# Appendix B

"PROTECTING NATURE'S RESERVOIR"

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# PROTECTING NATURE'S RESERVOIR*

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IN July of 1953 the 83rd Congress, though hellbent on economy, appropriated $5 million for a new and unbudgeted national program of "watershed protection." Neither President Truman nor President Eisenhower had requested this money in their Budgets; it was provided at the urgent request of certain Members of Congress who were concerned over a rising public pressure for national action on watershed flood control. Clifford Hope of Kansas, chairman of the House Agriculture Committee, presented the item to the Committee on Appropriations. "I am sure," he said, "that the members of this Subcommittee are aware of the tremendous interest in watershed programs which exists throughout the country today. As a matter of fact, I am convinced that the country is far ahead of the Department of Agriculture and the Congress on this subject "[1]

But in appropriating $5 million for this purpose Congress was not dealing for the first time with the watershed problem. In June of 1936 it had declared that "destructive floods upon the rivers of the United States ... constitute a menace to national welfare," and that "the Federal Government should improve or participate in the improvement of navigable waters and their tributaries, *including watersheds thereof,* for flood purposes if the benefits to whomsoever they may accrue are in excess of the costs, and if the lives and social security of the people are otherwise adversely affected."[2] To this end Congress provided that Federal investigations and improvements of rivers for flood control and allied purposes should be under the supervision of the Chief of Engineers, and that Federal investigations of watersheds and measures for runoff and water flow retardation and soil erosion on watersheds should be undertaken by the Department of Agriculture. The Secretary was authorized and directed to make watershed flood control surveys in the same localities in which the Corps of Engineers was authorized to make river surveys for flood control.

* See bibliographic note at conclusion of article for method of citing sources.

1 Ref. (C), p. 583.

2 Flood Control Act of 1936, 49 Stat. 1570. Emphasis added.

By June of 1953, however, the Government had made very little progress on the watershed program authorized in the Flood Control Act of 1936. The Department of Agriculture had not yet agreed upon a rationale for the program, nor upon an organization to develop such a rationale. During this seventeen year period the Department had recommended to Congress improvements on only 26 watersheds.[3] And with respect to these, there was little agreement in the Department, the Executive Office of the President, or the Congress that adequate or satisfactory plans had been proposed. Congress had authorized the 11 watershed proposals prepared before World War II (all in the Flood Control Act of 1944), but had failed to take any action on those submitted thereafter; and relatively little work progress had been made on the authorized watersheds. It is in the light of these facts that we recall Clifford Hope's conviction that "the country is far ahead of the Department of Agriculture and the Congress on this subject."

## WHY SO LITTLE PROGRESS?

Why had so little progress been made since 1936? Why had the Department of Agriculture been unable to make effective use of the Flood Control Act? It is the purpose of this article to develop an answer to these questions and then to interpret Congressional action in 1953 in the light of this answer.

In brief, the answer is that the Department of Agriculture, considering its internal organization and its relations with outside groups, with the Budget Bureau, and with Congress, had been unable to adjust to a *project-by-project,* in contrast to a *nationally uniform* approach to an agricultural problem. The Flood Control Act contemplated a project approach, similar to that of the Corps of Engineers. But for Agriculture, that which was to be applied on a project basis, "measures for runoff and waterflow retardation and soil erosion prevention on watersheds," was not well delineated in the legislation nor in the work preparatory to it. Neither was the relation of a program of watershed projects to the nation-wide conservation programs of the Department.

[3] Eleven surveys were completed before World War II interrupted USDA work on this type of activity; and 15, thereafter. The general report on the Missouri River Basin Agricultural Program is not included in the count for this purpose.

## PROTECTING NATURE'S RESERVOIR

How should flood control be provided on watersheds? By upstream engineering practices such as flood water retarding structures? By land treatment practices designed to improve the water retention and regulating capabilities of crop, pasture, and woodlands? Or by a combination of these two and yet other devices?

How should the desired practices be installed on farms and other private lands? By use of Federal technical assistance to farmers? Incentive payments? Supporting credit? Extension education? Or by a combination of several or all of these and others?

Since the Department's national conservation programs provide for land treatment measures by various combinations of the means listed above, how should the watershed project by-project approach be meshed with the national programs? Should the national programs be accelerated for selected areas? Or should the watershed projects be separately authorized and conducted?

It is in solving these difficult problems that the Department has had so little success. But responsibility for failure does not rest on the Department alone. As we shall see, the Budget Bureau, the committees of Congress, and the 1936 legislation inaugurating a watershed program must share, in varying degree, this responsibility. (Where the law is at fault, however, the USDA can be held accountable for failing to propose remedial legislation.)

### THE FLOOD CONTROL ACT OF 1936: A PUBLIC WORKS APPROACH

Let us start, then, with the 1936 Act. As I have recounted elsewhere, this legislation was drawn up in 1935 by the Flood Control Committee of the House of Representatives as an "emergency measure," designed primarily to insure that flood control projects would receive a large allocation under the $4.8 billion emergency relief appropriation then under consideration by the Congress.[4] It was not considered a vehicle for determining important policy in resources development. When the bill emerged from the Senate Commerce Committee almost one year later, however, it had been expanded in scope

**4 See this author's *Muddy Waters: The Army Engineers and the Nation's Rivers* (Harvard University Press, 1951), pp. 83-6.**

to expound a national policy for flood protection. In deriving this policy the Commerce Committee had worked almost entirely with the Army Engineers; it had not consulted other interested agencies- the Departments of Agriculture and Interior and the National Resources Committee. These agencies disapproved the bill as reported; they considered it totally inadequate as a determinant of public policy in the broad field of water and related land resources. Among other deficiencies, the bill made no mention of watershed programs and surveys and granted no authority to the Department of Agriculture in this regard. Since it appeared certain, however, that the Senate, reacting to the disastrous spring floods in the eastern United States, would pass the flood control measure at the 1936 session of Congress, and that time was too short to work out a new and more generally satisfactory approach to the problem, the agencies agreed to press for amendment of the bill on the floor of the Senate to meet some of the most obvious deficiencies, including the failure to recognize flood abatement on watersheds. With the aid of President Roosevelt and the White House the bill was amended; and though the NRC considered the amendments inadequate and recommended a veto, the President signed the bill with some reluctance on 22 June 1936.

This legislative history is recounted to demonstrate the inadequate preparation of the 1936 Act. Not until the bill was reported from the Commerce Committee bv Senator Copeland, in late April of 1936, does the Administration appear to have been alerted to its important policy implications. Only at the last minute, in Senate debate on the bill, was legislative consideration given to the watershed aspect of river development. Then the Senate accepted, and the House immediately concurred in, several amendments prepared hastily by representatives of the Soil Conservation and Forest Services and Senator Hayden of Arizona who represented the President in the floor debate on the bill. It was hoped and expected by many that the 1936 Act would be replaced soon bv legislation based on more careful study. But this has not been the case. The procedure and organization for project planning set forth in this first national flood control law have come to be repeated in subsequent laws.

In connection with a project-by-project approach to the

development of navigation facilities the Corps of Engineers and Congress had evolved a detailed and unique system of executive-legislative relations.[5] In outline this system was as follows: Congress, in an omnibus Rivers and Harbors Act, authorizes the Corps to investigate the desirability of improving a given area; the Corps conducts a survey to determine the most suitable plan for improvement and whether such improvement is economically justifiable; the Corps submits its survey report to Congress and if the report recommends construction, Congress is likely to authorize the project in an omnibus Rivers and Harbors Act---*i.e.* authorize the Corps to proceed with construction in accordance with the survey plans when money is appropriated; if the survey report is unfavorable to improvement, the House or Senate Committee having jurisdiction over rivers and harbors may by Committee resolution direct the Corps to reexamine the area.

This public works project approach to resources development was adopted in the 1936 Flood Control Act for the activities of the Corps of Engineers. This was to be expected since the Corps took the initiative in working out the Act with the House and Senate legislative committees. The last minute amendments by which watershed programs were "counted in" the legislation applied the same unique system to the Department of Agriculture. Thus, the Department was faced with a new project-by-project program for agricultural lands, a new method for program analysis and justification, and a new pattern of executive-legislative relations---for all of which there was no important precedent in other basic programs of the Department. To this date the USDA has been unable to work effectively under the Corps' public works procedures.

### CONSEQUENCES OF INCLUDING USDA UNDER CORPS PROCEDURES

At the outset it was believed by many in the Department of Agriculture and the National Resources Committee that the Department and the Corps would prepare joint survey reports on rivers and their watersheds with joint responsibility for the findings and recommendations. This, they said, was the intention of the framers of the watershed amendments and of the

[5] For a detailed statement of this procedure, see *Muddy Waters, op. cit.,* ch. 1.

Congress in accepting these amendments.[6] But joint reports never materialized. First, the Corps of Engineers was generally not inclined to participate in any cooperative investigation of navigation or flood problems. Second, the Department of Agriculture was not prepared to conduct the watershed aspects of preliminary examinations and surveys at the rate of speed desired by the Corps Thus, though the Department of Agriculture was authorized and directed to make watershed surveys at the same localities where the Corps was to make river surveys for flood control, the two survey programs have been conducted independently of one another from the beginning.

Left, then, to shift alone in this new environment of project reports, the Department of Agriculture faltered. The preparation of survey reports on the Corps model has involved many techniques not easily applied to watershed improvements. Take, for example, the benefit-cost ratio. The costs of a project are. compared to the monetary benefits to be derived, such, for example, as flood losses prevented. These are reduced to an annual basis and stated as a ratio. If the ratio of benefits to costs is greater than 1:1, the project is considered justified economically. The Department of Agriculture has had great difficulty deriving benefit-cost ratios for its watershed programs. As recently as December of 1952 a subcommittee of the House Committee on Public Works, which is accustomed to dealing with the economic evaluation methods used in Corps survey reports, had this to say of the report on the Brazos River Watershed, Texas, considered "typical" of the Department's watershed reports :

"In summary, the economic evaluation appears to use figures both in estimated costs and in estimated benefits that are not at all firm. ... While the stated figures show estimated benefits well in excess of estimated costs, the *calculations,* the *assumptions,* and their *presentation* do not inspire confidence. The real economic value of the program is left in doubt."[7]

[6] Memo **of Chmn. Water Resources Committee, National Resources Committee, 16 Dec. 1938, subject: planning of flood control investigations; in National Archives.**

[7] **83rd Congress, 2nd Session, House Committee on Public Works, Subcommittee** to Study **Civil Works, Report on Economic Evaluation of Federal Water Resource Development Projects, House Committee Print No. 24, p. 36. Emphasis added.**

similarly the Bureau of the Budget and the Chief of Engineers have expressed dissatisfaction with the USDA's "project economics." In connection with the Brazos Watershed Report, General Pick, Chief of Engineers, said: "I do not believe, however, that this method of investigation and planning is adequate to develop the engineering plans, estimates of cost, and data on economic justification, which we consider necessary as a basis for recommendation."[8]

The difficulty may lie in the efficiency with which the Department has conducted its surveys. More likely it is due to the fact that the Department of Agriculture has been trying to apply to an agricultural program a public works project analysis that is hardly applicable.[9]

The preparation of project reports has, in addition, involved the Department of Agriculture in a type of detailed Budget Bureau review and control that does not prevail for other Department programs. For a great many years the executive departments have been required to submit to the Budget Bureau legislative proposals and proposed testimonies on legislation, so that the Bureau can act for the President in coordinating proposals and informing the departments of the relation of their statements to the President's program. That the Corps of Engineers has not in the past cooperated willingly with. the President's office in setting national resources policies is now well documented.[10] For one thing there is little basic legislation on navigation and flood control. The omnibus Rivers and Harbors and Flood Control Acts are written in the House legislative committees and consist largely of Congressional approvals and authorizations of individual project survey reports; so that national policies, to the extent that they exist, must be sought in the reports themselves. For this reason largely the National Resources Planning Board and the Bureau of the Budget in 1940 drafted, and President Roosevelt signed,

[8] Brazos River Report, p. 4.

[9] The House subcommittee recognizes this in part.

As an added factor, certain groups in the Department, in the Forest Service in particular, feared that the procedure of economic evaluation in the Flood Control Act might become a precedent which the Congress or Budget Bureau would seek to apply to the Department's regular programs. This they did not want.

Other survey techniques of the Corps which have perplexed the Department are period of *amortization, cost allocation,* and *principles of local cooperation.*

[10] *See Muddy Waters, op. cit., passim.*

an Executive Order requiring all Federal construction agencies to submit to the Budget Bureau all investigation and survey reports before they are sent to Congress, so that Budget can determine the relation .of the reports to the program of the President. In this way it was hoped to bring the Corps under some degree of executive control.[11] As might be expected, the Budget's techniques for reviewing individual project reports have differed somewhat from those for reviewing general legislation. The Bureau has examined and criticized benefit-cost ratios, including the sufficiency and accuracy of the specific economic data supporting them; cost allocation principles; etc.

Unlike the Corps, the Department of Agriculture has cooperated well with the President's office on matters of agricultural policy. These are usually spelled out in legislative proposals for national agricultural programs. For its watershed flood control program, however, the Department must clear with Budget on a project-by-project basis, as a public works agency. And in this capacity the Department has experienced difficulties. Budget's criticism of USDA project economics has been noted. Other and more serious differences of opinion between Budget and the USDA over watershed project reports will be discussed below.[12]

Finally, the preparation of project surveys under the law of 1936 has required the Department to report, for this program alone, to legislative committees other than those on Agriculture. The Committees on Public Works, as we shall see, have an entirely different perspective on watershed programs than the Committees on Agriculture. It is with the Committees on Public Works and their predecessors that the Corps had built up such a unique system of executive-legislative relations, based on project reports.

### A RATIONALE FOR A WATERSHED PROGRAM

Working with the procedural requirements of the Act of 1936, the USDA has sought without success to develop, and gain

[11] *Ibid.,* pp. **101-2, 126-9.**

[12] Also, as a part of project clearance and coordination, the Department of Agriculture, for the watershed program alone, must comply with other procedures required of the Corps of Engineers, such, for example, as referring each project report to the Governors of all affected States for review, and to the Federal Inter-Agency River Basin Committee. *Ibid.,* pp. **108-12, 124-9.**

general approval for, a rationale for watershed programs. In the late 1930's and up until the war Milton Eisenhower, as director of the Secretary's Office of Land Use, undertook to coordinate for this purpose the varied efforts of the Forest and Soil Conservation Services and the Bureau of Agricultural Economics. he achieved agreement on a number of important points, notably, the limited effects of land treatment measures on major floods at downstream urban centers, but he was unable to work out a broadly consistent Department rationale for watershed programs. As a result, when watershed survey work was resumed after the War, two views emerged, competing for acceptance within the Department. The one emphasized structural measures such as small retarding basins and bank protection works for the stabilization of small watercourses--a headwaters engineering approach. The other emphasized a broad variety of measures such as reseeding of pastures, deferred grazing, contour cultivation, fertilizing crop and pasture lands, terracing, intensifying farmer education, broadening farm credit, in addition to the watercourse structural measures--all for inducing proper use and treatment of the grass, crop, and forest lands-in the watershed. This was a comprehensive land use approach in which flood abatement was considered in the broad light of general agricultural development.

The difference between the engineering and the comprehensive approaches to watershed flood control has its counterpart in a dichotomy of views on the best method for planning land conservation for an individual farm; and a brief analysis of this dichotomy is instructive for our purposes. The technicians of the Soil Conservation Service, in making a farm conservation plan, concern themselves very largely with soil. practices. They recommend terracing, or contour farming, or strip cropping, so as to "treat every acre according to its capabilities and needs." On the other hand, certain agricultural economists argue that conservation for a farm should be planned in terms of the management of the whole farm business and the farm home too, rather than in terms of soil practices alone.[13] Alternative operating budgets should be worked out for each farm showing

[13] See Charles Hardin *The Politics of Agriculture* (Free Press, Glencoe, Ill., 1952), pp. 60-6; and the writings of John D. Black, Earl Heady and Sherman Johnson.

the expensesand income from different systems of land management and including in the alternatives only systems which promote proper land use. Thus, for example, on the basis of such an analysis the most effective way to get conservation on a New England dairy farm might be to make available $2,000 in low interest intermediate credit. With the credit the farmer could expand his barn to accommodate four more cows. To supply pasturage for the cows he would then convert certain fields, which are subject to erosion, from an annual cash crop to permanent pasture; and this would constitute good soil conservation. The point is that technicians using the SCS method of farm conservation planning would not have come up with a proposal to provide $2,000 credit for barn expansion. They likely would have proposed that the fields in crops be seeded to permanent pasture, but this proposal would not have been related to the total picture of farm operations. The SCS method is too narrow, too single purpose, argue the agricultural economists; and because it is so narrow it does not accomplish even its single purpose as well as would a more comprehensive method.

In the Department of Agriculture it is a group within the Soil Conservation Service who have supported the engineering approach to watershed programs, and technicians of the Bureau of Agricultural Economics and the Secretary's Office who have advanced the more comprehensive view. The economists on the Secretary's staff have considered a broadly conceived basin plan as a framework within which the farm planning approach could be applied to individual farms. Secretary Brannan was particularly anxious that the Department evolve broad river basin plans for agricultural development and flood control; to achieve this he sought to have the project reports prepared cooperatively by many agencies of the Department under direction of his own Office, rather than by the Soil Conservation and/or Forest Services alone.

The most ambitious and comprehensive of the reports developed under Brannan's leadership was that on the Missouri River Basin Agricultural Program, the first to be sent to Congress after World War II. This report was prepared by a field committee of representatives of nine agencies of the Department, under the leadership of the Secretary's Office. The land

grant colleges and universities, the Great Plains Agricultural Council, and other agricultural and forestry agencies of the States in the Missouri Basin participated. Secretary Brannan called this report an "innovation," "a new and outstanding landmark in planning," for its proposals would be "carried out under a *comprehensive, unified,* and *multiple purpose* plan especially designed to meet the unique needs of the Missouri Basin." The first purpose of the report is to "complement and protect" flood control, irrigation, power, navigation, and other projects that have been authorized for the Missouri Basin under the Flood Control Act of 1944 (the Pick-Sloan Plan). Since the comprehensive view of watershed planning has been used, however, this first purpose is complemented by others---for example, to "protect, conserve and improve the lands of the basin for more efficient production and use." To accomplish all of the purposes a cost of $8.5 billion is estimated---$3 billion allocated to the Federal Government, $.5 billion to State and local governments, and $5 billion in costs to landowners and operators.[14]

Directing the Missouri Basin Survey was no mean task for the Secretary's Office. The Soil Conservation Service opposed so broad an orientation. And most of the USDA agencies were poorly organized to operate on a project basis, especially a project whose bounds did not correspond to State and county lines. Gaining acceptance for the Missouri Basin Report from the USDA agencies, the Budget Bureau, and the Congress, has proved an even more difficult task. The many difficulties encountered are responsible in large part for the fact that the watershed reports prepared since have been less ambitious in their comprehensiveness, though they have continued to be considerably broader than would have resulted from a simple flood control engineering analysis. Thus, the reports on 15 watersheds, submitted to Congress between October 1951 and Julv 1952, are the product largelv of the SCS, though the Office of the Secretary, with varying degrees of success, guided the work, and field representatives of other agencies of the Department, such as State offices of the Production and Marketing

[14]Missouri Basin Report, pp. iii, 29-30. Emphasis added. This Report is so broad in scope that its authors cite three major and several minor authorities as the bases for the coordinated effort which produced it. Of the major authorities, one is the Flood Control Act of 1936. The other two define the Department's activities in the field of soil conservation generally.

Administration and of the Cooperative Extension Service, as well as Washington offices of these agencies were consulted and given an opportunity to review the reports. They include, in addition to measures designed to stabilize small watercourses, proposals for pasture establishment, fertilizing, farm ponds, wildlife area development, fire protection, etc.; and these measures are to be carried out by a variety of means, including extension education, incentive payments, and technical assistance.

### THE BUDGET BUREAU OBJECTS

The rationale of even these more limited reports has failed to earn the approval of the Budget Bureau or the Congress. It contains a series of relationships to which, for different reasons, these units object. In essence the objectives as well as the programs recommended in the watershed *project* surveys cannot be distinguished definitively from *national* conservation and land productivity programs. Take for example the estimated benefits of the projects, as figured by the Department to comply with the project reporting requirements of the 1936 Act. Only five to twenty per cent of the benefits are for offsite flood control---i.e. benefits that result from the prevention of flood damages downstream from the lands on which the improvements are installed. Eightv to ninety-five per cent of the benefits accrue directly to the farmerson whose lands the many improvements are made, in terms largely of increased agricultural production, or more precisely, increased land productivitv.[15] Thus, the watershed *projects* overlap and duplicate the several *national* agricultural programs which are designed to improve land productivitv-the Soil Conservation program, the Agricultural Conservation Program, and to a degree the Extension Education and Farm Credit programs. Furthermore, the specific measures recommended in the *project* reports-terracing, strip cropping, forestry and range management, for example--and the techniques for installing and maintaining these--technical assistance, extension education, incentive payments--are very much the same as those used in the *national* programs. In effect, the watershed surveys provide for

[15] **Ref. (A), p. 38.**

One--a continuation of the normal national conservation programs for the area;

Two--an acceleration of these land treatment programs so that a certain level of conservation and productivity can be attained at an earlier date than would otherwise be the case;

Three--a new program for stabilizing small watercourses.

Part Three of the combination is the most unique. A greater percentage of its benefits than those of Parts One and TWO results from offsite flood prevention;[16] and its measures and techniques differ somewhat from those used in the national programs.

The Budget Bureau and the House Committee on Public Works have sought, in different ways, to limit authorization of watershed projects to the unique Part Three alone. The Secretary of Agriculture, on the other hand, has insisted on the combined authorization of Parts Two and Three (Part One is already authorized and underway). The three parts, he points out, are integrally connected. The small watershed structures and channel improvements (Part Three) cannot be installed on a watershed until the farmers have "substantially tied down" the land through the treatment measures proposed in Parts One and Two.[17]

"The Department, in formulating its watershed programs, seeks to adapt, intensify and accelerate proper land use and treatment. In some ways this is similar to what we are doing under the national programs of the Department. But. there is a vital difference. In watershed programs we work first on the watersheds with the biggest problems and where there is the biggest local interest in helping to meet them; and in each watershed we design and carry out a program which is properly balanced to give the greatest effects in reducing damages by erosion, floodwaters, and sediment. This procedure insures that necessary improvement work on watershed land is properly timed with the installation of supplemental runoff and waterflow retarding structures.

"The fact that we are recommending many of the same kinds of measures in our watershed programs as we advocate in our going national programs seems, however, to have caused some confusion.

[16]The analyses in the USDA reports do not make this point clear; but it is a fairly apparent and quite reasonable assumption.

[17]See Ref. (B) pp. 159-64 and Ref. (D), pp. 446-7. The quotation which follows is from Ref. [A), p. 6.

Actually, there is no inconsistency between the two kinds of programs. The land-treatment measures are the very essence of an adequate watershed program. ... Total erosion, floodwater, and sediment damage prevention and other benefits that can be achieved by adapting, intensifying, and accelerating the application of land-treatment measures to meet the peculiar needs of each watershed fully justify the recommendations we are making in our watershed survey reports to accomplish this end."

The Budget Bureau has raised objections to authorization of the project surveys because this might introduce "confusion in the presentation of the Department's budgetary program."[18] Following its parochial and statutory interest in the preparation and presentation of the President's Budget,[19] the Bureau fears the budgetary consequences of allowing Congress to authorize on a *project* basis, measures which may be carried out under existing authorizations for *national* programs. The most obvious of these consequences as far as Budget is concerned would be pressure for increased appropriations. Thus, if Congress were to authorize the Department's surveys (Parts Two and Three), then the Department could request funds to carry out this authorization under an appropriation entitled '*Flood Prevention," which would be in addition to the appropriations for the national conservation programs. If, on the other hand, Congress were to authorize only the unique engineering portion of each survey (Part Three), then the Department would be forced to request funds for the acceleration of land treatment on the watershed (Part Two), under the regular appropriations.

Secretary Brannan objected vigorously to the Budget position. He saw it as an effort to destroy the comprehensive approach which he had worked so hard to achieve within his own Department. Budget's position appeared to sacrifice the opportunity for a new broad policy for watershed programs for the advantage of consistency in budgetary presentation. Brannan put it this way:

"The Department has been confronted with proposals to restrict

18 **See Budget Bureau letters published in survey reports; for example,** that **in report on Brazos R. Watershed, Tex.**

19 **See this author's "In Accord with the Program of the President?" In** *Public Policy, Vol.* **IV, 1953.**

its recommendations for authorization of work under the flood-contolact to structural measures and to depend upon other programs and authorities for the land treatment work. We oppose such a course because we feel that the recommendations and authorizations should include a complete and balanced program of all needed kinds of improvement measures on a watershed basis and that this is necessary to set the stage for a balanced schedule for installation of measures from the timing standpoint.

"Accordingly, it is the position of the Department that it cannot meet the responsibilities imposed upon it by the flood-control acts or conform with the intent of Congress in enacting this legislation unless its investigations, reports, and recommendations are made with a view to developing complete programs of watershed improvement and protection. The test of whether a measure should be recommended for authorization under the flood-control acts is not whether it may be carried out by this Department under some other authority than the flood-control act but whether such measure is for the purpose of runoff and waterflow retardation and soil-erosion prevention. This is the criterion which this Department must follow in carrying out the objectives of the flood-control act. Any other approach would in our view thwart the plainly expressed intention of the Congress.

"In our opinion, merely stepping up the rate of appropriations for land-treatment measures is not enough. To get the right kind of job done, it is necessary to do it on a planned basis-first, a program for the entire watershed and, secondly, within the framework, work plans for individual subwatershed units. Then, on the basis of such watershed plans, we would seek appropriations to carry out the plans so that each type of measure, both the land-treatment measures and the supplemental structures, would be installed in their proper sequence and relation to one another. This is why we recommend in our survey report all of the kinds of watershed measures that go to make up an integrated program for accomplishing the objectives of soil-erosion, floodwater, and sediment-damage prevention."[20]

Though not stated explicitly, the Secretary also felt that Budget's approach put the Department in an impossible position with Congress and thus jeopardized any realization of a broad watershed program. Over a great many years the Department has worked out satisfactory arrangements with Congress (and other groups) for dividing up between the States

[20] Ref. **(A), p. 40.**

funds appropriated for national programs. The several hundred million dollar annual appropriation for the national Agricultural Conservation Program serves as an example. The allocation to each State, and indirectly to each county, is today based on an estimate of the conservation needs of the State for the practices included in the program. To insure, however, that the proportion of the funds allocated to any State does not vary significantly from year to year, Congress has provided that it may not be reduced by more than 15 per cent from that available in the previous year. And as a matter of practice the Department has seldom effected reductions of this magnitude. In the case of appropriations for the Soil Conservation Service. there is no legislative allocation among the States, but a certain level of assistance to the districts has come to be accepted. For Extension Education, funds are distributed to States on the basis of a series of formulae which include the variable factors of rural population and farm population, and certain fixed amounts prescribed in basic legislation.

By requiring USDA to seek funds for land treatment under the regular appropriation headings the Budget Bureau would force the Department. to abandon its present methods of fund allocation for several national programs and seek repeal of any legislative limitations which would impede this. The ACP appropriation, for example, would include a proportionately larger allocation of funds for those counties and States within certain watersheds where an accelerated program is planned. The Department's justification for this, however, could not be the authorization of such acceleration under a Flood Control Act, for this the Budget would prohibit. The justification would have to be made under the law providing for a national program. The Secretary's Office has argued that this arrangement invites failure for the watershed program. It would be very difficult to convince Members of Congress from States which do not have accelerated programs to vote extra money for those that do, especially since great pressure can be anticipated to keep the total ACP appropriation at a level no higher than the present, so that any funds voted for accelerated programs would come out of those that would otherwise be available for allocation to all States under the national program. If, on the other hand, the Department could secure authorization

of the accelerated programs under Flood Control Law, then it would have considerably less difficulty winning Congressional approval for funds carried under a separate appropriation heading. In other words, the Department has argued that it cannot adapt its operations to a project-by-project program *if* the Budget continues to hold to its position. But the Budget has remained adamant.

### HOUSE COMMITTEE ON PUBLIC WORKS OBJECTS

The most severe criticism of the rationale of the watershed surveys has come from the Subcommittee to Study Civil Works of the House Committee on Public Works.[21] Whereas the Bureau of the Budget objected to the comprehensive surveys because they impaired clarity and purity in budgetary presentation, the House Committee on Public Works, following its parochial and statutory interests, objected because these surveys impaired the purity of the public works approach to flood control and consequently the clarity of the Committee's jurisdiction and that of the Corps of Engineers, the agency with which the Committee works most closely. Like Budget, the Committee on Public Works points out that "flood control" benefits, strictly defined, constitute a small portion of the total anticipated benefits from the projects recommended by the Department of Agriculture. Also, the Committee appears to be quite unimpressed with the desirability of a comprehensive approach and with the relatedness of the several parts of each of the USDA surveys. In effect, the Committee would like to assume responsibility for the structural measures and absolve itself from any concern with land treatment, leaving this to the Committee on Agriculture.

Thus, "the Subcommittee believes that flood control programs of the nature contemplated in the flood control acts should continue to come before the Committee on Public Works, but is opposed to having land productivy measures, a non public *works function,* included to such a large extent."

Referring to the fact that the Department had tried to get a hearing before the Committee on Agriculture for several of its survey reports, the Committee on Public Works said:

21 **See its report (Ref A). Quotations that follow in this section are** from the **report unless otherwise indicated. Emphases are added.**

"It would appear that the Department of Agriculture's action was actually based on its anticipation that the Committee on Public Works would be inclined to consider only *public works features* and would not be willing to load down flood control legislation with authorizations that were not strictly relevant to *responsibilities of the Committee.* This anticipation is reasonably sound since the Committee had objected to this attempt to force it either to take no jurisdiction over a program at all or be *obliged to* pass on agricultural *measures* as well as flood *control works."*

The Committee would clarify the present confusion by limiting the flood control authority of the Department of Agriculture and expanding that of the Corps of Engineers:

"The Subcommittee believes that the supervision of Federal improvements for flood control should remain in one agency and the responsibility should not be dissipated by the authorization of uncoordinated segments of flood control work by other agencies."[22]

Present authority of the Department to make flood control surveys in accordance with the Act of 1936 would be cancelled. Instead the Corps of Engineers would be directed to "include in their reports, with their comments thereon, a statement from the Secretary of Agriculture as to specific *structural improvements,* their costs, purposes, and benefits, recommended by him to provide related runoff and waterflow retardation and soil erosion prevention works, as supplementary to any program recommended by the Chief of Engineers." The Corps would receive all appropriations for flood control surveys and would transfer to the Department funds necessary to finance its studies.

As for the non-structural aspects of Agriculture's programs, "the Subcommittee recognizes that some legislation, presumably sponsored by the Committee on Agriculture, would be necessary to provide for an accelerated program of soil conservation and water retardation work on upstream lands";[23] but it feels that this is not very closely related to flood control :

22 82nd Congress, 2nd Session, House Committee on Public Works, Subcommittee **to** Study Civil Works, Statement on House Committee Print No. 22 (mimeo., n.d.), p. 3.

23 Statement of Rep. Robert E. Jones, Jr., Chairman, Subcommittee to Study Civil Works, entitled "Press Comment on Jones Subcommittee Report on Flood Control Program of the Department of Agriculture" (mimeo., n.d., but Feb., 1953).

"The Subcommittee considers that soil conservation in itself is a most important activity. The welfare of the nation requires that sound practices for the conservation of the fertility of the soil be undertaken. The need is sufficiently important that it does not need to be disguised as flood control. The unnecessary confusion introduced by improperly commingling the two phases of conservation must stop."

### HOUSE COMMITTEE ON AGRICULTURE IS AMBIVALENT

The watershed program has presented real difficulties for the House Committee on Agriculture; for that Committee is not used to dealing with *projects*; but rather, with ***national*** agricultural *programs.* Also, the Committee has never been certain of its jurisdiction, if any, over the project reports and over any legislation that might result from them. The eleven watershed surveys submitted to Congress before the end of World War II were referred without question to the House Committee on Flood Control, predecessor of the Committee on Public Works; and it was this committee and its counterpart in the Senate which recommended authorization of the projects in the Flood Control Act of 1944. The comprehensive character of the post-war reports gave rise to the question of committee jurisdiction. The first and most comprehensive, that on the Missouri Basin was referred to the Committee on Agriculture. The next eleven survey reports, submitted to Congress over two years later, were referred to the Committee on Public Works, after some complicated parliamentary maneuvering involving the Soil Conservation Service and the Office of the Secretary in the Department of Agriculture and the Committees on Agriculture and Public Works and the parliamentarian in the House of Representatives. Finally, the last surveys submitted to the 82nd Congress, those on five watersheds within the Missouri Basin, were referred to the Committee on Agriculture; they were treated as supplements to the comprehensive Missouri Report.

Upon receipt of the Missouri Basin Report, the Agriculture Committee, and its Subcommittee on Watershed Programs chaired by Mr. Poage of Texas, began to consider the types of legislation that might be prepared to accomplish the work

recommended in the surveys.[24] One alternative was for the Committee to prepare omnibus watershed flood control acts in which the Congress would approve and authorize USDA survey reports in the same manner that the Committee on Public Works prepares rivers and harbors and flood control bills authorizing the Corps' survey reports. It appeared to many in the Department of Agriculture that the Committee could and would follow this course; and that in this procedure the Agriculture Committee would be more favorable to the Department's programs than the Committee on Public Works. This accounts in large part for the parliamentary scramble over referral of reports, and for the following complaint of the House Committee on Public Works:

"Apparently as an outgrowth of criticisms by the Public Works Committee of the form and content of the current type of report, elements of the Department of Agriculture have determined that their proposals have greater chance of success if handled by the Committee on Agriculture. The statement has been made that the Department of Agriculture considers the Committee on Agriculture more receptive to the programs and so anticipates that appropriations will be more readily forthcoming."[25]

But the Committee on Agriculture soon made it clear that it was not prepared to deal with the watershed problem on a project authorization basis. Instead, as is its wont on other agricultural matters, the Committee preferred to deal with watershed flood control by legislation authorizing a national program. The details of this proposed legislation will be spelled out later.

### WATERSHEDS V. DAMS

To what extent, if at all, has the upstream-downstream controversy contributed to the views of the Budget Bureau and the Congressional committees and to the failure of the Department of Agriculture to absorb successfully the watershed program initiated with the Act of 1936? The nature of this public debate should be familiar to all readers.[26] On the one hand are

24 For a brief summary of the Committee's activities in this regard see House Report 2222, 82nd Congress.

25 Ref. (A), p. 38.

26 An excellent analysis of this problem is found in Ref. (A). Quotations in this section, unless otherwise cited, are from this report.

those who consider flood prevention as a problem that begins and ends where the rain falls--on the tributary watershed. A program to "restore nature's reservoir," the soil, so that it can hold the rain and check the runoff, supplemented where necessary by upstream "little dams," will not only prevent the large amount of annual flood damage that occurs on farm lands in the watershed, they argue, but will also make unnecessary the construction of large storage reservoirs on main channels. Watershed projects can either stop the floods completely or can so delay them that when the floods reach the cities they can be channeled safely through levees alone. Watershed projects instead of big dams, is the program of these proponents. On the other hand there are those who argue that in most areas of the country watershed programs will contribute little to downstream protection of large cities; that their major effect is the prevention of flood damages to the rural lands on which the watershed measures are applied; and that this effect is measured largely in terms of the increased agricultural productivity of these watershed lands. Even if "nature's reservoir" were in the most perfect of conditions it could not retain all of the rain that falls in heavy storms. There were floods in the Mississippi Valley before white man started plowing up the ground. Storms move around so irregularly in any watershed that great numbers of the little dams are likely to be outside of the area of any particular rainfall and thus provide no protection at all.

Proponents of the first view include farmers facing inundation by mainstream dams, private utilities which oppose large Federal dams that might produce public power, "anti-big-anything people," and certain conservation organizations and groups of sincere watershed farmers. Proponents of the second view include city residents and business men and, by their official pronouncements, *all* of the interested agencies of the Federal Government. The Department's survey reports claim very little in the way of downstream flood protection. Remember that only 5 to 20 per cent of the benefits are offsite; 80 to 95 per cent are on the watershed lands'. Also, officials of the Soil Conservation Service and of the Secretarv's Office have tried to make it clear to committees of Congress-ever since 1942 that upstream works cannot give adequate protection to a river basin and are not a substitute for downstream dams and

channel works needed to protect urban centers.[27] The historic importance of this conclusion by USDA should not be overlooked. Almost since the turn of the century friends of the Forest Service and conservation organizations had been proposing land treatment as a means of controlling major floods. In 1936 their great fight was won in a sense; the Department of Agriculture was given an important, if poorly defined, role in the national flood program. Between 1937 and 1941 the Department strove to make the big stride from conviction to science and, after much soul searching and some painful internal altercations, reached the conclusion that land treatment could not reduce major floods very much. This conclusion came quietly in the restrained language of the technical people, leaving public opinion almost untouched.

In the light of these facts can it be said that the watershed v. dams controversy has contributed to the Department's failure to get an active watershed program underway? It may be true that the public controversy has given reviewing authorities, such as the Budget and Congress, an excuse to delay action. It may be also that active opposition by the dam building agencies and their friends to any groups that advocate watersheds instead of dams has been interpreted mistakenly by many as opposition to the Department's watershed program. Controversies such as this breed confusion, and confusion can do great harm to a cause which requires positive legislation. Furthermore it is true that the Corps of Engineers and the House Committee on Public Works have expressed serious doubts about the engineering and economic adequacy of the little dams proposed as part of Agriculture's program for stabilizing small watersheds.

On the other hand, the Department has profited from the activities of the watersheds-instead-of-dams groups. They have been able to focus national attention on the paucity of Federal funds spent for watershed flood control in contrast to those

**[27] See in addition to Ref (A), testimony of Chief, SCS, in Ref. (D), p. *444;* of Dy. Chief, SCS, before 83rd Congress, 2nd Session, House Subcommittee on Agricultural Appropriations, Vol. 4, pp. 1872-3; of assoc. Ianduse coordinator, USDA, before 78th Congress, 2nd Session, House Committee on Flood Control, Hearings on Flood Control, p. 1119. Also, Howard L. Cook, "The Effects of Land Management Upon Run-Off and Ground-Water," in *Proc. U. N. Sci. Conf. on the Conservation and Utilization of Resources* (1951), Vol. IV, pp. 193-202, and the references cited therein.**

spent for big dams. To a considerable degree it is they who successfully impressed upon Congress in I953 the urgency for action on watershed legislation. Though the Department in Washington has continually rejected the platform of these groups, there is evidence that certain SCS officers in Washington and the field have encouraged it. After taking considerable testimony on this point the House Subcommittee on Civil Works concluded somewhat obliquely: "... the Subcommittee has not been able to understand why the people in the watersheds have continually supported the proposition that the Department can give them total flood control over the entire river if somewhere along the line the Department did not lendthem some encouragement." The Committee pointed to the case of Kansas and Tuttle Creek Dam and cited evidence that the "agencies have contributed to confusion over the effectiveness of upstream works." Commenting on the influence of Elmer T. Peterson, a prominent spokesman of the watersheds-instead-of-dams groups, the Committee said:

"Other elements of the Department ["other" than the Secretary's Office], how-ever, have expressed the opinion that while Mr. Peterson and his followers are perhaps overly zealous and inclined to over-exaggeration, probably the upstream program would languish in the planning stage if the more rabid supporters of the watershed scheme did not arouse the farmers, the President, and the Congress."

On balance it is my opinion that the watershed v. dams controversy has not been a significant factor in the failure of the Agriculture Department to gain approval for an active program of watershed flood control. And in any case, the importance of this controversy cannot compare to that of factors traced previously.

### 20 JANUARY 1953--A COLOSSAL IMPASSE

As Secretary Brannan and the Truman Administration departed Washington on 20 January 1953 the situation on watershed flood control could be described as a colossal impasse. The Department had submitted to Congress since resumption of survey activities after World War II project reports on 15 watersheds. Ten of these were before the H&se Committee on

Public Works whose special subcommittee had criticized them severely, failed to recommend their authorization, and proposed an end to the procedure under which they had been prepared. Reports on 5 watersheds were before the House Committee on Agriculture which had decided against adopting a project authorization approach to the problem but had not worked out a satisfactory alternative. And there were jurisdictional conflicts and jealousies between the two legislative committees.

The Budget Bureau, as the President's staff agency, had. done nothing positive to help get the watershed program unclerway. As the Department viewed Budget's actions, they were entirely negative and contributed to the impasse. There was no real agreement within the Department of Agriculture; the Office of the Secretary and the SCS were at odds over the rationale and strategy of the program.

The Department's postwar "new look" on the watershed survey-the comprehensive report-was under vicious attack at all points. The Budget Bureau had inserted the scalpel into the land treatment portion of the reports; and the House Subcommittee on Civil Works had given it a healthy twist. The Corps of Engineers had pricked the skin of the small watercourse portion of the reports; and the House Subcommittee had inserted the scalpel deep. Finally, the Budget Bureau and the House Committee had severed the two parts with a sharp blade so that combined or comprehensive consideration was impossible

At the very time that the impasse was becoming immense in proportions, public demand for some sort of Federal action on the watershed conservation front was rising rapidly. Robert Salter, Chief of the SCS, reported to Congress early in 1953 on the growth in the last two years of local interest in watershed programs. His organization had made a survey in January of 1953 and had found more than 300 organized watershed associations (i.e. those having elected officers and boards of directors and bylaws) and more than 500 informal watershed groups. The 300 organized associations covered 350 million acres and about 1.5 million farms and ranches; thev were well distributed geographically; and almost 50 per cent of them had legal status of one form or another. Many of these groups were misguided, to be sure: "Of course, there are some people out there who mis-

**takenly believe these** upper watershed programs will effectively control these enormous floods, which they will not do"; but they were demanding some sort of action.[28]

The impasse was so great that Secretary Brannan and President Truman in the Budget for fiscal year 1954, recommended that Congress appropriate funds to initiate action on 7 new watersheds, which were the subject of survey reports pending before the House committees (6 reports were before the House Committee on Public Works; 1 before the House Committee on Agriculture). They proposed that the work be carried out under authorities already available to the Department, since **the** reports had not been authorized under the Flood Control Act. This recommendation was eliminated from the Budget by the new Administration, which further proposed a reduction in the appropriations for continuing work on the 11 authorized projects, and a heavy cut in the funds recommended for continuing the Department's survey work.

It was in this atmosphere that Representative Hope opened Agriculture Committee hearings on "Conservation and Water**shed** Programs" on 28 April 1953. In his introductory state**ment he** said:

"We are convinced, in short, that we have reached the time for action in our upstream soil conservation, water utilization, flood prevention program. We hope that these hearings will help us to chart the course of that activity with certainty. . . .

"Under the specific authorizations of the Flood Control Act the Department of Agriculture has expended some $18 million in making studies, surveys, and reports. These have resulted in the start of exactly 11 projects, which were authorized in 1944.

"In spite of the millions of dollars which have been spent in surveying and resurveying virtually every major watercourse in the United States, we are no nearer action on most of them than we were 17 years ago. In spite of thousands of conferences between representatives of agencies who agree on broad plans for river valley development, we are no nearer agreement on the practical blueprints for action than we were before the Flood Control Act was passed.

"It seems clear to us, therefore, that now is the time to begin to put some of our plans into action and we hope that these hearings

[28] Ref. (D), pp. 447,442.

will give the Committee and the Congress a clearer view of just what that action should be."[29]

The action taken to cure the evils of the Act of 1936 will be discussed in the following section. Just remember here the major cause of failure: The Department had been unable to adjust to a project-by-project, in contrast to a national, approach to an agricultural problem. This is attributed to certain conflicts within the Department as well as to the Department's relations with other units of the Executive branch, the Congress, and its clientele. The Secretary's Office had sought to mesh the watershed approach with the national conservation approach by developing "comprehensive, unified, multiple purpose plans" through which the Department's conservation activities could be "tailored" to meet the needs of major agricultural regions. The Soil Conservation Service had taken a more limited or single purpose view of desirable watershed planning and in doing so reduced, though it could not eliminate, the meshing problem. Augmenting this basic difference were conflicting views on how watershed conservation should be installed-by what practices and what methods of dealing with farmers; how it should be authorized by Congress; what agencies should do the planning-whether it should be a joint undertaking of several USDA bureaus or assigned to a single bureau;[30] and how coordination with other Federal agencies should be achieved.

### THE USDA AND THE FIRST SESSION OF THE 83RD CONGRESS

On 1 April 1953 Secretary Benson transferred to the Soil Conservation Service general responsibility for all work under the Flood Control Acts and abolished the land and water resources staff in the Secretary's Office.[31]

On 23 July 1953 the House and Senate approved a Conference Report on the Agriculture Department Appropriations Bill which included an item of $5 million to start a "pilot plant" program of watershed protection on 50 small watersheds in

29 Ref. (B), p. 3.

30 The Soil Conservation and Forest Services feared that joint planning, requiring coordination of activities, might reduce cherished agency autonomy.

31 This staff was a direct descendant and the last remnant of the Office of Land Use Coordination, organized under the leadership of Milton Eisenhower.

28 States. There was no special legislative authority for this; so the broad provisions of the soil conservation Act of 1935 were relied on. How did an economy-minded 83rd Congress come to initiate an appropriation for a new, unbudgeted, and in a sense unauthorized agricultural program? The November election in Kansas' First Congressional District is important in this connection; and it symbolizes the answer. Albert Cole, Republican, had represented this District in northeast Kansas since 1945. In each of his four elections he had received almost twice the votes of his Democratic opponent--roughly 70 to 35 thousands. Cole ran for the 83rd Congress, seeking a fifth term; but in the year of the great Republican sweep of the nation he lost to a Democrat by a vote in thousands of 65 to 69. For the first time in historv the First District of Kansas was represented by a Democrat. Albert Cole's defeat has been attributed to his support of the Army Engineers and their Tuttle Creek flood control dam under construction on the Big Blue River. His adversary, Howard Miller, president of the Walnut Creek Watershed Association, opposed this dam which, when in full use, would flood out tens of thousands of acres of rural land in the First District to help provide flood protection for Manhattan, Topeka, and Greater Kansas City. In opposing the dam Howard Miller supported counter proposals to control flood waters on the Big Blue by soil conservation and land use measures. Cole had himself opposed the Tuttle Creek dam until some time after the great floods of 1951 when he became convinced that the watershed program, though important of itself, would not provide adequate protection for the urban centers; and his position was upheld by the Department of Agriculture in Washington though there is evidence that certain Department representatives in the area lent support to Miller's position. But the details are not important here. The point is that Albert Cole's defeat alerted many in Congress to the political significance of the public interest in watershed programs; and it, along with the advent of a new Administration which promised to emphasize "local interests" in resources programs, gave an impetus to the groups seeking new watershed legislation.

On 4 February 1953 the Water Management Committee of the National Association of Soil Conservation Districts, meet-

ing in Omaha, Nebraska, voted that the President of the United States should recommend to the Congress new legislation establishing uniform standards for a watershed flood control program. It voted also, however, "to immediately readjust the 1954 budget of the Department of Agriculture, without increases, to provide for assistance in flood prevention and related land treatment in small watersheds upon application of local agencies."[32] The NASCD was soon joined in its resolves by others interested in watershed legislation and together they formed the National Informal Citizens Committee on Watershed Conservation. Raymond A. McConnell, Jr., editor of the *Lincoln* (Nebraska) *Evening Journal* and co-chairman of the Salt-Wahoo Watershed Association, became leader of this informal group. At his suggestion they met in Washington on 25 February for discussions with President Eisenhower, the Secretaries of Agriculture and Interior, the Chief of Engineers, and the Director of the Budget. Thev proposed that a sum be made available directly for a small wateshed program. Mr. McConnell reports that "at that time we urged upon the President that true economy lies in this type of approach and its complete consistency with the philosophy underlying the new Administration."[33]

The group did not win their point immediately, for the revised Eisenhower Budget failed to include any funds for the small watersheds; in fact it cut back quite heavily on all watershed activities. However, on 29 April, the last day of scheduled hearings on Agriculture appropriations, Representative Hope, Chairman of the House Agriculture Committee, and Senator Carlson, both from Albert Cole's State of Kansas, appeared before the House Committee on Appropriations and made an urgent request for a $5 million fund to start work on 50 small watersheds. With their active support and that of Mr. McConnell's committee, many of whom returned to Washington at the time of the appropriation hearings, the money was voted by Congress.[34]

The position of the Eisenhower Administration on this somewhat unusual procedure is not entirely clear. Congressman

32 See Ref. (B), pp. 154-5.
33 Ref. (D), p. 1056.
34 Material on the legislative history of this appropriation from Ref. (C), pp. 581-93, 610-50; Ref. (D), pp. 1052-62, 1192-6; and the committee reports.

Hope **told** the House Committee on Appropriations that the program had not been approved by the Department of Agriculture or by the Budget Bureau. Senator Carlson told the Senate Committee that: "Before Congressman Hope and I presented this proposal to the House Committee, we discussed the matter with the President of the United States and officials in the Department of Agriculture. We have the enthusiastic approval of the President and have had the full cooperation of the Department of Agriculture." Apparently, the White House was more receptive to the proposals than the Department.

Can this new small watershed program be said to constitute an element in a long range solution to the impasse of 1953? Or is it more nearly an isolated special purpose action? Representative Hope in presenting his proposal, the Soil Conservation Service in supporting it, and the House Committee on Appropriations and the House-Senate Conference Committee in approving it, all spoke of a "pilot plant" or "demonstration."[35] There are good reasons to believe, however, that the "demonstration" was conceived by many of its supporters as a start on a new permanent program rather than a laboratory experiment. In the first place, it is similar in most respects to the proposed permanent legislation introduced by Representative Hope on 27 April. Mr. Hope called for hearings before the Agriculture Committee on this bill the very next day; and on 29 April, apparently with the support of the Agriculture Committee, he appeared before the Committee on Appropriations, "convinced that the country is far ahead of the Congress on this subject." Since there was no specific legislative authority for the appropriation proposal and its supporters were forced to rely on the broad provisions of the Soil Conservation Act of 1935, since specific legislative authority was, however, pending before the Committee on Agriculture, and since the first session of the 83rd Congress was bent on economy and not amenable to appropriating funds for new legislative programs, it probably was essential for purposes of strategy, if for no other reasons, to call the proposal a "pilot plant" or "demonstration."

Second, some of those who used the description, "demonstration," (including Mr. Dykes of the SCS, Mr. McConnell, and

35 For Hope, Ref. (C), pp. 588, 646; for SCS, Ref. (C), p 643; for House Com. Approps., House Rpt. 422, 83rd Congress; for Conference Corn., House Rpt. 900, 83rd Congress.

in part Mr. Hope) did not mean experiment, but rather an effort to demonstrate the advantages of a watershed program to the entire nation through a series of small projects "widely scattered," "into areas where all the **people could see** the work," "from South Carolina to California and from Minnesota to Texas."[36]

Finally, the important Congressional leaders urged the basic significance of the appropriation. Chairman Hope of the legislative committee said to **the Appropriations** Committee : : I believe that this appropriation, if made, will constitute a *landmark in* the history of ***conservation legislation*** **in this** country. I implore you to give it favorable consideration." And Chairman Andersen of Agriculture Apporpriations Subcommittee said to his colleagues and to representatives of the SCS: "I might say here that I hope that this is the beginning of a long range program which will provide for a lot of this necessary work. This has been too long delayed."[37]

It is safe to conclude, then, that the $5 million appropriation was intended as a prominent first step in a solution to the impasse we have described. As such we should determine if it encompasses the ingredients of success.

### A NATIONAL PROGRAM?

To what extent is the new program a national one which the USDA can administer without violating its traditional relationships? It proposes to distribute its benefits widely. The concern is with small watersheds, and a large number of these can be included in an annual budgetary program of reasonable size. The $5 million voted for fiscal year 1954 is to be spent on 50

**[36] For Dykes Ref. (C) p. 642; for McConnell, Ref. (C), p. 36; for Hope, Ref. (C), p. 585.**

**Technically it is highly doubtful that the watershed "pilotplants," as planned by SCS, could ever be used to determine the effects on flood runoff of the measures installed. To do this it is necessary to measure rainfall and runoff over a period of years both before and after the program is installed.**

**It is interesting to note here that the "demonstration projects" developed by the Soil Erosion Service and the Soil Conservation Service in its earliest days came to he of strategic importance in encouraging the formation of soil conservation districts after the States had passed their district enabling acts. The demonstration project approach, in other words, has worked once before to set off a rapidly expanding program.**

**[37] For Hope Ref (C), p. 585; for Andersen, Ref. (C), p. 641. Emphasis added.**

watersheds in 28 States, fairly well distributed over the major Agricultural areas of the United States.[38] The operating unit for the program is the soil conservation district, and since in most States the boundaries of districts correspond to, or are included within those of counties and in no instance do they cross over those of States, the program appears to conform to a workable and accepted administrative pattern for the Department. In mid-September the SCS compiled a list of 39 watersheds for which negotiations with the local sponsoring agencies were well along. For 31 of these the sponsoring agencies are single soil conservation districts, and only 7 of the districts have jurisdiction over areas that cut across county lines. For 6 watersheds, the sponsors are 2 soil conservation districts jointly, and in only one case does the jurisdiction of the sponsors cut across county lines. For one watershed the sponsor is 3 districts jointly, and their jurisdictions are confined within county boundaries. The sponsor is an agency other than an organized SCD for only one watershed, and it is Mr. McConnell's Salt-Wahoo Association in Nebraska. Apparently the rapid spawning of formal and informal watershed groups, noted by SCS Chief Salter, has little to do with the administration of the new program. The well-organized SCDs have taken charge.

The program abandons the whole concept of individual project authorizations and with it the need for public works reports, benefit-cost ratios, and report clearances. Neither the language of the appropriation nor the reports of the Appropriations Committees mention the watersheds by name; considerable flexibility is left with the SCS. Though the Service may decide to use a very general form of the benefit-cost ratio as a means of internal administration, it is not required to defend the precision of these calculations before the Congress. At the present time (September 1953), the Department does not intend to submit small watershed reports to the Bureau of the Budget for project clearance under EO 9384, nor to the Federal Interagency River Basin Committee, though certain Budget staff members think that the Department should be required to do so.

[38] The number of watersheds is not prescribed in the appropriation language **and** will likely exceed 50 before all funds are committed.

## A PROGRAM THAT WILL ENJOY LEGISLATIVE SUPPORT?

To what extent is the new program one that is likely to receive encouragement from the committees of Congress? The program was initiated by the House Committee on Appropriations at the urgent request of the chairman of the House Committee on Agriculture. A sympathetic Committee on Agriculture has assumed jurisdiction rather than an unsympathetic Committee on Public Works. The Agriculture Committee will soon consider Chairman Hope's bill which would repeal the USDA's watershed survey authority under the Flood Control Act of 1936, and instead provide a permanent authorization for the program now underway, thereby removing from it the descriptive qualification, "pilot plant."[39]

There are several respects in which the Hope bill differs from the current appropriations program, and it might be well to mention them here though some are likely to undergo modification in the legislative process. The bill requires that, before the Secretary of Agriculture commences any watershed work involving Federal assistance, he shall transmit a copy of the plan and the justification therefor to the Congress through the President. The Congress does not authorize or approve the plan; rather do its legislative and appropriations committees receive it for information. In supporting the appropriation for 50 watersheds this year the Soil Conservation Service submitted to the Appropriations Committees brief descriptions and justifications for each, and in a sense the Hope bill formalizes this normal procedure. However, the very formality will likely require the preparation of more rigid and detailed reports, and the Department will have to steer a careful course if it is to avoid that tortuous maze of public works project reporting with which it has been unable to cope in the past. In this connection two further provisions of the Hope bill should be pointed out. It requires that the Secretary determine "that the flood prevention and soil conservation benefits exceed their costs" before the Department participates in a watershed program. This appears to be a very general demand, but again

[39] The bill introduced on 27 April was H.R. 4877. It was similar to the Poage bill on which hearings had been held in the previous session of Congress. Minor revisions have since been made, and the bill was reintroduced on 1 August 1953 as H.R. 6788. The companion bill in the Senate is S. 2549, introduced by Chairman Aiken of the Committee on Agriculture and Forestry.

the Department will have to steer a careful course to avoid a rigorous application of public works project economics to its activities. Finally, the bill requires that the reports to Congress be transmitted through the President. This means through the Budget Bureau; and the Bureau has stated, in a letter to the Committee on Agriculture on the bill, that "the proposed projects would be reviewed bv the Executive Office of the President under Executive Order 9384." Unless the Bureau revises its approach to review of watershed projects, a permanent program may run into difficulties here. Also, unless the Budget desists from requiring that funds for watershed programs be divided up among several appropriation items, the Department may find it difficult to sustain the support of the Committees on Appropriations.

The Budget Bureau, as the President's agent for clearance of legislation, has recommended favorable consideration of the watershed bill by Representative Hope's committee; and the President in a message to the 83rd Congress in the closing days of its first session supported the bill's principles.[40]

### A PROGRAM THAT WILL BRING CONCORD TO THE USDA?

To what extent is the new program one that will bring harmony to the Department of Agriculture? It concentrates responsibility in the Soil Conservation Service. This combined with the Secretary's order transferring the watershed functions of the Office of the Secretary to the SCS should end many disagreements of the past. But new ones can be foreseen. If the program grows rapidly it will mean more power for the SCS, and, more important, for the soil conservation districts. As such it strengthens these agencies as against Extension and the Farm Bureau in what Charles Hardin called "The Struggle for Power in Rural America."[41] Anyone familiar with Hardin's analysis can project the broad problems that will be raised by a significant increase in the power of the "land doctors" and their districts and can speculate on alternative solutions, but such analyses, projections, and speculations are beyond the scope of this paper.

40 Budget Bureau letter to Chairman, House Committee on Agriculture, 31 August 1953. President's message to Congress, 31 July 1953, House Doc. 221, 83rd Congress.

41 This is the subtitle of his ***Politics of Agriculture,*** *op. cit.*

## A COMPREHENSIVE PROGRAM?

Admitting, then, that the strategy of success is built into the new program- i t is national in scope and organization and will enjoy legislative and executive support-to what extent does it retain the substance of the postwar comprehensive approach to watershed conservation? The program for most of the 50 small watersheds includes measures for both acceleration of land treatment and small watercourse stabilization. The upstream engineering techniques for the stabilizing measures, for which the Federal Government will pay full costs except lands, are the same as those contemplated in the wider watershed surveys. But those for the accelerated land treatment are considerably more limited. Whereas the comprehensive programs contemplated Federal expenditures for a combination of technical assistance through the SCS, education through the Cooperative Extension Service, conservation payments through the ACP, and other means, the new small watershed programs provide for technical assistance through the Soil Conservation Service only. Mr. Hope has testified that of a total Federal cost of $29 million for the 50 watersheds (the $5 million appropriated in 1953 is a first year start), $24 million are for the structural measures and $5 million for intensifying land treatment, a ratio of roughly 5 to 1 in favor of the structures. Compare this to the Federal expenditures proposed in the most recent comprehensive watershed surveys :

| Watershed | Federal Cost for Structures (in $million) | Federal Cost for Accelerated Land Treatment (in $ million) | Ratio of Structures to Land Treatment |
|---|---|---|---|
| Salt-Wahoo Crks., Neb. | 62 | **10.8** | **1:1.7** |
| Blue R., Kan.-Neb. | **17.5** | **39.2** | **1:2.2** |
| Upper So. Platte R., Col. | 8.7 | 39.1 | **1:4.5** |
| Osage **R.,** Kan.-Mo. | 55.5 | 62.0 | **1:1.1** |
| New program of 50 small watersheds | **24.0** | 4.7 | **1:0.2** |

The new program, then, is considerably less comprehensive than that of the Brannan era. It is, in the words of its supporters, "a watershed program under the Soil Conservation Service," and as such it utilizes only the techniques and instrumentalities of that Service. It is hardly broad enough **to**

**provide a** framework for the farm and home planning approach to conservation on the individual farm.

Furthermore, since the new program places such great emphasis on the soil conservation district, the river basin orientation of the comprehensive surveys is fairly well forfeited. Most of the supporters of the new program envision a status in which the SCS is prepared to install a "watershed **program" in** *any* district that makes application and is itself prepared to meet the requirements for local participation. By scattering its services in this way, to make up a national program, the SCS could scarcely put together broad river basin plans, designed to complement the river engineering work of the Corps of Engineers and the Bureau of Reclamation. Of course, a close or complementary relationship between watershed programs and river developments has never been established in the USDA comprehensive surveys. Eighty to 95 per cent of the benefits accrue to the farm land owners; only 5 to 15 per cent are assignable to offsite protection. Under these circumstances forfeiture of river basin orientation may be inevitable and insignificant. In certain cases, however, the ultimate installation of small watercourse stabilizing measures over an entire watershed may so alter the pattern of flood runoff that it should be planned in conjunction with the main stem storage reservoirs and levees. Such coordinated planning would be extremely difficult to achieve under the new program.

In the light of this analysis, the new watershed program may well boil down to little more than a *national* program authorizing the SCS to provide an additional service to any of its customers, the soil conservation districts, who wish it. At present the Service is pretty well limited to providing the districts with technical assistance, and the new program will expand this only slightly. Under the new program, however, the Service can offer in addition to plan and to pay for the total construction costs (not including land) of small watercourse stabilizing measures in districts that initiate a request for these. Several districts may choose to join for the purpose of requesting the new service, and they may designate themselves a watershed association, but the basic operating unit will remain the district.

The Hope bill would authorize a program somewhat broader

in substance than that being carried out under the current appropriation. The Secretary of Agriculture could "cooperate and enter into agreements with and furnish financial and other assistance to local organizations." However, the other provisions of the bill and its general tenor, as well as the stated objectives of most of those who support it, suggest the strong possibility that the broader terms of the authorization, if enacted, may never be used. The die may well be cast.

**BIBLIOGRAPHIC NOTE**

The following documents, cited most frequently in this article, are identified throughout by the indicators noted in the left hand column.

| Indicator | Document |
|---|---|
| Ref. (A) | 82nd Congress, 2nd Session, House Committee on Public Works, Subcommittee to Study Civil Works, Report on the Flood Control Program of the Department of Agriculture, 5 December 1952, House Committee Print No. 22. |
| Ref. (B) | 83rd Congress, First Session, House Committee on Agriculture, Hearings on Conservation and Watershed Programs, Series H. |
| Ref. (C) | 83rd Congress, First Session, House Committee on Appropriations, Subcommittee on Agricultural Appropriations, Hearings on Departmen t of Agriculture Appropriations for 1954, Part 5. |
| Ref. (D) | 83rd Congress, First Session, Senate Committee on Appropriations, Subcommittee on Agricultural Appropriations, Hearings on Agricultural Appropriatons for 1954. |

Frequent reference is made throughout the article to the sixteen USDA watershed survey reports submitted to Congress after World War II. These reports are identified below and will be mentioned by name only in the text.

| Watershed | Date Submitted | Referred to | Doc. No. |
|---|---|---|---|
| Missouri River Basin | 9/29/49 | H. Com. Agric. | H. Doc. 373, 81/1 |
| Green R., Ky. & Tenn. | 10/19/51 | H. Com. Pub. Wks. | H. Doc. 261, 82/1 |
| Grand (Neosho) R., Okla. | 2/27/52 | H. Com. Pub. Wks. | H. Doc. 388, 82/2 |
| Brazos R., Tex. | 3/10/52 | H. Corn. Pub. Wks. | H. Doc. 396, 82/2 |
| Pee Dee R., Va., N. C., & S. c. | 3/10/52 | H. Com. Pub. Wks. | H. Doc. 395, 82/2 |
| Sny, Ill. | 3/10/52 | H. Com. Pub. Wks. | H. Doc. 398, 82/2 |
| Queen Crk., Ariz. | 3/10/52 | H. Com. Pub. Wks. | H. Doc. 397, 82/2 |
| Delaware R., N. Y., N. J., Pa., etc. | 3/19/52 | H. Com. Pub. Wks. | H. Doc. 405, 82/2 |
| Sevier Lake, Utah | 3/19/52 | H. Com. Pub. Wks. | H. Doc. 406, 82/2 |
| Scioto R., Ohio | 3/19/52 | H. Com. Pub. Wks. | H. Doc. 409, 82/2 |
| Pecos R., N. M. & Tex. | 5/20/52 | H. Com. Pub. Wks. | H. Doc. 475, 82/2 |
| *Salt-Wahoo Crks., Neb. | 7/3/52 | H. Com. Agric. | H. Doc. 530, 82/2 |
| *Blue R., Neb. & Kan. | 7/3/52 | H. Com. Agric. | H. Doc. 530, 82/2 |
| *Upper South Platte., Colo. & wyo. | 7/3/52 | H. Com. Agric. | H. Doc. 530, 82/2 |
| *Osage R., Kan. & Mo. | 7/3/52 | H. Com. Agric. | H. Doc. 530, 82/2 |
| *Five Mile Crk., Wyo. | 7/3/52 | H. Com. Agric. | H. Doc. 530, 82/2 |

* Reports on these 5 watershed submitted in one document entitled "Supplemental Report, Missouri River Basin Agricultural Program."