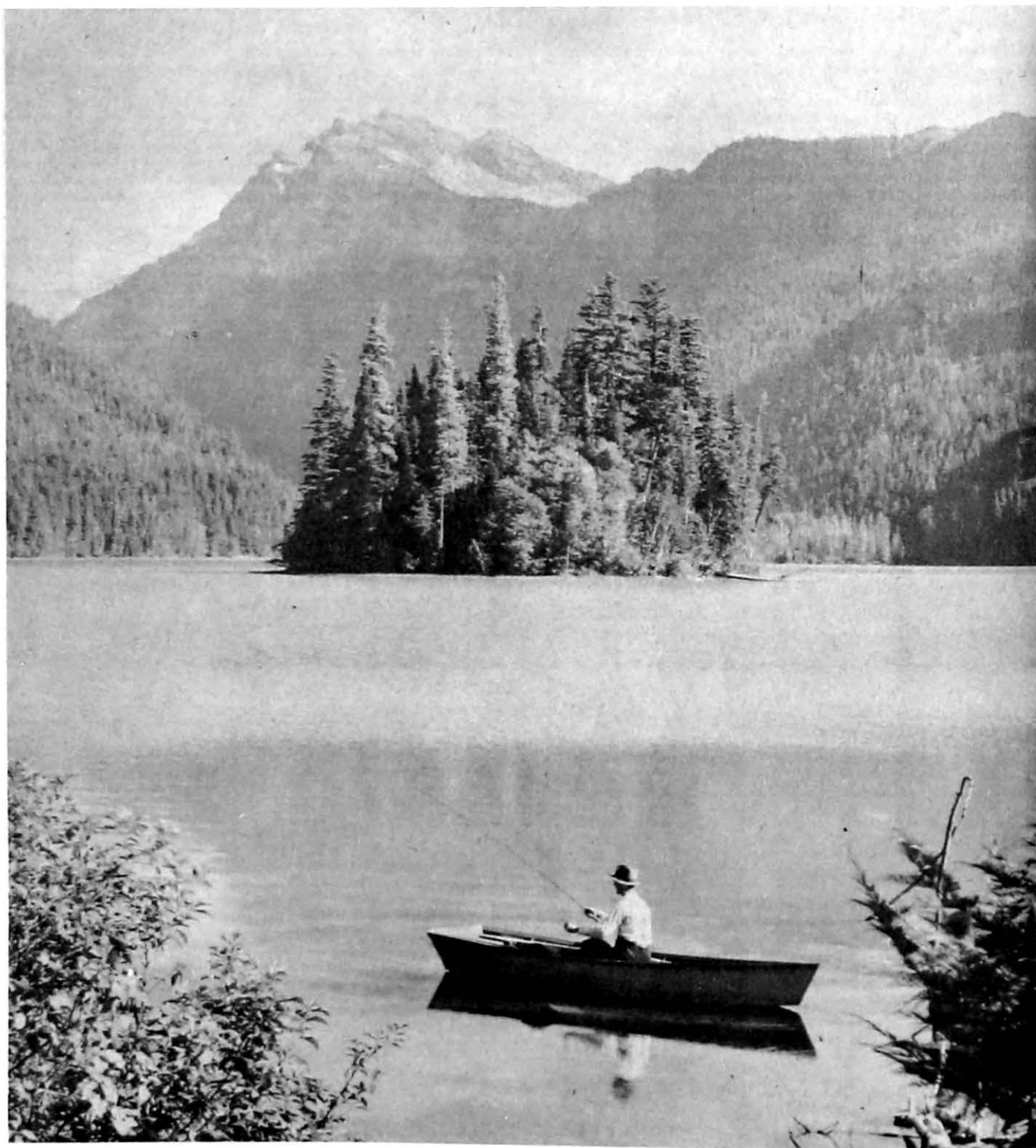


An oceangoing tanker being locked through to the Mississippi River at the Inner Harbor Navigational Canal lock of the Intercoastal Waterway at New Orleans, La.



The tremendous flow available for power and other uses at the Grand Coulee Dam in Washington is emphasized above. The picture was taken during the 1949 peak flow of the Columbia River. Below, the power generated at Grand Coulee is strikingly suggested in this night view of the power plants.





Forest-protected lakes provide fishing and places for relaxation and meditation. This is a part of Columbia National Forest in the State of Washington.

mitments will contribute to stability. A well-defined Federal investment program, with elements of flexibility, can allow for expansion and contraction in periods of depression and inflation.

A Framework of Principle

In its attempt to reappraise Federal water resources policy, the Commission has sought to carry forward the tradition which has made our rivers an increasingly important part of the life of the people. As a result, the restatement of the policy which the Commission proposes below will be found constructed of building blocks provided by acts of Congress and by administrative decisions of the able people who have directed the Nation's great water resources agencies.

This proposed reformulation of water resources policy is constructed on a simple framework of principles. These express:

The importance of clearly defined regional and national goals which water resources programs will be designed to achieve.—These objectives will be simply stated in terms of specific contributions which water resources can make to the welfare of the American people.

The necessity of planning for a river basin as a whole instead of having a patchwork of plans by separate agencies for separate purposes.—This will assure the most harmonious development of the water resources of the basin, enabling them to make their greatest contribution to the welfare of the people. The motto must be "one river, one plan."

The importance of a simple procedure for determining whether the money to be invested in a river basin program will be well spent.—This procedure will take into account more than the obvious benefits which a program confers on the irrigator, the property owner protected against floods, the consumer of low-cost power, or the user of water transportation. It will give full weight to the broad economic and social benefits which flow out from water resources projects to increase the prosperity and strength of the region or the Nation.

The necessity for a system of repayment designed to treat alike all who enjoy the advantages of Federal investment.—This will seek reasonable repayment, either through direct charge or assessment, for the opportunity which water resources programs offer for private gain, but will recognize that the great contributions of such programs to the general welfare warrant the assumption by the Federal Government of the remainder of the cost.

The need for placing the annual financing of water resources undertakings on a river basin program basis and for recognizing the annual renewable resources investment program as a stabilizing factor in the economy.—Such resources programs will embody the soundest estimates of what the Nation must invest to maintain its basic resources against deterioration and to expand the use of such resources to meet its growing requirements.

The importance of providing those who prepare the plans for the Nation's river basin programs with all the knowledge which is required to assure good plans.—We cannot afford to have these all-important programs designed in the absence of sufficient information about the resources of water and land, geological formations, conditions of climate, or the important economic trends which establish the regional needs that the development must serve.

The necessity for applying sound management principles to our watersheds, to the ground waters which replenish our supplies, and to the floodwaters which, harnessed, confer a host of blessings.—This will mean the use of the waters of our river basins to quench man's thirst, afford him the opportunity for cleanliness, water his deserts, carry his produce, provide the force to generate his hydroelectric energy and the condensation necessary to operate his steam electric plants, make possible his modern industries, and provide opportunities for relaxation and leisure.

The importance of utilizing all of these services which water resources offer in such a way as to contribute to the continued building of a strong Nation.—This will involve the vision of great region-building programs offering our increasing population broader opportunities for enterprise

throughout the land. These opportunities are needed to perpetuate freedom.

The great task of building an expanding national economy of increasing strength through the development and conservation of our water and land resources is one which calls for active cooperation of all the people, in a long-range program in which individuals, local, State, and Federal governments, must jointly participate. In this task, the Federal Government, as trustee for the whole people, has a crucial and decisive

part. It will require at once bold imagination and prudent husbanding of our resources, imagination to see the inspiring possibilities before us, care and foresight to insure that we do not waste our substance and efforts, and so fall short of the realization of the great objectives for which this Federal Union was created: "To form a more perfect union, establish justice, insure domestic tranquility, provide for the common defense, promote the general welfare, and secure the blessings of liberty for ourselves and our posterity."

Outline of Policy

On these principles the Commission has framed a water policy for the American people which is embodied in the following series of recommendations:

Program Planning

1. As a guide to national investment in natural resources development, all Federal agencies should be directed to judge new river basin programs in terms of a set of clearly defined national objectives established by Congress.

2. These objectives, as outlined in detail by this Commission, should reflect the general purpose of water resources investment to achieve the maximum sustained use of lakes, rivers, and their associated land and ground water resources, to support a continuing high level of prosperity throughout the country. They should include the safeguarding of our resources against deterioration from soil erosion, wasteful forest practices, and floods; the improvement and higher utilization of these resources to support an expanding economy and national security; assistance to regional development; expansion of all types of recreational opportunity to meet increasing needs; protection of public health; and opportunity for greater use of transportation and electric power.

3. Congress should direct the responsible Fed-

eral agencies to submit new proposals for water resources development to Congress only in the form of basin programs which deal with entire basins as units and which take into account all relevant purposes in water and land development. This multiple-purpose basin approach should apply to the whole process by which water resources projects move from the survey to the authorization and appropriation stages. It would enable Congress and the people concerned to have a clear picture of the entire program for each basin and its relation to the economic and social development of the region and the Nation.

4. To insure the preparation of sound basin programs, Congress should direct the responsible Federal agencies to cooperate with each other and with the appropriate State agencies in the necessary surveys and plans. Such action requires some definite coordination of the efforts of Federal and State agencies. While administrative reorganization in the field of natural resources is outside the assignment of this Commission, the Commission believes that, lacking such agency reorganization as was recommended by the Commission on Organization of the Executive Branch of the Government (Hoover Commission), Congress should set up a separate river basin commission for each of the major basins. These commissions, set up on a representative basis, should be authorized to coordinate the surveys, construction

activities, and operations of the Federal agencies in the several basins, under the guidance of independent chairmen appointed by the President and with the participation of State agencies in the planning process.

5. Congress should designate the Federal departments and independent agencies to participate in the river basin commissions. Such participation should provide for representation of all agencies with functions included in water resources programs. Congress should assure all such agencies adequate authority to participate in comprehensive planning on an equal basis, together with appropriations consistent with such participation.

Evaluation

6. Procedure for evaluation of proposed water resources developments should be revised to apply to multiple-purpose basin programs, and to projects only as constituent parts of such programs.

7. To assure uniformity in the application of evaluation procedure, Congress should direct all Federal agencies to apply the same standards and methods to the evaluation of all river basin programs.

8. The orderly formulation of national water resources programs requires the establishment of a Federal Board of Review appointed by the President with the confirmation of the Senate. This Board should perform, among others, the functions of the review agencies recommended in the reports of the Hoover Commission.

9. The evaluation procedure should start with the measurement of direct benefits from and costs of programs, but should be supplemented with standard procedures for taking account of secondary costs and benefits. Similarly, values should be assigned to public benefits and costs which affect the general welfare. This could be accomplished in accordance with a standard form of investment appraisal statement for each program or project within that program.

10. The investment appraisal statement should be in a form which would present the benefits and costs simply and clearly for the guidance of Congress and of interested citizen groups.

11. The investment appraisal statement should include a complete estimate of the costs to the American people, both direct and indirect, of undertaking any project. Direct costs should include the initial investment in preliminary investigation, survey, and plan; construction; land acquisition; rights-of-way; utility replacement; and administration and overhead. Indirect costs comprise those resulting from displacement of population, loss of land and minerals, loss of wildlife, and loss of scenic or historic values. The indirect costs may be stated in non-monetary terms.

12. The investment appraisal statement should also include a complete estimate of primary and secondary benefits. Primary benefits should be evaluated in terms of a procedure which places a monetary value on those susceptible of such evaluation. Secondary benefits should be estimated by the interested agencies according to a uniform procedure jointly developed with the approval of the Board of Review. They should reflect the increase in national income resulting from the program.

13. The evaluation procedure should also provide that, where the sum of the benefits so estimated is not sufficient to balance the direct and indirect costs, the final decision by the basin commission on the merits of the project should include a judgment as to whether the balance of general welfare benefits and detriments contributes sufficient additional value to warrant construction of the project.

14. Congress should direct all Federal departments and agencies responsible for the development of water and land resources, in cooperation with interested States, to promptly review all existing plans and programs, and to cooperate in preparing coordinated plans for water resources development for the several river basins. Plans already authorized by Congress should remain undisturbed unless this review results in specific recommendations for change.

Basic Data

15. Congress should make ample provision, in the national water resources program, for compilation and analysis of the necessary basic information to assure sound, comprehensive multiple-purpose basin planning. This should include geologic, hydrologic, climatic, land and soil analysis, and economic data to meet the needs of the planning agencies.

16. Congress should require that all basin recommendations carry a precise statement as to the adequacy of the data upon which they are based. Congress should be prepared to withhold approval of recommendations in areas where the data are inadequate.

17. A survey program designed to supply the country with full geological and hydrological knowledge of its surface and ground water resources, including all their characteristics, should be initiated immediately, with ample funds for the early compilation of essential information. Thereafter it should be continued to meet all of the requirements of basin programs.

18. The appropriate agency should be directed to undertake the annual compilation of and report on all water uses and requirements in relation to available sources of supply. This should be comprehensive and should be reported for regions and localities on a basis permitting 10- and 20-year running forecasts of requirements and supply.

19. A survey should be undertaken promptly to evaluate the possibilities of and provide a program for developing the water now being consumed in the West by unneeded, water-loving plants whose roots tap the water table or the capillary fringe above it.

Financing Programs

20. The financing of the Nation's river basin programs should be set up on a long-range basis, with each annual budget request therefor subdivided by river basins. These budget requests, in turn, should be subdivided by projects, functions, and agencies. To obtain these results,

Congress should direct all Federal agencies to submit their budget requests, insofar as they involve water resources, by river basins. The entire procedure should result in 6-year river basin capital investment programs and annual budgets, originating in the agencies, coordinated by the river basin commissions, and reviewed by the Board of Review for submission to the Bureau of the Budget. Congress should make an annual appropriation to each river basin commission for its activities.

21. The annual water resources investment program should be based on a thorough review of the Nation's resources and of its resources development requirements. The budget should show the expenditures required to maintain the Nation's heritage of land and water resources, to increase the national and regional productivity, and to provide for health and recreation.

Reimbursement

22. Congress, in drafting new legislation or amending existing legislation, should provide for a uniform national reimbursement policy and specify the principles to be applied.

23. Reimbursement procedure should aim, as far as possible, to recover a reasonable portion of the benefits accruing from public expenditures for water resources development. This should provide for charges for benefits where they can be collected, and agreements with interested States under which they would utilize their powers of taxation or assessment to assure reimbursement to the Federal Government for primary and secondary benefits not susceptible of direct collection.

24. Reimbursement policy for given functions such as reclamation by irrigation or drainage should be uniform for all Federal agencies.

25. Reimbursement for various types of benefits from water resources programs should be determined in accordance with the following principles: (a) For domestic and industrial water supply and hydroelectric power it should provide for full repayment of water supply or power costs including operation and maintenance, repayment with interest of an appropriate allocation of the

program investment, and payment in lieu of local and State taxes which would have been paid on acquired properties; (b) for drainage, irrigation, and watershed management it should be based on ability to pay, without interest, measured by the resulting increase in the land operator's net earnings; (c) for navigation it should be determined in connection with a general program for putting charges for all forms of transportation on a cost basis, including interest; (d) for all other benefits, the responsibility for securing repayment of the cost of primary and secondary benefits should be shared by the States on an agreed basis, while general welfare benefits should be the responsibility of the Federal Government.

26. The Federal contribution to the cost of a river basin program or project should be considered as balancing the contributions to the general welfare estimated to result from the undertaking.

27. Congress, in appropriating for basin programs, should distinguish between the portions of the total investment allocable to the different benefits on the basis of proposals by the basin commissions, passed upon by the Board of Review. Multipurpose program accounts should be established for each basin and for the national water resources program as a whole to assure clear identification of all costs, benefits, and repayments.

28. Irrigation projects should be placed on the same basis as other water resources projects for which full reimbursement is not required as a test of feasibility.

Water Resources Management

29. Ground water resources should be included in comprehensive basin programs, with clear recognition of their interrelationship with surface waters, and with due regard to the rights and interests of the States. The Federal Government should encourage enactment of State laws and negotiation of interstate compacts that foster water management for optimum yield and use, especially with respect to surface and ground water storage opportunities.

30. Watershed management should be included as a principal objective in the planning and development of basin programs, with large enough allotments of funds to enable soil conservation, range management, and forest agencies to undertake activities which will bring economically controllable deterioration of the land under control within a reasonable period of time.

31. All related Federal policies and activities, including the price support, agricultural conservation, irrigation, and credit programs, and administration of Federal mining laws, should be adjusted to strengthen the effectiveness of watershed management.

32. Flood control should be considered as an important part of water resources management. Conservation storage of floodwaters in the soil, underground, and in surface reservoirs on tributaries and upper reaches of rivers should be a principal factor in the planning and development of river basin programs.

33. Consistent with other aspects of the basin program, flood storage should be located and designed to assure the greatest possible use and reuse of floodwaters in the course of their journey to the sea.

34. Congress should authorize the responsible Federal agencies, in reviewing river basin programs, to consider all of the possibilities of flood protection, flood storage, and utilization of floodwaters. They should consider such measures as local flood protection works, flood plain zoning, flood forecasting, design of levees, and related works to release sediment-laden water on the land where this would contribute to fertility of the soil. They should also consider all types and combinations of reservoirs designed to meet the Nation's requirements in all fields of water utilization.

Land Reclamation

35. An over-all program should be prepared for the employment of all methods for orderly expansion of agricultural production to meet the Nation's expanding needs. This program should coordinate irrigation, drainage, flood control,

clearing, and the sound farm practices which are an essential part of watershed management.

36. The first objective of this program should be adequate provision of farm products from soil so managed that its productivity is enhanced. Irrigation and drainage projects should be authorized only after review by the Department of Agriculture indicating that they are in harmony with sound use of land.

37. The weight to be given reclamation of land (including irrigation, drainage, clearing, and other measures) in determining the relative priority of programs and order of construction of specific multiple-purpose projects should be based on regional as well as national considerations. National considerations should include Federal responsibility for continuing adequacy of dependable farm production, taking cognizance of the time required to bring new lands into the Nation's agricultural economy. The expansion of local production to meet the requirements of growing regional economies should also be considered.

38. In determining the desirable schedule for adding to the Nation's agricultural acreage through reclamation, full consideration should be given to the probable rate of increase in the productivity of existing agricultural lands through improved agricultural practices, including supplemental irrigation in humid areas. To the extent that such increased productivity is associated with sound land management, it should be recognized as of primary importance. But, beyond this, improved agricultural practices should be left to private business endeavors with the cooperation of the United States Department of Agriculture and the land-grant colleges until such time as the economically sound possibilities of expanding farm acreage through irrigation or drainage have been fully realized. The justification for public investment in irrigation is that there are public ends to be attained which the commercial price system cannot reflect.

39. Decisions as to the relative priority of projects involving various types of reclamation as a means of expanding the country's agricultural acreage should be made in terms of both national and regional economic considerations. They should recognize the extent to which individual

projects are integral parts of comprehensive river basin programs serving other important purposes. Important weight should be given to the comparative costs of meeting agricultural production objectives by alternative undertakings, but consideration should also be given to the special usefulness of certain irrigation opportunities in stabilizing agriculture, meeting expanding regional requirements, or contributing to regional expansion. The weight to be given these separate considerations should be determined by the Board of Review upon recommendation of the basin commissions.

40. To protect its interest in securing the maximum reasonable reimbursement from direct beneficiaries of reclamation projects, the Federal Government should make more effective provision for the adequate planning, sound financing, and scientific farming of agricultural development and land settlement on reclamation projects. This should include extension of Federal credit at reasonable interest rates for the farmer's investment in structures, equipment, fertilizer, stock and seed, and the technical training and guidance of settlers.

41. Special consideration should be given to rehabilitation of existing irrigation projects, both Federal and private, as well as to small new irrigation projects offering the possibility of stabilizing the agriculture of an area.

42. The principle embodied in the reclamation law that the benefits of Federal financial assistance through irrigation projects should go only to family-sized farms, together with other antispeculation and antimonopoly provisions, should be maintained and enforced. It should be extended to apply without discrimination to all new projects involving Federal investment in the reclaiming of land, whether by irrigation, drainage, or other methods.

43. The present 160-acre limitation provision should be considered as a maximum, with flexibility for adjustment downward after hearings, to adapt it to types of farming characteristic of different areas. It should apply only to the reclaimed portion of a farm.

44. In regions where it is proposed to deliver supplemental water to areas already under irri-

gation, provision should be made for the supplying of an equitable share of such water to existing farms exceeding the acreage limitation under utility-type contracts. In these contracts the charges for the water should be based on the full cost of supplying water to such lands, including amortization with interest of the full investment allocable to this purpose.

45. Before new Federal reclamation projects, or projects providing supplemental water or drainage for existing projects, are undertaken, every effort should be made to secure agreements or contracts with the State or States involved or the local interests to be benefited under which surface and ground water benefits will be considered together. All beneficiaries should be subject to the standard reimbursement obligations, whether securing the benefits from augmented surface or ground waters.

46. The same conditions as to authorization, repayment, technical and financial assistance, and acreage limitation should apply to all projects or project beneficiaries, where Federal investment in reclamation of land is concerned. This principle should be applied irrespective of the method of reclamation or the Federal agency responsible for the project.

Water Supply

47. Municipal water supply should continue to be primarily a local responsibility, including intercommunity cooperation through the formation of metropolitan water districts to make possible area-wide coordination of water supply sources to meet the needs of an increasing population. The growing needs of communities for water supply should, however, be considered in connection with the planning of all comprehensive basin programs. Their use of water from multiple-purpose reservoirs and improved stream flow should constitute a fully reimbursable service under such programs.

48. Possible future water requirements of large water-using industries should be considered as an important regional and national factor in connection with the planning of comprehensive basin

programs. This should be particularly the case in regions where deposits of oil shales or other special resources point to industrial developments of significance to the Nation's economic and military security.

49. The possibilities of contributing to municipal and industrial water supply and irrigation through recharging of ground water reservoirs and flows should be given full consideration in connection with all comprehensive basin planning. More complete knowledge of the country's ground water resources may open the way to ground water storage of surplus floodwaters as an important supplement to surface storage.

Pollution Control

50. Pollution control should be considered in the planning and development of river basin programs. It should be recognized as a major contribution to the Nation's objectives in the fields of water supply, recreation, and fish and wildlife.

51. A 10-year period should be set within which to accomplish a reasonable program for cleaning up the Nation's polluted waters. Co-operative efforts of private industries, organizations, municipalities, States, and the Federal Government should be mobilized to that end.

52. Sufficient funds should be appropriated for the administrative and regulatory activities of the Division of Water Pollution Control of the Public Health Service to make sure that present congressional policy is adequately tested. Ample funds for Federal loans to municipalities should be made available at not more than 2 percent interest, covering the entire cost of constructing the necessary sewage treatment works.

53. Multiple-purpose reservoirs should, as far as consonant with other major purposes, be planned and operated so as not to aggravate but to contribute to the control of pollution. This should include regulation of releases of water to make fullest use of the stream's potential self-purification capacity, with advance determination of the schedule of releases to permit proper classification of the stream by the Public Health Service for pollution control purposes.

Waterway Transportation

54. The Nation should continue the improvement of its inland and intracoastal waterways to standard depth as an important objective of comprehensive basin programs. This part of water resources development should be integrated into a broader program designed to provide the Nation with an economical and efficient coordinated transportation system including railroads, motor transport, waterways, and airways. In such a coordinated system all forms of transportation should be considered as complementary rather than competitive with each other.

55. Waterway charges should not be considered as yardsticks for railroad rates, but rather as rates for traffic which, in the coordinated transportation system, can move more economically by water than by rail. In order to assure the greatest over-all contribution of the transportation system to the Nation's well-being, railroads should not be permitted to establish discriminatory rates paralleling waterway rates.

56. Decisions as to user charges, or tolls, for waterway commerce should be worked out as part of the whole problem of reconciling and making workable a coordinated transportation system. But, with rates for all forms of transportation based on full costs, an interconnected system of modern waterways, coordinated with land transportation, should be able to sustain itself with tolls based on full costs and yield returns on the public investment while contributing to most economical use of the Nation's resources.

Hydroelectric Power

57. Full development of the Nation's undeveloped water power resources, as an integral part of comprehensive basin programs, should be considered a major Federal responsibility, to be exercised in such a way as to assure ample supplies of hydroelectric energy well in advance of expanding regional and national needs.

58. Federal hydroelectric plants should be designed to produce ultimate capacity and energy

which will best fit into the requirements of potential markets on the assumption of complete regional integration of power supply.

59. Future licenses for new non-Federal water power developments should be issued only with the joint consent of the Federal agencies responsible for power in basin programs. In exercising this responsibility, the Federal agencies should continue to recognize the preferential position accorded State and municipal applicants under the Federal Power Act.

60. The Federal power marketing policy heretofore adopted by Congress, authorizing Federal agencies to build transmission facilities, giving preferences in power sales to public and cooperative bodies and fostering low rates for residential and rural consumption, should be continued.

61. Federal power marketing policy should be carried out flexibly to assure sound adaptation of Federal power supply responsibility to regional power resources and the most effective cooperation of all power systems, public and private, in the task of assuring ample supplies of power at the lowest possible rates.

62. Since private power systems will probably continue to provide a large share of the new capacity required to meet future needs, Federal arrangements for marketing power should where possible take full advantage of private power facilities, provided the contracts preserve the preferential rights of public bodies and cooperatives to a share of the power, or its equivalent, at the lowest possible rates.

63. Where the Federal Government assumes a major responsibility for the power supply to distribution systems, this should be recognized as a utility responsibility, requiring the construction of new generating capacity, whether hydroelectric or steam-electric, well in advance of expanding needs.

Fish, Wildlife, and Recreation

64. Preservation and enhancement of the Nation's fish and wildlife resources should be recognized as one of the important objectives of com-

prehensive river basin planning. The requirements of this objective should be thoroughly investigated in connection with project proposals designed to serve other major purposes. Releases of water from multiple-purpose reservoir projects should be adequate, except where higher uses dictate otherwise, to guarantee continuous use of the river by wildlife and fish. All proposed basin projects should be studied to determine in advance their effect on waterfowl habitat.

65. The recreation potentialities of all water resources, whether natural or artificial, should be recognized, and expansion of outdoor recreation opportunities should be given full consideration in all comprehensive basin programs. To achieve this objective suitable lands adjacent to Federal water projects should be reserved for recreation use, and consideration should be given to minimizing water level fluctuations in storage reservoirs during vacation season, to improving low flows of rivers, and to pollution abatement. In densely populated areas and in regions where natural water recreation opportunities are limited, recreation may be a controlling factor in water resources programs.

66. Cooperative arrangements should be worked out with States and local governments for planning, developing, and maintaining recreation areas at government water projects, subject to the observance of specified standards to preserve general opportunity to enjoy the recreation resource under conditions in harmony with the natural environment.

67. Federal participation in recreation features of water resources programs should be determined in relation to Federal participation in other recreation programs. To this end, it is desirable that Congress authorize a study of the whole recreation field, having as its objective the development of a national recreation policy.

Future Possibilities

68. The Federal Government should recognize that, with growth of population, urban concen-

tration, industrialization, and the need for an expanding agricultural base, availability of fresh water may soon become a limiting factor in the expansion not only of the Nation's arid and semi-arid regions but also of our entire civilization. The Government should, therefore, accept the responsibility for large investment in broad research programs designed to expand the available supplies of water. Such research programs will be directed toward:

(a) Exploring and developing the necessary techniques for utilizing the full possibilities of the Nation's ground water resources;

(b) Establishment of a sound national policy for control of artificial rain-making activities and the application of science to devising methods which can be utilized in the public interest; and

(c) Exploration and experimentation, including pilot plant operation, in the general field of conversion of sea water to fresh water on an economical basis.

In terms of the Nation's future, such research and experimentation may well be found to rank with the development of atomic energy utilization.

69. The recommendations summarized above, and more fully explained in subsequent chapters, should provide the nucleus of a consistent national water resources policy to guide the Nation in the further development and use of its water potentialities.

70. The Commission recommends that the policy embodied in the above recommendations be incorporated in a single statute stating both principles and policies, together with provisions requiring their application to all Federal water resources activities irrespective of the agency or agencies concerned. Changes arising from these recommendations would, of course, not be applicable to existing contracts with project beneficiaries except upon their agreement. Nor do these recommendations contemplate a departure from the traditional recognition by Congress of rights to the use of water under State law as embodied in such legislation as the Reclamation Act of 1902.

Critical Decisions

The Nation is falling far short of reaching the goals set out in the policy outlined above. The design, operation, and financing of the present programs of Federal, State, and local agencies are such that their full potential benefits to the American people will not be realized.

In the chapters which follow, the Commission discusses in greater detail a series of adjustments in Federal and State policy which will make possible the realization of those benefits. They require major changes in planning, in evaluating projects, and in Federal and non-Federal financing. To adopt them now would accelerate progress in water resources development. The time never was more propitious for such changes. Nor was it ever more crucial.

This is because the Nation is now at a unique stage in water development. For several reasons, it is a stage which will never again recur.

First, the Nation is on the threshold of a tremendous increase in the volume of construction for Federal water projects. The cost of projects now under construction or authorized is equal to the entire cost of all Federal projects heretofore constructed. And the projects planned but not authorized account for costs at least four times as large.

Second, present mobilization plans impose heavy competing demands for construction materials, machinery, and men.

Third, accumulated experience with basin-wide programs in such diverse areas as the Columbia, the Missouri, and the Tennessee offers guidance never before available as to the wise planning of river development and as to the basic data essential to reaching sound decisions.

Fourth, technical information on water, land, forest, and mineral resources has accumulated rapidly in recent years. Much of this was not available to those who planned the authorized or proposed programs.

Fifth, most basins are relatively undeveloped. Only a few key projects have been built or started. There is still time to make the necessary changes if it is decided that radical altera-

tions are required.

Once they are completed, major water control structures can be altered only with difficulty or not at all. There are only a relatively few suitable dam sites, and once they are appropriated, the possibilities for economic multiple-purpose development are very limited. Once an irrigation project is developed, it cannot be moved because unfavorable soil or climate factors are discovered. There is a sobering finality in the construction of a river basin development; and it behooves us to be sure we are right before we go ahead.

With these considerations in mind the Commission recommends that while readjustments are being made in the whole process of presenting river basin programs to Congress, the following policies apply:

1. Projects now under construction should be completed as rapidly as the national emergency permits.

2. Construction should be initiated on additional projects only as they are clearly shown to be in conformity with revised and approved basin plans, or as they are required to meet the emergency.

3. The review of basin programs and the collection of necessary data should be pushed as rapidly as possible.

4. Among the new projects to be considered for initiation, first priority should be given to safeguarding present and future projects as, for example, by reducing sediment or recharging depleted ground waters, as well as to developing new regional activity, as, for example, by the production and distribution of electric power.

This is a time for action, based on sober consideration of objectives and methods. Continuation of present policies, or lack of them, will mean a continuing waste of money and effort in the pursuit of conflicting goals. If the American people will examine the goals, and the policies under which progress is sought, much of the waste can be avoided, and much larger benefits for the Nation as a whole can be achieved.