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WATERSHED DEVELOPMENT—1962

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HEARINGS

BEFORE THE

SENATE COMMITTEE ON WATERSHED DEVELOPMENT

OF THE

HOUSE COMMITTEE ON PUBLIC WORKS

HOUSE OF REPRESENTATIVES.

EIGHTY-SEVENTH CONGRESS

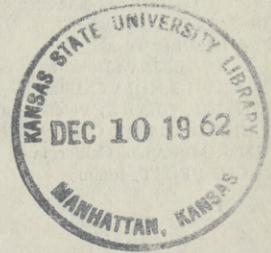
SECOND SESSION

ON

Various Projects

JUNE 27, AUGUST 15, 16, AND OCTOBER 2, 1962

Printed for the use of the Committee on Public Works



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WATERSHED DEVELOPMENT—1962

WEDNESDAY, JUNE 27, 1962

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON WATERSHED DEVELOPMENT
OF THE COMMITTEE ON PUBLIC WORKS,
Washington, D.C.

The subcommittee met at 10 a.m. in room 1435, House Office Building, Hon. Frank E. Smith (chairman of the subcommittee) presiding.

Mr. SMITH. We shall hear the two projects in Georgia first since Mr. Landrum and Mr. Stephens are here.

STATEMENT OF HON. PHIL M. LANDRUM, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF GEORGIA

MARBURY CREEK WATERSHED, GEORGIA, AND MIDDLE FORK BROAD RIVER WATERSHED, GEORGIA

Mr. LANDRUM. I have two projects in Georgia in which I am directly concerned, and in which Congressman Stephens is concerned. The first one is Marbury Creek watershed, located in Barrow County, Ga., and part of which is in Oconee County, Ga. Barrow County is the present home county of Senator Richard Russell. This watershed plan has been in the making for many, many years, and in addition to the usual flood prevention and watershed protection that this particular watershed plan carries, you have the additional need for a municipal water supply or reserve for municipal water supply which we think may be necessary in the future, and also an additional support for wildlife and fish in the area because in it we have a State park with a considerable number of acres. This watershed involves almost 16,394 acres.

Its cost in Federal funds will amount, over a period of 5 years, to about \$425,337, and as in all instances of our watershed programs down in Georgia we have the very ultimate in cooperation from the local organizations. Here we have the cooperation from the county governments, and in addition to that indirect cooperation of many of the civic organizations.

As to the Middle Fork Broad River watershed plan, we have there almost 51,000 acres of land involved in it, and the principal purposes here are usual to watershed protection and flood prevention.

Three of the counties in my district, and one of the counties in Congressman Stephens' district, are involved. Again we have the very ultimate in cooperation from the local organizations, including a number of newly formed organizations in recent years to promote river development and to promote land and water conservation, such as the upper Chattahoochee River group which has been

very active over the years in development of the Buford Dam and other conservation purposes.

I spoke of the Marbury Creek watershed being in Senator Russell's home place. This is my "briar patch." I was born and reared in a corner of this, and frankly I have personally walked over about 75 percent of it, either fox hunting, fishing, or doing something else.

I can testify from personal knowledge that there is perhaps no single watershed—I live about 100 miles from there now—there is no single watershed that will give as much real value to all of the landowners and conservation interests in the immediate area and below there as this particular watershed will.

You will note from the topography there, as indicated on the project map, that it is a very mountainous territory. A lot of timber has been removed from this area and many farmers are trying to dig out a living and they dug out the soil instead.

Now we have to go back and protect this land, reimprove it, and save this water.

We have about 70 percent of all the rivers in Georgia originating within an area of about 50 miles of this watershed, all on that side of the State.

These two projects have the endorsement of all of the local people. The Federal Government officials tell me that they have had every possible cooperation, and I hope the committee will approve them as they have been set up by the Budget Committee.

Mr. SMITH. Thank you, Mr. Landrum.

Mr. Stephens?

STATEMENT OF HON. ROBERT G. STEPHENS, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF GEORGIA

Mr. STEPHENS. Thank you very much, Mr. Chairman. I shall not take the full time that I ordinarily would since Mr. Landrum has so adequately covered the projects. I am very much interested in the approval of these two projects. The first one deals with Franklin County. That is the only county of the four counties actually in my district, but it is one of the important items in the development of that area.

Mr. Landrum did not tell you that Franklin County, which is the county which I represent, is the original county for all of northeast Georgia. It was taken away from the Cherokee Indians in 1783 and made a county in 1784.

Stevens County, which I wish was in my district, Habersham County, Banks County, and the counties in this other project were taken from the Cherokee Indians.

I suppose from what you have just heard that Indians did better than we did because we now need to restore fertility to the soil which we have depleted, but I deeply urge you to approve these two projects because they will be of immense benefit to the areas covered here.

One of the great poets of Georgia, and of America, Sidney Lanier, wrote the Song of the Chattahoochee. He starts out "Out of the hills of Habersham down through the valleys of hoe." He is talking about Habersham County here, the origin of the Chattahoochee River which flows down and becomes the border between Georgia and Alabama.

The conservation measures of water in this area are important to help control the reaches of the rivers down below. You are not only serving my district and that of Congressman Landrum but you would be serving the entire State of Georgia and Alabama and Florida with respect to these conservation measures which are taking place in these two watersheds.

Thank you for letting me appear before you. I have appeared before you once before, Mr. Chairman. You are most courteous and I thank you for it.

Mr. SMITH. Thank you, Mr. Stephens.

Do any members have questions on these projects?

(No response.)

Mr. SMITH. If not we shall hear from Mr. Wetzel on both of these projects.

STATEMENT OF JOHN H. WETZEL, DIRECTOR, WATERSHED PLANNING DIVISION, SOIL CONSERVATION SERVICE

Mr. WETZEL. It is certainly a pleasure to appear before your committee again, Mr. Chairman. The first project we would like to present is the Marbury Creek project which comprises about 16,000 acres located in Barrow and Oconee Counties, about 45 miles northeast of Atlanta, and it is tributary to this river basin.

This project has quite a group of sponsors. You have the Oconee River Soil Conservation District, the Barrow County government, the city of Winder, the Georgia Department of State Parks, all active sponsors of the project.

The problems involved include almost complete destruction of the channel in the lower part of the watershed caused by very intensive cropping on the rolling uplands and about 70 percent of the topsoil in the entire watershed has been washed down into the channel. The channels are very badly clogged.

There are extensive flood damages in the lower watershed area.

In addition, the city of Winder, which is about half in the watershed at this location, has a very acute water shortage. They are extremely interested in developing a water supply, and there is quite a lack of recreational facilities in this particular area, and the State government has indicated that they are interested in enlarging this particular structure, the combination flood prevention-municipal water supply-fish wildlife structure in order to include permanent water for fish and wildlife. Three structures are included in the plan.

The multiple-purpose structure has about 2,800 acre-feet of flood prevention capacity, 1,200 feet of municipal water supply for the city of Winder, and about 1,900 acre-feet of fish and wildlife capacity.

In addition to the three structures, there are 13 miles of channel improvement proposed for the lower portion of the watershed.

The flood plan area which is damaged is shown in yellow. It amounts to about 767 acres. As I said, it has been subjected to floods two or three times a year during the growing season.

The total cost of the project will be \$857,000, with the local people, the local organizations, bearing 50 percent, or \$431,000, and the Federal Government bearing approximately 50 percent, or \$425,000.

In the municipal water supply element of this structure, the city of Winder and the Georgia Department of State Parks will put up approximately \$61,000 to cover 100 percent of the construction costs for municipal water supply and the land easements and rights-of-way allocated to municipal water supply.

With the fish and wildlife capacity, the Georgia State Parks will put up 50 percent of the additional cost, or roughly \$49,000.

The overall costs on the structural measures, that is the three reservoirs and the channel improvement, the Federal Government will bear 67 percent and the local people will bear 33 percent.

The local contribution, the \$175,000, will be made up of \$61,000 for construction, \$10,000 for installation services on the municipal water supply component, and about \$101,000 for the land easements and rights-of-way for all three of the structures and the channel.

The benefit-cost ratio on this project is 1.4 to 1.

Mr. SMITH. Questions on this subject?

Mr. McFALL. No questions.

Mr. SMITH. Mr. Baldwin?

Mr. BALDWIN. I have no questions.

Mr. KING. I have no questions.

Mr. SMITH. Proceed, Mr. Wetzel.

Mr. WETZEL. Mr. Lane, of our staff, will present the Middle Fork Broad River project.

STATEMENT OF NEIL LANE, SOIL CONSERVATION SERVICE

Mr. LANE. I shall try not to repeat any of the information the Congressmen have given with respect to this project. I would like to point out some of the things shown on this map which you perhaps cannot see sitting so far away.

The upper end of this watershed, in fact practically all of the watershed outside of the flood plain area, is forest land. About 80 percent of the watershed is forested land.

Included in that forested land is part of the Chattahoochee National Forest. This generally includes this portion of the watershed up in here.

About 28 percent of the forested land, it is estimated, was cropland at one time, but due to erosion that has now reverted to woodland.

In addition to the land that has reverted to woodland it is estimated that about 75 percent to 80 percent of the topsoil on the remaining open land has been eroded. This indicates a very serious land abuse over past years.

Now the various conservation interests working on the watershed have done a considerable amount of work in reversing that trend. About 50 percent of the landowners in this watershed have basic conservation plans.

Another indication of what is happening in this watershed is the fact that these stream channels instead of continuing to fill up now have reached a point of stability, or so it appears. Apparently the rates of erosion and rates of sediment coming into the channel systems are not as great as they once were.

The works improvement included a total of 10-foot water retarding structures. The areas shown in the water retarding structures are

shown in this periphery. The structures will control a flow of about 54 percent of the watershed. However, that in itself is not sufficient to provide an adequate level of protection in the yellow areas which delineate the lands on the map.

It might be interesting for the committee to know that approximately half as much dirt will be excavated from these channels as will be used in the construction of the flood water retarded structures. It is indicative, I think, of the amount of erosion and debris which has come down into this watershed.

Estimated cost is \$1,221,000 approximately, of which the Federal Government will bear approximately \$935,000, or 77 percent, and the local organizations will bear a total of \$286,000, or 43 percent. The benefit-cost ratio is 1.4 to 1. It is estimated that about 90 landowners will benefit from the protection provided to these flood plain lines.

One thing not pointed out earlier is that the flood plain area here represents about half of the total cropland in this watershed. It is extremely important to the farm economy of the watershed that they can depend on these flood plain lands for crop production.

Mr. SMITH. Questions?

Mr. McFALL. I have no questions.

Mr. BALDWIN. I notice these annual benefits are broken down, and it states—"to agricultural acreage, \$7,117." Then "agricultural improvements, \$3,410."

What falls within the definition of agricultural improvements?

Mr. LANE. Farm buildings, fences. Also included in there are any benefits to farm equipment as well as improvements, and stored feeds and grain on the farm.

Mr. BALDWIN. Benefits in the sense of protecting it from flooding?

Mr. LANE. That is right.

Mr. BALDWIN. This states "To transportation facilities, \$2,509." What would that involve?

Mr. LANE. In this watershed it would be confined entirely to roads and bridges, I think.

Mr. BALDWIN. Then it states indirect, \$1,304. What would that involve?

Mr. LANE. The indirect damages are the measure of the dislocation in the economy of the watershed which is caused by periodic flooding.

We first evaluate the indirect damages associated with flooding and then the indirect benefits which result from a reduction of the direct flood damages.

These other categories of benefits are called direct benefits and then indirect benefits are related to them.

An example of an indirect benefit, for example, or an indirect damage, for example, is the detouring involved with a bridge washout, for example. The washing out of the bridge is considered to be a direct flood damage, but the detouring that it may cause before it is replaced is considered an indirect damage.

The elimination of that is a benefit, of course.

Mr. SMITH. I hope this compilation of benefits will be noted by the Corps of Engineers, Mr. Brennan.

That concludes our testimony on these two projects.

HURRICANE CREEK WATERSHED, ALA.

Our witness has been called to the telephone.

Will you give us testimony on the Hurricane Creek watershed plan?

Mr. WETZEL. Mr. Charles Swigart will present testimony on that project, Mr. Chairman.

STATEMENT OF CHARLES SWIGART, SOIL CONSERVATION SERVICE STAFF

Mr. SWIGART. The Hurricane Creek watershed is located in northern Alabama in Jackson and Madison Counties. Hurricane Creek itself flows into the Creek River and then flows into the Tennessee River. It is 1,566 acres, 71 square miles.

A problem in the watershed has been one of excessive flooding. Over a period of some 20 years there were 113 floods of varying magnitude, averaging almost 6 floods a year in some parts of the flood plain.

A serious erosion problem exists here throughout the watershed in which about 75 percent of the topsoil has been lost in the past history of this area.

The project plan proposed for the area consists of the necessary land treatment, watershed protection measures to halt the erosion process, and to see that the land is used appropriately and treated in accordance with its needs.

In addition there are seven floodwater retarding construction plans.

The results of these works are estimated to reduce the 113 floods, or at least eliminate 56 of them entirely, and to reduce 41 major floods to a minor category.

There are two principal reservoirs at this point. One contains some 5,221 acre-feet of capacity. The other has 2,718 acre-feet. These are supplemented by four other smaller floodwater retarding structures, and an additional structure to control this other tributary which comes down in the eastern part of the watershed.

The watershed, by the way, with respect to location, is roughly midway between Scottsboro and Huntsville located on Highway 72, and the Southern Railway parallels the highway. There is only one small town located on the fringe area.

There has been excellent cooperation in the formulation of this project between the Madison County Conservation District, the Madison County Board of Commissioners, and the Hurricane Creek Watershed Conservancy District.

The interest of the landowners is such that even though the conservancy district has taken on the responsibility of obtaining the land easements and rights-of-way, it is anticipated that the landowners themselves will donate in the interest of the project.

The board of commissioners will undertake to contract for all the structural works of improvement, and together with the conservancy district they will operate and maintain this. The soil conservation district will work with the landowners in seeing that the necessary land-treatment measures are applied.

There is one other feature not mentioned. There are 14½ miles of channel improvement associated with the floodwater retardant structure to accomplish the desired objectives in the watershed.

I believe that covers it generally.

Mr. SMITH. Questions?

Mr. McFALL. I have no questions.

Mr. BALDWIN. I have no questions.

Mr. HARVEY. I have no questions.

Mr. KING. I have no questions.

Mr. SMITH. Thank you.

We shall now hear from Mr. Jones. Mr. Jones, we finished the Hurricane Creek watershed project. We will be glad to hear from you on it now.

STATEMENT OF HON. ROBERT E. JONES, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ALABAMA

Mr. JONES. I appreciate the opportunity to solicit the support of the committee in behalf of this project. I am very familiar with it and I am quite sure that the information supplied by the Department will be sufficient to warrant a justifiable and favorable report.

BOX ELDER CREEK WATERSHED, MONTANA

Mr. SMITH. On the next project, the Box Elder Creek watershed, I have had communications from Senator Metcalf in behalf of this. I shall hear testimony from the Water Conservation Service with regard to it.

Mr. WETZEL. Mr. Fisk will speak to this.

STATEMENT OF ALLEN FISK, SOIL CONSERVATION SERVICE

Mr. FISK. Box Elder Creek watershed is located in the north and east corner of Montana, about 20 miles south of the Canadian border and 25 miles west of the North Dakota border. It is a rather small watershed involving 14,285 acres, and it is primarily for the protection of the city of Plentywood, Mont., about 2,500 people living there.

This flood area goes pretty much through the edge of the city.

The upland area is about half cropland and you can see here a peculiar system of farming, or a different system from what you might find elsewhere. Fifty percent of the land is used for fallow 1 year to accumulate enough moisture to grow a grain crop the next year, and the grains are primarily wheat, oats, and barley.

The program for the watershed would be accelerating land treatment which would be contouring some of this rather than the straight, single strip.

This will keep wind erosion at a minimum at this point.

Then there will be one large multiple-purpose dam, floodwater retarding structure and a wildlife development project located at Plentywood. Since it is that close to Plentywood it offers about 98 percent protection to the town of Plentywood considering the largest flood of record as of this date.

The fish and wildlife pool, the area circled in red here, will contain about 800 acre-feet of water, and will have a maximum depth of about 28 feet. This depth is needed because of the latitude in the northern regions. You have to have about that depth to assure carry-over of fish through the winter. There will be small benefit to the

agricultural land above the town of Plentywood but a good portion of that is used for hay, with only a small part used for grain, and an occasional flooding of hay land is not too detrimental and therefore the agricultural benefits are rather small. Ninety-eight percent of these benefits will be to the town of Plentywood and only 2 or 3 percent to agriculture.

The fish and wildlife incremental costs will be shared 50-50 with the Federal Government, and that portion costs \$38,015. The total cost of the structure is \$355,103.

Mr. SMITH. Thank you very much.

Questions?

Mr. McFALL. I have no questions.

Mr. BALDWIN. Since this project is 98 percent flood control, I am just a little puzzled. Under what circumstances would a project like this fall under Soil Conservation Service and under what circumstances under the Corps of Engineers which has responsibility when flood control is the sole purpose of a project?

Mr. FISK. Ordinarily the Soil Conservation Service and the corps decide who is responsible for these projects on the basis of the type of structure and the type of treatment. Here a large benefit will be from the land treatment in the upper watershed, and then it involves a floodwater retarding structure above the city.

If it were channel improvement, chances are it would be a corps project.

Here it is a small water retarding structure, the type we normally work with. The land treatment is in a large measure the thing that decides who would be the one responsible for it.

Mr. WETZEL. Under the Executive order establishing rules and regulations for carrying out the watershed program, it is required that the Soil Conservation Service and the district engineer of the corps consult on projects which are primarily for urban protection to determine which authority should logically be used in carrying out the project. In other words, it is settled at the initiation of the planning stage by agreement between the Soil Conservation Service and the corps district engineer.

Mr. BALDWIN. I knew they cooperated. I was curious as to how it was arrived at.

Mr. SMITH. Thank you.

Without objection we shall insert a statement received from Mr. Battin on this project.

(The statement of Congressman James Battin follows:)

TESTIMONY OF HON. JAMES F. BATTIN, SECOND DISTRICT, MONTANA

Mr. Chairman, among the other projects being considered today as recommended by the Department of Agriculture is the Box Elder Creek watershed work plan in Sheridan County, Mont. Box Elder Creek flows through an area which is subject to fierce runoff from winter snows. As a result, heavy spring flooding occurs which has been detrimental to crops, livestock, and property in and around the city of Plentywood for years.

This project as recommended will bring relief to this area as well as furthering good conservation practice. Fish and wildlife will benefit and a stable economy can once more be available to those persons who are subjected to the yearly floods.

The annual benefits from the plan are :

Flood prevention to crops and pasture.....	\$495
Flood prevention to agricultural property.....	45
Flood prevention to city of Plentywood.....	43, 205
Reduced indirect damages.....	4, 370
Total.....	48, 115

With a benefit-cost ratio of 3.68 to 1, I sincerely hope that your committee will act favorably on this plan.

NORTH BRANCH FOREST RIVER WATERSHED, NORTH DAKOTA

Mr. SMITH. The next item on the list is the North Branch Forest River watershed, North Dakota.

Mr. WETZEL. This is a supplement to a plan which previously had been approved by the committee. Mr. Fisk will present the supplement.

Mr. FISK. Since I came from North Dakota 2 years ago this is perhaps the reason I have the opportunity to present this plan.

As mentioned, this plan was approved 2 years ago and is under construction so far as the floodways are concerned. Contracts have been awarded on 24 of the 25 miles of floodways.

However, when final designs were completed and final surveys made on the floodwater retarding structures, it was found that this one structure, structure No. 1, the large one, was favorably located so it could provide storage for wildlife and it is an area where you have little permanent water in these communities. Water for fisheries here becomes very important, of course, so the amendment to this plan involves only the floodwater retarding structure No. 1 which will be increased to carry 525 acre-feet of water. It will be 27½ feet deep referring to the pool. That depth is needed to carry fish at this latitude.

This will increase the total cost from the previous plan by \$46,324. Part of that cost, however, is in fact the final design and there is a minor increase in cost.

The Federal cost increases \$29,433, and the local cost in this case comes to \$16,891.

This whole project is located north and west about 50 miles of Grand Forks, N. Dak. The county water conservation district is the sponsor of the entire project. However, the North Dakota Game and Fish Department will pay the additional cost of the structures.

Mr. SMITH. The supplement seems to be a very good idea.

Questions?

Mr. McFALL. I have no questions.

Mr. SMITH. Thank you, Mr. Fisk.

Without objection we shall enter into the record statements and letters from Senator Young, Senator Burdick, Congressman Short, and Congressman Nygaard in support of this program.

(The documents referred to follow :)

CONGRESS OF THE UNITED STATES,
HOUSE OF REPRESENTATIVES,
Washington, D.C., June 26, 1962.

HON. CHARLES A. BUCKLEY,
Chairman, Committee on Public Works,
New House Office Building,
Washington, D.C.

DEAR COLLEAGUE: Reference is made to your letter of June 25, advising that you have a watershed plan for the North Branch Forest River project in Walsh

County, N. Dak., before your committee which proposes that a previously authorized reservoir be enlarged in order to provide a fishing lake for public use, at a Federal cost of \$29,443.

I have an executive Agriculture Committee meeting scheduled for the same time as your hearing on Wednesday, which necessitates my presence there, and I therefore will be unable to appear before your committee, as suggested.

The proposal for this project, as presented to your committee, is agreeable to me, and I do not have any further details or information on the watershed plan to submit.

Thank you for your consideration of this project.

With kindest regards,

Very sincerely,

DON L. SHORT, *Member of Congress.*

U. S. SENATE,
COMMITTEE ON APPROPRIATIONS,
June 26, 1962.

HON. FRANK E. SMITH,
*Chairman, Watershed Development Subcommittee,
Public Works Committee,
House Office Building,
Washington, D.C.*

DEAR CONGRESSMAN SMITH: It is my understanding that your subcommittee will tomorrow be holding hearings on the supplemental work plan for the North Branch of the Forest River located in North Dakota.

I hope, Congressman Smith, that it will be possible to approve this slight modification of one of the structures in this very worthwhile project. The addition of a few acre-feet for fish and wildlife purposes would, I believe, make this even a better project. From my information, a substantial portion of the costs for this additional work would be borne by State and local interests.

With warmest personal regards,

Sincerely yours,

MILTON R. YOUNG.

U.S. SENATE,
COMMITTEE ON INTERIOR AND INSULAR AFFAIRS,
June 26, 1962.

HON. CHARLES A. BUCKLEY,
*Chairman, Public Works Committee,
House of Representatives,
Washington, D.C.*

DEAR MR. CHAIRMAN: An item before your committee this week, supplemental work plan of the North Branch Forest River watershed project, is of great importance to the people of northeastern North Dakota.

The basic project already has congressional approval. The supplement involving a plan to provide additional storage for fish and wildlife purposes was approved by the Senate Public Works Committee in April. Estimated cost of the supplemental project is \$61,646, of which the Federal share is \$29,433.

I hope that the committee will see fit to take favorable action on this proposal at its hearings this week. Thank you for your consideration.

With kindest regards, I am,

Sincerely,

QUENTIN N. BURDICK.

STATEMENT OF CONGRESSMAN HJALMAR C. NYGAARD, NORTH DAKOTA

Mr. Chairman and committee members, it is a pleasure for me to again appear before this subcommittee in behalf of securing funds for the supplemental work on the North Branch, Forest River watershed project in North Dakota.

Two weeks ago I had the pleasure of attending the dedication of the first project to be completed in North Dakota, the Tongue River watershed project, which was one of the 58 authorized in the original Watershed Act. I also had an opportunity to go over the entire watershed area covered by this project and can certainly with firsthand information recommend this type of project and its services to the communities in which it is to be constructed. It provides a method of controlling flood waters in upper regions of project areas

in order that waters falling in the lower portions of the rivers in the drainage areas may be carried away first, before the waters in the upper regions are released from the impoundments. This prevents flooding on the lower and more level areas of the watershed.

The North Branch, Forest River project area is adjacent to the one that I visited 2 weeks ago, and I am convinced that its completion will be of as much benefit to this area as the Tongue River project is to its drainage area.

At the time of the dedication of this project, the Red River Valley of North Dakota had during the late spring season received an abnormal amount of late spring snowfall, which would have created a flood condition in the Tongue River area had not this project been completed. Following this period, excessively heavy rains have continued to fall there since late April, which again would have caused drastic flood damage to the area. Therefore, simultaneous with the completion of the Tongue River project we had a project demonstration under two varied conditions * * * proof of the necessity for this project, as well as an actual example of how the projects do work and can afford the type of protection that they were designed to provide.

Therefore, with firsthand information as to the workings of this type of project, I am in a position to state to this committee at this time that I can very highly recommend that you favor the expenditure of the funds required to do supplemental work toward the completion of the North Branch, Forest River project.

FLORENCE AREA WATERSHED, ARIZONA

Mr. SMITH. The last item on our list for hearings is the Florence area watershed of Arizona.

Mr. LANE. Mr. Chairman, I have seen the statement that Congressman Udall was going to give to the committee this morning.

Mr. SMITH. Congressman Udall called and said he would not be able to get here from another committee hearing until after 11 so we shall leave the record open for his statement.

Mr. LANE. He had so well covered the features of the project that it left little for me to do, but now I shall explain more of the features of the watershed.

This watershed is about 60 miles southeast of Phoenix in Pinal County. The town of Florence, Ariz., is located at this point. The Arizona State Prison is located right at the eastern outskirts of Florence.

The Gila River flows westerly along the northwest boundary of this watershed. This is a typical desert watershed. The area outlined in green here is all desert with rain amounting to 8 or 9 inches a year.

The upper end of the watershed is rather steep. The elevation is around 3,500 feet at the upper end of the elevation and about 1,400 feet at the Gila River, so you can see there is quite a change in elevation from the upper end to the lower end.

The upper end is steep and then it flattens out. These streams meander considerably. Once the streams get out into this flat portion of the watershed control becomes very difficult because of the meander. The streams actually can go around any control that is provided.

The upper end of the yellow area, which is the area which will be benefited by the project, has an irrigation canal which irrigates this land below it. It is called the Florence Casa Grande Irrigation Canal. It is part of the San Carlos irrigation project developed by the Bureau of Indian Affairs. Water for this project is derived from the San Carlos Reservoir upstream on the Gila River.

About once in 3 years on the average high intensity summer thunderstorms strike this watershed. Water flows down in this direc-

tion, strikes the upper bank of this high-lying canal, and when enough water accumulates here it either overtops the canal or the automatic floodgates in the canal are opened up and let the water go on through toward the Gila River.

The last major flood which occurred here was in 1955 when over 6,000 acres of extremely valuable irrigated land was flooded.

In addition the Arizona State Prison was flooded and about 90 percent of the town of Florence also was flooded with depths of water up to 3 feet. Even the post office at Florence had to close down operations for a day because of that flood.

These watersheds really do not have good damsites. You just about have to build your own, and that is what is proposed in this watershed, that a dike, or a dam, will parallel this Florence Casa Grande Canal. This dike, or dam, is about 6 miles long, with a maximum height of about 28 feet. It will catch the water as it flows down out of the desert, divert it northward to the north end of the dam, and from there the water will be conveyed by a floodway into the Gila River.

Because of the value of any water in Arizona, be it floodwater or other water, as much of the water as can be used during flood periods will be released into the canal at various points along this dike and at the upper end of the floodway, also.

We have a combination for the purpose not only of flood prevention but beneficial use of water for irrigation.

Estimated cost of the project is \$2,400,000, roughly, with about \$2.2 million being provided by Federal funds and \$250,000 by other funds.

Estimated benefit-cost ratio is a very favorable 1.8 to 1, of which 96 percent is flood prevention and 4 percent from the increased beneficial use of water for irrigation.

Mr. SMITH. Thank you, sir.

Questions?

Mr. BALDWIN. One question. This breakdown of irrigation project costs, 45 percent Federal and 55 percent local, how would you determine the breakdown between Federal and local expenditures for irrigation costs?

Mr. LANE. The act requires that the Secretary—let me lead into this statement properly.

The act requires that the Secretary determine the relationship of direct identifiable benefits to total benefits as a basis for cost sharing for agricultural water management purposes, which includes irrigation.

The ratio of direct identifiable benefits to total benefits in this case is 31 percent direct identifiable and 69 percent other than directly identifiable.

Those are rather high-sounding terms. Direct identifiable benefits are benefits accruing to the water users because of having this additional water to use. There is an increase in farm net income which accrues to the water user.

The other than direct identifiable benefits consist of the kinds of community benefits which come about as a result of the increased income available to the farmer and the increased economic activity which is generated in the community because of that increased in-

come. It could be increased income to the fuel dealer, for example, the farm equipment dealer, the seed dealer, and that sort of thing.

In addition to that relationship there is another provision that the Secretary has made a limit on the amount of assistance that can be provided for irrigation, and that limit is determined on the basis of the amount of assistance that can be provided under other project type programs.

The only other project type program in which the Federal Government participates in irrigation are those programs carried out by the Bureau of Reclamation.

The Bureau of Reclamation, as you know, provides interest-free money to carry out reclamation projects. The water users bear 100 percent of the cost but at interest-free provisions.

To the extent that that money costs the Federal Government something, there is a Federal grant or subsidy involved in reclamation loans. Under the present rate of about 3 percent that amounts to about 45 percent. That establishes the limit to which we will go in providing assistance for irrigation.

Mr. BALDWIN. Forty-five percent.

Mr. LANE. Right now it is 46 percent.

Mr. BALDWIN. That means this amount is provided as a Federal grant with no repayment?

Mr. LANE. That is right.

Mr. WETZEL. You might say this is the present worth of an interest-free loan for 50 percent, in the form of a grant rather than in the form of a loan.

Mr. SMITH. Further questions?

(No response.)

Mr. SMITH. Thank you very much, Mr. Wetzel and staff, for a fine presentation.

That concludes our testimony.

Without objection we shall allow Mr. Udall to insert a statement at this point in the record with regard to this project.

(Mr. Udall's statement follows:)

STATEMENT OF REPRESENTATIVE MORRIS K. UDALL, SECOND DISTRICT OF ARIZONA

Mr. Chairman and members of the subcommittee, I appreciate the opportunity to appear today to urge approval of the Florence area watershed plan under Public Law 566.

The watershed area involved in this plan embraces 55,702 acres in Pinal County, Ariz., about 20 miles southeast of Florence. Periodically, heavy rains pour down on this desert country. Floodwaters rush northwestward, push across two irrigation canals and flood onto the city of Florence, Arizona State Prison and Farm, public utilities, highways, and some 6,000 acres of valuable irrigated farmland. During the past 10 years there have been three major floods in this watershed, each causing heavy damage to both agricultural and urban property. Local sponsors of the project have supplied me with photographs showing some of the damage caused by the 1955 flood. I would be most happy to display these pictures at this time.

The watershed plan calls for construction of a 6-mile earthen dam having a maximum height of 28 feet. The dam would have a storage capacity of 5,427 acre-feet—4,587 for floodwater and 840 for sediment.

Water collected along this retarding structure would be carried by a spillway six-tenths of a mile long to the Gila River. The floodwaters would be siphoned underneath the intervening Florence-Casa Grande Canal and the smaller Florence Canal. (During rainy periods, the canals themselves may be operating at full capacity and, therefore, could not accept additional water.)

With the fear of frequent flooding eased, farmers would undertake an accelerated program of land treatment measures such as crop rotation, ditch lining, land leveling, and improved water application.

Cost of installing and operating this flood control project would run an estimated \$91,745 annually against which primary benefits of \$163,866 a year would be realized. This is a benefit-cost ratio of 1.8 to 1. Ninety percent of the costs would come from Public Law 566 funds.

This project has the support of the State of Arizona, the county of Pinal, the city of Florence, and the Florence-Coolidge Soil Conservation District. It would bring lasting benefits to some 2,140 citizens of Florence, 150 permanent residents of 30 farms, and to nearly 200 employees who supervise the varying stays of 1,500 prison inmates. It would curtail direct damage by water, erosion and sediment to homes, businesses, farms, roads and canals, and other utilities. It would also provide protection against contamination of individual domestic water supplies—a problem which is increasing as the population grows.

I respectfully urge this subcommittee to approve this project.

Mr. BALDWIN. I move the projects we have heard be approved.

Mr. MCFALL. I second the motion.

Mr. SMITH. All in favor of the motion say "aye"; opposed, "no."

The "ayes" have it. All the projects are then approved for submission to the full committee at the next meeting.

WATERSHED DEVELOPMENT, 1962

WEDNESDAY, AUGUST 15, 1962

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON WATERSHED DEVELOPMENT
OF THE COMMITTEE ON PUBLIC WORKS,
Washington, D.C.

The subcommittee met, pursuant to notice, at 10 a.m. in room 1302, New House Office Building, Hon. Frank E. Smith (chairman of the subcommittee) presiding.

Mr. SMITH. The subcommittee will come to order.

NORTH SANPETE WATERSHED, UTAH

We have a hearing this morning in regard to the North Sanpete watershed, Utah. There is considerable controversy about this project, and we want both the proponents and opponents to be heard equally by the committee after the project has been presented by the Soil Conservation Service. Once the Soil Conservation Service testimony is completed, we will estimate the remaining time and divide it equally and ask the remaining witnesses from Utah to observe our requirement in regard to equal division of the time.

(The work plan follows:)

NORTH SANPETE WATERSHED WORK PLAN

Size and location.—204,655 acres in Sanpete County.

Sponsors.—Sanpete County Soil Conservation District, Sanpete County Water Conservancy District, Sanpete County, Fairview City, Mt. Pleasant City, Spring City, Moroni City, and Utah State Department of Fish and Game.

Purposes.—Watershed protection, flood prevention, irrigation, municipal water supply, and fish and wildlife development.

Principal measures.—Soil conservation practices on farms and ranches; and structural measures consisting of irrigation water storage reservoir and distribution system including tunnel and canals, improvement of existing irrigation and municipal water distribution systems, channel stabilization, and facilities for the development of habitats for both fish and waterfowl.

Annual benefits:

Flood prevention to land and crops.....	\$7, 435
Flood prevention to agricultural property.....	4, 920
Flood prevention to nonagricultural facilities.....	3, 560
Reduction in indirect damages.....	1, 165
Municipal water supply.....	1, 845
Primary irrigation benefits.....	559, 155
Total.....	578, 080

Project costs

	Public Law 566 funds		Other funds		Total amount
	Amount	Percent	Amount	Percent	
Land-treatment measures	\$331,435	25	\$994,130	75	\$1,325,565
Structural measures					
Flood prevention	44,285	95	2,640	5	46,925
Irrigation	2,300,525	46	2,700,615	54	5,001,140
Fish and wildlife	176,860	48	194,365	52	371,225
Municipal water supply		0	51,000	100	51,000
Subtotal	2,521,670	46	2,948,620	54	5,470,290
Total	2,853,105	42	3,942,750	58	6,795,855

¹ Includes \$2,207,785 for construction; \$71,465 for engineering services; \$454,810 for land, easements, and rights-of-way; \$116,000 for water rights; and \$98,560 for administration of contracts.

Benefit-cost ratio.—2.7 to 1.

Mr. SMITH. I call first on Mr. Hollis R. Williams, of the Soil Conservation Service.

STATEMENT OF HOLLIS R. WILLIAMS, ASSISTANT ADMINISTRATIVE FOR WATERSHEDS, SOIL CONSERVATION SERVICE

Mr. WILLIAMS. Congressman Smith, I wish to present Jack Wetzel, of our Planning Division, who will make a statement, and then we shall ask Mr. John Bradshaw—I will ask John to stand, since he has not been before this committee before—assistant conservationist from Utah, to present the departmental part of it.

Mr. SMITH. Mr. Wetzel.

STATEMENT OF JOHN H. WETZEL, WATERSHED PLANNING DIVISION, SOIL CONSERVATION SERVICE—Resumed

Mr. WETZEL. Mr. Chairman, we merely wanted to point out to the committee the requirements of the act in regard to this project. We are sure you are familiar with them.

I might quote from section 4 of the act, which states:

The Secretary shall require, as a condition to providing Federal assistance for the installation of works of improvement, that local organizations shall require or provide assurances that landowners or water users have acquired such water rights pursuant to State law as may be needed in the installation and operation of the work of improvement.

A considerable part of the controversy on this project pertains to the matter of water rights. I will point out that we have made a number of studies of the water rights situation. The State government, in the person of the Governor, has advised that the local organization does have adequate water rights required to install the necessary works of improvement.

Some question has been raised regarding the appropriateness of carrying out this project under Public Law 566, the Watershed Protection and Flood Prevention Act. In Executive Order 10913, there is a requirement that prior to the approval of planning by the Secretary, he consult with the Secretary of the Interior regarding the appropriateness of carrying out any of these projects under the Water-

shed Act or under the Small Reclamation Projects Act. This has been done and, as you will notice in the letter of comments from the Secretary of the Interior, no question is raised regarding whether this project is an appropriate project to be carried out under the Watershed Protection and Flood Prevention Act.

I thank you.

Mr. Bradshaw will now present the technical aspects.

Mr. BALDWIN. Mr. Wetzel, you say the letter from the Secretary of the Interior does not raise any question as to the appropriateness of carrying this project out under Public Law 566. The letter of the Secretary of the Interior does raise question as to the advisability of proceeding with the presently recommended plan, does it not?

Mr. WETZEL. Mr. Baldwin, after the letter from the Secretary of the Interior was received, the Budget Bureau asked that additional studies be made to determine whether there were adequate water rights. The question raised by the Secretary of the Interior was one of water rights.

At the request of the Budget Bureau, additional studies were made which satisfied the Budget Bureau that the water rights situation was as stated in the plan. That pertains to the water rights, I believe it is called.

Mr. BALDWIN. Let me ask a further question. You say it satisfied the Budget Bureau. I have here a copy of a letter sent by Mr. Kenneth Holm, Under Secretary of the Interior, dated February 9, 1962, on this proposal, in which the last two sentences say:

In the years since the Bureau of Reclamation's report to the Utah Water and Power Board in 1957, this general area, including the Carbon County area and the Sanpete area, has experienced almost continuous drought, and we are aware of the critical need for development of new, more dependable water supplies for the entire area. We believe, therefore, that further study of the possibilities of coordinated development of water resources of the entire area is required if a plan to meet the water requirements of both the North Sanpete watershed and the Price River Basin is to be developed.

That is an indication the Department of the Interior feels this proposed project is not proper in its present form.

Mr. WETZEL. As I said, Mr. Baldwin, considerable additional studies were carried out following this letter, at the insistence of the Budget Bureau, and those studies will be referred to in our testimony. At the conclusion of the additional study, the Budget Bureau was convinced that the plan was feasible and should be forwarded on to the Congress.

Mr. BALDWIN. I am not asking about the Budget Bureau. Have we any other letter from the Department of the Interior except the letter from which I quoted?

Mr. WETZEL. No, we have not.

Mr. BALDWIN. Then this stands that the Department of the Interior is opposed to the project in its present form.

Mr. WETZEL. This is the only letter we have from Interior, sir.

Mr. SMITH. Mr. Bradshaw.

**STATEMENT OF JOHN R. BRADSHAW, ASSISTANT STATE
CONSERVATIONIST, SALT LAKE CITY, UTAH**

Mr. BRADSHAW. Mr. Chairman and members of the committee, the North Sanpete project is almost exactly in the center of the State of

Utah. This map is the project land map. The map over here shows the North Sanpete project and shows the relationship between the North Sanpete project and the Price River drainage.

The area of the Price River drainage which is affected by the North Sanpete project is this area above the green line only.

The area of the project is about 205,000 acres, and within that area there are 23,300 acres of irrigated cropland represented by the brown area. There are 26 irrigation companies delivering water to farms in that area. Twenty-one of these companies have conservation plans with the Sanpete County Soil Conservation District.

The overall project benefit-cost ratio is 2.7 to 1.

The total project costs for these projects are: Public Law 566 funds, 42 percent, \$2,853,105. Other funds, 58 percent, \$3,942,750. Total cost of the project, \$6,795,855.

The Soil Conservation Service, in project formulation for agricultural water management, first determines how we can increase the water supply by making more efficient use of the water on the farm itself. On the project lands it was determined that by the application of conservation practices not being done, such as canal lining or on-the-farm ditch lining, land leveling, and making more efficient use of irrigation water, the present supply of water could be increased by 3,530 acre-feet.

First, may I say under the nonproject conditions there are about 37,650 acre-feet delivered annually to the farm headgate, for a total water supply of about 1.6 acre-feet per acre. The on-farm improvement measures that would be made on the 23,000 acres would give an increase equivalent to 3,500 acres, which would raise the supply to 1.8 acre-feet per acre.

The next step in project formulation is to determine how we can improve the distribution systems, represented by these blue lines, and what effect that will have on increasing the efficiency of the water delivered to the farms.

The local people plan to line 96 miles of canal under this project. By doing this, an additional 8,260 acre-feet of water would be saved, which would make the total at this point about 2.12 acre-feet per acre delivered at the farm headgate.

The next analysis we make is trying to develop the ground water supply within the area to determine if storage would be needed. We made a very careful geologic analysis of the area and worked very closely with Dr. Marcell of the University of Utah, who is present at this meeting. We found under the most optimistic conditions, by developing 20 wells in the area we could develop 3,300 acre-feet of water from wells.

The total—the land treatment, the distribution system improvement, and the well development—would make a net increase in water supply at the farm headgate of about 15,000 acre-feet, or equivalent to 2.3 acre-feet per acre.

We have determined through irrigation studies that at least 3 acre-feet per acre are needed at the farm headgate to bring about the best and most efficient production of farm crops.

I might point out that the land treatment measures will cost the farmers about \$1.80 per acre per year, and will return benefits of \$3.85 per acre per year.

The distribution system improvements will cost about \$1.65 per acre per year, and will run \$11 per acre per year in benefits to the farmer.

The next step in the formulation of this project is to examine the storage possibilities. This is the only storage possibility in Sanpete County to bring enough water to approach an adequate supply of irrigation water for the cropland in this area. This reservoir site and one about 2 miles below it have been investigated and talked about for the last 40 years.

The first thing we did was to determine what the yield of this area would be in terms of water supply. Would it produce enough water and how much water would it produce to be stored?

Our studies show that, on the average, annual yield of this area will produce in excess of 12,000 acre-feet per year, average annual.

Based on this yield, we determined that a 17,500 acre-foot reservoir was the most efficient capacity to be able to utilize the average annual yield of 12,000 acre-feet.

I would like to point out that presently there is a reservoir called Fairview Lakes at this point which is now storing water, about 2,000 acre-feet, and this water is presently diverted and has been for many years. This 2,000 acre-feet of water from Fairview Lakes will be moved in to the Narrows Reservoir site and become a part of the 17,500 acre-feet total capacity.

Of the 17,500 acre-feet capacity, there will be approximately 2,500 acre-feet of dead storage. This dead storage will be utilized by the Utah Fish and Game Department for a fishery. This water has to go through a tunnel down into the canyon. One reason for that dead storage would be to make the cost of the tunnel reasonable, so the project can be developed.

The project will deliver at the tunnel portal approximately 9,300 acre-feet of water every day, taking into consideration the normal operation and maintenance losses.

As Mr. Wetzel told you, we have been advised by the State government that there were adequate water rights to cover the development of this project, but because we knew there was concern by the Price River people as to the effect this project would have on their water supply, we made two additional water supply studies, one based on the beneficial use requirements in the Price area, this brown area down here, and one based on the water rights on the Price River. These are based on the primary water rights, whether they are junior or senior to the filing for this storage site at the Narrows by the Sanpete people.

Our beneficial use studies show that there is an excess supply, on an average annual basis, 17 out of 19 years. These studies were conducted beginning in 1942, and we brought them up to date with last year's records. So, in only 2 years has there been a deficient supply to satisfy either the beneficial use requirements or the primary water rights on the Price River.

The beneficial use studies indicate there are something in excess of 9,000 acre-feet of water. The Narrows Reservoir will deplete the supply at the Narrows site by 8,400 acre-feet of water. The excess flow of the Price River above the primary water rights is 15,800 acre-feet. This 15,800 acre-feet would more than satisfy the depletion losses in the Price River of 8,400 acre-feet.

Mr. Baldwin, according to our studies, in only 2 years has there been a deficient supply of water in the Price River. This includes the years from 1957 through 1961.

Mr. BALDWIN. Mr. Bradshaw, you say there have been only 2 years of deficiency. As I understand this Bureau of Reclamation report, a project almost identical to this, with the same basic objective, was proposed originally as a reclamation project, as a part of the Upper Colorado River storage project.

Mr. BRADSHAW. Yes, sir.

Mr. BALDWIN. It came before the House Interior Committee in 1956 and was defeated in the House Interior Committee. In this connection, let me read another paragraph from the same Department of the Interior report, which is dated February 9, 1962. I quote:

Opportunities to accomplish the objectives of the watershed work plan have been the subject of investigations by the Bureau of Reclamation of this Department from time to time during the past 20 years. Every major feature proposed in the Soil Conservation Service plan of improvement for water management has been considered during the investigation of various alternative plans for the potential Gooseberry reclamation project. A preliminary report on the Gooseberry project utilizing storage at the Mammoth Reservoir site was prepared by the Bureau in January 1953. The proposed project was considered during the 83d and 84th Congresses as a participating project of the Colorado River storage project but was not authorized in the Storage Project Act of April 11, 1956, as one of the initial group, largely because of intense opposition from irrigation and municipal interests in the Price River Basin who objected to the diversion of water from the basin.

As I understand this, the basic problem is the fact that this is actually diverting water from one water course to the other. Besides the opposition within the State of Utah, there appears to be opposition beyond that, because I have a wire this morning from the Colorado River Board of California, and I will read it, dated August 14, and I quote:

Understand subcommittee of Public Works Committee will consider this week a proposal under Public Law 83-566, Watershed Protection and Flood Prevention Act, to authorize North Sanpete watershed project in Utah to divert substantial quantities of water from a tributary of Colorado River and convey across basin divide into the Sevier River Basin. Colorado River board protests this procedure as not having given California or, so far as known, the other States of Colorado River Basin opportunity to appraise potential effects of proposed project on those States rights and interests in quantity and chemical quality of residual water supply in basin. Respectfully request you seek deferral any action by subcommittee until competent engineering report and ample time to analyze and submit views have been furnished California. Deeply appreciate any steps you deem advisable to take to that end.

DALLAS E. COLE,

Chief Engineer, Colorado River Board of California.

Apparently there is not only opposition within the State of Utah between those who are now in the present water course through which the water normally flows, but beyond the State, in addition to the opposition expressed by the Department of the Interior in their letter of February 9, 1962.

Mr. BRADSHAW. Mr. Baldwin, as I understand it—Mr. Jay Bingham of the Utah Water and Power Board is here and can correct me—the Bureau of Reclamation did not submit the so-called Gooseberry project to Congress when the Colorado River project was submitted.

We have been assured or were assured by the State—and here again, Mr. Bingham can answer this—that the diversion of the North Sanpete is well within the allocation to Utah based on the Colorado River project development and the Central Utah project approval. Mr. Bingham probably can answer these questions more ably than I can.

Mr. BALDWIN. I am going on this letter submitted to us by the Secretary of the Interior in which he says—

The proposed project was considered during the 83d and 84th Congresses as a participating project of the Colorado River storage project but was not authorized in the Storage Project Act of April 11, 1956, as one of the initial group, largely because of intense opposition from irrigation and municipal interests in the Price River Basin who objected to the diversion of water from the basin.

I realize a Soil Conservation project was not under consideration then. It was a Bureau of Reclamation project. But inasmuch as the Soil Conservation report itself shows that of the annual benefits of \$578,080, \$559,000 is primary irrigation benefits, it appears clear this is primarily an irrigation project, and apparently that is the reason the Bureau of Reclamation was the one originally handling it. They proposed a modification, which went before the House Interior Committee, and the House Interior Committee rejected it.

Mr. BRADSHAW. May I call on Mr. Bingham to talk to that point, sir?

Mr. SMITH. Since the question has been propounded, I guess we should get an answer.

TESTIMONY OF JAY R. BINGHAM, DIRECTOR, UTAH WATER AND POWER BOARD, SALT LAKE CITY, UTAH

Mr. BINGHAM. Mr. Chairman, my name is Jay R. Bingham. In response to the question, I think the record will show that the Senate did include Gooseberry project in its version of the Colorado River storage project bill. The House did not, and one of the reasons was the fact that the project had not been officially transmitted to the Congress by the Secretary of the Interior.

Mr. SMITH. Proceed, Mr. Bradshaw.

Mr. BRADSHAW. I would like to point out again that the Gooseberry project site proposed by the Bureau of Reclamation is at about this point, and the anticipated delivery to the tunnel there is about 11,000 acre-feet as opposed to the 9,330 acre-feet proposed under the Narrows Reservoir system.

The Bureau and the Soil Conservation Service are in agreement as to the yield of water at this point. In their 1953 report they said there was adequate water available, and they said that it could be built both from the standpoint of water yield and from the standpoint of the water rights on the Price River. That is in their 1953 report.

I would like also to point out, if I may, that, different from the Bureau project, in our analysis of water supply we start with the savings that could be made in the on-farm distribution systems and the irrigation company distribution systems to determine not only how much water would be needed to satisfy the agricultural requirements, but also to be able to deliver any water development, by storage or by ground water, much more efficiently and thus return greater

benefits to the water development. That is the policy or project formulation procedure that the Soil Conservation Service follows.

Mr. WRIGHT. Mr. Chairman, may I ask a question at this point.

Mr. Bradshaw, in order that the committee might more fully understand exactly what is contemplated, will you trace for me the course of the river or the stream from which this water is anticipated to be taken?

Mr. BRADSHAW. Yes, sir.

This line here is the divide between the San Pitch River which goes through the North Sanpete watershed project, and this is the drainage of the Price River.

Mr. WRIGHT. What you intend or ask to do is to take water from the Price River watershed—

Mr. BRADSHAW. At this point.

Mr. WRIGHT (continuing). And divert it by a tunnel—

Mr. BRADSHAW. Right through here.

Mr. WRIGHT. Through the divide over into the San Pitch River watershed. Is that what is proposed?

Mr. BRADSHAW. Yes, sir. The diversion would be at this point, which represents this much area of the Price River. The tunnel goes through here and down what they call Brooks Canyon.

Mr. WRIGHT. Are you saying that the San Pitch River does not yield enough flow to permit these people to develop their lands in this Sanpete watershed?

Mr. BRADSHAW. Yes, sir.

Mr. WRIGHT. Are you certifying that the Price River does yield enough to divert sufficient quantities for this purpose over into the San Pitch River without jeopardizing the rights of people in that watershed downstream?

Mr. BRADSHAW. Yes, sir, we certify to that.

Mr. WRIGHT. There seems to be some disagreement and some question whether this bill would leave adequate water supplies for the people downstream in the Price River Basin. Is it your understanding, Mr. Bradshaw, that those people object to this diversion?

Mr. BRADSHAW. Yes, sir. At this point on the Price River, since 1942, there has been an average annual flow of some 55,000 acre-feet of water past this point. This gaging station is below the last point of use on the river. We do not say all of that 55,000 acre-feet could be recaptured, but we do know 55,000 acre-feet are flowing past this gaging station into the Colorado River. That is below the last point of use.

Mr. WRIGHT. What is the approximate altitude of this highest point of the divide?

Mr. BRADSHAW. This is somewhere between 10,500 and 11,000 feet. The elevation at Mount Pleasant is about 6,000 or 6,200 feet.

Mr. BALDWIN. Is there not a further point on this? First of all, the Price River is a river that has an outlet which enters the Colorado and flows on down, and the Colorado serves Arizona, Nevada, California, and also Mexico, which has certain rights to water of the Colorado. The alternative basin to which you propose to divert water has no outlet. Is that not correct? It ends up in a lake or dry sink. Therefore, this water is being diverted out of a river where it will be utilized time and time again, into an area

which has no outlet whatsoever and does not enter into the Colorado River, but enters a lake and ends there. Is that not correct?

Mr. BRADSHAW. Mr. Baldwin, the water goes into what is called the major drainage in the Sevier River Basin. On the Sevier River itself, the water is diverted no less than seven times, with dry dams. It is probably one of the most efficiently utilized river basins in the United States. The watershed would yield something like 1 million acre-feet, but there are probably 2 million acre-feet of water used because of the redirection of the water several times down the river system.

Mr. BALDWIN. I am driving at this point. There is no ultimate outlet for the river; is that not correct?

Mr. BRADSHAW. No, sir; the water is completely consumed within the basin.

Mr. BALDWIN. Therefore, you are taking it out of a watershed which serves several States downstream, including Mexico, which has certain claims to the Colorado River water, and diverting it into a watershed which has no outlet whatsoever.

Mr. BRADSHAW. This water, as I understand it, is within the allotment as authorized by Congress under the Central Utah project, which will divert in excess of 200,000 acre-feet of water from the Colorado River Basin into central Utah.

Mr. BALDWIN. But the House Interior Committee was never convinced of the propriety of this particular proposal because, no matter what the testimony has been here, here is a letter from the Department of the Interior itself which says it was considered by the 83d and 84th Congresses as a participating project of the Colorado River storage project but was not authorized.

Mr. WETZEL. Mr. Baldwin, may I quote from a letter from the Regional Director of the Bureau of Reclamation, Mr. S. Rippon, dated December 1, 1960, to the State engineer of Utah. I quote:

As you know, the Sampete interests are investigating a watershed work plan, as outlined in our letter dated November 4, 1960. The Bureau of Reclamation has no intention of opposing this development or doing anything that might jeopardize the success of it.

Mr. BALDWIN. I think the letter of February 9, 1962, signed by the Assistant Secretary of the Interior, would supersede any earlier letter, would you not agree?

Mr. WETZEL. Yes, sir; however, at the beginning of the planning stage when we approved this application for planning, this was the position of the Bureau of Reclamation.

Mr. BALDWIN. As I say, a letter of February 9, 1962, is considerably more recent than the letter you quote.

Mr. WETZEL. It is certainly two different versions.

Mr. BALDWIN. Let me say further, in the 8 years I have served on this committee this is the first time, I think, we have considered a Soil Conservation Service project with a report of this kind from the Bureau of Reclamation.

Mr. BRADSHAW. I might add, sir, that we met with the Bureau of Reclamation in Salt Lake City, and they assured us that they would like to see us develop this project. At that time, it was the policy of the Soil Conservation Service to require of the local people, clearance from other Federal agencies as to the development of a watershed project.

The local people, including Mr. Bingham of the Utah Water and Power Board, met with the Bureau of Reclamation, and they assured those people that they would like to see this project develop, and that they were not in a position to give them assistance in the development of the project and would not be for a long time.

You could question them, sir, as to the validity of that statement. They actually met with them.

Mr. BALDWIN. I am not in a position to question any oral conversation, but I think whoever they talked with were somewhat lower in rank in the Interior Department than Kenneth Holum, the Assistant Secretary of the Interior.

Mr. BRADSHAW. Shall I proceed, Mr. Chairman?

Mr. SMITH. Go ahead.

Mr. BRADSHAW. I would like to point out very briefly the annual repayment costs of this project to the local people. I have seen quotations taken from our work of \$216,000 per year as the repayment costs. The total costs within the work plan include the costs of the land treatment on the Federal lands and the land treatment on private lands. It also includes the flood prevention measures that will be installed. This table of annual costs and the work plan is used as a basis to determine the benefit-cost ratio, and does not represent the annual repayment cost to the local people.

You have before you, gentlemen, a brief summary of the annual repayment costs required by the local people. The Narrows Reservoir system, which includes the reservoir, the channel stabilization down Brooks Canyon, and the construction of the north and south high line canals, amounts to \$1,263,000. This is the construction cost the local people will have to pay.

In addition, they will have to pay \$204,315 and would have to borrow money under the authority of the act for these costs, making a total of \$1,467,705 that would have to be borrowed under authority of the act.

Using the new interest rate for fiscal 1963 set by the Budget Bureau, the annual repayment costs to the local people for construction of the Narrows Reservoir system would be \$56,345.

I have also seen a statement that road relocation costs of Highway 31 are not included in these costs, but they are included in it, and the county of Sanpete has agreed in the work plan to take care of the road relocation around the reservoir in cooperation with the Bureau of Public Roads and the State highway department.

The Bureau of Public Roads furnished us the cost estimate of about \$145,000 to relocate the road.

The total cost to the local people for lining 96 miles of the irrigation system is about \$876,745. The annual cost over a 50-year period would be \$33,660.

This makes approximately \$90,000 annual repayment costs to the local people.

I would like to sum it up by saying that the Soil Conservation Service believes this is a very worthwhile project. We believe from our studies that there is adequate water to service this area and to take care of the present requirements in the Price River area, and that the project is feasible and can be repaid by the local people.

From our experience in Utah, we know that most of the farmers are spending over \$250 per acre to improve their individual farmlands,

and these costs for the land-treatment measures, the distribution system improvement, and the water supply or storage supply, are certainly in line with the costs that are now being incurred throughout the State.

Thank you.

Mr. SMITH. Thank you, Mr. Bradshaw.

Questions on my right? On my left?

Mr. SCHWENGEL. This will increase the production capacity and capability of that land; is that right?

Mr. BRADSHAW. Yes, sir.

Mr. SCHWENGEL. How much? What kind of crops do you grow there?

Mr. BRADSHAW. The principal crops are feed crops.

Mr. SCHWENGEL. What kind of feed?

Mr. BRADSHAW. Alfalfa. There are some small grains for feeding livestock and turkeys. There is very little small grain in these irrigated areas.

Mr. SCHWENGEL. They grow a lot of turkeys out there.

Mr. BRADSHAW. Yes, sir; it is one of the largest turkey-producing counties in the United States.

Mr. SCHWENGEL. This will increase the production of turkeys?

Mr. BRADSHAW. It might increase the production of beef, but our analysis is based on the production of beef, turkeys, and sheep, sir.

Mr. SCHWENGEL. We have a surplus of both of those now.

Mr. BRADSHAW. I would like to point out all of the dry farmland in this area which is wheat producing, is in the process of being retired from production, sir. It will be all returned to grass under this plan. We have pretty strong commitments from the local people to this effect.

Mr. SCHWENGEL. What kind of commitments? Enforceable commitments?

Mr. BRADSHAW. In our experience in working with farmers in the soil conservation districts, when we develop with them soil conservation plans, most of the farmers follow out these plans. Certainly there are some who do not, but as of right now the rate at which this land has been retired makes us more than confident that it will all be in grass, sir.

Mr. SCHWENGEL. But it will increase the production capability of that land?

Mr. BRADSHAW. Yes, sir. Right now, the water supply puts the area at about a break-even point economically.

Mr. BALDWIN. Mr. Bradshaw, one of the things that bothers me about this is that I am convinced this would be a reclamation project today except for the fact that the reclamation project got into difficulties with the House Interior Committee, so it has been converted to a soil conservation project and is back before a different committee, but basically this is a reclamation project. Of the total estimated benefit of \$578,000, \$559,000 is primary irrigation benefits. So, I do not think this would ever have been in the Soil Conservation Service and would never have been before this committee if it had not knocked against a stone wall over in the Interior Committee a couple of times and, therefore, it is now following a different route.

Mr. BRADSHAW. Sir, in Utah the Soil Conservation Service has pioneered agricultural water development in connection with the use

of Public Law 566 authority. One of the first projects in the United States is the American Fork dry creek project, which very closely parallels the North Sanpete project. The only exception is the storage there is not so large.

In that instance, as in all other instances, we consult with the Bureau and get their clearance before we start any project planning.

I would like to point out—I am probably pretty inept at it—that the difference between Bureau of Reclamation projects and projects that we work on is that we start with increasing the efficiencies on the land first. We would like to increase the on-farm efficiencies and the distribution system efficiencies to the point that we could say you do not need to develop any water; but in all of our irrigated areas and particularly the Rocky Mountain States, because of the way the stream flow occurs with high runoff periods in the spring, you must have storage to be able to utilize the average annual flow of that stream. You have too much water in April and May and the early part of June, and August and September are drought periods. Supplemental water applied in August and September means the difference between a farmer's staying in business or going broke or being on the borderline all the time. An extra cutting of alfalfa very often means the difference between profit and loss for that enterprise.

This project proposes to supply only supplemental water to presently irrigated lands.

Mr. SCHWENGEL. I am glad the gentleman from California brought out this point, because this is exactly the understanding I have about this project.

I would like to ask another question. If the dam you propose to build had been constructed, would there have been water available for storage in 1959, 1960, and 1961?

Mr. BRADSHAW. That would be a very difficult question to answer. I think later on Mr. Nielsen will testify as to the construction of the Schofield Reservoir, which was built for replacement storage to make the Narrows or Gooseberry project feasible. Within that reservoir there are 35,000 acre-feet of water that are supposed to be holdover storage to provide for these deficient areas.

I would like to point out again, sir, in our studies since 1942 through 1961, in 17 years out of 19, there has been an excess supply of water on the Price River. That is a pretty high batting average for our western streams, sir.

Mr. BALDWIN. When you say in only 2 years there has not been an excess, you are taking the whole year, including the times when there is more runoff as well as times when there is a limited runoff.

Mr. BRADSHAW. Yes, sir.

Mr. BALDWIN. Your estimate would end up with no water whatsoever being released beyond the check point on the Price River. Is that not correct?

Mr. BRADSHAW. No, sir. The operation of the Schofield Reservoir, operated the way it was designed to operate, would provide this holdover storage to take care of these deficient years, for years where there was maybe not an excess but just enough for the Price River people.

I would also like to point out figures taken from Price River Water Commission reports, that within the last 19 years there has been delivered from 2.9 to 6 acre-feet per acre, for an average of over 4.6

acre-feet per acre per year diverted to the farmland in the Price River area; whereas you will recall the average annual diversion for lands in the North Sanpete has been 1.6 acre-feet. We figure with an efficient irrigation system on the farm and an efficient distribution system, 3 acre-feet at the farm headgate is an adequate supply. I do not know whether that answers your question.

Mr. SCHWENGEL. It sure does not answer my question. You have gone all around Robin Hood's barn, it seems to me. You have not answered the question whether or not there would have been water in 1959, 1960, and 1961.

Mr. BRADSHAW. I will say it this way, then: Under the present operation of the Schofield Reservoir, there was a shortage of water in 1961.

Mr. SCHWENGEL. Then there would not have been any in this dam.

Mr. BRADSHAW. With the operation of Schofield Reservoir, the shortage would not have been so severe. Also, sir, our studies of the Narrows Reservoir show that the seepage losses from that reservoir will make the water supply better in this Gooseberry Creek from this point during drought years. So it would be an advantage to the Price people to have this reservoir in. We point out that the seepage losses and operation losses of the reservoir are about 2,900 acre-feet. That would make this water supply better in a drought year than it is now, sir.

Mr. SCHWENGEL. You have no definite assurance that there would have been a substantial amount of water in those 3 years, or at least there might not have been enough water.

Mr. BRADSHAW. Yes, sir; if you put it that way. There was water.

Mr. SCHWENGEL. I think we have established the fact that this project will increase the agricultural production in that area.

Mr. BRADSHAW. Yes, sir.

Mr. SCHWENGEL. We have a surplus, as you probably know, in agricultural products right now, and it seems funny that we should on the one hand increase production, and then pay farmers to take land off production. In my area, where we would like to think most of the time we have the best producing land in the world, we are taking land out of production with the same tax dollars. That is one point I wanted to establish.

Now I would like to find out and have again at this point in the record the Federal cost of this project. How much are you asking us to put into this in dollars and cents, in total?

Mr. BRADSHAW. The total Federal cost of Public Law 566 funds on this summary that you have before you, sir, is \$2,853,000.

Mr. SCHWENGEL. That is the total Federal cost?

Mr. BRADSHAW. That is the total Public Law 566 cost.

Mr. SCHWENGEL. How many people will be directly benefited if this project is completed?

Mr. BRADSHAW. Within the watershed, there are approximately 4,000 by the census.

Mr. SCHWENGEL. 4,000 people will benefit. That is on a per capita basis.

Is there a controversy over water rights for this project now in that area?

Mr. BRADSHAW. The Supreme Court has said that the people in North Sanpete can build this reservoir.

Mr. SCHWENGEL. I am asking you, Are there people in opposition in this area?

Mr. BRADSHAW. Yes, sir. The Price River people think that it should not be built.

Mr. SCHWENGEL. Has any litigation developed as a result?

Mr. BRADSHAW. Mr. Skeen can answer better than I, but to my knowledge there has been an interlocutory decree, but it never has been brought to trial, sir.

TESTIMONY OF E. J. SKEEN, ATTORNEY AT LAW, SALT LAKE CITY, UTAH

Mr. SKEEN. If I may be permitted to answer, there is litigation pending. There is a general adjudication suit pending on the Price River system to have the relative water rights determined. In that proceeding, in an effort to bring it to an early conclusion, we filed a petition for an order to show cause which will raise some of the legal questions involved, and that is set for hearing on September 12.

Mr. SCHWENGEL. It is altogether possible, if we act favorably on this, the Court might throw this case out. We should have this resolved in the Court first before you come here.

Mr. BRADSHAW. It has been resolved in the courts, by the Supreme Court.

Mr. SCHWENGEL. You just got through telling me it was not resolved, did you not?

Mr. BRADSHAW. May I stay out of this?

Mr. SKEEN. May I say in regard to the Supreme Court, I have heard this statement made time and again on this question. The Supreme Court has not taken any hand in determining relative water rights. What the gentleman refers to is that the Sanpete people have an application which is pending before the State engineer and has been pending since 1924. They have been getting applications from time to time to extend the time to build their projects and put the water to beneficial use. The last time they got an extension, the Price people opposed it and claimed they had not shown diligence in using the water or building a project. That was a hotly fought case, and it went to the Supreme Court of Utah. All the supreme court did was grant an extension of time on their water application. The supreme court made no determination whatever of relative water rights of the water users on the Price River. I would like to lay that question to rest finally.

Mr. SCHWENGEL. I correctly assume, though, that the litigation has not finally been settled?

Mr. SKEEN. That is correct.

Mr. BRADSHAW. I think Mr. Skeen and Mr. Nielsen will comment on that, too.

Mr. SMITH. Any further questions?

Thank you, Mr. Bradshaw.

We have just an hour left. We can stretch the time a little past 12, I presume. That will give 35 minutes to each side.

I will ask Mr. Bingham to testify first for the proponents. In view of the time situation we will give each side an opportunity to present his case as best as possible.

Mr. Bingham, you may proceed.

STATEMENT OF JAY R. BINGHAM, EXECUTIVE DIRECTOR, UTAH WATER AND POWER BOARD—Resumed

Mr. BINGHAM. Mr. Chairman, in view of the time limitation I will present to the committee a written statement and proceed to briefly refer to the principal points in my statement.

In order that the record may be correct, I note on the schedule of witnesses it is indicated I am representing the Utah Land Board. To keep me out of difficulty in my own State I would like that corrected to show I am with the Utah Water and Power Board.

The Utah Water and Power Board, I would like briefly to comment, is an official agency of the State of Utah composed of 15 members who represent all areas of the State. It is responsible for promoting water development in the State of Utah and is charged with the duty of making recommendations on behalf of the State of Utah on reclamation projects or other water development projects proposed within the State.

My appearance here today is in response to a directive from the board to appear and present to this body its judgment.

I would like to say the board has faced the problem you face today, a development project which is highly controversial. I would like to assure this committee that the State of Utah, insofar as is possible, would like to present to this Congress a unified position. We have sought to do so in this case but have not been successful.

One problem that accentuates the present controversy is the fact that the originally conceived plan to develop both the on-stream storage and the transbasin diversion features as a single effort was not carried out, primarily due to a threat to the transportation system during the war, and the development was undertaken in two phases. One feature, the facilities on the natural water course, went forward and was completed at an earlier date. It is my firm belief that had both features gone forward at the same time as was originally contemplated much of the difficulty could have been resolved.

The Utah Water and Power Board is faced with the problem of making the best utilization of the water resources of the State in the face of a well-known situation where all of the demands cannot be supplied out of the existing water supply. The board is interested in developing the tributary and within-basin streams as well as the interstate waters. In this connection the State of Utah, under compact, would be entitled, under the most adverse projection of the water supply, to in the order of 1.5 million acre-feet in the Colorado River. Her present uses from this source are in the order of 650,000 acre-feet. This project would be well within any interpretation of the State of Utah's entitlement to water in the Colorado River.

The matter of water rights has already been discussed and I will not belabor it except to say this project meets the requirements of law with regard to water rights, and though the State is in the process of adjudicating or refining its water rights process in the State, to delay or defer this project we think would be unwise in the development of our water resources in the State.

I would like to comment that the Utah Water and Power Board is entirely in harmony with the objective and the procedure of the watershed program, Public Law 566, and I would offer to this committee that one of the reasons this project is taken up at this time under the

Department of Agriculture, we feel there is a need for a more comprehensive study and at the instance of the water and power board a study of the ground water resources of the area you are considering was made and on very able advice this was taken into consideration in planning this project. More careful attention was given to conserving the water and the net effect is that under this project the depletion to the Colorado River system will be in the nature of 8,410 acre-feet as contrasted to in excess of 12,500 acre-feet as proposed under the Bureau of Reclamation's plan. So this project extends greater benefits to the project area than previously proposed.

The board has given attention to the problems and objections of the Price area. They are sympathetic to their concern. However, the board has felt that the studies have affirmed the conclusions reached by the Department of Agriculture that there is ample water to meet the needs of the Price River users.

In conclusion, Mr. Chairman, I should like to read one paragraph from the resolution which was formally adopted by the Utah Water and Power Board as a result of hearings held by the board on the subject. The pertinent paragraph referred to appears on page 5 of my statement, and with your permission I would like to read it:

Whereas the board finds (1) that the project meets the requirements of law with regard to water rights, inasmuch as the basic water right has been extended for a period of 2 years by the State engineer, the district court of jurisdiction, and the Utah Supreme Court; (2) that the so-called tripartite contract evidences a valid agreement which provided for the construction of excess storage capacity in the Scofield Reservoir to provide for the transbasin diversion of water from the Price River to Sanpete County; and (3) that reliable studies indicate that with reasonable conservation use of the water, good operation of Scofield Reservoir, and further development of tributaries of the Price River, water requirements for the foreseeable future can be met in the Price area.

That is the end of the pertinent part of the resolution. It would be our plea to this committee that you give favorable consideration to the North Sanpete watershed project.

And I would like to state for the information of the committee that the findings and recommendations of the Utah Water and Power Board have been concurred in by the Governor of the State of Utah, George D. Clyde, who himself is intimately acquainted with the problem and has spent many years in this very field.

Mr. Chairman, with that I will conclude and be available for questions.

Mr. SMITH. Thank you.

Any questions to my right?

To my left?

Thank you very much, Mr. Bingham. Your written statement will be made a part of the record at this point.

(The following statement was submitted for the record:)

STATEMENT OF JAY R. BINGHAM, EXECUTIVE DIRECTOR

My name is Jay R. Bingham, I am executive director of the Utah Water and Power Board. The Utah Water and Power Board is an official agency of the State of Utah with offices in the State capitol building at Salt Lake City, Utah. The board is composed of 15 members who represent all areas of the State. The board has existed in its present form since 1947. Prior to that date, the Utah Water Storage Commission, a predecessor organization, was responsible for promoting water development in the State of Utah.

The Utah Water and Power Board is specifically charged by statute with the following powers and duties:

"To make studies, investigations, and plans for the full development, and utilization, and promotion of the water and power resources of the State, * * *"

and;

"To consider to make recommendations on behalf of the State of Utah of reclamation projects or other water development projects for construction by any agency of the State or United States and in so doing to designate the order in which projects shall be undertaken."

Mr. Chairman, I appreciate this opportunity to comment on the North Sanpete watershed project. My appearance here today is in response to a directive from the board made at its regular meeting on June 22, 1962.

I can assure you that it has been the policy of the State of Utah to resolve problems relating to our water development at the local level. In this regard we have been successful in presenting to the committees of Congress, projects which have had the full support of our State agencies and local groups. In the case of the North Sanpete watershed project, formerly planned as a participating unit of the Colorado River storage project, the State has been unable to reconcile the differences that exist. The board, its predecessor organization, and the Governors of the State have spent considerable time in attempts to resolve this controversy dating back as far as March 23, 1927. For reasons which I will briefly refer to later in my statement, it is the position of the State of Utah that the development of the water resources of the State should proceed in an orderly manner and that in this case, differences of opinion should not further delay development.

The project was at one time planned to develop storage on the natural water course and at the same time to provide transbasin diversion to meet needs in another area. Because of an emergency situation, the development was undertaken in two phases. The facilities on the natural water course have been constructed; the beneficiaries of this development now oppose completion of the project in its originally conceived form.

The Utah Water and Power Board has on many occasions considered the views of the opponents to the project and has studied their cause for concern and as recently as November 16, 1962, the board conducted extensive hearings on this project. The board concludes that the North Sanpete watershed project is an essential part of the plan for development of the waters of the State of Utah. The board has used its influence to reduce the amount of water that will be diverted out of the Price River system for this project from 12,500 acre-feet as proposed under the Bureau of Reclamation's plan to a present depletion of 8,410 acre-feet. The board has encouraged and is pleased to note that the North Sanpete watershed project as presently proposed will not only increase the efficiency of use of presently available supplies in the project area, but will call upon underground water sources. The resulting transmountain diversion has been reduced to the amount that cannot be supplied from other sources.

The board, while making this decision to support the proposed diversion of water from the Price River system, wishes to assure the Carbon County interests that it stands ready to cooperate with them in developing additional water supplies from tributaries of this system. To implement this offer, the board initiated a request to the Department of Agriculture for application procedures to start a comprehensive watershed project for the lower Price River area. The board welcomed the concurrence of Senator Frank E. Moss that a companion watershed project be undertaken in the Price River system to further develop new water supplies for future growth of the Carbon County area.

In its deliberations, the Utah Water & Power Board has given consideration to the future needs of the Carbon County area. It is the considered opinion of the board that future requirements in that area can be met by careful water management and the development of tributary water supplies. The board is convinced that valid existing rights will not be adversely affected by this project. The board is further aware that solemn agreements have been reached which provided for full development of this river system and in view of the need to develop the full potential of our water supplies, these commitments and agreements should be kept.

At this time, I should like to read a resolution of the Utah Water & Power Board adopted at its regular meeting held in Salt Lake City, Utah, November 17, 1961, which summarizes the official position of the board:

RESOLUTION OF THE UTAH WATER & POWER BOARD, REAFFIRMING ITS POSITION WITH RESPECT TO RIGHTS OF THE SANPETE COUNTY INTERESTS TO MAKE TRANSBASIN DIVERSIONS

Whereas on October 4, 1961, the Soil Conservation Service transmitted to the Governor, this board, and other State agencies, copies of the North Sanpete watershed work plan; and

Whereas the Governor has been requested to express his approval or disapproval of the project; and

Whereas the Utah Water & Power Board has been requested by the Governor to make recommendations to him respecting this development; and

Whereas the board has afforded full and equal opportunities for the proponents and the opponents of this project to present information on this proposed development, and the board, has, in addition, drawn from its long experience and consulted with competent advisers; and

Whereas the board finds (1) that the project meets the requirements of law with regard to water rights, inasmuch as the basic water right has been extended for a period of 2 years by the State engineer, the District Court of Jurisdiction, and the Utah Supreme Court, (2) that the so-called tripart contract evidences a valid agreement which provided for the construction of excess storage capacity in the Scofield Reservoir to provide for the transbasin diversion of water from the Price River to Sanpete County, and (3) that reliable studies indicate that with reasonable conservation use of the water, good operation of Scofield Reservoir, and further development of tributaries of the Price River, water requirements for the foreseeable future can be met in the Price area: Now, therefore, be it

Resolved, That the Utah Water & Power Board reaffirms its previous position in support of the development of the water rights to divert waters to Sanpete Valley from the Price River System, in accordance with State water law; be it further

Resolved, That this board pledges its support to the Price River interests in whatever form appropriate, and feasible, to assist in the further development of other waters of the Price River for the most beneficial ultimate use; and be it further

Resolved, That copies of this resolution be transmitted to the Governor of the State of Utah, the congressional delegation, and the Administrator of the Soil Conservation Service.

As the representative of the official agency of the State of Utah, authorized to make recommendations on behalf of the State, I urge your favorable consideration of the North Sanpete watershed project in order that the last impediment to its realization can be removed.

Mr. Chairman, I would request that the following letter from Gov. George D. Clyde be attached to and made a part of my statement. The Governor's letter dated August 10, 1962, reads as follows:

STATE OF UTAH,
OFFICE OF THE GOVERNOR,
Salt Lake City, August 10, 1962.

Senator ROBERT S. KERR,
Chairman, Subcommittee on Flood Control in Rivers and Harbors,
U.S. Senate Building, Washington, D.C.

Congressman FRANK E. SMITH,
Chairman, Subcommittee on Watershed Development,
House Office Building, Washington, D.C.

DEAR MR. CHAIRMAN: In your considerations of the North Sanpete watershed project I should like to advise you that I am in full and complete accord with the findings and recommendations of the Utah Water & Power Board.

I have been closely associated with the North Sanpete water project for more than 40 years—in fact my first professional assignment was on this project. My present endorsement of the position taken by the Utah Water & Power Board is based on my personal knowledge of the project and its background, as well as on a careful review of the Water & Power Board report.

Sincerely,

GEORGE D. CLYDE, Governor.

Mr. SMITH. The next witness is Mr. Arthur H. Nielsen.

STATEMENT OF ARTHUR H. NIELSEN, ATTORNEY AT LAW, SALT LAKE CITY, UTAH

Mr. NIELSEN. Mr. Chairman and gentlemen, I feel rather inadequate to attempt to cover the field that is involved in this proposal before you in the short time that I have. However, I have submitted to the clerk a written statement and I would hope you would each read it. But, for the purpose of attempting to explain some matters that have arisen in the course of other statements, I shall depart from that written statement and perhaps allude to it later.

I should like to point out for the benefit of those who are not familiar with the way water rights are acquired in our State that unless they were acquired before 1903, since that time they may be acquired only by the filing of an application with the State engineer. At that time the State engineer has a right to publish it, to review it, and a hearing is held by the State engineer as a result of which the application is approved or rejected. If it is approved there is a certain number of years in which a person seeking to appropriate that water is required to prove up in connection with that application. There must be work begun in connection with the dam or reservoir or whatever is involved.

In respect to the water rights here involved I would like to point out that in the early period of the settlement of our fair State the people settled on the western slope of this divide area and they soon found that for agricultural purposes there was no real opportunity to acquire a stable uniform supply of water for the late months of the year when there were shortages and for the dry portion of the season after the runoffs. So they early came at the top of the mountains and tapped the resources of the greater extended drainage area on the east slope and brought water to the valley. The area called Gooseberry Valley was tapped. There were other diverting points where water was brought by tunnel and put into Sanpete Valley.

On the opposite side of the slope of course the people over there appropriated water for use in connection with their economy and their development of agricultural resources. There, again, the matter of continuing to have a stable water supply for the late months of the year became a problem and they went upstream along the Price River and made filings for storage. The right of priority to use water is determined by the date when the filing is made, and as long as it is kept alive those filings and their dates of priority are protected.

The first instance of storage was at a point just below this Gooseberry Reservoir and it was developed by both Sanpete County and Carbon County for the storage of water. But in 1917 this dam went out and the water flooded down through the stream and was lost.

Throughout subsequent years the people of Carbon County acquired the right to store water and they put it in the Scofield Reservoir and built the Scofield Reservoir. As of the date when the later Gooseberry filing was made in 1924, there is only one prior-in-time storage right on the stream except these little lake reservoirs, but there is a storage right in Scofield Reservoir for approximately 12,000 acre-feet and it bears a higher priority date than the Gooseberry. In 1937 a subsequent filing has been proved up and established by the Carbon County people for another approximately 18,000 acre-feet, making a

total storage right of 30,000 acre-feet. The one for 12,000 acre-feet has a priority in time to the Sanpete and the one for 18,000 acre-feet is subsequent to the Sanpete.

Since 1923 the Bureau of Reclamation has made numerous and continuous studies of the entire area called the Price River area in which they have from time to time proposed projects. As one project they proposed the construction of both the Gooseberry and the Scofield Reservoirs. This was proposed from time to time in their project reports and as late as 1939 and 1940 they had reached the point where the Price people had started to form themselves in a conservancy district and the Sanpete people had formed themselves into an organization, each county to receive a proportionate distribution of the water to be stored.

Unfortunately, the war came along and all assistance was cut off.

Now at that particular time the Scofield Reservoir, which had a capacity of 30,000 acre-feet, was jeopardized by a weak dam and the reason for the Bureau of Reclamation's interest in rebuilding it was that the dam was not considered to be safe and sound. There was a meeting called by the State of Utah attended by representatives of Sanpete County, representatives of Carbon County, and interested people of both counties as well as representatives of the railroad and the Bureau of Reclamation. They were all brought to a central place.

The Bureau of Reclamation made the statement at that time that they considered this entire project as one project but now it appeared that because of the war effort it would be impossible to build both features, and yet they had the problem of some danger to the railroads by the fact that if the Scofield Dam went out there might be a flooding of the railroad which would impede the war effort.

At that time both the Carbon County people and the Sanpete people entered into a compact in which the Sanpete people said they would support the Carbon County people, and at the same time the Carbon County people reassured the Sanpete people that if they would get their cooperation they would stand firm and help build their phase of the project when the funds were available.

Based on that, the Bureau of Reclamation rebuilt the Scofield Reservoir and they entered into an agreement with the Carbon County people called the tripartite agreement. My statement contains excerpts from that agreement.

The Bureau of Reclamation made a filing with the State engineer at that time to increase the capacity of Scofield Dam from 30,000 to 70,000 acre-feet. Up to that time there was no filing, but at that time the Bureau of Reclamation made that filing and in the statement filed with the State engineer the Bureau of Reclamation stated the purpose of the increased filing was to provide a firm supply of water. I direct your attention to the fact that in the prior years, by the nature of the use during the summer months, there is a primary right that water flowing down the stream will go downstream and that will be protected; but when a storage dam is built, since it exists 12 months of the year, the storage must during the summer months release enough water to satisfy that primary storage right.

The Bureau has found it is 18,000 acre-feet that should be released to satisfy the primary storage right. Any other runoffs should be retained in the reservoir to supply that 18,000 acre-feet during the

summer months. This would permit them to have a tight dam across the river here [indicating] and during the summer it would be turned out of the excess capacity of some 35,000 acre-feet.

In its application and in its filing with the State engineer, the Bureau of Reclamation stated that the first 30,000 acre-feet would satisfy the storage rights then existing, and 8,000 acre-feet of dead storage was given unequivocally to the fish, game, and wildlife people, and the balance of 35,000 acre-feet was there for replacement storage purposes only for the purpose of satisfying in a dry year the requirement of direct flow.

Since that time, as Mr. Bradshaw has stated, there have only been 2 years in which the storage of this reservoir has not exceeded 30,000 acre-feet in any year.

The problem we have before us today is this: Since the Sanpete County people have supported the Carbon County people in building the first phase of the project, which was built, there has over a period of years developed a type of opposition in Carbon County to the development of the Gooseberry Dam. We cannot bring the water in buckets from Scofield Reservoir.

So as it appears to us and as I think the history will show and was stated by the Supreme Court in 1960, this delaying procedure on the part of the Carbon County people in opposing the development of the Gooseberry Dam has been jeopardizing the rights of the people in Sanpete County. The right to the appropriation of this water by the Sanpete people was upheld by the district court and a showing was made there was at all times from 1924 to 1935 available and unappropriated water. What Mr. Skeen says about the Supreme Court is true, but the decision of the district court was not appealed and if it is not appealed the decision of the district court is binding.

In 1958, when we sought to obtain an extension of time to prove up our claim—and it must be realized we have to go back to the State engineer for an extension of time to prove up our rights—the Carbon County people opposed it and they opposed it on the same grounds they are before you opposing it. Some of the witnesses who will testify before you are the same people that appeared and testified before the trial judge. The trial judge completely reviewed the matter as to the water rights, the availability of water, and so on, and ruled in favor of the Sanpete people and said they should have further time to prove up their rights. That was appealed to the Supreme Court and the Supreme Court reviewed this very history and has ruled the Sanpete people have shown the diligence required and they have met opposition and on the basis of that they have stated we should have further time to prove up our water rights.

The Scofield Reservoir was built at a cost of \$1 million, of which the Carbon County people were assessed \$100,000. The Sanpete people are assessed and will have to pay on the construction of the Gooseberry phase of this project \$116,000, which we are prepared to pay; but of the total cost of \$1 million it cost the Carbon County people only \$100,000, and we are asking authority to build the Gooseberry phase, the cost of which will be substantially less than the cost to build the Scofield Reservoir. The other costs will be in the land treatment measures and the on-farm practices which will improve the productivity of the land. This is not a project to increase the acreage which will be under cultivation. This is to give the farmers

who have land under cultivation a living wage and to allow them to retire from production the lands that do not have any water on them. Every year it is necessary to import feeds for the purpose of supplying the demand of their own animals, dairy animals and poultry.

I think whatever may be said with reference to any present litigation pending, obviously any person can file a lawsuit any time he wants to. It only takes a matter of \$12. The State engineer is concerned with the adjudication of rights all over the Price River system. The State engineer has said we could go ahead. All that is pending before the court is an order to show cause, which is a request of the court that the court decide what is meant by this agreement that the Carbon County people entered into with the government. But it does not question our water rights which are established as of 1924 to appropriate 15,000 acre-feet of water. That has been decided twice by the courts.

So I submit to you gentlemen that it appears to me to be quite an imposition upon this body, although entirely, I am sure, within your prerogatives, to have this matter attempted to be reviewed and litigated here when it has been litigated in the courts of our State and there has been a full opportunity to be heard.

I would like to add one further word in regard to the Bureau of Reclamation's position in this matter. The Bureau of Reclamation had determined to go forward with this project but because of the opposition of the Carbon County people they met with us. They had proposed it to the Congress but it was withdrawn in order not to jeopardize the other phases of the upper Colorado River project. But the Bureau of Reclamation, even after that, between 1955 and 1957, further reviewed it and came up again with a feasibility project of a lesser capacity than they had originally designed because of putting the reservoir up here where it now is instead of downstream.

We met with the Bureau of Reclamation people, with the Soil Conservation people, and with the State of Utah because our time expired in 1958 and we were required to get an extension of time, and the Bureau said because of the shortage of funds they would not be able to proceed at that time with the development of it and they recommended to the Sanpete people that they go to the Department of Agriculture. To this date the District Office of the Bureau of Reclamation has given every support to this project because of their knowledge of it and because of the fact it has been approved by them on many occasions. I met personally with Mr. Dominy in February—I beg your pardon, it was in January—of this year in his office and he assured me he was behind this project and that the Bureau of Reclamation, if requested, would have someone come over here or, if he was available, he would come himself.

I wrote Mr. Dominy 2 weeks ago and requested that he come over, but he had his assistant, Mr. Burnett, advise me he would not be available, and he said that because of the language Mr. Baldwin has read from the Department of the Interior, they were under some difficulty. The language referred to by Mr. Baldwin says in order to satisfy the demands and needs of both counties that they desire further investigation.

I submit to you there is need in Carbon County for additional water supply, not because they have water rights but because they have a potential need for water. I submit we have water rights. As a

matter of fact they have recently, within the last year and a half, filed an application to build a reservoir almost on the identical spot of the old reservoir that was there to store the same number of acre-feet we are requesting, 15,000 acre-feet, for the purpose of taking it downstream. That was in July of 1960 and I submit to you it seems to fly in the face of their own actions and conduct.

I hope you will read my written statement carefully. I am prepared to answer any questions with respect to the water rights or the feasibility of this project or any other questions you may have.

Mr. SMITH. Thank you, Mr. Nielsen. Under the terms of the hearing we outlined at the beginning, your time has expired. Your written statement will be made a part of the record at this point.

(The statement referred to follows:)

STATEMENT OF ARTHUR H. NIELSEN

Mr. Chairman and members of the subcommittee, I wish to thank you for the opportunity I have to appear before you and present my views regarding the matter now under consideration.

I am an attorney licensed to practice before the courts in the State of Utah and before various Federal agencies and courts in the country, including the Supreme Court of the United States. I appear here today as counsel for Sanpete County, the Sanpete County Water Conservancy District, and the Sanpete Water Users Association, including its many irrigation company stockholders. In a more general sense I might add that I represent myself and many thousands of others who were born and raised in Sanpete County where their social and political roots have penetrated deeply and who are vitally concerned with the welfare of those who presently remain and who will, in the future, choose to cast their lot with those very thrifty and industrious people who make Sanpete County their home.

You have before you for approval a watershed work plan of the North Sanpete watershed as prepared by the Soil Conservation Service of the Department of Agriculture under the authority of the Watershed Protection and Flood Prevention Act (Public Law 566, 83d Cong., 68 Stat. 666) as amended.

I am sure you are well aware of the various governmental agencies, both State and Federal, who have been involved with its preparation and who are interested in seeing that it receives your approval, in order to obtain participating funds from the Federal Government. You have already heard from others, who have discussed the various aspects of the work plan so that I will try to avoid repetition thereon.

Included within the overall watershed work plan and forming a substantial integral component part thereof is the proposed construction of a reservoir to store water arising in the upper drainage area of Gooseberry Creek located in Sanpete County and the construction of a tunnel to effect a transmountain diversion of such stored waters to the upper Sanpete Valley area. I venture to say without fear of contradiction that were it not for this phase of the project there would be no opposition to the work plan. However, since the development, conservation, and utilization of the water resources of our State are so vital to our economy, there is scarcely any project in the State involving the further appropriation and utilization of water which does not meet with firm opposition from people who feel that their long vested water rights may be affected and impaired. Even in the more recent development of underground water there is constant opposition to further drilling to tap these last available water resources. I am proud to report, however, that in many instances these difficulties have been worked out by amicable agreement between the parties involved. In other situations where the parties cannot mutually resolve their differences, the laws of our State, as do the laws of all the States forming a part of this great country of ours, provide a full and adequate procedure for the determination of the rights of the opposing parties and the enforcement thereof.

Usually when the local State administrative agency has resolved the matter and the courts have subsequently, upon full review and consideration, made a final determination of the rights involved the matter is placed at rest and both sides proceed in accordance with the court's decision. In the instant matter, however, the Federal Government, and through it your honorable body, has be-

come involved because it is sought to obtain financial help under the provisions of Public Law 566.

In the past, water users in Carbon County have questioned the water rights involved in the proposed construction phase of the work plan, the availability of water for storage and the economic feasibility of the project. While each of these matters has heretofore been considered, fully reviewed and resolved by both governmental agencies and the courts, the opposition to the program seeks now to defeat the entire project by urging the Federal Government to withhold any financial help. While I personally believe that the matter should have been put at rest by the decisions heretofore made by the courts, the State agencies and the Federal agencies involved, I shall endeavor to review for you the facts which I believe not only persuaded the other agencies in reaching their conclusions, but which will be helpful and beneficial to you in reaching yours.

The water rights involved in the proposed project are principally covered by application 9593 on file in the office of the State engineer for the State of Utah, by which it is proposed to appropriate 15,000 acre-feet of water from Gooseberry Creek "by placing a dam across Gooseberry Creek at what is known as the Narrows," site in upper Gooseberry Valley, in Sanpete County. The water thus appropriated will be a supplemental supply "for Sanpete County upon lands" described in the application within the proposed project.

The application was filed in the State engineer's office on September 11, 1924, and bears a priority as of that date. It has been twice litigated in the courts where it has received court approval and the time for construction of the reservoir and tunnel extended so that the application is in good standing today. Initially, the matter was heard by the District Court of the Seventh Judicial District on appeal from the ruling of the State engineer. On February 11, 1939, the court made its findings of fact, conclusions of law, and entered its decree in favor of the Sanpete application. Among other things Judge Oscar W. McConkie specifically found—

"That at the time of the filing of said application No. 9593, there was unappropriated water in the said Gooseberry Creek at the point where it is sought to store said water and to divert the same from said Gooseberry Creek, and that from time to time and from year to year, and has ever since that time been water over and above all prior appropriations and subject to be appropriated under said application, and that no rights of the defendants, or either of them, will be prejudiced by the granting and approval of said application of the plaintiff, John L. Bench, No. 9593, and that the said plaintiff is entitled to have his application approved and to have such approval made of record in the State engineer's office of the State of Utah."

The second court hearing began in December 1958, after the State engineer had granted an extension of time to the Sanpete Water Users Association to prove up on its application 9593. This case ultimately went to the Supreme Court of Utah, where the decision of the State engineer and the trial court was affirmed. In its opinion, the supreme court briefly reviewed the history of the project as it appeared in the record of the trial before the lower court, as follows:

"The evidence shows that while the appeal was pending in the district court from the original rejection by the State engineer of the application in 1924, those interested in the application and the plan to construct a dam to obtain the water from Gooseberry Creek at a point known as the Narrows site and which was generally known as the Gooseberry project had plans drawn up for the construction of a tunnel and applied for public funds either under the Works Progress Administration or the Case-Wheeler Act to help in the consummation of this project. They were unable to obtain these funds when it was discovered that there had been no decision on the appeal. After the court's decision in favor of the application the Sanpete interests pushed the effort to obtain approval of their plans for the construction and were surveying and making appraisals of the rights-of-way which had to be acquired for canals and the tunnel when World War II commenced, which put an end to the possibility of obtaining funds from the Works Progress Administration or the Case-Wheeler Act. However, the Bureau of Reclamation had long been interested in irrigation and storage projects along the Price River of which Gooseberry Creek is a tributary and had included as one project the Gooseberry project along with the Scofield Reservoir which serves the Carbon County interests and which is located several miles below the place where the Gooseberry Reservoir is planned. At the behest of the Sanpete interests the Reclamation Bureau had made various studies, surveys, and reports with the view toward building the dam and tunnel to

use the water covered by the application now owned by respondent, Sanpete Water Users Association. During World War II the Carbon County water users wanted their reservoir rebuilt by the Reclamation Bureau without waiting until work could be done on both projects as one. Rather than make it impossible for either project to be built at that time, those interested in the Gooseberry project deferred to the wishes of Carbon County interests, among whom are the appellants herein. Scofield Reservoir was rebuilt with financial aid from the U.S. Government."

Interrupting my quotation from the opinion of the supreme court and referring specifically to the cooperation received by Carbon County interests in the rebuilding of the Scofield Dam, I wish to point out that a general meeting was held to discuss that problem February 4, 1942. Minutes were kept of this eventful meeting attended by representatives from Carbon County (including the cities of Price and Helper), Sanpete County, the Bureau of Reclamation, and industry. Representing the Carbon interests, Mayor J. Bracken Lee, of Price, stated:

"We, the people of Carbon County are trying to see if we can get this declared an emergency by the Government, and advance the immediate funds for the construction, as it cannot be satisfactorily repaired, then we could go on with our present plans of organizing conservancy districts, and later on enter into an agreement with the Sanpete people to permit them to come in with us as copartners in the entire development."

Thereafter Mr. Elmo Irons, a representative from Sanpete, stated:

"That if the Schofield Dam would be in any way delayed or hindered by the efforts of his group to further the Gooseberry project, he was sure they would be glad to step out of the way and lend all power in accruing one project, if this were deemed most important, but that the two projects had been linked in unity, as one, and to, at this time, separate them might bring undue difficulties. This was agreed to by Mr. Lee and Mr. Jerman, Mr. Jerman stating that it would never merit consideration as two as the appropriated funds were allotted as one, and should be considered as one."

I further quote from the recorded minutes:

"There was at this time a great deal of comment on the necessity of the Gooseberry Dam for possible water conservation to that district, as it was stated by one member of the coal industry, that with the proposed steel plant being now a certainty for Utah, it would be necessary to have coal to further this proposed plant, and with the additional coal fields located in Sanpete County it would seem that the coal from those fields would be used for that purpose, and surely the Gooseberry Dam would furnish the water so necessary to mine that coal. It would, also, further our national defense, and bring industry to that community."

Thereafter, approval was obtained to rebuild the Scofield Reservoir with Federal funds (Carbon County water users were charged \$100,000 out of the total construction cost of approximately \$1 million and \$116,000 was set up as Sanpete's share, to be paid later). In connection with this project the U.S. Government entered into an agreement with Carbon Water Conservancy District and Price River Water Conservation District by which the overall program of developing the Scofield and Gooseberry Reservoirs was worked out. This agreement has been commonly referred to as the tripartite agreement and will be further discussed later. However, at this point I would like to return to the supreme court's summary of the history of the Gooseberry project, as contained in its opinion:

"After World War II ended applicant again made plans to proceed with work on the tunnel and applied to the Utah Water and Power Board for a loan of \$90,000 which with private funds available to it would have been sufficient to construct the tunnel. This loan was not made, however, because the Reclamation Bureau indicated that it would like to work on a project called the Mammoth project somewhat downstream from the Gooseberry project which would produce more water for the Sanpete County water users. This project was to be tied in with the Bureau's projects on the Colorado water system."

"The Sanpete interests obtained a number of extensions of time within which to make proof from the State engineer while these projects were being surveyed and planned on their behalf and in which over \$100,000 was spent by the Bureau of Reclamation and the Utah Water and Power Board. Just prior to applicant's latest request for an extension of time from the State engineer it decided to build the tunnel without waiting for action from the Reclamation Bureau whose activities in its behalf were at least delayed because of appellants' protesting the appropriation by Congress of any money for the Gooseberry project

which had been recommended by the Bureau of Reclamation. It implemented this decision by applying for a loan from the Utah Water and Power Board and hiring an engineer to prepare plans and specifications. This engineer caused preliminary excavation work to be done from which he obtained sufficient facts to make final plans for the construction of the tunnels so that actual work could be commenced."

The court went on to conclude that the applicant (North Sanpete Water Users Association) was entitled to a further extension of time in which to proceed with the construction of the reservoir, tunnel, and other storage and diverting works.

While the matter was pending before the courts, conferences were being held with the representatives of the State and Federal Governments to see if financial assistance would be available to assist with the project where and if the matter was resolved favorably to the applicant. The Bureau of Reclamation continued its water studies on the Price River and its tributaries, particularly for the purpose of developing other water storage projects to meet the future needs of Carbon County. The Sanpete people also learned that under the Federal Watershed Protection and Flood Prevention Act (Public Law 566) considerable improvements were being made in various areas in the State of Utah and even within the local area. It was therefore decided, after full discussion with the water and power board and the local representatives of the Bureau of Reclamation (and with the approval and complete cooperation of both), to apply to the Secretary of Agriculture for "Federal assistance under the Watershed Protection and Flood Prevention Act in preparing and carrying out plans for works of improvement for the north Sanpete watershed project."

Application for assistance in planning and carrying out the works of improvement contemplated in the north Sanpete area was made by the local organizations and approved by the State agencies involved, whereupon the Soil Conservation Service began its survey work. The work plan now before you is the result of the thorough and exhaustive study made by the Soil Conservation Service, utilizing the studies and data accumulated over the years by the State of Utah and agencies of the Federal Government as well as its own basic research and statistical data.

Although the foregoing should amply demonstrate the legal, as well as the moral justification for approval of this project, I would like to discuss briefly the matter of the priority of water rights.

First, let me point out that we are concerned here with storage rights as distinguished from direct-flow rights. The very first users of water along a given river or stream utilized the direct flow from the source during the growing season to irrigate the crops and for domestic consumption. Later it became necessary to impound the water during periods of high runoff, when little or no use could be made for irrigation, and to store it until such time as the need arose to supplement the natural flows of the streams. These storage rights have always been required to recognize the rights of the "direct flow users." And in the present situation those having prior rights downstream need have no concern that they will be deprived of the water to which they are legally entitled.

Insofar as storage rights are concerned, the oldest storage right exists up above the Gooseberry Valley area in the head of Gooseberry Creek where a group of early settlers in Sanpete constructed some small reservoirs, called the Fairview Lakes, which impound and store the early runoff waters in the tops of the mountain and by circuitous canal divert the water into Sanpete Valley. (Under the proposed watershed work plan the storage rights in the Fairview Lakes will be transferred to the Gooseberry Reservoir and the water released through the diversion tunnel at a considerable saving in cost and water loss.)

The right to store water in Scofield Reservoir derives from two applications. Application 1035 (certificate No. 2046) is for 12,020 acre-feet with a priority of August 30, 1906. This is the only other storage right on the upper river which is prior to application 9593 (the application involved in the contemplated construction of the Gooseberry Reservoir).

The other application to store water in Scofield Reservoir in 8989a for 17,980 acre-feet with a priority of October 11, 1937. These two filings make up a total of 30,000 acre-feet and the only filings owned by Carbon County water users which authorize and permit the storage of water in Scofield Reservoir.

Initially the storage right covered by application 1035 contemplated storage in the Mammoth Reservoir just a short distance below the proposed Gooseberry Reservoir. (The storage right was later moved downstream after the Mammoth Reservoir Dam went out in 1917.) While the right was maintained up-

stream at the Mammoth site there was a court adjudication setting forth the rights of the direct flow users and the storage filings. This decree, commonly referred to as the Morse decree, determined that the direct flow users had a right to 1,600 acre-feet of water from the sources of Cabin Hollow and Gooseberry Creek. Under such decree approximately 1,600 acre-feet of water should be allowed to go on down stream from the contemplated Gooseberry Reservoir. From the best available information, based on the water supply studies and engineering data on the tightness of the dam construction, it is estimated that there will be an annual seepage loss through the dam of approximately 2,830 acre-feet well in excess of the amount necessary to supply the direct flow right on the stream.

However, there is further protection afforded to downstream users so that the construction of the Gooseberry Reservoir and the storage of water from Cabin Hollow and Gooseberry Creek therein will not impair prior rights below. Adequate provision was made for any contingency by the Bureau of Reclamation in the planning and rebuilding of the Scofield Reservoir Dam during World War II. As I previously stated the total storage rights in the Scofield Reservoir were for 30,000 acre-feet which was its then allowed capacity. In planning the reconstruction of the dam the reservoir capacity was increased from 30,000 acre-feet to 73,000 acre-feet. It was necessary, therefore, to make a further filing with the State engineer for such increased storage right. This was done on March 10, 1942, by the Bureau of Reclamation which filed its application No. 14683 seeking to appropriate 43,000 acre-feet of water from Fish Creek, Gooseberry Creek and Cabin Hollow Creek (all tributary to the Price River) for storage in the Scofield Reservoir.

Of the total capacity of 73,000 acre-feet, 30,000 acre-feet would satisfy the storage rights then existing, including the right of the Price River Water Conservation District under application 8989a for 17,980 acre-feet (which filing has a priority date of October 11, 1937, 13 years subsequent to application 9593, 8,000 acre-feet is held in the reservoir continuously from year to year for the propagation of fish as stated in the Government's application. The balance of the storage in the reservoir representing 35,000 of the 43,000 acre-feet covered in application 14683 "will be stored in the Scofield Reservoir and released as needed from April 1 to October 31 inclusive of each year, and allowed to flow into Price River to supply existing water rights therein at such time as these rights would otherwise be impaired by the diversion of water for the Gooseberry project from Gooseberry Creek or from Cabin Hollow Creek, both tributary to the Price River system. In other words, said 35,000 acre-feet of water will be held in Scofield Reservoir for exchange purposes in order to permit, without impairing existing rights, unrestricted diversion of water for the Gooseberry project in a manner more fully described hereinafter."

The application further states: "It is proposed to appropriate more water for storage in Scofield Reservoir (35,000 acre-feet) than will be used annually under the Gooseberry project (30,000 acre-feet maximum) in order to provide a hold-over in Scofield Reservoir for use in years of deficient runoff."

This application is still pending before the State engineer and constitutes the only basis and right for enlarging the capacity of the Scofield Reservoir when it was rebuilt by the Bureau of Reclamation in 1944-46.

Further to define the rights of the respective parties and to avoid any future misunderstanding, the United States, acting through the Department of the Interior, Bureau of Reclamation, entered into a written contract with the Carbon Water Conservancy District and the Price River Water Conservation District. This agreement, dated October 11, 1943, is frequently referred to as the "tripartite" or "tripartite" contract. It specifically details the water rights which are claimed by the parties and protects the interests of the Sanpete people in the construction of the Gooseberry project, as follows:

"12(a) The United States proposes, as the principal feature of the diversion plan (herein called the Gooseberry plan), to build storage and diversion works on the Price River system at a point or points above the confluence of Cabin Hollow Creek and Gooseberry Creek. When these works (herein called the works of the Gooseberry plan) have been constructed and put into operation, the relative rights of the United States and the irrigation district to the waters of Price River shall be as hereinafter stated in this article * * *.

*(d) Subject to the conditions precedent stated in subsection (a) of article 13, the United States or its successors or assigns shall have the right to store and divert in any year for use within or without the Price River watershed all

of the waters arising in the Price River system at or above the confluence of Cabin Hollow Creek and Gooseberry Creek located in or near section 31, township 12 south, range 6 east, Salt Lake Base and Meridian: * * *

Subsection (a) of article 13 provides that the rights under article 12 are dependent upon "the principal works of the Gooseberry plan having been completed and made ready for operation," and written notice thereof given to the district.

Further to protect the Gooseberry project, article 13(b) provides in part:

"(b) The irrigation district's rights to the use of the waters of Price River and its tributaries, either by way of direct diversion or storage, are agreed to be, as of the date of this contract, only those based on the following applications on file in the office of the State engineer of Utah:

"Application No.	Claimed date of priority	Nature and amount of claimed right
1035 (Certificate No. 2046)	Aug. 30, 1906	<i>Acres-feet</i> 12, 020
8989a	Oct. 11, 1937	17, 980
9594	Sept. 12, 1924	90, 000
		1 50

¹ Second-feet.

"The irrigation district agrees to assign its application 9594 to the United States within 60 days after notice from the Secretary to the effect that Scofield Dam and Reservoir has been completed to the point that there is an active storage capacity available for use of approximately 65,000 acre-feet; that its rights under applications 1035-certificate No. 2046, 8989a, and 13334, are hereby subordinated to the rights of the United States as defined and agreed to in article 12 hereof, and to whatever permits for the diversion or storage of water that have been or may be procured by the United States within the limits of its rights under this contract; and that all its rights under this contract are subject to the provisions of section 13 of the Boulder Canyon Project Act (45 Stat. 1057).

"It is further agreed that the irrigation district's applications 1035-certificate No. 2046, 8989a, and 13334 shall be used subject to the conditions and limitations that are provided in this contract and not otherwise * * *.

"A copy of this contract shall be filed in the office of the State engineer of Utah and, as between the irrigation district and the United States, shall be the basis, the measure, and the limit of the irrigation district's rights under applications 1035-certificate No. 2046, 8989a, and 1334."

Although the Sanpete Water Users Association is not a signatory party to the "tripartite" contract, it is a third party beneficiary thereof and is protected through the United States in its right to the additional storage of Scofield Reservoir to secure more complete utilization of the waters of Gooseberry Creek for diversion into Sanpete County. The Bureau of Reclamation has repeatedly affirmed the binding effect of this contract in protecting the rights of the Sanpete people.

In a letter dated December 1, 1960, to the State engineer of Utah requesting him to defer action on certain applications owned by the United States (Nos. 14025, 14026, 14475, 14476, 14477, and 14683) Mr. S. Rippon, acting regional director of the Bureau of Reclamation said that "All of these applications contemplate storage in the Mammoth Reservoir and/or use on the Gooseberry project".

He went on to say: "As you know, the Sanpete interests are investigating a watershed work plan, as outlined in our letter dated November 4, 1960. The Bureau of Reclamation has no intention of opposing this development or doing anything that might jeopardize the success of it."

Perhaps the most persuasive argument in support of the claim that there is available water for the proposed storage reservoir comes from the actions of Carbon County water users themselves. Since July 1, 1960, not less than eight applications have been filed with the State engineer, seeking to appropriate in excess of 35,000 acre-feet of water from the tributaries of Price River. In addition, many now have been filed prior to 1960 which are junior in time and therefore subordinate to application No. 9593. Five of the applications filed since July 1, 1960, have been filed by Price River Water Improvement District. One of such applications (No. 32134) is to appropriate 15,000 acre-feet of water

from Gooseberry Creek by the construction of a reservoir on the creek just below the place where the North Sanpete watershed work plan proposes to build a reservoir. In other words, Carbon County interests are satisfied there is available water; but they are hoping to be able to defeat the applications held by Sanpete water users in order to make a valid appropriation themselves.

Now a word about financing. Both the Bureau of Reclamation and the Soil Conservation Service studies have clearly demonstrated the economic feasibility of the Gooseberry project. But how do the local people expect to pay their proportion of the costs? Immediately it is proposed to borrow \$1,500,000 from the Farmers Home Administration. Public Law 566 (under which law the project is being sponsored) further implements its authorization for the Federal Government to participate in water conservation and development measures by setting up a program whereby eligible organizations may borrow up to \$5 million to carry out plans to protect and develop the land and water resources in small watersheds. The Sanpete County Water Conservancy District has authorized the chairman of its board to file such application, and the application is ready to be filed upon the project being finally approved.

Additional money to assist local irrigation companies in financing their system improvements will be sought from the Utah Water and Power Board on interest-free loans. Ultimately, and over a period of approximately 50 years, the entire cost of the project, including any interest, will be paid by assessment upon the irrigation companies and through them upon the individual farmers and water users. This will be supplemented in a small way by an increased tax levy on all land situate in Sanpete County—which levy is authorized by law to assist in the payment of costs of constructing and maintaining works of improvement of water resources.

In conclusion, I submit:

(1) Sanpete people hold legal and valid filings on the water which filings have been upheld by the courts.

(2) The dam, reservoir, and the entire drainage area which will supply the water for storage are located in Sanpete County.

(3) The construction of the Gooseberry Reservoir will in no way diminish or jeopardize prior existing rights to the use of the waters of the Price River and its tributaries, held by Carbon County interests.

(4) The Sanpete County people cooperated in good faith with Carbon County for reconstruction of the Scofield Reservoir, which cost approximately \$1 million, of which Carbon County was required to pay only \$100,000 and Sanpete County will have to reimburse the Government in connection with the Gooseberry phase of the North Sanpete watershed project to the extent of \$116,000 (for which provision is made in the work plan).

(5) The Bureau of Reclamation and the Soil Conservation Service (with the cooperation and support of the field representatives of the Bureau) have made a thorough study and investigation of the economic feasibility of the proposed project and have determined that it is economically feasible. The report of the Soil Conservation Service shows an overall benefit-to-cost ratio of 2.7 to 1.

(6) A plan for financing the entire project has been worked out; and the local water users, and in fact the entire county, have committed themselves to the payment of their share of the costs over a period of 50 years.

(7) Although the Gooseberry Reservoir and tunnel constitute only a part of the North Sanpete watershed project, such development works are an integral part of the entire work plan, so that rejection of the Gooseberry Reservoir will be tantamount to defeating the entire project to the immediate economic loss to the people of Sanpete County and to the general detriment of the best interests of the State of Utah.

(8) The State of Utah and all interested State agencies have gone on record as approving the project.

(9) The project has received the approval of those departments and agencies of the Federal Government precedent to its being submitted for final approval by Congress through the Public Works Committee of the House and Senate.

I again thank you for the opportunity to make this statement and for your interest in and attention to my remarks. I hope that what I have said will be helpful to you in reaching a favorable decision. If you have any questions or wish any further explanation I will be most happy to attempt to assist you in the matter.

Mr. SMITH. We will now call on the opponents. Mr. William Welsh is the first witness.

MR. NIELSEN. Mr. Chairman, while he is coming forward, may I ask that the other gentlemen scheduled to testify as proponents be given the privilege of submitting their statements?

MR. SMITH. Without objection all the witnesses listed here as proponents who have not been heard because of the shortness of time may submit statements and they will be made a part of the record at this point.

(The statements of the following were submitted for the record and are included herein:)

T. W. Jensen, secretary-manager, Utah Water Users Association, Salt Lake City, Utah.

Clifford S. Blackham, representing Sanpete County and Six-County Organization, Moroni, Utah.

Keith S. Hansen, Sanpete County commissioner, Fairview, Utah.

Grant Johansen, district supervisor, Sanpete County soil conservation district, Mount Pleasant, Utah.

Oscar W. McConkie, Jr., attorney at law, Salt Lake City, Utah.

STATEMENT OF T. W. JENSEN, SECRETARY-MANAGER, UTAH WATER
USERS ASSOCIATION

The Utah Water Users Association is a nonprofit corporation of the State of Utah. Its membership consists of over 1,100 water companies of the State, including most of the agricultural users and some of the largest industrial users of water in Utah. It maintains a local organization in each county, with a county president.

It was incorporated August 17, 1944, as a successor to the Utah Water Storage Commission, for the express and declared purpose of helping to develop and utilize the water resources of the State for the most beneficial use to be made of such water, consistent with the welfare of the people of the State, and rights of those who have appropriated or may appropriate such waters under applicable laws.

I believe that almost from the beginning our organization has been aware of the plans and efforts of the Sanpete people to prove up on their approved application to construct a reservoir and tunnel to bring additional water from the upper watershed of Gooseberry Creek (in Sanpete County) into the Upper Sanpete Valley to supplement early spring runoff in the later season so that present and future potential users will have a more uniform and sustained flow of water during the summer months. We recognize that the need for supplemental water in Sanpete County to help mature crops in the latter part of the growing season is great.

Although in previous planning of the "Gooseberry Project" by the Bureau of Reclamation it was proposed to construct a larger reservoir and divert more water into Sanpete County than is now proposed by the Soil Conservation Service as a component part of its North Sanpete Watershed Work Plan, we feel that the present project should be approved by the Federal Government and participating funds made available under Public Law 566.

We have previously expressed our appreciation to Donald A. Williams, Director of the Soil Conservation Service, for the thorough and detailed analysis that has been made and the overall water development and water conservation measures which have been proposed. The construction of the contemplated works and putting into effect of the land treatment measures called for will do much to bolster the sagging economy of Sanpete County and help to stop the migration of the people to other areas for employment.

We are not unmindful of the opposition to the project advanced by certain groups in Carbon County. However, the record discloses that when the water users in Carbon County were seeking to obtain Federal assistance to rebuild the Scofield Reservoir before the Gooseberry Reservoir was built, oral and written commitments were made to Sanpete water users and to the Federal Government which should now be honored and upheld. Furthermore, the proposed project will divert less water from the Gooseberry watershed into Sanpete Valley than was previously contemplated by the Bureau of Reclamation.

We, as water users, think the North Sanpete watershed plan to be very fair and equitable. It will furnish a supplemental water supply to approximately 17,000 acres of No. 1 farmland, together with supplying indirectly additional

water to another 13,000 to 14,000 acres of land. It will provide facilities for recreational activities to attract tourists and will otherwise indirectly benefit the economy of the county—all without adversely affecting any vested water rights in Carbon County.

STATEMENT OF CLIFFORD S. BLACKHAM, REPRESENTING SANPETE COUNTY AND SIX-COUNTY ORGANIZATION

Mr. Chairman and members of the committee, my name is Clifford S. Blackham and I live in Moroni, Sanpete County, Utah. It is a pleasure to appear before you in support of the North Sanpete watershed project which has been planned to assist in the needed development of my county. I am a member of the board of county commissioners, Sanpete County, and have served in this capacity during the past 10 years. Also, I appear before you today as chairman of the Six-County Organization in Utah, which is an organization composed of the 18 county commissioners of 6 central Utah counties. I will present to you at this hearing a resolution from this organization signed by all 18 commissioners urging your approval of the North Sanpete watershed project.

Sanpete County is virtually the geographic center of Utah. It is positioned approximately 100 miles south of Salt Lake City. The valley is from 5 to 20 miles in width and 60 miles long, flanked on the west by the San Pitch Mountains and on the east by the Wasatch Plateau which rises to an impressive altitude of 12,300 feet. The valley terrain is characterized by low rolling hills with a gentle slope from the northwest and northeast to the Sanpitch River which is fed by small streams and springs from the higher altitude.

Sanpete County's history dates from November 1849, when a caravan of 50 families in covered wagons migrated from Salt Lake City to the virgin Sanpete Valley. From this humble beginning Sanpete Valley developed into a substantial agricultural center. Water is the lifeblood of the valley and the main economic controlling factor of our people. In 1940 our population was 16,063, but this number had dwindled to 13,891 by 1950, and to 11,053 by 1960. We believe that our insufficient water supply is the main contributing factor to this discouraging population trend. It becomes necessary for our young people to leave the valley in search of employment because industrial employment is not available to take the place of the agricultural employment we have lost. Many of our people who have moved away to the urban areas constantly express their desires to return to the valley if and when water is available to increase the economic potential of our county.

The Federal Government has recognized in our county a condition of economic distress and has given Sanpete an official ARA designation that we may be eligible for assistance under the Area Redevelopment Act. We are moving along as rapidly as possible under this program in an attempt to strengthen our economy. Our ARA committee is organized and working and have prepared and written the county overall economic development program. Water still remains the chief economic factor and with additional supplies we can by our own strength reverse the trend and move toward better conditions.

When dry years come along, and we do not have average precipitation, we find our storage water to be inadequate. Our economy takes a serious setback such as has been the case in our sugarbeet industry during recent years. Sugarbeet acreage has been curtailed and the sugar factory in the valley has been forced to close which makes 200 additional of our people being unemployed.

Sanpete County sprawls over an area of 1,022,080 acres of which 64 percent or 654,132 acres are included in farms and used as tillable land or pasture. Much of this land is used as grazing land for livestock. Sanpete ranks fourth in the State of Utah in agricultural income, with over \$12.5 million annually in cash receipts from the sale of agricultural products; ranks first in turkey production; first in sheep and wool production; fifth in beef production; and eighth in dairy production in the State. We have been proud of our valley and we have worked hard and long to hold the economy intact for ourselves and future generations but the signs of economic deterioration face us and we realize that the key is water. Our location favors agricultural expansion because we are next door neighbors to the urban industrial areas of central and northern Utah where agricultural lands are giving way to housing units, business and industrial firms, superhighways, defense, etc. We envision our valley as a great source of milk supply to the cities of the north if our pastures can be kept green with additional water.

In every possible way our people have resisted the loss of economic status in our agricultural valley. We have realized the importance of placing to the best

beneficial use our present water supplies through every known means of conservation. The records will show that our people have exceeded most all counties in the State in agricultural conservation practices; they have been eager to cooperate with the Soil Conservation Service and the Agricultural Stabilization Committee in their serious attempt to improve their conditions. Your examination of the work plan of the North Sanpete watershed project will indicate to you the thorough planning of the many members of the North Sanpete Watershed Committee in cooperation with various State and Federal agencies in a further effort to improve our present condition.

With the decreasing valuation of property in the county the problem of financial support to cities, schools, and county government becomes greater each year. Costs continue to rise and in the face of reduced valuation, tax levies must be increased placing a greater burden upon those who live in the county. As the population decreases, the increased burden must be carried by fewer and fewer people. It is our sincere feeling that this unfavorable situation can best be improved by the increase in our water supply which will result from the approval of the North Sanpete watershed project.

It is with a full understanding of our serious economic problem in Sanpete County that our sister counties in the Six-County Organization have joined together in passing the following resolution to solicit your approval of the North Sanpete watershed project:

RESOLUTION OF SIX-COUNTY ORGANIZATION

Whereas the counties of central and southern Utah have for many years been and are now organized as a six-county organization for the purpose of promoting and furthering the economic and social development of the area encompassed by said counties, and particularly to work together to promote those activities in which said counties have a common interest and purpose; and

Whereas said counties are familiar with the North Sanpete watershed project, which has been planned under the auspices of the Soil Conservation Service of the U.S. Department of Agriculture, working in cooperation with Sanpete County and the various local organizations therein, with the approval and support of the State of Utah, acting through the Agricultural Department and the Utah Water and Power Board; and

Whereas said project is now before the Public Works Committees of the U.S. House of Representatives and the U.S. Senate for approval, after having been endorsed by the State of Utah, the U.S. Department of Agriculture, and other governmental agencies involved; and

Whereas it appears that said project is economically feasible; that sufficient water is available to justify the proposed development; and that the people of Sanpete County are legally and morally entitled to have said project fully completed: Now, therefore, be it

Resolved, That said Six-County Organization wholeheartedly endorse and approve said North Sanpete watershed project, and earnestly urge and solicit the approval of said project by the Public Works Committees of the U.S. Senate and the U.S. House of Representatives, to the end that Federal funds will be made available for participation in the development of and the construction of the works therein provided for: be it further

Resolved, That the counties comprising said Six-County Organization execute this resolution, by and through their respective commissioners, and that copies of the same be mailed to the chairman of the respective committees concerned with the approval thereof, and the members of the subcommittees designated to hear the matter.

Dated this 27th day of July 1962.

Allan Ball, R. E. Gardner, Earl Galloway, Commissioners, Juan County; Archie P. Christenson, Frank A. Lyman, Howard G. Nielson, Commissioners, Millard County; Bratt Seegmiller, Ted W. Jolley, Guett B. Greer, Commissioners, Piute County; A. Eugene Jensen, Clifford S. Blackham, Keith Hansen, Commissioners, Sanpete County; Kendrick Harward, Blaine C. Curtis, Virge N. Brown, Commissioners, Sevier County; Vance Taylor, Carlyle Baker, Worth Sorenson, Commissioners, Wayne County.

It has been a pleasure to appear before you in behalf of the people in Sanpete County, Utah, and we earnestly ask your favorable consideration of the North Sanpete watershed project. I thank you for this privilege.

CLIFFORD S. BLACKHAM,
Sanpete County Commission, Manti, Utah.

STATEMENT OF KEITH S. HANSEN, REPRESENTING SANPETE COUNTY AND THE SANPETE WATER USERS ASSOCIATION

I am Keith S. Hansen. I reside at Fairview, Utah. I was born and raised in Sanpete County and am now a county commissioner, president of the Sanpete Water Users Association, and chairman of the North Sanpete Watershed Committee.

Sanpete County has been declared a depressed area and is in need of help to boost its employment and improve its economic condition. The North Sanpete watershed project, which covers approximately 204,000 acres in the north end of the county, will help to stimulate the economy of the entire county area. We have lost one-third of our population in the last 20 years. Last January our unemployment was 21 percent.

Our livelihood is mainly agriculture, so that we need this watershed project to help make our agriculture economy more stable. We are likewise very interested in attracting some industrial business to the area, which cannot be done without a more firm water supply. To date we have very little water storage for the area, so that our farmers, as well as our various communities and small industrial users, must depend upon a very irregular and uncertain water supply governed principally by the streamflows, which are greatly reduced in the late summer months.

This project will provide storage facilities for irrigation which will furnish a supplemental water supply to our lands already under cultivation. It will not bring additional acreage into production. It will also provide for the development of such recreational facilities as public fisheries, boating, camping, hunting. There are other important possibilities such as skiing, resorts, lodges, et cetera, which will attract tourists into our area.

Other aspects of the project will convert our wet bottom lands to duck, geese, and other bird habitat; and 4,300 acres of rangeland will be renovated for multiple use, mainly livestock and big game. In fact, the Utah State Fish and Game Commission is participating in the project and will contribute about \$200,000 to the construction of the reservoir and water storage facilities.

It is planned that the farmers and irrigation companies will apply conservation improvements that will conserve our water supplies and soils so that the fullest value can be obtained from our water. The farmers in our county realize the importance of conserving water. In the last few years they have lined 300,000 feet of canals. They have built many ponds and leveled many acres of land and put forth a lot of effort and work to conserve the water we already have. The economy in our county is one of the lowest of the counties in Utah, and yet application of conservation measures ranks among the highest.

The work plan of the North Sanpete watershed project was prepared by the Sanpete County Soil Conservation District, Sanpete County Water Conservancy District, Sanpete County, Fairview City, Mount Pleasant City, Spring City, Moroni City, and the Utah State Department of Fish and Game. Technical and other assistance was provided by the Soil Conservation Service, Forest Service, and the State and county offices of the Agricultural Stabilization and Conservation Committee of the U.S. Department of Agriculture; the Bureau of Land Management; the Bureau of Reclamation, and the Geological Survey of the U.S. Department of the Interior; the Bureau of Public Roads of the U.S. Department of Commerce; the Utah Water & Power Board; the Utah State Land Board; the Utah State Board of Forestry and Fire Control; the Utah Cooperative Extension Service; the Sanpete Water Users Association (a corporation), and 26 local irrigation companies.

The work plan has been audited and screened by all necessary State agencies, the U.S. Department of Agriculture, and the Bureau of the Budget. Both State and Federal agencies have also heard, in private conference and by public hearing, the arguments presented by our opposition, and thereafter have approved the project. In behalf of Sanpete County, the Sanpete County Water Users Association, Inc., and the North Sanpete Watershed Committee, I ask your approval for this very much needed project. I think the work plan is well conceived and the material therein reliable and correct. It is one of the most economical projects planned by the SCS in Utah, with a benefit-cost ratio of 2.7 to 1.

We have men here today who can answer and explain questions about water supply, water rights, or any other technical or legal matter concerning this project; but I would like to draw to your attention just one reason why I think

you, representing the U.S. Government, should give your final approval to this project so that Federal funds will be made available to assist the local organizations in putting the work plan into effect. Our opposition is attempting to repudiate an honorable and moral obligation to Sanpete County which has been protected by the Bureau of Reclamation through a valid contract between the U.S. Government, the Carbon Water Conservancy District, and the Price River Water Conservation District, with Sanpete as a third party beneficiary. This agreement is known as the tripartite contract agreement. It specifies and provides for the building of two reservoirs, the Scofield and the Gooseberry. It guarantees existing rights in Carbon County and provides additional water for Sanpete from the unappropriated supply through extra storage in the Scofield Reservoir and construction of the Gooseberry Reservoir. Although this is only a part of the North Sanpete watershed project, our opponents are here today to resist the entire work plan.

Just last week an article about this hearing today was published in one of our State newspapers which said that certain people were coming here today to protest this project because they say only 3 years out of 16 is water available for this project, and just last year they filed an application with the Utah State engineer to build a reservoir in approximately the same place where we are going to build the Gooseberry Dam. This move was obviously made to take advantage of our water filings if we fail to construct our reservoir.

In summary:

1. This project is a sound, economically feasible project.
2. There is water available for this project and the water in question, which by the way originates in Sanpete County, is held under legal and valid filings by the Sanpete Water Users Association.
3. Recognizing the importance of conserving water, Sanpete people have in the last few years lined 300,000 feet of canals to their farms and are trying to use all available water in a more economical and beneficial way.
4. The Sanpete water users cooperated in good faith with Carbon County and the Government in the rebuilding of Scofield Reservoir before the Gooseberry project, which latter project was protected by the tripartite agreement.
5. No prior valid and existing water rights in Carbon County will be jeopardized by the North Sanpete watershed project.
6. We have the endorsement and support of our local people, irrigation companies, cities, counties, State organizations and agencies, the U.S. Department of Agriculture, and the approval of the Bureau of the Budget for this project.
7. Our county has been declared a depressed area; and we need this project to help our local economy.
8. We appreciate the support we have received from all State and Federal agencies in the past, and I earnestly urge you to give your approval to this project.

MARCH 22, 1962.

Mr. CARL H. SCHWARTZ, Jr.,
Chief, Resources and Civil Works Division, Bureau of Budget, Executive Office Building, Washington, D.C.

DEAR MR. SCHWARTZ: At your request, through Assistant Secretary of Agriculture Welch (letter dated February 9, 1962), and under date of February 20, 1962, I submitted to you a statement relative to the water supply and the water rights for the North Sanpete (Public Law 566) watershed project. Apparently no action has yet been taken on this matter.

As I pointed out in my letter that I am not only personally acquainted with this proposed project and have made, beginning in 1923, many studies of the areas, water supplies and water rights involved over the past 40 years, but I have had the official State agencies responsible for the development and administration of the water resources of this State make thorough studies of the physical factors and legal rights involving the waters of the Price River. I have examined Mr. Monson's report and find it totally erroneous, and his conclusions not based on fact. His assumption of prior rights in the amount of 400 cubic feet per second is completely in error.

Briefly the facts are:

1. Rights to the waters of the Price River which are prior to application 9593 (North San Pete watershed project) are as follows (Morse decrees of 1902 and 1910) :

	<i>Cubic feet per second</i>
Decreed rights.....	87.445
Stipulated rights (1961).....	80.000
Carbon Canal application No. 1036.....	77.000
Total, March 1 to November 30.....	244.445
1911—Wellington Canal.....	20.000
Total.....	264.445

NOTE.—These are rights to the natural flow and must be satisfied before any water can be stored. Mr. Monson claims 400 cubic feet per second.

Water rights during the nonirrigation season and high-water periods (periods when flow of river is greater than 244,145 cubic feet per second) :

1. Application No. 1035, Price River Water Users Association. Priority 1906. Amount 12,020 acre-feet.

2. Application No. 9593. North San Pete watershed project. Priority 1924. Amount, 150,000 acre-feet.

3. Application No. 8989-a. Price Water Conservancy District. Priority 1937. Amount, 17,980 acre-feet.

Based on these facts, the water supply studies show that during 12 out of the past 16 years, water would have been available for the satisfaction of application No. 9593 without holdover storage as follows :

Year	Acre-feet	Total flow at Narrows site	Year	Acre-feet	Total flow at Narrows site
1946.....	5,000	6,312	1954.....	0	5,094
1947.....	15,000	8,166	1955.....	6,000	5,664
1948.....	4,000	5,544	1956.....	15,000	6,564
1949.....	15,000	9,690	1957.....	15,000	11,112
1950.....	15,000	7,002	1958.....	15,000	10,170
1951.....	15,000	7,782	1959.....	0	4,404
1952.....	15,000	17,712	1960.....	0	5,340
1953.....	3,000	7,320	1961.....	0	3,228

The Scofield Reservoir was built to a capacity of 65,000 acre-feet (refer to the triparty agreement, U.S. Bureau of Reclamation) for the express purpose of providing for holdover storage for diversion to Sanpete water users under application No. 9593. Such holdover storage will provide for diversions under application No. 9593 nearly every year.

Our State engineer, W. D. Criddle, submitted his comments on this matter several months ago and I'm sure they are a part of your file. The decision of the State engineer regarding the water rights, has been affirmed by the District court and the Utah State Supreme Court. Furthermore, the water rights for this project, among other things, were covered in a solemn agreement (triparty agreement) made by and between the U.S. Bureau of Reclamation and interested parties on the Price River. Under this agreement excess, or compensatory storage, was provided in Scofield Reservoir to offset effects of diversions from the headwaters of the Price River to the north Sanpete area.

It is disturbing to find that the Department of the Interior at this time, after nearly 40 years of investigations, suggests further water supply studies. The existing and valid tripartite agreement, to which the Bureau of Reclamation was a party, covering the construction of the Scofield Reservoir, and the project reports provided by the Bureau of Reclamation, showed an ample water supply for a diversion larger than now contemplated. An independent study by the Utah Water & Power Board staff shows adequate water to meet all beneficial needs and rights of the Price River people as well as to supply the needs of the proposed North Sanpete project. In this matter, the studies of the U.S. Department of Agriculture are further evidence. To suggest at this time and date, after such thorough and unbiased examinations, that further studies are re-

quired seems but a delaying tactic on the part of opponents to this project by means of which they hope to void a solemn obligation and violate a valid right.

Regarding the potential of underground water development, I think the North Sanpete project work plan speaks for itself in indicating the development of approximately 4,000 acre-feet annually of water from underground sources. From those competent in the field, it has been concluded that this is the maximum practical development.

Regarding the question of a development plan of the State of Utah, I should like to point out that the Utah Water & Power Board is a legally constituted agency of the State of Utah for consideration of such matters. The board has a wide distribution in representation. It has been created purposely to give stability and valuable balance in making decisions of this kind.

In conclusion, I should like to point out to you that this project has experienced many delays. The matter of water supply and water rights has been adequately studied. The decision as to the desirability of this project from the overall development of the State of Utah has been rendered by official responsible and competent agencies. Thus, it would seem that when you have made your decision as to the financial feasibility of this project from the standpoint of Federal investment, your obligation and your concern should end. I sincerely urge your further and immediate consideration and approval of this project.

Yours sincerely,

GEORGE D. CLYDE, *Governor.*

STATEMENT OF GRANT JOHANSEN, DISTRICT SUPERVISOR, REPRESENTING SANPETE COUNTY SOIL CONSERVATION DISTRICT

Mr. Chairman and members of the subcommittee, my name is Grant Johansen, of Mount Pleasant, Sanpete County, Utah. I appear before you to represent the Sanpete County Soil Conservation District, and the people in the district, in support of the North Sanpete watershed project. The soil conservation district is one of the local sponsoring organizations and signators of the watershed work plan agreement.

I can assure you that the Sanpete County Soil Conservation District is prepared to carry out its responsibilities for installation as stipulated in the watershed work plan.

Working for many years, as president of the local cattlemen's association, and as soil conservation district supervisor, with many of the 1,363 farm families now living in Sanpete County, I know of their problems, the main one being the lack of sufficient water to mature their crops and maintain their pastures. These farmers have worked long and hard to offset this water deficiency by carrying out many conservation practices.

The opponents of this watershed project have questioned the ability of the people of Sanpete County to pay for this project, but I am sure from past experience with these people that they will meet their financial obligations. Let me call to your attention some facts to substantiate this statement.

I served as mayor of Mount Pleasant City during the time the Pleasant Creek "pilot" watershed project was planned and completed (1953-59). During the planning and construction period of only 5 years these local sponsors met their obligations on this \$556,684 project, while at the same time carrying out other conservation practices averaging well over \$60,000 annually.

With the cost-benefit ratio on the North Sanpete watershed project being 2.7 to 1, the local people have confidence they can finance their part. I testify to you these people know how to cooperate. Although the watershed area of the plan encompasses the north end of the county, the entire county, and extended area involving other counties to the north and west are wholly behind it.

The Sanpete County Soil Conservation District has a planned program relative to equipment and working relationship with the farmers and 26 irrigation companies to implement the conservation phases of this watershed project.

In conclusion, let me say that these are honest, hard-working people. They are good farmers, anxious to participate in our national conservation efforts. They believe, as have all the official State and National organizations and agencies thus far, including the Utah State Association of Soil Conservation Districts, that the North Sanpete watershed project is legally, morally, and economically right and sound. They are not trained in power politics or lobbying, but place

their faith in you and the democratic processes, with the hope that political proceedings will not defeat this worthwhile project.

I sincerely thank you for the opportunity to appear before you in behalf of the North Sanpete watershed project.

OSCAR W. McCONKIE, JR., SALT LAKE CITY, UTAH, COUNTY ATTORNEY, SUMMIT COUNTY, UTAH

1. Political history

The legal history of this matter is discussed in detail elsewhere in these proceedings. By brief reference only your attention is drawn to the political history here involved. This seems appropriate inasmuch as all judicial bodies concerned have adjudicated in favor of the proposals of this watershed project. In 1953-54, both great political parties and substantially all of the people of Utah united in petitioning the Congress of the United States to enact legislation establishing the vital reclamation program known as the upper Colorado River storage projects. One of the participating units in this matter was the Gooseberry project in the instant North Sanpete watershed work plan. Carbon County, Utah, initially sponsored this participating project in concert with the rest of the State.

Later, some Carbon County interests reversed themselves and opposed this portion of the overall planning. The Gooseberry project was withdrawn as a participating project rather than jeopardize the passage of the entire program. As late as March 27, 1955, the Price River Water Conservancy District, including some of the gentlemen here in opposition, Mr. William Maring and Mr. William J. Welsh, Jr., wrote to the Utah Water & Power Board: "We have no objection to the construction of the Gooseberry Dam provided the Sanpete interests stand on their own water rights and filings."

It was given an honorable mention position by being reserved for further study and given a first priority. This priority remains.

2. Delicate intrastate division

This is an election year. With some leaders of one county of the State opposed to the Gooseberry project as detrimental to the future development of their area it is understandable that the Utah delegation in Washington is in a delicate position.

I am authorized by a member of the Utah congressional delegation to state that where a conflict has developed between their constituents it behooves them, in these preliminary proceedings, not to act the part of an advocate. Their failure to appear here as advocates should not be construed nor interpreted as taking a position in this matter.

3. Governmental agencies support Gooseberry project

Other governmental agencies have been left to encourage the enactment of this reclamation, industrial, agricultural, and recreational program. The Governor of Utah, in written testimony herein, represents the State of Utah. The Utah Water and Power Board, in written and oral testimony herein, represents an official and governmental capacity herein. The Soil Conservation Service, representative of the U.S. Agriculture Department, is here on record in like manner.

These official governmental agencies of the State of Utah and said Federal agencies concerned petition for this project.

Mr. WELSH. Mr. Chairman, I would like to defer my statement. For the record, my name is William Welsh. I am the mayor of Price, Utah. I would request that you hear first Mr. E. J. Skeen, and then Mr. Win Templeton, and then give the balance of our delegation an opportunity to submit their statements for the record.

Mr. SMITH. Thank you, Mr. Welsh. We will follow that procedure and I would like the witnesses to understand the hearing will be concluded at 10 minutes after 12.

STATEMENT OF E. J. SKEEN, ATTORNEY AT LAW, SALT LAKE CITY, UTAH—Resumed

Mr. SKEEN. Mr. Chairman and members of the committee, my name is E. J. Skeen. I am an attorney and I am representing all of the water users in Carbon County who get water from the Price River.

I might say that I have personally known of this project, which until recently has been known as the old Gooseberry project, approximately 30 years, and I would like to make the position of the Carbon County interests clear. They do not oppose any part of the project that has to do with canal lining and farm efficiency improvement and so on. The only thing they oppose is the matter of the transmountain diversion from the headwaters of the Price River to the Sanpete Valley.

This is not something new. It has been going on for years and years. We have had litigation for some time and it is still not settled, it is still pending, as I have said earlier.

It has been my experience in the water development business that when a water project is planned the planners first have to find out how much water there is in the proposed source and what the rights are against the water that will be available. For some reason that is entirely incomprehensible to me, that policy has not been followed with respect to this project.

I have attached to my statement, which I will file, a letter from the Assistant Secretary of Agriculture which stated the Department had not gone into the matter of water rights. It was shocking to think it would get this far without a study of existing water rights on the stream.

I will very much shorten my statement and I would like to dwell briefly on the matter of water rights and introduce some documentary evidence on it.

In 1902 the district court of Carbon County made a decree which we know locally as the Morse decree, which set out all the existing water rights on the Price River as of 1902. That decree, which I would like to offer in evidence at this hearing, contains a provision with respect to the storage of water on Gooseberry Creek, the very site of this reservoir. I would like, if you would bear with me, to read a brief statement from that decree which I think is very pertinent and which is the source of considerable litigation on the stream. It is controversial, but this is what the decree says:

It is further ordered, adjudged, and decreed, that the Mammoth Reservoir Co. has the right to store and use in its reservoir system, all the waters of Gooseberry Creek, including Cabin Hollow Creek, its tributary, the said creeks being tributary to Price River, subject to the right however of the other parties to this action to 1,600 acre-feet of water from said sources each year.

That decree has never been challenged and it awards to the Mammoth Reservoir Co. all the water involved in this project. For some reason or other, that has been blithely ignored by the project planners.

I do not propose to argue the technical water rights questions we have in this hearing. It is not the last. We feel strongly that we should settle our local troubles before a project of this kind comes to Congress and we propose to do it and are doing it.

Mr. Nielsen in his statement has inferred that the Supreme Court has concluded this matter. As I explained a little earlier, the hearing

before the Supreme Court was on an extension of time on one application. It did not involve all the water rights from the source. So I say the matter of water rights is in litigation and we ask that any approval be withheld until the water rights question is determined.

The water on the Price River side is the lifeblood for thousands of farmers. They are represented here today, and we would not be here if it were not a fact that if this hole is punched through the mountain and our water is taken away it will deprive people who have had water in the past of water they have to have.

We submit that certainly there should be no hasty decision permitting the building of a large reservoir at the headwaters of this stream which may fill very seldom if the earlier rights are protected, as I think they will be, by the courts.

Mr. Nielsen made a statement that the Carbon County people have confessed that there is unappropriated water there by filing an application of their own. That same statement was made in Utah before the Utah Water and Power Board and one of the engineers in the State engineer's office made a comment on it that I think explains the whole business. Mr. Higginson, from the State engineer's office, made this statement, referring to a statement made by one of the lawyers:

He has always represented to our office, just as Mr. Litizzette has stated today, that those filings were made for the benefit of those particular years, as Mr. Litizzette has said perhaps 3 years in 16, when there might be some excess water.

They were not made with the idea of confessing that there is an ample supply of water.

With those remarks I would like to call attention to a chart which sets out the water rights on Gooseberry Creek.

The first priority right is the Mammoth Reservoir right set out in the Morse decree.

The second priority is application 1035 owned by the Price River Water Users' Association, which is the 12,200 acre-feet right.

And the third priority right is the Sanpete Water Users Association right.

It is our position that if the court sustains any of these rights, as the third right in priority, we contend there will be no water whatever to take over the mountain into Sanpete County, and if this project goes through it will be building a monument on the mountain which will remain dry.

We submit the project should be disapproved.

Mr. SMITH. Thank you, Mr. Skeen.

(The following statement and document were submitted by Mr. Skeen for the record:)

STATEMENT OF E. J. SKEEN

My name is E. J. Skeen. I am an attorney at law residing in Salt Lake City. The major part of my practice over the past 32 years has been in the field of water and land development. For 10 years of that time I was an attorney for the U.S. Bureau of Reclamation engaged in handling water right matters.

The North Sanpete watershed work plan includes as its principal feature a proposal to construct a 17,500 acre-foot reservoir on the headwaters of Gooseberry Creek, a tributary of the Price River, and to take the stored water out of the watershed into Sanpete County by means of a tunnel. The water will be used for irrigation and other incidental purposes. Other features of the project include land treatment measures for improvement of irrigation on-farm efficiencies, wildlife habitat development, and measures for soil and water conservation.

This statement opposing the transmountain diversion feature of the project is submitted in behalf of all users of water of the Price River and its tributaries in Carbon County, and is directed to questions of water rights for the proposed project and the applicable Utah water law. The facts upon which my legal opinions are based have been collected and analyzed by skilled engineers who have had many years of experience with water development projects.

In the arid Western States water storage projects can be safely undertaken only if there is an effective water right for the project. Such projects must be constructed under State law and the water right for the project must be acquired and administered under the State water law. The Utah law is comprehensive in scope, and specific in detail covering such subjects as procedures for acquisition of water rights, administration and distribution of water, and adjudication of water rights. The fundamental principle is "that first in time is first in right." The first appropriator on a stream or other source has a first priority, and is entitled to have his water right satisfied in full before water is available for the next priority. Water rights are property rights which are protected by law, and are afforded the same sanctity as rights in land.

When a water project, such as the North Sanpete project, is planned, it is absolutely essential for the planners to study prior water rights in the proposed source of supply and to determine whether there is enough water left over to divert or store for the project under study. If so, and the project is physically and financially feasible, it can properly be constructed.

Despite the obvious necessity of making a careful study of water rights, the Soil Conservation Service has left that detail to the sponsor and the State. There is no discussion of water rights in the report. As far as we have been able to learn, the Department of Agriculture attorneys have not looked into the matter, and do not intend to evaluate the fragmentary information which has been gathered. See a letter from Assistant Secretary of Agriculture, Frank J. Welch, dated February 14, 1962, a copy of which is attached and marked "Exhibit 1."

In Utah the records of water rights can be found in court decrees and in the State engineer's office. Let us examine the records on Gooseberry Creek, the direct source of supply for the North Sanpete project. We find the following:

GOOSEBERRY CREEK

First priority, 1902, Mammoth Reservoir right set out in the decree, dated December 18, 1902, in the case of *The Tidwell Canal Co. v. The Pioneer Ditch Company, No. 1, et al.*, referred to herein as the "Morse Decree."

Second priority, 1906, application 1035 owned by Price River Water Users' Association for 12,020 acre-feet.

Third priority, 1924, application 9593 owned by Sanpete Water Users' Association.

The decree of the district court of Carbon County in the *Tidwell* case awards to the Mammoth Reservoir Co. all of the water of Gooseberry Creek, including Cabin Hollow Creek, except 1,600 acre-feet to be released annually down the Price River. The language of the decree is as follows:

"It is further ordered, adjudged, and decreed that the Mammoth Reservoir Co., has the right to store and use in its reservoir system all the waters of Gooseberry Creek including Cabin Hollow Creek, its tributary, the said creek being tributary to the Price River, subject to the right, however, of the other parties of this action to 1,600 acre-feet of water from said sources each year, which shall be distributed to said parties, after being discharged by said company from said reservoir in such quantities and at such times as may be determined by the water commissioner or other officer provided by this decree to regulate and distribute the waters involved in this action."

The decree has not been modified with respect to this water right and although it has been on the books for 60 years, its validity has not been attacked. There is a long record of transfers of the right, the last transfer being in 1956. It is now owned by the Carbon Canal Co. A summary of the transfers is attached and marked "Exhibit 2." This water right which covers all of the water in Gooseberry Creek has been completely ignored by the Department of Agriculture and by the sponsors of the North Sanpete project. The validity of the Mammoth Reservoir right is strictly a question for the court. We believe the water right is in good standing, and if so, it is clear that there will be no water for the North Sanpete project.

If we assume only for the sake of discussion that the Mammoth Irrigation Co. water right is not valid, we must examine the water rights on the Price River, to which Gooseberry Creek is tributary.

PRICE RIVER

First priority, 1902, water rights included in the Morse decree and supplements, all owned in Carbon County aggregating 117.4 second-feet. A tabulation of the water rights set out in the Morse decree is attached hereto and marked "Exhibit 3."

Second priority, 1906, application 1036 for 125 second-feet for irrigation use, and 25 second-feet for winter stock watering, owned by Carbon Canal Co.

Third priority, 1906, application 1035 for 12,020 acre-feet of storage water owned by Price River Water Users' Association.

Fourth priority, 1911, Wellington Canal Co., 20 second-feet.

Fifth priority, 1924, application 9593 for 15,000 acre-feet owned by Sanpete Water Users' Association.

Sixth priority, 1924, application 9594 filed minutes after application 9593 is for 90,000 acre-feet of water and is owned by the United States.

The matter of determining prior demands upon the waters of Gooseberry Creek is not simple. It cannot be accomplished by tabulating the prior water rights, adding up the quantities of water appropriated and subtracting the result from the quantity of water produced in a given year. Aside from the legal questions as to the nature and extent of prior rights the problem is complicated by such facts as the erratic nature of the streamflows, inflows below storage sites and various diversion points, return flows to the river after irrigation and other uses, irrigation and other demands in relation to availability of flows, and the quality of floodwaters which occur in the river above the measuring points.

The sponsors of the North Sanpete project rely upon a contract dated in 1943 and known as the tripartite contract. The parties to the agreement are the United States, acting by and through the Secretary of the Interior, the Carbon Water Conservancy District, and the Price River Water Conservation District. The agreement provides in general for an exchange of storage water in Scofield Reservoir for the right to use all of the water of Gooseberry Creek for the benefit of a proposed project named in the document as the "Gooseberry Plan." It was assumed by the parties to the agreement that sufficient water would be available for storage in Scofield to release for satisfaction of the prior rights. The statement of engineer Win Templeton supported by U.S. Geological Survey flow records will show that the assumption was erroneous. The owners of substantially all of such prior rights were not made parties to the agreement and, we contend, are not bound thereby. This question is presently before the district court of Carbon County for decision. The case was set for hearing on July 2, 1962, and was continued to September 12, 1962, because of the failure of the representative of Sanpete County interests to appear at the hearing. The determination of this legal question by the court in favor of Sanpete's position should be one of several conditions precedent to authorization of the North Sanpete project.

A suit for adjudication of all water rights on the Price River is pending in the district court of Carbon County, and engineering and legal studies are being made. These will be submitted to the court. The court will tabulate and determine the nature and extent of all water rights on the Price River and its tributaries. When this suit is concluded, the prior demands on the water supply at the Gooseberry Creek Reservoir site can readily be determined. The Carbon County water users sincerely believe that the adjudication will settle water right questions in their favor, and that it will effectually demonstrate that water cannot be transported out of the watershed without seriously impairing vested Carbon County water rights.

It has been frequently stated by the sponsors of the North Sanpete project that the water right for the project has been approved by the Supreme Court of Utah. This statement is erroneous. Under Utah water law after an application has been approved by the State engineer, it is the duty of the engineer to fix the time for making proof of construction of the necessary project works and application to beneficial use, and upon proper showing of diligence or reasonable cause for delay, to extend the time. Application 9593 was approved on February 11, 1939, and the time was extended from time to time until March 11, 1958. The Carbon County interests protested further extensions of time. The State

engineer granted an extension over the protest and the decision was appealed to the courts. The State engineer's ruling was sustained by the district court and by the Supreme court. The supreme court did not pass upon questions of priority or adequacy of application 9593. There has been no court decision determining these questions.

The North Sanpete project plan includes diversions of water from Cabin Hollow Creek and Brooks Creek, tributaries of Gooseberry Creek below the proposed dam-site on Gooseberry Creek. The water would be conveyed by feeder canals from the two creeks first mentioned to the reservoir. Application 9593, which evidences the only water right relied upon by the sponsors of the project, designates Gooseberry Creek as the only water source. The sponsors have no water right on either Cabin Hollow Creek or Brooks Creek.

The sponsors of the North Sanpete project are frantically exerting pressure to have the project authorized and constructed before the important questions of prior water demands can be fully examined and determined. This "pressure approach" is not the proper method of solving this complex and important water right problem.

Our conclusions after a careful study of existing water rights are—

1. The Mammoth Reservoir right covers all of the water of Gooseberry Creek except 1,600 acre-feet which must be released down the Price River.
2. The right is decreed and has never been challenged.
3. Its validity can be determined only by a court of competent jurisdiction.
4. If the Mammoth right should be declared invalid, the next water right in priority is application 1035 for 12,020 acre-feet which is more than the average-annual yield of Gooseberry Creek.
5. The sponsors of the North Sanpete project have no water rights on either Cabin Hollow Creek or Brooks Creek.
6. The North Sanpete project should not be approved without settling the vital questions outlined above.

DEPARTMENT OF AGRICULTURE,
Washington, D.C., February 14, 1962.

HON. WILLIAM J. WELSH, JR.,
*Mayor of Price,
Price, Utah.*

DEAR MAYOR WELSH: In reply to your letter of January 24, 1962, we are furnishing information concerning the position of this Department with respect to the question of water rights that you have raised in connection with the proposed North Sanpete watershed project.

In our opinion, the letter of November 29, 1961, from the Governor of Utah to the Administrator of the Soil Conservation Service approving the watershed work plan for the North Sanpete watershed, Utah, and setting forth certain views of the Utah Water & Power Board expressed in its resolution of November 17, 1961, in regard to the project, adequately meets the requirements of the Watershed Protection and Flood Prevention Act relating to the responsibilities of the concerned local organizations for the acquisition of the needed water rights. In view of this, it is not believed that the Federal act places on this Department the responsibility of investigating the sufficiency from a legal standpoint of the basic water right acquired under State law on which the local organizations will rely in connection with the development of this project. The general counsel of this Department has not issued a formal legal opinion pertaining to the question referred to herein.

We appreciated the opportunity of meeting with you and your associates during your recent visit and hope you understand the position of this Department in connection with its assistance to the North Sanpete interests in helping them develop a project to meet their needs.

Sincerely yours,

FRANK J. WELCH, *Assistant Secretary.*

CHRONOLOGY OF EVENTS—MAMMOTH RESERVOIR RIGHT

December 18, 1902—Water right for all of the flow of Gooseberry Creek including Cabin Hollow Creek and its tributaries, subject to right of lower users to 1,600 acre-feet, decreed to Mammoth Reservoir Co. and subsequently deeded to Irrigated Lands Co., and Price River Irrigation Co.

June 24, 1917—Mammoth Reservoir failed.

July 10, 1919—Sheriff's deed conveying Mammoth Reservoir right to State of Utah (applications 1035 and 1036 also described in the deed).

September 29, 1919—Deed from State of Utah to Carbon Water Land & Power Co. covering Mammoth Reservoir right (also describes applications Nos. 1035 and 1036).

September 15, 1926—Scofield Reservoir (old reservoir) completed.

September 29, 1932—Sheriff's deed to State of Utah describing Mammoth right (also application 1036).

June 16, 1937—Agreement between State of Utah and Price River Water Conservation District conveying all water rights acquired in foreclosure proceedings and application 1036. This was authorized by laws of Utah, 1937, c. 156.

October 2, 1944—Lease for 99 years between the Price River Water Conservation District and members of the Carbon Control Committee of the Carbon Canal covering all water rights and reservoir rights acquired by the State by foreclosure proceedings, and application 1036.

December 1, 1948—Assignment of 99-year lease by Carbon Control Committee to Carbon Canal Co.

March 14, 1956—Deed from Price River Water Conservation District to Carbon Canal Co. covering the Mammoth Reservoir right.

MORSE DECREE, 1902

Class	Irrigation, number of acres	C.f.s.	Indus- trial c.f.s.	Stor- age, acre- feet	Total c.f.s.
1st.....	6,815.62	113.427	1.994	-----	115.421
2d.....	1,058.00	17.633	.700	-----	18.333
3d.....	7.00	.116	.240	-----	.356
4th.....	7.00	.116	.240	-----	.356
5th.....	22.00	.367	0	-----	.367
6th.....	6.00	.100	0	-----	.100
7th.....	6.00	.100	2.280	-----	2.380
Total*.....	7,921.62	131.859	5.454	-----	137.313
Kyune Creek (Price River Irrigation Co.).....				1,950	-----
Gooseberry Creek "(Mammoth Reservoir Co. shall have the right to store and use in its reservoir system all the waters of Gooseberry Creek including Cabin Hollow Creek, its tributary, the said creek being tributary to the Price River, subject to the right, however, of the other parties of this action to 1,600 acre-feet of water from said sources each year, which shall be distributed to said parties after being discharged by said company from said reservoir, in such quantities and at such times as may be determined by the water commission)".....				1,600	-----
Keller decree, July 1961.....					32.000
Total.....					169.313
*Land withdrawn from irrigation reduces decreed flow.....					49.868
Total decreed flow rights, 1962.....					119.445

IN THE DISTRICT COURT OF THE SEVENTH JUDICIAL DISTRICT COURT OF THE STATE OF UTAH, IN AND FOR CARBON COUNTY, UTAH

The Tidwell Canal Co., a Corporation, et al., Plaintiffs, v. The Pioneer Ditch Company, No. 1, et al., Defendants

DECREE

This cause came on for hearing on the fifteenth day of December, A.D. 1902, before Judge C. W. Morse, acting by request of Judge Jacob Johnson, the judge of said court, upon the complaint of the plaintiffs and the answers of the several defendants, and the complaints and answers in intervention, John B. Milner, Esq., appearing for the Farnham Ditch Company, a corporation, and Albert E. McMullen, for himself and the inhabitants of the town of Wellington, and J. W. N. Whitecotton and Charles DeMoisey, Esq's, appearing for the Tidwell Canal Co., a corporation, the Wellington Canal Co., a corporation, the Allred Ditch Co., a corporation, the Pioneer Ditch Co., No. 2, a corporation, and Price Water Co., a corporation, and W. D. Livingston, Esq., appearing for Robert A. Powell, Robert

W. Powell, S. C. Powell, John T. Rowley, C. H. Cook, James Gourley, David Gorley, George Smith, Ray Cook, T. H. Auphund, E. D. Fulmer, James Nielsen, Mary J. Tollon, H. J. Stowell, William Miller, J. C. H. Sonberg, Hiram Bellows, Idona Fuller, Emily Perkins, Norah Miller, F. M. Ewell, John Keim, James Hansen, John Bryner, Thomas Rhoades, Matt Plautz, E. T. Jones, J. H. Vanatta, Brig Hamilton, Charles Lind, James Bessetto, James Bryner, Spring Glen Canal Company, a corporation, Mammoth Reservoir Company, a corporation; and Messrs W. D. Livingston, and Willon & Smith, appearing for R. G. Miller and Wesley Gentry; and Messrs. Wilson & Smith appearing for R. G. Miller, Joseph Castle, D. W. Holdaway, Robert McKechney, Jr., Jessie B. Burrows, W. L. Burrows, David C. Burrows, W. C. Burrows, J. J. Houston, James Christensen, Peter Christensen, Amasa Morley, John E. Inglis, O. G. Kimball, John L. Price, Harriet Lloyd Wilson, Admrx of the Estate of John X. Lloyd, deceased, Isaih Llewellyn, Thomas Llewellyn, Mattie Noakes, whose true name is Martha A. Noakes, J. W. Metcalf, Anthon W. Madsen, Neils M. Madsen, Frank D. Kimball, John Eccles, S. J. Harkness, T. H. Thomas, Andrew Smith, O. G. Kimball and Frank Kimball, jointly, Union Pacific Coal & Coke Company, a corporation, William H. Gardner and B. R. Taylor, jointly, John E. Inglis, Trustee for the Members of the Church of Jesus Christ of Latter Day Saints, residing in Scofield Ecclesiastical Ward, J. J. Craner; and Thomas C. Hanford, Esq., and M. P. Breffet, Esq., appearing for Oren E. A. Elmer, and Thomas C. Hanford, Esq., appearing for Charles H. McKindrick; and M. P. Braffet Esq., S. R. Thurman, Esq., appearing for the Pleasant Valley Coal Company, a corporation; and Samuel R. Thurman, Esq., appearing for the Rio Grande Western Railway Company, a corporation, and M. P. Braffet and W. D. Livingston Esq's appearing for John F. Keim, for his individual claim; and J. W. Warf, Esq., appearing for the Pioneer Ditch Company, No. 1, a corporation Sidse Rhoades, William Morgan, Linda Morgan, Price Reservoir & Irrigation Company, a corporation, Albert Grames, Charles Grames, John Crocket, and Alfred Grames, jointly, Joseph Vacher, Lee Vacher, and Charles Vacher, jointly; and L. O. Hoffman, Esq., appearing for Robert A. Snyder, Daniel Morgan, Joseph Tidwell, Ann Thomas, Jacob Kofford, Joseph Sheya, Henry Bryner and J. Tom Fitch; and A. Saxey, Esq., and Samuel R. Thurman Esq., appearing for Henry Gardiner, Niel Gardner, Serenus Gardner, Sylvester Bradford, Theodore Dedrickson, Pleasant Bradford, P. J. Bradford, Charles Bradford, and George Hansen.

The default of the following-named parties who were duly served having been entered, to wit, Lehi Jessen, Jed Raby, Sid Raby, John Doe Raby, J. Rolando, Dominic Oberto, William Featherstone, Hiram Wilcox, George Green, William Potter, J. J. Hoge, James McCune, Mary Doe Goldberg, W. H. Tidwell, Bert Brich, George Perkins, Price Trading Company, a corporation.

Whereupon it was stipulated that the testimony taken at the former hearing of this cause before the Honorable Jacob Johnson, Judge, be admitted and considered as evidence by the court, and divers stipulations by all the parties in said cause were duly filed, and made in open court, as to what the testimony would be of said parties respecting their several rights in and to the waters of said Price River and its tributaries; and it was finally stipulated in open court that said stipulations as to the testimony of the parties in said cause should be made the basis of a decree of this court determining the rights of said parties and all of them; and that said decree be made and entered in accordance with the pleasings and all of the stipulations made in said cause.

Whereupon the cause was by all of said parties submitted for the decision of the court, findings of fact and conclusions of law having been expressly waived by all the parties.

Wherefore in accordance with said stipulations, testimony and proofs submitted it is ordered, adjudged, and decreed.

That all the waters of the said Price River and its tributaries are hereby awarded to and distributed among the following names classes and persons, to wit:

First Class

The Farnham Ditch Company through the Farnham Ditch, sufficient water to irrigate 340 acres.

Robert A. Snyder, through the Snyder ditch, sufficient water to irrigate 90 acres.

Daniel Morgan, through the Snyder ditch, sufficient to irrigate 20 acres.

Tidwell Canal Company, through the Tidwell Canal sufficient water to irrigate 616 acres.

The Allred Ditch Company, through the Allred ditch, sufficient water to irrigate 500 acres.

The Pioneer Ditch Company No. 2, through Pioneer ditch No. 2 sufficient water to irrigate 319 acres.

The Price Water Company, through Price Water Company canal, sufficient water to irrigate 617.5.

The Pioneer Ditch Company No. 1, through Pioneer ditch No. 1, sufficient water to irrigate 485 acres.

Sidse Rhoades through Pioneer ditch No. 1, sufficient water to irrigate 80 acres.

Linda Morgan, through Pioneer ditch No. 1, sufficient water to irrigate 20 acres.

William Morgan, through Pioneer ditch No. 1, sufficient water to irrigate 15 acres.

S. C. Powell, through Pioneer ditch No. 1, sufficient water to irrigate 6 acres.

Robert W. Powell, through Pioneer ditch No. 1, sufficient water to irrigate 6 acres.

Robert W. Powell, through Pioneer ditch No. 1, sufficient water to irrigate 70 acres, and in addition one-tenth of a second-foot of water.

Henry Bryner, through the Hill ditch, sufficient water to irrigate 12 acres.

John T. Rowley, through Cook-Gourley ditch, sufficient water to irrigate 17 acres.

C. H. Cook, through Cook-Gourley ditch, sufficient water to irrigate 12 acres.

James Gourley, through Cook-Gourley ditch, sufficient water to irrigate 17 acres.

George Smith, through Cook-Gourley ditch, sufficient water to irrigate 20 acres.

David Gourley, through Cook-Gourley ditch, sufficient water to irrigate 14 acres.

C. H. Cook, through Cook ditch, sufficient water to irrigate 10 acres.

John T. Rowley, through Simmons ditch, sufficient water to irrigate 30 acres.

C. H. Cook, through Simmons ditch, sufficient water to irrigate 3 acres.

John T. Rowley, through Little or Stowell ditch, sufficient water to irrigate 20 acres.

E. D. Fulmer, through Little or Stowell ditch, sufficient water to irrigate 2 acres.

James Nielson, through Little or Stowell ditch, sufficient water to irrigate 2 acres.

H. J. Stowell, through Little or Stowell ditch, sufficient water to irrigate 30 acres.

William Miller, through Little or Stowell ditch, sufficient water to irrigate 3 acres.

J. C. H. Sonberg, through Little or Stowell ditch, sufficient water to irrigate 1 acre.

Ray Cook, through Little or Stowell ditch, sufficient water to irrigate 2 acres.

T. H. Auphund, through Little or Stowell ditch, sufficient water to irrigate 3 acres.

Mary J. Tollan, through Little or Stowell ditch, sufficient water to irrigate 15 acres.

E. D. Fulmer, through the Gay ditch, sufficient water to irrigate 35 acres.

James Nielson, through the Gay ditch, sufficient water to irrigate 20 acres.

J. C. H. Sonberg, through the Gay ditch, sufficient water to irrigate 3 acres.

Hiram Bellows, through the Gay ditch, sufficient water to irrigate 10 acres.

Idona Thompson, through the Gay ditch, sufficient water to irrigate 9 acres.

Emily Perkins, through the Gay ditch, sufficient water to irrigate 7 acres.

Norah Miller, through the Gay ditch, sufficient water to irrigate 8 acres.

Spring Glen Canal Company, through Spring Glen Canal, sufficient water to irrigate 309 acres.

Rio Grande Western Railway Company, through Spring Glen Canal, sufficient water to irrigate 40 acres.

J. T. Fitch, through the Spring Glen Canal, sufficient water to irrigate 17 acres.

J. T. Fitch, through Pratt East ditch, sufficient water to irrigate 20 acres.

Rio Grande Western Railway Company, through Pratt East ditch, sufficient water to irrigate 5 acres.

F. M. Ewell, through Pratt-Ewell ditch, sufficient water to irrigate 40 acres.

J. F. Keim, through Pratt-Ewell ditch, sufficient water to irrigate 20 acres.

J. T. Fitch, through Pratt-Ewell ditch, sufficient water to irrigate 7 acres.

James Hansen and Hyrum Hansen, through Bryner-Hansen ditch, sufficient water to irrigate 30 acres.

John Bruner, through Bryner-Hansen ditch, sufficient water to irrigate 33 acres.

Thomas Rhodes, through Bryner-Hansen ditch, sufficient water to irrigate 18 acres.

Matt Plautz, through Bryner-Hansen ditch, sufficient water to irrigate 5 acres.

E. T. Jones, through Bryner-Hansen ditch, sufficient water to irrigate 13 acres.

J. H. Van Natta, through Bryner-Hansen ditch, sufficient water to irrigate 12 acres.

Charles Lind and J. B. Bessetta (jointly) sufficient water to irrigate 8 acres through the Lind ditch.

John J. Craner, from Spring Creek, sufficient water to irrigate 100 acres.

James Houston, from Tabyune Creek, sufficient water to irrigate 48 acres.

The following-named parties, sufficient water from Fish Creek and its tributaries, to irrigate land as follows, to wit:

	<i>Acres</i>
O. G. Kimball and F. G. Kimball (jointly)-----	50
J. E. Inglis-----	40
O. G. Kimball-----	30
Joseph Castle-----	25
D. W. Holdaway-----	50
Robert McKechney, Jr-----	100
Jesse B. Burrows-----	80
W. L. Burrows-----	75. 233
David C. Burrows-----	80
William C. Burrows-----	80. 233
James Christensen, Peter Christensen, and Amisa Morely (jointly)-----	80
Thomas Llewellyn-----	50
Isiash Llewellyn-----	74
John L. Price-----	80
Harriet Lloyd Wilson, as administratrix, estate of John X. Lloyd, deceased-----	30
Reuben G. Miller-----	147
Martja A. Noakes-----	80
Antone W. Madsen and Niel M. Madsen (jointly), 60 acres of which is subject to 63 acres of F. D. Kimball and to 15 acres of Andrew Smith-----	383
Frank D. Kimball-----	373
Andrew Smith-----	15
John Eccles-----	70
Union Pacific Coal Co-----	7. 160
John E. Inglis, as trustee for the Church of Jesus Christ of Latter Day Saints, Scofield Ward-----	1. 486
S. J. Harkness-----	110
T. H. Thomas-----	25

The following-named parties sufficient water from Gordon Creek, to irrigate land as follows, to wit:

	<i>Acres</i>
Ann Thomas-----	115
Jacob Kofford-----	40
Charles H. McKindrick-----	50
Albert Grames-----	20
Joseph Sheya-----	9
Joseph Vacher, Lee Vacher, and Charles Vacher-----	85
John Crocket and Alfred Grames-----	2

R. G. Miller, from Trail Canon Fork, sufficient water to irrigate 10 acres.

R. G. Miller, from Bob Wright Fork, sufficient water to irrigate 63 acres.

R. G. Miller, from First Water Fork, sufficient water to irrigate 20 acres.

R. G. Miller, from First Corner North Fork, sufficient water to irrigate 10 acres.

R. G. Miller, from Mud Water Fork, sufficient water to irrigate 10 acres.

Pleasant Valley Coal Company, for mechanical, mine, agricultural, and culinary uses in Carbon County. 994 of a second-foot water continuous flow, from Price River and tributaries.

The Rio Grande Western Railway Company, for mechanical, railway, and culinary uses in Carbon County, 1 second-foot of water, continuous flow from Price River and tributaries.

Second Class

- Daniel Morgan, through Snyder ditch, sufficient water to irrigate 5 acres.
 Joseph Tidwell, through Snyder ditch, sufficient water to irrigate 25 acres.
 Tidwell Canal Company, through the Tidwell canal, sufficient water to irrigate 120 acres.
 Wellington Canal Company, through the Wellington Canal, sufficient water to irrigate 650 acres.
 Ann Thomas, through Hill ditch, sufficient water to irrigate 20 acres.
 Mary J. Tollan, through Little or Stowell ditch, sufficient water to irrigate 7 acres.
 Charles Lind and James Sassetto, through Lind ditch, sufficient water to irrigate 2 acres.
 Oren E. A. Elmer, from Spring Creek, sufficient water to irrigate 7 acres.
 Oren E. A. Elmer, from Price River, sufficient water to irrigate 18 acres.
 J. W. Metcalf, from Fish Creek and tributaries, sufficient water to irrigate 75 acres.
 R. G. Miller, from Fish creek and tributaries, sufficient water to irrigate 25 acres.
 Pleasant Valley Coal Company, for mechanical mine, agricultural, and culinary use, two-tenths of a second-foot of water in Carbon County, continuous flow from Price River and its tributaries.
 Rio Grande Western Railway Company, for mechanical, railway, and culinary uses, one-half second-foot of water, continuous flow, from Price River and its tributaries.
 Jacob Kofford from Gordon Creek, sufficient water to irrigate 5 acres.
 Sheya, Joseph, from Gordon Creek, sufficient water to irrigate 9 acres.
 Charles Grames, from Gordon Creek, sufficient water to irrigate 20 acres.
 R. G. Miller, from Bob Wright Fork, Gordon Creek, sufficient water to irrigate 10 acres.
 R. G. Miller, from Corner Canon Fork, Gordon Creek, sufficient water to irrigate 30 acres.
 Wesley Gentry, from Corner Canon Fork, Gordon Creek, sufficient water to irrigate 30 acres.

Third Class

- David Gourley, through Cook-Gourley ditch, sufficient water to irrigate 4 acres.
 Rio Grande Western Railway Company, from Price River and its tributaries, $\frac{2}{100}$ of a second-foot of water, continuous flow.

Fourth Class

- E. T. Jones, through Bryner-Hansen ditch, sufficient water to irrigate 7 acres.
 Rio Grande Western Railway Company, from Price River and its tributaries, $\frac{2}{100}$ of a second-foot of water, continuous flow.

Fifth Class

- John Bryner, through Bryner-Hansen ditch, sufficient water to irrigate 7 acres.
 James Bryner, through Bryner-Hansen ditch, sufficient water to irrigate 18 acres.

Sixth Class

- T. H. Auphand, through Little or Stowell ditch, sufficient water to irrigate 6 acres.

Seventh Class

- Ray Cook, through Little or Stowell ditch, sufficient water to irrigate 6 acres.
 Pleasant Valley Coal Company, for mechanical, mine, agricultural, and culinary uses in Carbon County, $\frac{228}{1000}$ of a second-foot of water, continuous flow, from Price River and its tributaries.

The classes and parties entitled to water hereinbefore named are only entitled to the same in the order above set forth, and none of said classes or parties therein named are entitled to any of said waters until all of the preceding classes and parties herein named have been supplied with water to which they are entitled as above set forth; and whenever the waters distributed to any one class are insufficient to supply all of the parties in said class with the water to which they are entitled, then said waters shall be distributed to said parties pro rata according to their respective rights as above set forth.

It is further ordered, adjudged, and decreed, that the Mammoth Reservoir Company has the right to store and use in its reservoir system, all the waters of Gooseberry Creek, including Cabin Hollow Creek, its tributary, the said creeks being tributary to Price River, subject to the right however of the other parties to this action to 1,600 acre-feet of water from said sources each year, which shall be distributed by said parties, after being distributed by said company from said reservoir in such quantities and at such times as may be determined by the water commissioner, or other officer provided by this decree to regulate and distribute the waters involved in this action.

It is further ordered, adjudged, and decreed that Henry Gardner, Neil Gardner, Serenus Gardiner, Sylvester Bradford, Theodore Dereickssen, Pleasant Bradford, P. J. Bradford, Charles Bradford, and George Hansen, jointly, known as the White River Irrigation Company, have the primary right to the use of all the water of the upper or left-hand fork of White River, a tributary of Price River, during the irrigation season of each year up to and including June 15th, provided that after June 15 of each year said water shall be turned into the channel of said Price River for the use of the other defendants herein during the remainder of the irrigating season, according to their respective rights under this decree, and provided further that in any year when by reason of any extension of the high water period beyond June 15, there shall be water more than sufficient for the supply of the parties hereto according to their rights as herein set forth, then the said White River Irrigation Company shall be entitled also to the surplus of said tributary during the time such excess shall exist.

It is further ordered, adjudged, and decreed, that the Price Reservoir and Irrigation Company have the right to store 1,950 acre-feet of the waters of Kyune creek, a tributary of said Price River, for reservoir and irrigation purposes and for the propagation of fish.

It is further ordered, adjudged, and decreed, that T. H. Thomas has the right to have one-tenth of a second-foot of water flow through his fish pond from Winter Quarters creek for the maintenance of such a pond, provided the same after flowing through said pond and supplying the same is discharged into said creek for the benefit of the other parties to this action.

It is further ordered, adjudged, and decreed, that Oren E. A. Elmer has the right to have one-half second-foot of water flow through his fish pond, from below the second dam of J. J. Carner above said fish pond of the waters of Spring Creek, a tributary of Price River, for the maintenance of said pond, providing the same after flowing through said pond and supplying the same is discharged into said creek for the benefit of the other parties to this action.

It is further ordered, adjudged, and decreed, that the Rio Grande Western Railway Company has the right to maintain its reservoir near Colton for the purpose of making ice from certain springs which have hitherto supplied the same, same springs being tributary to Price river, provided that after the ice has been removed therefrom in each and every year, the water in said reservoir during the irrigation season shall be turned into said Price River, for the use of the other parties hereto at such times and under such regulations as may be determined by the water commissioner or other officer charged with the duty of regulating and distributing the waters involved in this action, provided further that nothing in this decree shall be construed to prevent said company from discharging the whole of said into Price River whenever it may be necessary to clean out or repair said reservoir in order to render it safe and secure or suitable for making ice.

It is further ordered, adjudged, and decreed, that the Union Pacific Coal Company, for the purpose of supplying water for the culinary uses of its tenants at Scofield, has the right to a continuous flow of one-tenth of a second foot of the waters of Mud Creek, a tributary of Price River, provided that whatever portion of said water is not consumed for such purpose shall be permitted to flow back into the channel of said Mud creek.

It is further ordered, adjudged, and decreed, that William H. Gardner and David R. Taylor are entitled to the use of all the waters from Beaver Dam spring on George A. creek, a tributary of Price River.

It is further ordered, adjudged, and decreed, that for the purposes of this cause the irrigation season shall commence on the first day of March and end on the thirtieth day of November of each and every year, and the distribution of the waters involved in this action as provided herein for irrigation purposes, applies only to said irrigation season as herein defined.

It is further ordered, adjudged, and decreed, that the duty of water per acre for the lands irrigated by the parties to this action during the irrigation season of 1903 shall be one second-foot of water for each sixty-five acres of land, except as hereinafter provided. That a water commissioner for said year 1903 shall hereafter be appointed by order of the Court whose compensation shall be fixed in such and his duty shall be to measure and determine from time to time the quantity of water flowing in said river, its tributaries, and in the ditches diverting water therefrom, and distribute said water equitable among the persons entitled thereto under this decree, using the said duty of water as a basis of said distribution during said year, provided that if said commissioner upon careful inquiry and observation shall find that said duty of water is too high or too low for any specific parcel or parcels of land he may in his discretion decrease or increase said quantity of water so as to sufficiently irrigate said parcel or parcels of land, provided the quantity of water in said river and its tributaries is sufficient to enable him to do so without injury to other parties equally entitled thereto. Said commissioner shall perform any duty or duties respecting the control, measurement, regulation, and distribution of said waters as may be required by the court from time to time for the said year 1903, and shall be reported as often as may be required by the court his proceedings in the discharge of his said duties, and render to the court full information concerning the same as the court may from time to time require. Said commissioner shall have such assistance in the discharge of his said duties, and as may be ordered and directed by the court. It is further decreed that as to the permanent duty of water, and the regulations, distribution, and management of the same, after the year 1903, this decree is not final, and the court may after the close of the irrigation season of 1903 hear further testimony relating to the duty of water, and to the control, regulation, and distribution of the same, and upon those matters only, and may enter final decree thereon, and for said purpose only jurisdiction of said cause is hereby retained. It is further decreed that the said commissioner appointed by this court as above stated shall give a good and sufficient bond for the faithful performance of his duties in such sum as the court may determine to be sufficient, to be approved by the court.

It is further ordered, adjudged, and decreed, that the costs of court, service of process, and the transcribing of testimony in this cause shall be paid by the parties hereto in proportion to their interests in said water as provided in this decree; and the compensation, costs, and expenses of said commissioner in the discharge of his duties as herein defined, shall be paid by the parties hereto pro rata according to their interests in the waters distributed by this decree, and at such times as may be hereafter ordered by the court.

Done in open court this Eighteenth day of December, A.D. 1902.

(Signed) C. W. MORSE, *Judge*.

IN THE DISTRICT COURT, SEVENTH JUDICIAL DISTRICT, STATE OF UTAH, IN AND FOR
THE COUNTY OF CARBON

The Tidwell Canal Company, Corporation, plaintiff v. The Pioneer Ditch Company
No. 1, et al., defendants

SUPPLEMENTAL DECREE

In accordance with the foregoing findings of fact and conclusions of law, it is ordered, adjudged, and decreed, as supplemental to the original decree in this action—

I. That all of the parties to this action were given and received due and legal notice of the time and place of the hearing upon which this supplemental decree is based.

II. That the future permanent duty of the waters of the Price River and its tributaries involved in this action for the lands mentioned in the original decree in this action, and owned by the parties to this action and their successors in interest and irrigated thereby, is hereby fixed and determined to be one cubic foot per second for each sixty acres thereof, and the original decree in this action is hereby modified accordingly.

III. That, as between themselves and without prejudice to the rights of the other parties to this action or their successors in interest, the following-named parties and their successors in interest, to wit:

Frank Jerome, Robert A. Powell, Sr., S. C. Powell, S. C. Harmon, Leonard Piro, successor in interest of Robert W. Powell, A. Elegant, successor in interest of James Hansen, Hiram Hansen, Enoch Bryner and Alma Bryner successors in interest of John Bryner, Lorona Donato successor in interest to Matt Plantz, Charles Carrera, successor, in interest to Thomas Rhoades, E. T. Jones, Henry Van Natta and others heirs of J. V. Van Natta, deceased, Paul Pesetto successor in interest to Charles Lund and John Passetto, James Bryner, Price Realty Company successor in interest to Sidse Rhoades and Jacob Kofford, Robery Snyder, William H. Tidwell, Successor of Joseph Tidwell and Daniel Morgan, James F. Pace, successor to Ann Thomas, Henry Bryner and J. T. Fitch, Price Water Company, Union Pacific Coal Company, Rio Grande Western Railroad Company, Utah Fuel Company, successor in interest of the Pleasant Valley Coal Company, Pioneer Ditch Company No. 1, S. J. Harkness, J. H. Eccles, O. G. Kimball, Frank Kimball, Isiah Llewellyn, J. W. Metcalf, Joseph Castle, T. H. Thomas, William C. Burrows, W. L. Burrows, Madsen Brothers, R. G. Miller, John L. Price, John E. Inglis, Christensen Brothers and Morley, Andrew Smith, Nettie Noakes, Taylor and Gardner, J. E. Inglis, Trustee, Jesse Burrows, David C. Burrows, D. W. Holdaway, W. H. Donaldson, Thomas Llewellyn, Harried Lody Wilson, J. H. Cramer, Orin Elmer and Neil W. Madsen, Spring Glen Irrigation Company, J. H. Rowley, C. H. Cook, David Gourley, George Smith, E. D. Folmer, James Nielson, H. J. Stohl, William Miller, J. C. H. Sinberg, Ray Cook, T. H. Auphand, Marry J. Tollen, Hiram Bellows, Charles Sanberg, Adone Thompson, Milo Perkins, Norg Miller, F. M. Ewell, J. N. Kline, James Martello, Tidwell Canal Company, Allred Ditch Company, Pioneer Ditch Company No. 2, Price Reservoir and Irrigation Company, Sheckrey Shea and Joseph Sheya successors in interest of Joseph Vetcher, Lee Vetcher, Charles Vetcher, John A. Crockett, Alfred Grames, Albert Grames, Charles Grames, George Smith, Malinda Morgan, George Ryland, successor in interest of William Morgan and N. S. Beilson successor in interest of R. C. Millers interest on Gordon Creek, are, when there is sufficient water flowing in said Price River and its tributaries so to do, entitled to fill their respective canals to their carrying capacity, and when the said waters shall have become reduced so that they are insufficient to so fill said canals, then each of said parties shall be entitled to, and shall have the right to take and have distributed to him or it, through said canals, a pro rata share of the flowing waters of said river and its said tributaries in proportion to the number of acres of land, as stated in the original decree herein to be owned by him or it, and as the waters of said river and tributaries fall, the quantity flowing to each shall be reduced proportionately according to the acreage owned by each, as stated in said decree and when the said waters shall become reduced so that the same shall not be equivalent in quantity to one cubic foot per second for each sixty acres of said lands, then junior rights shall be cut off in the order provided in said decree, and when the said waters shall become reduced to a quantity less than one cubic foot per second for each sixty acres of said land, specified in said decree, to be entitled to a prior right to the use of water then the said waters shall be distributed to the owners of such prior rights in proportion to the number of acres owned by each as specified in said decree.

And it is further ordered, adjudged, and decreed that a water commissioner shall by order of the court be appointed during each irrigation season and the compensation of said commissioner shall be fixed in said order. The duties of said commissioner shall be to measure and determine from time to time the quantity of water flowing in said Price River, its tributaries, and the ditches diverting therefrom, to distribute said water equally among the persons entitled thereto under this decree, using the said duty of water as herein fixed as a basis of said distribution. Said commissioner shall perform any duty or duties respecting the control, measurement, and distribution of said water as may be required by the court from time to time during the irrigation season, and shall report as often as may be required by the court his proceeding in the discharge of his said duties, and render to the court full information concerning the same as the court may from time to time require. Said commissioner shall have such assistants in the discharge of his duties as may be ordered and decreed by the court.

It is further decreed that the said commissioner appointed by this court as above stated shall give a good and sufficient undertaking to be approved by the court for the performance of his duties in such sum as the court may order; the compensation, cost, and expenses of said commissioner in the discharge of his duties shall be paid by the parties hereto pro rata according to

their interest in the water distributed by the decree and at such times as may be hereinafter ordered by the court.

It is further ordered, adjudged, and decreed that at any time should the parties to this action, and their successors in interest agree to dispense with the services of said commissioner and provide and agree upon other means of distribution of the water provided in the decree, the court may revoke the appointment of the commissioner and confirm the means proposed by the parties to this action and their successors in interest for the distribution of the water herein.

It is further ordered that each party shall pay his own cost.

(Signed) C. W. MORSE, *Judge*.

Done in open court this 6th day of May A.D. 1910.

STATE OF UTAH,
County of Carbon, ss:

I, E. S. Horsley, county clerk and ex officio clerk of the seventh judicial district court in and for Carbon County, State of Utah, hereby certify that the foregoing is a full, true, and correct copy of the original decree and order correcting decree in the *Tidwell Canal Co., et al. v. Pioneer Ditch Company No. 1, et al.*, and now on file and of record in my office.

Witness my hand and seal of said district court at my office in Carbon County, this 7th day of August A.D. 1918.

(Signed) E. S. HORSLEY, *Clerk*.

By MARGARET HORSLEY, *Deputy*.

Mr. SMITH. The next witness will be Mr. Win Templeton.

STATEMENT OF WIN TEMPLETON, PRESIDENT, TEMPLETON & LINKE, CONSULTING ENGINEERS, SALT LAKE CITY, UTAH

Mr. TEMPLETON. Mr. Chairman and gentlemen of the committee, my name is Win Templeton. I am the engineer for the Price River Improvement District and at this time am representing other interests in Carbon County.

There is one thing I would like to stress and stress very strongly, that I do not believe has been pointed out, and that is that besides the decree right of 1902, application 1035, certificate 2046, covers the storage of 12,120 acre-feet with the waters originating above Cabin Hollow Creek on Gooseberry Creek. So both the filings under discussion are on Gooseberry Creek above the old Mammoth Reservoir site. Either one of those filings would make the proposed Sanpete diversion totally unfeasible.

There was an application filed in application 1035 which moved the point of diversion down to the Scofield Reservoir, but both the application and the certificate of appropriation, the certification by the State engineer that the water has been appropriated and is being beneficially used, both show that the source of supply is on Gooseberry Creek above Cabin Hollow Creek.

If you go to the U.S. Geological Survey records, the page I have before me shows the total flow at the old Mammoth site, which is just 3 miles below the proposed site, for the past 11 years. The average flow during that period, which also shows the flow at the Narrows Reservoir site, for 1941, 1960, and 1961, the average flow at the Narrows site was 58 percent of the flow at the Mammoth site.

To be entirely on the fair side I have taken 60 percent of the flow at the Mammoth site and find that during the period 1951 to 1961 the actual stream flow at the Narrows site was only 7,672 acre-feet per year over that period.

As Mr. Nielsen stated, there is a decreed flow of 1,600 acre-feet per year from the Mammoth site, and to be perfectly fair I took only 60 percent of that and applied it to the Narrows site and deducted 960 feet to be released to prior rights, leaving physically available at that site only 6,712 acre-feet per year.

In the past 3 years there have only been available at the Narrows site 4,404 acre-feet in 1959; 5,340 acre-feet in 1960; and 3,228 acre-feet in 1961.

So that during the period in question, that 11-year period, we would have had average available at the proposed reservoir site only 7,509 acre-feet physically available, assuming we had no prior rights. Deducting the 960 acre-feet of decreed flow leaves available for this 1951 to 1961 period an average of 6,549 acre-feet.

The report indicates better than a 25-percent reservoir loss, and taking that away that leaves 4,697 acre-feet to divert to the Sanpete water users.

Their report indicates they had better than a 29 percent canal loss, which would amount to 1,362 acre-feet, leaving only 3,335 acre-feet average from 1951 to 1961 to be delivered to the farmers.

The figure I have from the report furnished to us last fall, repayment over a 50-year period without interest, shows an average water users' annual cost for the 11-year period of \$54,012. If you take the average delivery of 3,335 acre-feet, the average cost per acre-foot is \$16.20 per acre-foot to the farmers.

The only Bureau projects I have checked in Utah and studies for similar types of crops, the report of the Bureau of Reclamation on the Gooseberry Project in 1946 showed that these people would only be able to repay \$1.61 per acre-foot.

In 1949 the Weber Basin report in the upper reaches of that county showed the farmer repayment ability to be \$1.55 per acre-foot.

In 1953 the Gooseberry report shows \$1.90 ability to repay.

The 1957 Bureau report on the Vernal unit, in central Utah shows \$1.65 ability to repay.

And the Bureau's report on the Emery County project, 1961, shows the ability to repay to be \$1.81 per acre-foot.

The Bureau's report of 1946 recommended that the project not be constructed at that time as the water supply was not assured and that the ability of the farmer to repay was only a small amount of the total cost of the project.

Mr. Larson, the regional director of the Bureau of Reclamation in Salt Lake City, Utah, addressed a letter to the Utah Water and Power Board in 1957 in which he stated they had found under the 1957 prices that their 1953 report was no longer feasible. And he again raised the question of the availability of water and said they would not go further into the problem until the water rights involved in the two counties had been settled in the courts of law in the State of Utah.

I think I should let Mr. Welch sum up for our side, Mr. Chairman. If there are any questions I would be glad to try to answer them.

MR. SMITH. Thank you. Any questions?

(The following statement was submitted for the record by Mr. Templeton:)

REVIEW OF THE NORTH SANPETE WATERSHED PROJECT, BY WIN TEMPLETON, PRESIDENT, TEMPLETON & LINKE, CONSULTING ENGINEERS, SALT LAKE CITY, UTAH

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REVIEW OF THE NORTH SANPETE WATERSHED PROJECT

The Bureau of Reclamation rendered a report dated November 25, 1946. The report was titled "Gooseberry Project, Utah," and provided for the construction of a reservoir having a capacity of 17,200 acre-feet. It was proposed to divert this water by tunnel through the Wasatch Range from Price River drainage to San Pitch River drainage for the purpose of furnishing supplemental water to farmers in Sanpete County. Paragraph 14 of the regional director's report describes the area to be irrigated as follows:

"Sanpete valley lies in a relatively high elevation ranging from 5,500 to 6,100 feet above sea level and is, therefore, more restricted in the variety of crops grown than most other farming sections in the State. The climate is temperate and semiarid. The frost-free season is short, averaging about 125 days. Precipitation, about one-third of which falls from April to September, averages only 12.5 inches annually, thus making irrigation necessary for successful production of general crops. The mean annual temperature is 47° F. with extreme temperatures of 30° below zero to 110° F. above zero."

The total estimated cost of this project in 1946 was \$2,748,000 and provided for the construction of a dam at the Mammoth Reservoir site.

Under paragraph 21 the report reads in part as follows:

"The part of the estimated construction cost which can probably be repaid by water users in the project area during a 40-year repayment period is estimated at a total of \$660,000 in excess of operation, maintenance, and replacement costs. Repayment ability within the 40-year period prescribed by reclamation laws amounts to about 24 percent. Total repayment by the water users could be increased proportionately by an extension of the repayment period."

The cost of water per acre-foot, assuming that a full supply would be available to the project, amounted to \$1.61 per acre-foot annually. This was determined as the amount that the water users could afford to repay the Government for construction of this project.

Under "Recommendations," the regional director stated:

"I recommend that inasmuch as only a small portion of the project construction costs can be repaid by the water users, and, inasmuch as the project water supply is not assured, development of the potential Gooseberry project not be authorized at the present time."

In January 1953 the Bureau of Reclamation rendered another report on the Gooseberry project, Utah, as a participating project in the Colorado River storage project. Under this report the total project cost is shown as \$5,362,000, with an estimated annual project operation, maintenance, and replacement cost of \$10,300. This report shows Mammoth Reservoir releases to the Sanpete project of 11,700 acre-feet annually and a depletion to the Colorado River flow of 12,500 acre-feet annually. Under this project it was shown that the irrigators were only able to pay \$1,115,000 out of a total project cost of \$5,336,000. This would amount to \$1.90 per acre-foot if the project was able to deliver a full water supply annually, and the project was repaid over a 50-year period without interest.

The Bureau of Reclamation determined that it was not feasible to divert water from Cabin Hollow Creek to Mammoth Reservoir and, therefore, did not include said diversion in their 1953 report.

Under date of September 19, 1957, the regional director of region 4, Bureau of Reclamation, addressed a letter to the Utah Water and Power Board. The second paragraph of this letter reads as follows:

"The cost for the Mammoth plan as presented in the 1953 report, when increased to present-day prices, reduced the benefit-cost ratio for the project to less than unity. Also, under the 1953 plan, a serious question, which we have previously discussed with you, as to water available for the Scofield Reservoir when 11,700 acre-feet of water was diverted from the Price River for the Gooseberry project. This was one of the big objections of the Price people. In studying a revised plan, we were under the necessity of finding a plan which was not only justifiable from an economic standpoint, but which was also in nearer conformity to the estimated water supply relationships of the Gooseberry and Price River interest when the tripartite contract was negotiated."

The regional director by this letter transmitted to the water and power board a summary of a revised Gooseberry project. This called for moving the dam upstream to the Narrows site and proposed a reservoir with a total capacity of 12,500 acre-feet, with an active capacity of 10,000 acre-feet and an average inflow to the reservoir of 7,300 acre-feet per year.

This project was estimated to cost \$2,204,000 and proposed to furnish supplemental water to only 3,360 acres. No allocation of cost to the water users is shown in this project summary. Water availability at the Narrows site was estimated by the U.S. Bureau of Reclamation to be as shown in table I which follows:

Reconnaissance information subject to change—Gooseberry project—Average water supply comparison

[In acre-feet per year]

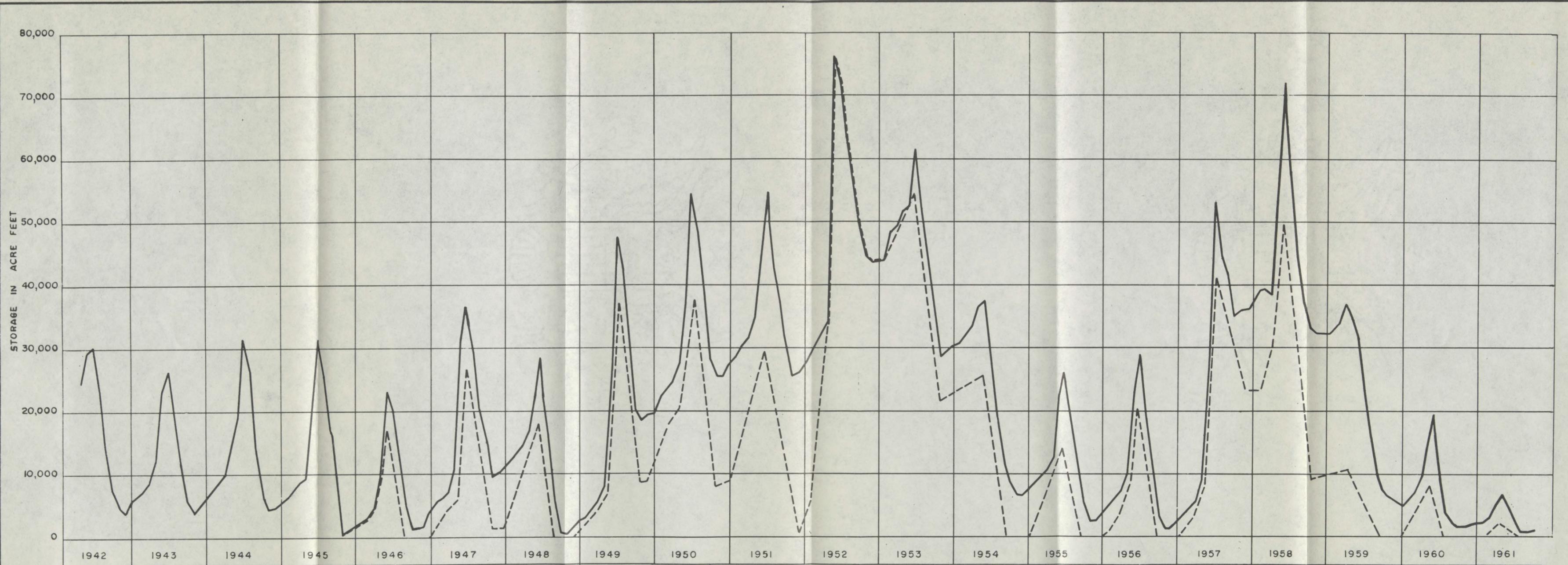
Item, operation study	Mammoth Reservoir plan	Gooseberry Reservoir plan
Gooseberry project reservoir:		
Inflow.....	13,800	7,300
Demand on reservoir.....	12,000	6,700
Project reservoir release.....	11,700	6,300
Shortage to reservoir demand.....percent..	2.5	6.0
Scofield Reservoir:		
Inflow.....	36,100	46,900
Demand at Heiner.....	46,000	46,000
Release from reservoir.....	28,400	30,000
Shortage to Heiner demand.....	2,500	100
Shortage to Heiner demand.....percent..	5.4	0.2
Depletions to Colorado River.....	12,500	6,800

NOTE.—The above table was taken from a summary of a 1957 Gooseberry Reservoir plan transmitted to the Utah Water & Power Board under date of Sept. 19, 1957. The column headed Gooseberry Reservoir plan covers anticipated conditions at the Narrows site proposed to be used under the north Sanpete watershed project.

The watershed work plan for the north Sanpete watershed project, Sanpete County, Utah, was rendered by the Soil Conservation Service in September 1961. This project proposes to construct a dam at the Narrows on Gooseberry Creek and divert water from the Price River drainage to the San Pitch River drainage to supply 23,300 acres of irrigated cropland. The total population of the north Sanpete watershed is shown as 4,196. The total cost of the project is shown at \$6,795,855 or a per capita cost of \$1,619. This report further shows that the majority of the cropland is valued at \$200 to \$225 per acre and that the total expenditure to furnish water and water management to the 23,300 acres will be \$5,001,140 or \$215 per acre.

The total assessed valuation of Sanpete County in 1960 was \$12,492,007. The north Sanpete watershed project has approximately 50 percent of the valuation of the county, therefore, the proposed project cost is equal to the total assessed valuation of the north Sanpete watershed project. The present outstanding bonded indebtedness in this area is approximately \$600,000 or approximately 10 percent of the assessed valuation.

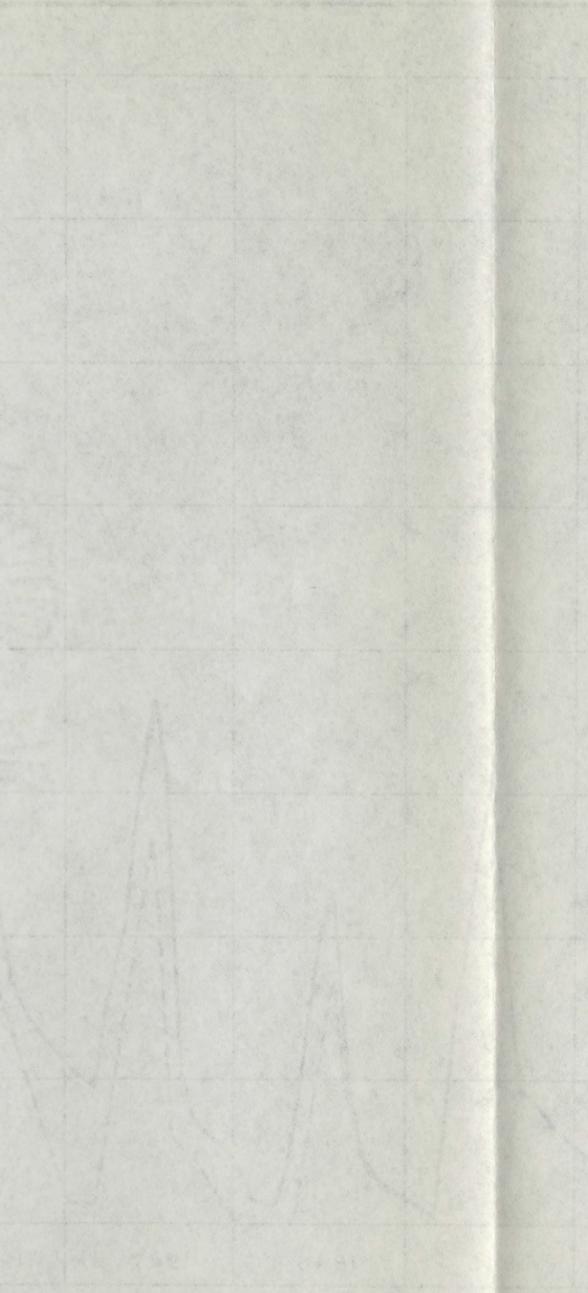
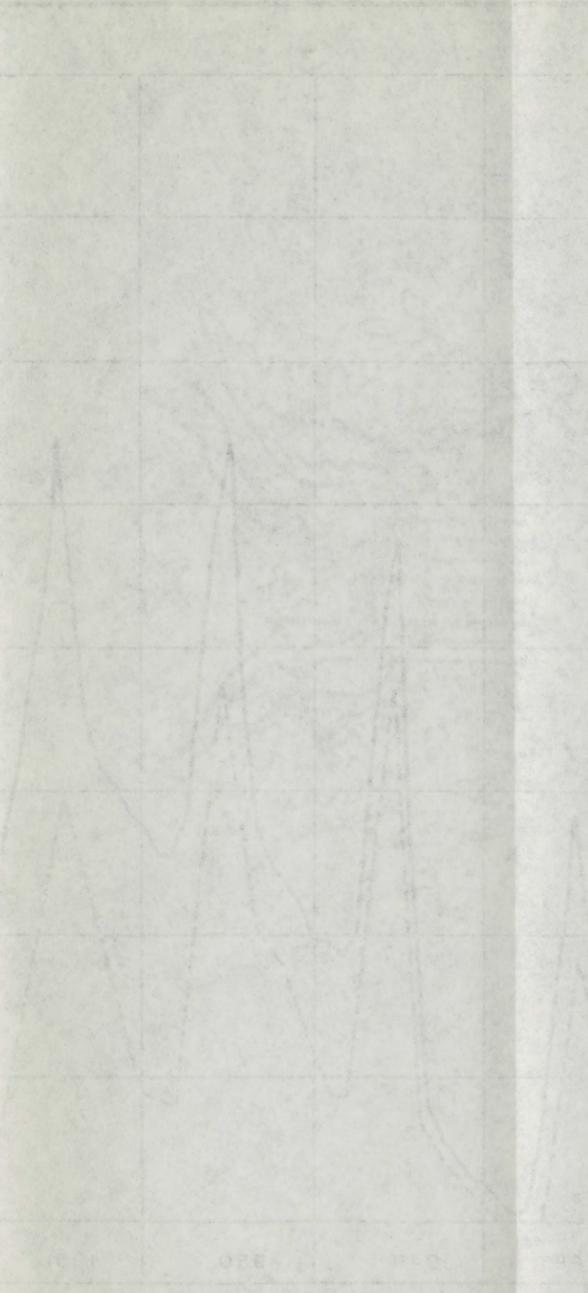
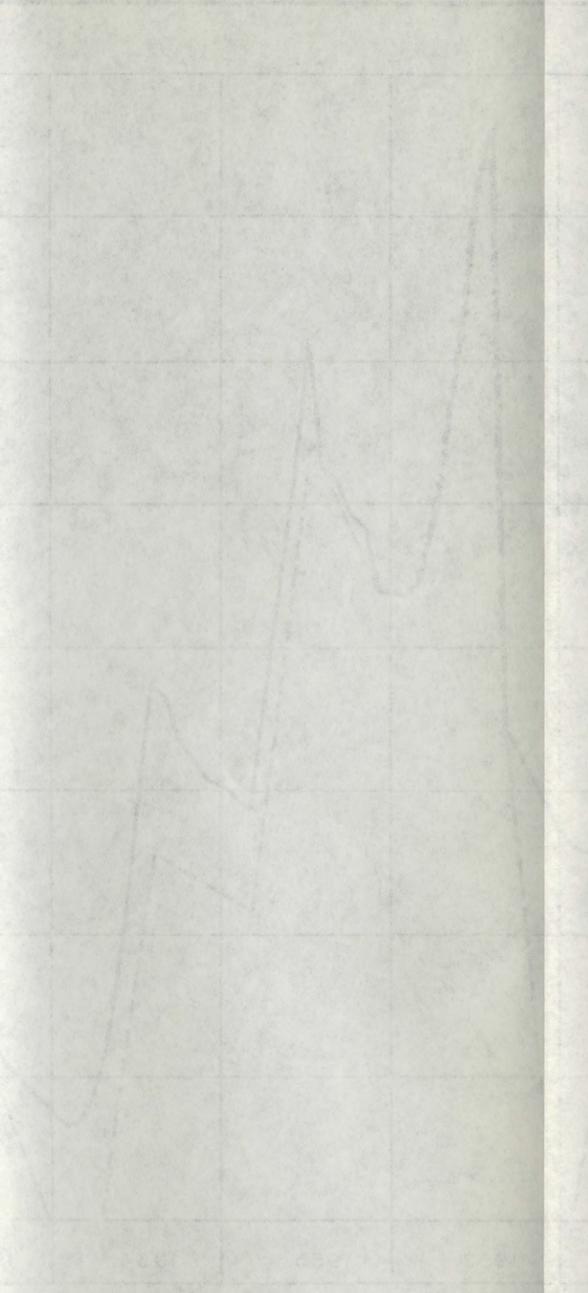
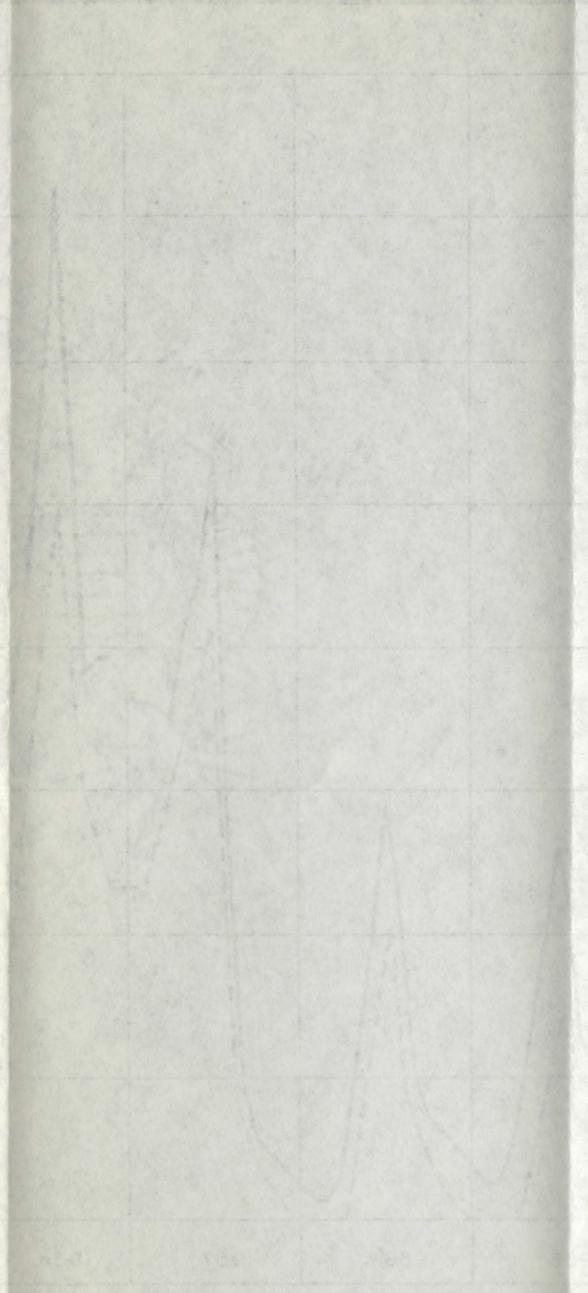
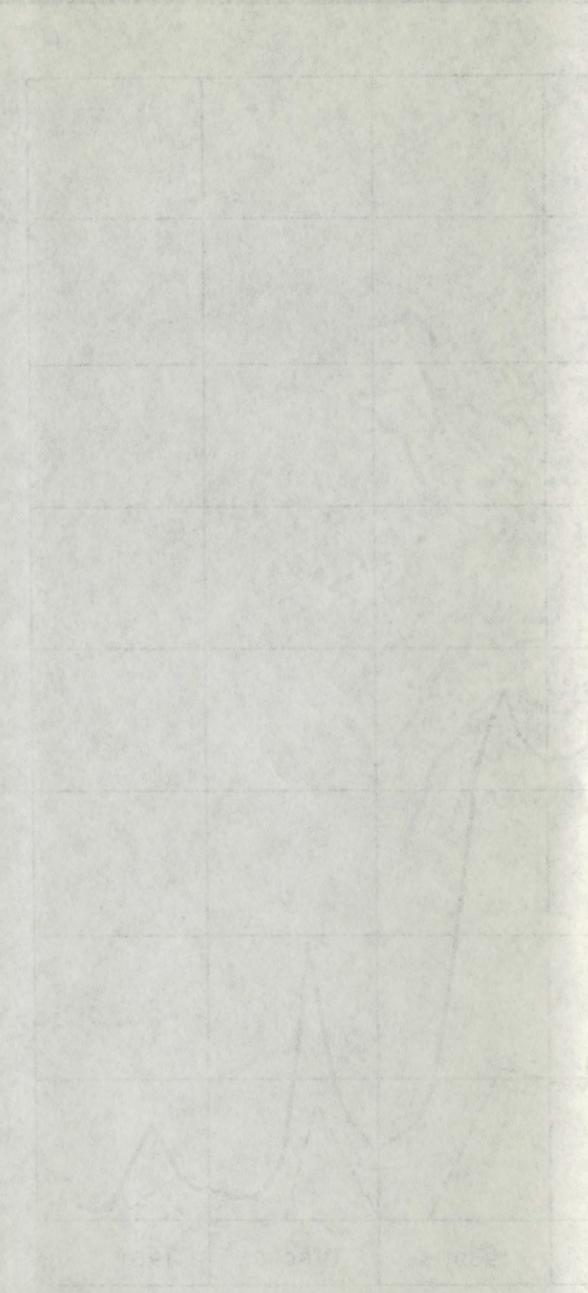
Under this report it is proposed to impound 17,500 acre-feet of which 15,000 acre-feet will be active storage. It is estimated that the average annual im-



SCOFIELD RESERVOIR STORAGE
SCOFIELD RESERVOIR STORAGE IF NORTH SANPETE WATERSHED PROJECT IN OPERATION

SCOFIELD RESERVOIR - CONTENTS IN ACRE FEET

— TAKEN FROM U.S. GEOLOGICAL SURVEY RECORDS
- - - - - ADDED 6/9/62



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poundment will be 12,780 acre-feet, that the average annual project release will be 9,330 acre-feet, and that the average annual farm supply will be 6,560 acre-feet. Of the total \$5,001,140 allocated to agricultural water management costs it is shown that the Government will pay \$2,300,525 and the water users \$2,700,615. In other words, the Government will underwrite approximately 46 percent of the cost and the water users 54 percent of the cost.

This project proposes a dam at the Narrows site with feeder canals from Cabin Hollow Creek and Brooks Creek to convey water from said creeks into the Narrows Reservoir.

The Bureau of Reclamation determined in their 1953 study that it was not feasible to convey water from Cabin Hollow Creek to the Mammoth site and this same finding would be still more applicable to the Narrows site with regard to both Cabin Hollow and Brooks Creeks.

Application 9593 covers diversion of water from Gooseberry Creek at the Narrows site only and does not cover Cabin Hollow and Brooks Creeks.

There is no water available for this project at the Narrows Reservoir site unless the rights under the Morse decree and application 1035 are abrogated.

The following data has been compiled from the north Sanpete watershed report and U.S. Bureau of Reclamation reports and U.S. Geological Survey records.

TABLE II.—*Excerpt from North Sanpete Watershed Report, September 1961*

Page No.	Item	Total
1	Total acres, North Sanpete watershed.....	204, 655
8	Population of watershed area.....	4, 196
1	Total project cost.....	\$6, 795, 855
1	Federal funds.....	2, 853, 105
1	Users balance.....	3, 942, 750
2	Structural measures, cost.....	5, 470, 290
2	Federal cost.....	2, 521, 670
2	Users balance.....	2, 948, 620
3	Irrigated cropland, acres.....	23, 300
3	Net annual return increased from \$450,930 to \$1,032,680.	
9	The majority of cropland is valued \$200 to \$225 per acre.	

COMMENTS ON TABLE II

Total cost per capita, \$1,619. Relationship of increased production as shown to increased net annual return is not realistic nor substantiated.

TABLE III.—*Excerpt from North Sanpete watershed report, September 1961*

Page No.	Item	Amount
99	Storage capacity:	
	Sediment..... acre-feet..	75
	Fish and Wildlife..... do..	2, 425
	Irrigation storage..... do..	15, 000
	Total.....	17, 500
70	Average annual impoundment..... acre-feet..	12, 780
70	Average annual tunnel release..... do..	9, 330
70	Average annual farm supply..... do..	6, 560
64	Area to be supplied Narrows Reservoir water:	
	Service area No. 1..... acres..	9, 430
	Service area No. 2..... do..	7, 870
	Total.....	17, 300
82 and 83	Cropland receiving irrigation system improvements..... acres..	6, 000
	Total acres benefited.....	23, 300
106	Allocation of costs to agricultural water management:	
	Federal costs.....	\$2, 300, 525
	Non-Federal costs.....	2, 700, 615
	Total agricultural water costs.....	5, 001, 140

COMMENTS ON TABLE III

Total capital cost per acre.....	\$214. 00
Water users capital cost per acre.....	116. 00
Total capital cost per acre-foot ¹	762. 00
Water users capital cost per acre-foot ¹	412. 00
Total annual cost at 50 years, no interest ¹	8. 24

¹ Based upon delivery of 6,560 acre-feet per year to farm headgates. However, it is apparent, as shown by table V, that the average delivery would only be 3,335 acre-feet to the farm headgates with a resulting average annual cost of \$16.20 per acre-foot.

TABLE IV.—U.S. Bureau of Reclamation project reports

Year	Project name	Annual cost per acre-foot
1946.....	Gooseberry ¹	\$1. 61
1949.....	Weber Basin ¹	1. 55
1953.....	Gooseberry ¹	1. 90
1957.....	Vernal unit, central Utah ¹	1. 65
1961.....	Emery County project ¹	1. 81
1961.....	North Sanpete watershed project (based on 11-year average delivery).....	16. 20

¹ These above repayment costs were based upon the water users ability to pay for supplemental or full supply of water in areas similar to the North Sanpete watershed. The Gooseberry projects were to serve the same area as the North Sanpete watershed project.

TABLE V.—Gooseberry Creek near Fairview, Narrows Reservoir site, water physically available for storage under application No. 9593, if there were no prior storage rights, or streamflow rights

Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Acre-feet	Acre-feet	Acre-feet	Acre-feet	Acre-feet	Acre-feet	Acre-feet	Acre-feet	Acre-feet	Acre-feet	Annual acre-feet cost	Annual acre-feet cost
1951	7,782	0	7,782	960	6,822	1,960	4,860	4,980	1,444	3,536	\$54,012	\$15.27
1952	17,712	0	15,000	960	14,040	3,791	9,330	9,330	2,706	6,624	54,012	8.15
1953	7,320	919	8,239	960	7,279	1,965	5,314	5,314	1,541	3,773	54,012	14.32
1954	5,094	0	5,094	960	4,134	1,116	3,018	3,018	2,143	875	54,012	25.20
1955	5,664	0	5,664	960	4,704	1,270	3,434	3,434	996	2,438	54,012	22.15
1956	6,564	0	6,564	960	5,604	1,513	4,091	4,091	1,186	2,905	54,012	18.59
1957	11,112	0	11,112	960	10,152	2,741	7,411	7,411	2,149	5,262	54,012	10.26
1958	10,170	0	10,170	960	9,210	2,487	6,723	6,723	1,950	4,773	54,012	11.32
1959	4,404	0	4,404	960	3,444	930	2,514	2,514	729	1,785	54,012	30.26
1960	5,340	0	5,340	960	4,380	1,182	3,198	3,198	927	2,271	54,012	23.78
1961	3,228	0	3,228	960	2,268	1,182	1,086	1,086	480	1,176	54,012	45.93
Total	84,390	919	82,597	10,560	72,037	19,449	51,609	51,609	14,983	36,686	594,132	-----
11-year average	7,672	-----	7,509	960	6,549	1,768	4,697	4,697	1,362	3,335	54,012	16.20

NOTE

Col. 3. Streamflow in acre-feet based upon 60 percent of recorded flow at Mammoth site.
 Measured flow at Narrows site for 1960 and 1961 averaged 60 percent of flow at Mammoth site.
 Col. 4. Active storage available from streamflow and carryover storage.
 Col. 5. 60 percent of release of 1,600 acre-feet annually by Morse decree at Mammoth site.
 Col. 7. Reservoir loss of 27 percent indicated on p. 70 North Sanpete watershed report.
 Col. 9. Canal loss of 29 percent indicated on p. 70 North Sanpete watershed report.
 Col. 11. Based on cost allocation p. 106 of North Sanpete watershed report, 50-year repayment—no interest.
 Col. 12. Based on acre-feet delivered annually divided into annual repayment cost.

The following graph illustrates that if all water claimed under A-9593, originating above the Narrows Dam site, had been diverted to Sanpete County from 1946 to 1961, inclusive, Scofield Reservoir would have emptied 8 years out of the 16-year period.

This demonstrates that the estimates of water supply used as a basis for the tripartite agreement are not in conformity with information now available.

Therefore, the conditions set forth in said agreement cannot be met.

CONCLUSIONS

North Sanpete Watershed Project Report fails to show that the U.S. Government or Sanpete water users have an adequate water right to supply water for said project.

The report does not show that any legal entity is willing to contract or has contracted with the U.S. Government for repayment of any portion of said project.

No showing is made that the water users are able to repay their portion of project costs or what method they would use to finance such repayment.

Review of water rights shows that no water is available to satisfy application 9593 for this project.

Table V shows that water is not physically available at Narrows Reservoir site to meet requirements of project even if the Government or Sanpete water users had a valid water right.

Use of all water produced on the Price River watershed for development of natural resources in Carbon County will produce far greater wealth for the State and Nation than by diverting any portion of this water to Sanpete County.

APPENDICES

SUMMARY OF STORAGE RIGHTS ON GOOSEBERRY CREEK

No. 1: Priority 1902—Morse decree for all the waters of Gooseberry Creek above the Mammoth site and including Cabin Hollow Creek. Except 1,600 acre-feet to be released annually to other users under this decree. This right is now held by Carbon Canal Co.

No. 2: Priority 1906—Application 1035, certificate 2046 for 12,020 acre-feet of water from Gooseberry Creek at the Mammoth site. This right is now held by the Price River Water Users Association.

No. 3: Priority 1924—Application 9593 for 15,000 acre-feet of water on Gooseberry Creek to be stored at the Narrows site. This right is now held by the North Sanpete County interests and is for diversion from the Price River Basin to the San Pitch River Basin.

With the Morse decree and A-1035 having prior rights, it is readily apparent that there is no water available to satisfy A-9593.

Water rights on Price River and Gooseberry Creek (without Mammoth Reservoir right)

Right	Ownership	Priority	Acre-feet	Cubic feet per second
Morse decree.....	Carbon County Users.....	1902	1,600	-----
Do.....	do.....	1902	-----	87,445
Keller decree 1961.....	do.....	1902	-----	32,000
A-1036 certificate 2080.....	Carbon Canal Co.....	1906	-----	125,000
A-1035 certificate 2046.....	Price River Water Users Association.....	1906	12,020	-----
A-3774 certificate 1352.....	Wellington Canal.....	1911	-----	20,000
	Total.....		13,620	264,445
A-9593 certificate, none.....	Sanpete water users.....	1924	15,000	-----

From the above it may readily be determined that storage from Gooseberry Creek in the amount of 13,620 acre-feet and flow rights from the Price River including Gooseberry Creek, in the amount of 264,445 cubic feet per second must be satisfied ahead of any storage under A-9593. Therefore, there would be no water available under A-9593 in a normal water year.

Morse decree, 1902

Class	Irrigation number of acres	Cubic feet per second	Industrial cubic feet per second	Storage acre-feet	Total cubic feet per second
1st.....	6815.62	113.427	1.994	.....	115.421
2d.....	1058.00	17.633	.700	.....	18.333
3d.....	7.00	.116	.240	.....	.356
4th.....	7.00	.116	.240	.....	.356
5th.....	22.00	.367	.000	.....	.367
6th.....	6.00	.100	.000	.....	.100
7th.....	6.00	.100	2.280	.....	2.380
Total ¹	7921.62	131.859	5.454	.....	137.313
Kyune Creek (Price River Irrigation Co.).....	.....	.....	.....	1,950	.....
Gooseberry Creek ².....	.....	.....	.....	1,600	.....
Total.....	.....	.....	.....	3,550	.....
Keller decree, July 1961, priority 1902.....	.....	.....	.....	.....	32.000
Total.....	.....	.....	.....	.....	169.313
Less rights on land withdrawn from irrigation and rights on tributary streams.....	.....	.....	.....	.....	49.868
Total decreed rights 1961, priority 1902 and before, Main Channel Price River.....	.....	.....	.....	.....	119.445

¹ Total rights covered by 1902 decree as amended 1910.

² Mammoth Reservoir Co. shall have the right to store and use in its reservoir system all the waters of Gooseberry Creek including Cabin Hollow Creek, its tributary, the said creek being tributary to the Price River, subject to the right, however, of the other parties of this action to 1,600 acre-feet of water from said sources each year, which shall be distributed to said parties after being discharged by said company from said reservoir, in such quantities and at such times as may be determined by the water commission.

APPLICATION NO. 1035—CERTIFICATE NO. 2046

Application 1035, for the storage of 27,000 acre-feet, was filed August 30, 1906. The place of storage was designated at the site known as the Mammoth Reservoir site on Gooseberry Creek and was to store the waters originating above said site. Change application a-906 was approved February 21, 1927, changing the place of storage to the Pleasant Valley Reservoir site, now known as Scofield Reservoir. This change did not alter the source of water supply, which still covers Gooseberry Creek above the Mammoth site, and therefore, has the first priority on Gooseberry Creek, following the Morse decree.

Final proof was made on this right and certificate No. 2046 was issued in January 1932 covering the appropriation of 12,020 acre-feet of water from Gooseberry Creek in Sanpete County.

Price River water measurements

Year	Annual water use in acre-feet reported by river commissioner			Measured at Heiner station from Apr. 16 to Sept. 30, acre-feet
	Flow	Storage	Total ¹	
1940.....	36,247	19,974	56,221	
1941.....	40,258	17,464	57,722	
1942.....	41,241	21,360	62,601	98,938
1943.....	39,901	26,292	66,193	55,378
1944.....	36,506	29,295	65,801	88,910
1945.....	39,219	26,623	65,842	58,582
1946.....	33,998	25,390	59,388	46,158
1947.....	46,600	22,974	69,574	56,180
1948.....	37,953	24,558	62,511	52,154
1949.....	41,034	23,727	64,761	74,720
1950.....	44,602	27,967	72,569	69,322
1951.....	41,550	28,624	70,174	61,924
1952.....	50,725	17,782	68,507	213,746
1953.....	46,774	29,868	76,642	66,452
1954.....	31,364	32,789	64,153	47,868
1955.....	37,421	22,893	60,314	51,598
1956.....	38,349	24,869	63,218	52,660
1957.....	38,697	17,362	56,059	66,150
1958.....	49,316	29,536	78,852	126,200
1959.....	24,667	23,604	48,271	50,680
1960.....	24,995	15,087	40,082	41,990
1961.....	11,095	4,006	15,101	(²)
Annual average.....	37,841	23,275	61,116	72,611

¹ Includes all the water distributed except flows from Gordon Creek and Grassy Trail Creek.

² Not available Mar. 12, 1962.

TRIPARTITE AGREEMENT—CONTRACT BETWEEN THE CARBON WATER CONSERVANCY DISTRICT AND THE PRICE RIVER WATER CONSERVATION DISTRICT, OCTOBER 11, 1943

This contract assumes that 46,000 acre-feet of water during the irrigation season is adequate to supply a full irrigation supply for all Carbon County farmland below the Heiner's gaging station.

This contract also assumes that the conservancy district and the conservation district represented all users below the Heiner gaging station. These districts definitely did not represent all water rights or water users below the Heiner gage.

The 46,000 acre-feet at the Heiner gage would only amount to 32,660 acre-feet at the farm headgate (using 29 percent canal loss as used in North Sanpete watershed report) or with a requirement of 3 acre-feet per acre, this would supply only 10,553 acres.

The State engineer's certificate 2451 on application 8989-A issued on June 24, 1946, recognized that there were 15,983.62 acres served by this water right. To supply this acreage with 3 acre-feet per acre would require 47,950 acre-feet at the farm headgate or 67,676 acre-feet at the Heiner gaging station.

During the period 1940 to 1961 inclusive the maximum diversion from the Price River below the Heiner gage was 78,852 acre-feet. The minimum was 15,101 acre-feet and the average for the period was 61,116 acre-feet. The required flow of 67,676 acre-feet was only exceeded in 6 years out of 22 years.

COMPARISON OF VALUE OF PRODUCTION FROM WATER IN SANPETE COUNTY FOR IRRIGATION PURPOSES VERSUS USE OF WATER IN CARBON COUNTY FOR PRODUCTION OF ELECTRIC POWER

Sanpete County.—Assuming full water supply and better than average farmland in that area, 1 acre-foot of water might be expected to produce: 1½ tons of alfalfa hay, or 20 bushels of barley, or 20 bushels of oats, or 15 bushels of wheat, which would have a value of \$20 to \$30 for products produced from 1 acre-foot of water.

This value, of course, includes all other costs involved in the production of the crop, such as, land value, labor, water cost, machinery cost, etc. In other words, this would be gross product value of \$20 to \$30 per acre-foot of water.

Carbon County.—An acre-foot of water in Carbon County utilized for the production of electric power through a steam generating plant would produce 433,000 kilowatt-hours of electricity which would have a value of about 3½

mills per kilowatt-hour or \$1,515 gross product value per acre-foot. This amount, of course, includes plant investment, labor, fuel, etc. All of which would result in greater value to the State and Nation than production of alfalfa in Sanpete County.

With each acre-foot of water used there would be used 216 tons of coal which would be mined locally.

No. 90906—186-7

INDUSTRY, CARBON COUNTY

Utah Power & Light Plant, Castlegate, 166,000 kilowatts.

Consumes 7.06 cubic feet per second at peak production.

Plant cost, \$26,500,000.

United States Steel plant at Wellington.

Cost \$11 million plus.

Process, wash and dry 600 tons of coal per hour.

Consumptive use of water, 3 to 5 cubic feet per second.

COMMENTS ON GOVERNOR CLYDE'S LETTER OF MARCH 12, 1962, TO CARL H. SCHWARTS, JR., U.S. BUREAU OF THE BUDGET

Acknowledged Morse decree priority 1902 but failed to note Mammoth Reservoir right or right of lower users to 1,600 acre-feet from Gooseberry Creek.

Acknowledged application 1035 priority 1906 for storage of 12,020 acre-feet but failed to mention that source of this right is from Gooseberry Creek above Cabin Hollow Creek.

Acknowledged application 9593 as right available to North Sanpete watershed project but failed to mention that point of diversion under this right is at Narrows site on Gooseberry Creek.

Statement on page 2, showing water available 12 out of last 16 years, is totally in error and has no basis of fact as being available under application 9593 at the Narrows site

U.S. DEPARTMENT OF THE INTERIOR,
BUREAU OF RECLAMATION,
REGIONAL OFFICE, REGION 4,
Salt Lake City, Utah, September 19, 1957.

Mr. JAY R. BINGHAM,
*Director, Utah Water & Power Board,
State Capitol Building, Salt Lake City, Utah.*

DEAR MR. BINGHAM: We have compiled comparative information for the Mammoth and Gooseberry Reservoir plan which is according to the understanding reached in the meeting of January 11, 1957, with Governor Clyde, members of the Utah Water & Power Board, and representatives of the Gooseberry project; also our meeting with you on June 11, 1957. This information which you understand is not detailed, may be used for your discussions with the representatives of the Gooseberry project and Price River areas in attempting to reach an understanding between the two groups. This understanding is desirable before we can go forward with further investigations on the selected plan. Information attached.

The costs for the Mammoth plan as represented in the 1953 report, when increased to present-day prices, reduced the benefit-cost ratio for the project to less than unity. Also, under the 1953 plan, a serious question which we have previously discussed with you, as to water available for the Scofield Reservoir when 11,700 acre-feet of water was diverted from the Price River for the Gooseberry project. This was one of the big objections of the Price people. In studying a revised plan, we were under the necessity of finding a plan which was not only justifiable from an economic standpoint, but which was also in nearer conformity to the estimated water supply relationships of the Gooseberry and Price River interests when the tripartite contract was negotiated.

The 1957 Gooseberry Reservoir plan, presented in the attached summary, has changes over the 1953 Mammoth Reservoir plan. The diversion to the San Pete area is reduced to 6,300 acre-feet. For economic purposes, the reservoir was moved upstream to the Gooseberry site which has a capacity of 12,500 acre-feet. This also greatly reduced the length and cost of the diversion tunnel. The re-

duced plan would eliminate the Highline Canal and the project area would be reduced from 16,400 to 3,630 acres. The 3,630 acres would receive supplemental water making a full water supply, whereas the 16,400 acres would have had only a partial supply. Many other less important changes were made which reduced the construction cost from \$5,367,000 to \$2,204,000 and raised the benefit-cost ratio from below unity to approximately 1.5 to 1.

The reduced quantity of water at the Gooseberry site, brought about by the necessity of having to find a cheaper plan, increased proportionately the water supply to the Scofield Reservoir. This should prove a great satisfaction to the Price area representatives.

In our 1957 investigations, we have also considered a reservoir on the White River to be used for a municipal and industrial supply for the Price area. We find such a reservoir could make about 5,000 acre-feet available annually at an annual cost of about \$35 per acre-foot.

We will not be in a position to go forward with the Gooseberry feasibility report studies until we are assured of a settlement between the conflicting interests of the Price River and San Pete areas and until we are assured that the San Pete area and the State are ready to support the reduced San Pete plan.

We have practically exhausted the funds available for the Gooseberry project this fiscal year, and should the conflicting interests get together before the end of fiscal year 1958 and you desire us to go forward, it will be necessary that additional funds be made available from some source.

Your cooperation in the study of the Price area lands by making an engineer available to assist in the tabulation, and the advice of the county agent has greatly expedited the assembly of the comparative data. We express our appreciation for this added help. A copy of the Price area land use tabulation is also attached.

We will appreciate your keeping us advised relative to your success in getting the two groups together.

Very truly yours,

E. O. LARSON, *Regional Director.*

Mr. WELCH. Will you please call Mr. Luke G. Pappas, and then Mr. W. J. O'Connor and then Mr. Biggs.

Mr. SMITH. Very well. Mr. Pappas, will you come forward, please.

STATEMENT OF LUKE G. PAPPAS, CITY ATTORNEY FOR PRICE MUNICIPAL CORP. OF CARBON COUNTY, UTAH

Mr. PAPPAS. Mr. Chairman, my name is Luke G. Pappas. In the interest of time I will submit my statement and ask that it be inserted in the record.

My statement deals with the availability of water. It is a fully documented statement in relation to the questions you asked concerning this agreement of the Department of the Interior, Bureau of Reclamation, showing that if you study the matter at all it was made only by the Bureau of Reclamation, Department of the Interior, and that these other parties merely relied upon their surveys after having ignored their conclusions. It is fully documented and has exhibits attached.

Mr. SMITH. Thank you, Mr. Pappas. Your prepared statement will be made a part of the record at this point.

(The statement follows:)

STATEMENT OF LUKE G. PAPPAS, CITY ATTORNEY FOR PRICE MUNICIPAL CORP., OF CARBON COUNTY, UTAH

Mr. Chairman and members of the committees, this statement is being submitted for the purpose of pointing out to the Public Work Committees of the House and Senate the inadequacy of the water availability surveys at the site of the proposed dam contemplated for construction as a part of the North Sanpete watershed work plan.

1. That the U.S. Bureau of Reclamation, Department of the Interior, after almost 20 years of work and planning on a type of project almost identical to the North Sanpete watershed work plan and at the same location, concluded in 1957 that additional surveys would be required in both the Price River Basin and the Sanpete Basin to properly determine if sufficient waters were actually available for the contemplated project. (See copy of report of E. O. Larson, regional director of the Bureau of Reclamation, Department of the Interior, bearing date the 19th day of September, 1957, and hereto attached and marked "Exhibit A.")

2. That the Utah Water and Power Board is the official State agency of the State of Utah and is required by law to pass upon the feasibility and other matters concerning water projects contemplated for construction in the State. The Board members are appointed by the Governor.

The State engineer's office was created for the purpose of administering the water laws of the State of Utah. At a meeting of the Utah Water and Power Board held in Salt Lake City, Utah, on November 17, 1961, convened for the purpose of considering the North Sanpete watershed work plan, the State engineer, Wayne D. Criddle, testified as a witness. When asked by Mr. B. O. Colton, one of the Board members, if adequate surveys had been made at the site of the proposed dam to determine if there was adequate water available, Mr. Criddle, the State engineer, answered that he was sure the Soil Conservation Service had made such a study. (See copy of minutes of Utah Water and Power Board meeting, p. 23 and 24, attached hereto and marked "Exhibit B.")

3. By letter dated the 24th day of January 1962, addressed to Frank J. Welch, Assistant Secretary, Department of Agriculture, and signed by William J. Welsh, Jr., as mayor of Price City, he requested therein whether or not the Soil Conservation Service, Department of Agriculture, had conducted water availability studies at the proposed site of the dam in question. By letter dated February 14, 1962, said Assistant Secretary, Department of Agriculture, Frank J. Welch, answered that water availability studies had not been made by the Department of Agriculture but that they had relied upon the local organizations to supply the necessary water rights. (See copy of letter dated January 24, 1962, signed by Mayor Wm. J. Welsh, Jr., hereto attached and marked "Exhibit C"; also, see copy of letter dated February 14, 1962, signed by Frank J. Welch, Assistant Secretary, Department of the Interior, hereto attached and marked "Exhibit D.")

4. By letter dated February 9, 1962, in presenting its comments on the proposed North Sanpete watershed work plan, the U.S. Department of the Interior, acting by and through Mr. Kenneth Holum, Assistant Secretary of the Interior, again stated that additional studies were necessary to assure the proper water requirements of both Sanpete and Carbon Counties. (See copy of said letter dated February 9, 1962, signed by Assistant Secretary Holum, attached hereto and marked "Exhibit E.")

5. That by letter dated February 16, 1962, written in reply to her previous letter, Kenneth Holum, Assistant Secretary of the Interior, wrote a letter to Mrs. Jack E. Kobe, a resident of Price, Utah, wherein he again reiterated the position of the Department of the Interior that additional study was necessary for the coordinated development of the North Sanpete watershed work plan and Price River Basin. (See copy of said letter of February 16, 1962, hereto attached and marked "Exhibit F.")

From the information hereinbefore mentioned and set forth and the exhibits attached, it appears beyond question that the local agencies of the State of Utah relied upon the Soil Conservation Service to make the necessary water availability studies at the proposed site of the dam to be constructed under the North Sanpete watershed work plan to assure that there would be water available when the project was completed. On the other hand, the Soil Conservation Service, Department of Agriculture, has stated that they relied upon the water availability surveys conducted by the local State organizations. Here we find the ambiguity of each agency relying upon the other as having made the proper water availability studies and with neither having done so.

By the admission of all parties involved in this controversy, the most comprehensive studies made have been those conducted by the Bureau of Reclamation, Department of the Interior, during the past 20 years. Yet, the Department of the Interior, the only Department that has made such studies, has indicated that their studies, to date, are not complete and that additional studies are necessary before a coordinated development of the water resources of both the North Sanpete area and the Price River Basin could be made.

It is evident that proper availability studies have not been made on the North Sanpete watershed work plan, as presented to this committee, and for that reason said work plan should be denied.

EXHIBIT A

U.S. DEPARTMENT OF THE INTERIOR,
BUREAU OF RECLAMATION,
REGIONAL OFFICE, REGION 4,
Salt Lake City, Utah, September 19, 1957.

MR. JAY R. BINGHAM,
*Director, Utah Water and Power Board,
State Capitol Building, Salt Lake City, Utah.*

DEAR MR. BINGHAM: We have compiled comparative information for the Mammoth and Gooseberry Reservoir plan which is according to the understanding reached in the meeting of January 11, 1957, with Governor Clyde, members of the Utah Water & Power Board, and representatives of the Gooseberry project; also our meeting with you on June 11, 1957. This information, which you understand is not detailed, may be used for your discussions with the representatives of the Gooseberry project and Price River areas in attempting to reach an understanding between the two groups. This understanding is desirable before we can go forward with further investigations on the selected plan. Information attached.

The costs for the Mammoth plan as represented in the 1953 report, when increased to present-day prices, reduced the benefit-cost ratio for the project to less than unity. Also, under the 1953 plan, a serious question which we have previously discussed with you, as to water available for the Scofield Reservoir when 11,700 acre-feet of water was diverted from the Price River for the Gooseberry project. This was one of the big objections of the Price people. In studying a revised plan, we were under the necessity of finding a plan which was not only justifiable from an economic standpoint, but which was also in nearer conformity to the estimated water supply relationships of the Gooseberry and Price River interests when the tripartite contract was negotiated.

The 1957 Gooseberry Reservoir plan, presented in the attached summary, has changes over the 1953 Mammoth Reservoir plan. The diversion to the Sanpete area is reduced to 6,300 acre-feet. For economic purposes, the reservoir was moved upstream to the Gooseberry site which has a capacity of 12,500 acre-feet. This also greatly reduced the length and cost of the diversion tunnel. The reduced plan would eliminate the Highline canal and the project area would be reduced from 16,400 to 3,630 acres. The 3,630 acres would receive supplemental water making a full water supply, whereas the 16,400 acres would have had only a partial supply. Many other less important changes were made which reduced the construction cost from \$5,367,000 to \$2,204,000 and raised the benefit-cost ratio from below unity to approximately 1.5 to 1.

The reduced quantity of water at the Gooseberry site, brought about by the necessity of having to find a cheaper plan, increased proportionately the water supply to the Scofield Reservoir. This should prove a great satisfaction to the Price area representatives.

In our 1957 investigations, we have also considered a reservoir on the White River to be used for a municipal and industrial supply for the Price area. We find such a reservoir could make about 5,000 acre-feet available annually at an annual cost of about \$35 per acre-foot.

We will not be in a position to go forward with the Gooseberry feasibility report studies until we are assured of a settlement between the conflicting interests of the Price River and Sanpete areas and until we are assured that the Sanpete area and the State are ready to support the reduced Sanpete plan.

We have practically exhausted the funds available for the Gooseberry project this fiscal year, and should the conflicting interests get together before the end of fiscal year 1958 and you desire us to go forward, it will be necessary that additional funds be made available from some source.

Your cooperation in the study of the Price area lands by making an engineer available to assist in the tabulation, and the advice of the county agent has greatly expedited the assembly of the comparative data. We express our ap-

preciation for this added help. A copy of the Price area land-use tabulation is also attached.

We will appreciate your keeping us advised relative to your success in getting the two groups together.

Very truly yours,

E. O. LARSON, *Regional Director.*

EXHIBIT B

The following testimony taken verbatim from pages 23 and 24 of the official minutes of the meeting held in Salt Lake City, Utah, Friday, November 17, 1961, by the Utah Water and Power Board:

Mr. B. O. COLTON. It seems to me that our concern for this thing ought to mean more than just opening the way for these people to go ahead if they want to. It ought to mean that we have some confidence and faith that the amount of water they anticipate having will be available—at least more than 3 years out of 13.

Mr. CRIDDLE. That is not so. The study of the Soil Conservation Service indicates that it will be available. It is simply a matter of your taking somebody's word here, or your taking a sound engineering study where they have gone into the computations and are not relying upon a bunch of fictitious figures.

(Mr. Colton is a member of the Utah Water and Power Board, and Mr. Wayne D. Criddle is the State engineer of the State of Utah.)

EXHIBIT C

JANUARY 24, 1962.

HON. FRANK J. WELCH,
*Assistant Secretary of Agriculture,
U.S. Department of Agriculture,
Washington, D.C.*

DEAR MR. WELCH: You will recall that during our meeting of last Monday regarding the North Sanpete watershed work plan, Utah, you stated that the Secretary of Agriculture had relied upon the local sponsors to obtain a water right which meets the requirements of Public Law 566, and that the Soil Conservation Service had not made an independent legal study of water rights on Gooseberry Creek. You further stated that it was the policy of your Department to leave such water right matters to the local people; that you have in your file a letter from the Governor of Utah approving the project and recommending its construction; that you assume that such approval clears the matter of water rights; and that it is not your practice to question the approval.

We pointed out that a study of water supply for a water storage project necessarily entails a study not only of streamflow records to determine the quantity of water which will probably be available at the proposed site, but an examination of the demands upon the water by prior water rights.

It will be appreciated if you will advise me whether I have correctly stated your position regarding the water supply for the North Sanpete project. Also, I should like to know whether the Solicitor of the Department of Agriculture has written an opinion which construes those parts of sections 4 and 5 of Public Law 566, relating to the duty of the Secretary of Agriculture to determine the sufficiency of water rights. If an opinion has been written I should like to have a copy if it is available.

We wish to thank you again for giving us an opportunity to discuss with you water problems of vital concern to Price City and Carbon County. We believe that further engineering and legal studies are necessary to determine whether there is water in the source in excess of prior demands, and if not whether a feasible plan can be devised for storage of supplemental water on tributaries below Scofield Dam. If such studies are authorized, an extension of time beyond the July 1962 deadline would no doubt be granted. Certainly the Carbon County interests would not protest such extension as we are anxious to cooperate in working out a sound solution to this perplexing problem.

Sincerely yours,

WILLIAM J. WELSH, JR.

EXHIBIT D

DEPARTMENT OF AGRICULTURE,
Washington, D.C., February 14, 1962.

HON. WILLIAM J. WELSH, JR.,
Mayor of Price,
Price, Utah.

DEAR MAYOR WELSH: In reply to your letter of January 24, 1962, we are furnishing information concerning the position of this Department with respect to the question of water rights that you have raised in connection with the proposed north Sanpete watershed project.

In our opinion, the letter of November 29, 1961, from the Governor of Utah to the Administrator of the Soil Conservation Service approving the watershed work plan for the north Sanpete watershed, Utah, and setting forth certain views of the Utah Water and Power Board expressed in its resolution of November 17, 1961, in regard to the project, adequately meets the requirements of the Watershed Protection and Flood Prevention Act relating to the responsibilities of the concerned local organizations for the acquisition of the needed water rights. In view of this, it is not believed that the Federal act places on this Department the responsibility of investigating the sufficiency from a legal standpoint of the basic water right acquired under State law on which the local organizations will rely in connection with the development of this project. The General Counsel of this Department has not issued a formal legal opinion pertaining to the question referred to herein.

We appreciated the opportunity of meeting with you and your associates during your recent visit and hope you understand the position of this Department in connection with its assistance to the north Sanpete interests in helping them develop a project to meet their needs.

Sincerely yours,

FRANK J. WELCH, *Assistant Secretary.*

EXHIBIT E

U.S. DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D.C., February 9, 1962.

HON. ORVILLE L. FREEMAN,
Secretary of Agriculture,
Washington, D.C.

DEAR MR. SECRETARY: The work plan for the north Sanpete watershed project, Sanpete County, Utah, sent to this Department for the views and recommendations of the Secretary of the Interior, in accordance with section 2 of Executive Order 10913 and provisions of section 5 of the Watershed Protection and Flood Prevention Act, as amended, has been reviewed and the following comments are offered:

The works of improvement proposed in the Soil Conservation Service work plan consist of land treatment measures and structural measures for water management (irrigation), municipal and industrial water supply, fish and wildlife, and flood control. The structural measures of primary interest to this Department are the proposed Narrows Reservoir on Gooseberry Creek, a tributary of Price River; collection facilities from Cabin Hollow and Brooks Canyon to the reservoir; a tunnel through the divide to Cottonwood Creek; channel improvements along Cottonwood Creek; and a high-line canal from Cottonwood Creek to convey water to irrigated land in the general vicinity of Mount Pleasant, Utah.

The report indicates that the Narrows Reservoir would have a total storage capacity of 17,500 acre-feet and would yield approximately 9,330 acre-feet annually for diversion to Cottonwood Creek. This amount of water, when augmented by additional supplies derived from improvement of local irrigation systems, would result in an increase of about 10,000 acre-feet annually to the farm headgate supply. This would be an average increase of 48 percent over the present available supplies.

The Bureau of Sport Fisheries and Wildlife advises that the fish and wildlife resources of the watershed will be benefited by the soil and water conservation measures proposed. These resources would be enhanced by specific habitat

improvement measures included in the work plan which will be cost shared by the Utah State Department of Fish and Game.

In accordance with section 12(2) of the Watershed Protection and Flood Prevention Act, as amended, it is requested that the report of the Bureau of Sport Fisheries and Wildlife be attached to the work plan.

Opportunities to accomplish the objectives of the watershed work plan have been the subject of investigations by the Bureau of Reclamation of this Department from time to time during the past 20 years. Every major feature proposed in the Soil Conservation Service plan of improvement for water management has been considered during the investigation of various alternative plans for the potential Gooseberry reclamation project. A preliminary report on the Gooseberry project utilizing storage at the Mammoth Reservoir site was prepared by the Bureau in January 1953. The proposed project was considered during the 83d and 84th Congresses as a participating project of the Colorado River storage project but was not authorized in the Storage Project Act of April 11, 1956, as one of the initial group, largely because of intense opposition from irrigation and municipal interests in the Price River Basin who objected to the diversion of water from the basin.

The Gooseberry project was, however, included in the list of potential participating projects in section 2 of the authorizing act of April 11, 1956, that were given priority in the completion of planning reports by the Secretary of the Interior. Following passage of that legislation, the Bureau of Reclamation consulted further with the State and local interests and additional reconnaissance studies were made of opportunities to refine our proposed plan of development and enhance its acceptability to Price River Basin interests. These findings were submitted to officials of the Utah Water and Power Board on September 19, 1957. In the years since the Bureau of Reclamation's report to the Utah Water and Power Board in 1957, this general area, including the Carbon County area and the Sanpete area, has experienced almost continuous drought, and we are aware of the critical need for development of new, more dependable water supplies for the entire area. We believe, therefore, that further study of the possibilities of coordinated development of water resources of the entire area is required if a plan to meet the water requirements of both the North Sanpete watershed and the Price River Basin is to be developed.

Sincerely yours,

KENNETH HOLUM,
Assistant Secretary of the Interior.

EXHIBIT F

U.S. DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington 25, D.C., February 16, 1962.

Mrs. JACK E. KOBE,
Price, Utah.

DEAR MRS. KOBE: Your letter to President Kennedy in connection with the proposed work plan for the North Sanpete watershed project, Sanpete County, developed through cooperation of North Sanpete water users and the Soil Conservation Service, Department of Agriculture, under the authority of Public Law 566, was received in this office on February 2, 1962. We appreciate receiving the newspaper clippings enclosed therewith.

It is our understanding that the work plan proposed for the North Sanpete watershed is based on the premise that the Utah Water and Power Board holds that North Sanpete water users have a legal right to divert water from the Price River watershed for their use in connection with this proposed project. As we understand it, this is a State matter under which we have no jurisdiction to either favor or oppose the proposal.

We have commented to the Department of Agriculture about the Soil Conservation Service work plan noting that this general area including Carbon County and the Sanpete area has experienced in recent years almost continuous drought, and we are aware of the critical need for development of new and more dependable water supplies for the entire area. Further, we noted that additional study of the possibilities of coordinated development of water resources of the entire area is required if a plan to meet the water requirements of both the North Sanpete watershed and the Price River Basin is to be developed. We

are not in a position to make such studies, however, unless funds are made available to finance the work.

Your interest in this matter is appreciated.

Sincerely yours,

KENNETH HOLUM,
Assistant Secretary of the Interior.

Mr. SMITH. Mr. O'Connor, we will be glad to hear from you at this time.

STATEMENT OF W. J. O'CONNOR, PRESIDENT AND GENERAL MANAGER, INDEPENDENT COAL & COKE CO., SALT LAKE CITY, UTAH

Mr. O'CONNOR. Mr. Chairman and gentlemen of the committee, in the interest of saving time I have filed my report.

My name is William J. O'Connor. I am president and general manager of the Independent Coal & Coke Co. of Salt Lake City. I am also representing the Utah-Wyoming Coal Operators Association at this hearing.

The Independent Coal & Coke Co. has two Utah Power & Light Co. units on its dump at the Castle Gate mine, using approximately 500,000 tons of coal a year. The water shortage has been our big problem.

Thank you.

Mr. SMITH. Without objection, your prepared statement will be made a part of the record at this point.

(The statement follows:)

I am W. J. O'Connor, president and general manager of Independent Coal & Coke Co., of Salt Lake City, Utah, with three mines and operating plants in Carbon County, Utah—125 miles south of Salt Lake City. The Independent is the largest commercial coal mine west of the Mississippi and represents about 40 percent of Utah's production of bituminous noncoking coal.

I am representing the Utah-Wyoming Coal Operators Association at this hearing.

The Independent has two Utah Power & Light Co. units on its dump at the Castle Gate mine, using approximately 500,000 tons of coal a year.

One of these plants was built in 1953 and one in 1957, and neither of these would have been built had it not been for the combined efforts of the farmers, the water companies, the mayors of Price and Helper, and the civic clubs in obtaining the necessary water from the farmers, that convinced the Utah Power & Light Co. that water was sufficient and available.

Water was brought from the farmers at \$60 an acre-foot in the Scofield Reservoir. (1 acre-foot=326,700 gallons—a 100,000 kilowatt plant requires 1,600 acre-feet per year.) Since that time, water has been dangerously low in several years and has been a constant worry to the power company and the coal company.

The U.S. Geological Survey Bulletin 1136, under the direction of the Department of the Interior, estimates Utah reserves of bituminous coal at 13,900 million tons, most of which is in Carbon County, the center of Utah's coal industry.

Water is the crying need in Carbon County and Utah to utilize this vast store of energy.

There is an ever-increasing market for power in California, and powerplants with high voltage lines can be built in Utah to compete with natural gas for power fuel in California. For instance, it is estimated that California will need 8 million additional kilowatts of electricity in the next 10 years—this is equivalent to 25 million tons of coal a year; 75,000 tons a day.

The price of gas has gone up 97 percent in 10 years and coal is at the same \$5 price at the mine as it was in 1952. Because of smog, it is now generally conceded that electric energy for California's phenomenal growth will come from plants outside the State and that gas as boiler fuel will not be available in sufficient quantities.

Carbon County, the most likely source of this electrical energy, is stymied unless we can get water.

As an illustration—Utah Power & Light Co. is building a 500,000 kilowatt, \$100 million plant at Kemmerer, Wyo., at a lignite coal deposit. One of the compelling reasons for going there is the shortage of water in Carbon County.

Carbon County today is designated a "distress area"—half of the miners there are out of work because of the shrinking coal business, due principally to the protected gas industry that sells "dump" gas at prices below cost to take the business of large users.

If it had not been for the cooperation and efforts of the farmers of Carbon County, we would not have any powerplants in our area. These men realize that a steady year-round industry provides markets for their produce, jobs for the residents, and taxes for Government. For instance, Utah Power & Light plants at Castle Gate pay half of the taxes of Carbon County.

The arguments for and against the Gooseberry project are being heard here and to me it is difficult to believe that the Gooseberry undertaking can possibly be economical.

As I understand the situation, it is proposed to spend \$7 or \$8 million of the taxpayers' money to take a possible 7,000 acre-feet of water through an expensive tunnel from Scofield for the farmers of Sanpete County.

The records show that this water would not always be available and is not a dependable source for irrigation purposes.

The Independent Coal Co. has and is currently buying water rights in the Scofield Reservoir for \$55 to \$60 an acre-foot, when available, to try to protect the powerplant operations.

Regardless of conclusions of years ago, the circumstances today indicate that the Scofield water is simply too expensive for irrigation on the Sanpete side and should be left, when there is any, for use in Carbon County where it will do the most good for the most people.

Mr. WELCH. The next witness is Mr. Arthur Biggs.

Mr. SMITH. We will be glad to hear from you, Mr. Biggs.

STATEMENT OF ARTHUR BIGGS, INTERNATIONAL BOARD MEMBER, UNITED MINE WORKERS OF AMERICA, DISTRICT NO. 22

Mr. Biggs. Mr. Chairman and members of the committee, my name is Arthur Biggs and I am an international board member of the United Mine Workers of America, District No. 22, which has 16 local unions in Carbon County, Utah. I am representing some 3,000 coal miners in the State of Utah, 2,000 employed and 1,000 unemployed.

I submit my statement in the interest of time.

Mr. SMITH. Thank you, Mr. Biggs.

(The following statement was submitted for the record:)

STATEMENT OF ARTHUR BIGGS, INTERNATIONAL BOARD MEMBER

My name is Arthur Biggs and I am an international board member of the United Mine Workers of America, District No. 22, which has 16 local unions in Carbon County, Utah, with a working membership of 2,000.

The United Mine Workers have no quarrel with the canal lining and watershed protection features of the North Sanpete watershed work plan. However, we do register our opposition to the transmountain diversion of the water to be stored in the reservoir, located at the Narrows site on Gooseberry Creek, a tributary to Price River.

I need not remind you of the serious plight of the coal industry in the United States. The coal industry in Carbon County, Utah, is no exception. In Carbon County, Utah, a large coal deposit is located. Carbon County has been designated a redevelopment area under the Area Redevelopment Act due to the chronic unemployment which exists there, averaging over 12 percent of the labor supply. The key, of course, to economic development to relieve critical unemployment in Carbon County rests on an adequate water supply. I am informed that Kaiser Steel Co. has indicated that further development of its coal mining operations in Carbon County have been delayed because the company questions availability of water from Price River, in view of the transmountain diversion contemplated by the North Sanpete plan. The United States Steel

washery, located on the Price River near the city of Wellington in Carbon County, Utah, processes 600 tons of coal per hour mined by approximately 800 coal miners. In the summer of 1961, this plant was forced to operate on the sewage outflow of the cities of Price and Helper, Utah, due to an extreme water shortage.

The commercial mines in the North Carbon area market their coal principally for boiler use. I am told that the operation of the powerplant at Castle Gate, Utah, has encountered serious water shortages. This plant at Castle Gate consumes 1,690 tons of coal daily mined in Carbon County. This coal requirement employs some 300 coal miners. A dependable and constant supply of water for these boilers is absolutely necessary and any future development in Carbon County will depend upon the availability of an adequate and continuous supply of water. If the transmountain diversion contemplated by the North Sanpete plan is completed the existing shortages of water will be magnified and the water supply for coal and boiler fuel will be further depleted.

President John F. Kennedy recently indicated that his administration looked with favor upon giving the power of eminent domain to coal slurry pipeline companies so that they may acquire rights of way to move coal through a pipeline.

Consolidated Coal Co. is contemplating building a line 300 miles to the Atlantic coast to pump coal to market. This new method of transporting liquid coal opens up a vast, new competitive field for coal. Certain coal companies are interested in building such a pipeline from Utah to the Pacific coast. In order to move the coal by pipeline, of course, water is the main factor, and the possibility of developing this new process depends entirely on the availability of water.

I submit that the use of this water in Carbon County to develop the great natural resource of coal, which employs miners, will return far greater benefits to the State of Utah and to the United States than the use of this water as a supplementary supply of water to Sanpete County.

I respectfully urge that the project be rejected by this committee.

Mr. SMITH. Mr. Behle.

STATEMENT OF CALVIN A. BEHLE, MEMBER OF UTAH STATE BAR AND BAR OF THE U.S. SUPREME COURT

Mr. BEHLE. Gentleman, I am Calvin A. Behle, practicing attorney in Salt Lake City. I represent on occasion, and today, the United States Steel Corp. I made the study on which they constructed in 1959 a \$11 million coal-washing plant to treat the coal that comes in from Oklahoma and Colorado, as well as Utah, for the Geneva works in Utah County, which is Utah's largest single payroll, of approximately 7,000 employees.

It comes to us as a shock that the necessary legal studies and engineering studies have not been made. I state this from my personal knowledge in connection with this project.

We respectfully, in behalf of the steel industry, oppose and request you gentlemen, if you see fit, to oppose this project.

Thank you.

I have filed a statement, too.

(Mr. Behle's statement follows:)

STATEMENT OF CALVIN A. BEHLE

My name is Calvin A. Behle. I am a member of the Utah State Bar and of the Bar of the U.S. Supreme Court. Until last week I served as vice chairman of the Water Rights Committee, Mineral and Natural Resources Section, of the American Bar Association.

It has been my privilege over some 30 years' practice of law in the intermountain West to represent on occasion among others United States Steel Corp. Some of the problems which it has encountered will be outlined briefly as background for demonstrating why the proposed transmountain diversion of water from Price River—without adequate planning and safeguards—now constitutes a

most serious threat. The absolute necessity for adequate water requirements of any substantial industrial plant is, of course, typical.

United States Steel Corp.'s Geneva works in Utah and its allied coal, iron and dolomite mines constitute the largest private payroll in the State of Utah. Coal to supply the plant is washed, sized and dried in order to feed the coke ovens at Geneva in Utah County, where the iron ores from Iron County are turned into steel. This 13-story-high coal-washing plant at Wellington, downstream from Price, the county seat of Carbon County, has a normal capacity for treating 600 tons of coal per hour—mined in principal part by some 800 employees in Carbon and the adjoining Emery Counties.

In order to make the operation of this plant possible, and to supply a maximum requirement of approximately $7\frac{1}{2}$ cubic feet per second of water for industrial use—largely nonconsumptive—the steel company initially had to acquire one of the oldest rights on Price River. Then in addition, to attempt further to assure a firm water supply, applications were submitted and approved by the State engineer for underground wells sunk to bedrock.

The water rights appurtenant to the plant site were of course acquired. Finally, contractual arrangements were made with the cities of Price, Helper, and Wellington for use of the sewage outfall from these cities as returned to the normal channel of Price River.

Despite this acquisition of the oldest decreed right on Price River—dating back well into territorial days—and supplementation of that right by approved applications for all possible available water in the plant vicinity, last summer we were forced to operate on the sewage outfall because of the general water shortage in the entire area which had persisted for a period of years. Consequently you may imagine our reaction to the proposition pending before you which on its face could impair the livelihood of some 7,000 Utah employees by a project based upon transmountain diversion of headwaters contributing to the Price River water system. Obviously, we must protect with all appropriate means this \$40 million annual Utah payroll, and oppose any infringement of the water rights upon which this important segment of United States Steel Corp.'s Utah operations is based.

We are not alone in this situation. Kaiser Steel operates three coal mines in East Carbon County employing approximately 650 men. These operating mines have been in use for over 60 years. As they become depleted Kaiser plans to supplement and eventually replace these mines from a large block of State and Federal leases to the south, which are entirely dependent upon Price River for the water to develop these new properties.

Yet even without the proposed transmountain diversion, that company questions the availability of water from the Price River. To quote from Mr. Ted Newell, of Kaiser Steel: "We have a 5 second-foot filing in the river that is below United States Steel's filing; they couldn't fill their filing this year without using sewage outfall. So you see the position that puts us in. What would you do in that case? We have other coal through the State but it may be that we will have to leave Utah and move into New Mexico for our future developments if this water is not held."

Yet in spite of these actual conditions, the attempts persist further to deplete this limited and inadequate water supply by the threat of the proposed transmountain diversion.

In the prior hearings involving this right these companies and others interested in the problem have urged the proponents to join with us in accomplishing two simple things: first, to give the existing water users with priorities before those of Sanpete County, adequate assurance that these prior rights will be honored and not impaired; second, to make the basic engineering and legal study of the water supply and accompanying rights on Price River to determine what water actually would be available as a practical matter for transmountain diversion.

We have offered to cooperate and to make available our own engineering services—and these companies, in my opinion, have competent engineering talent. We have offered to participate in the cost of employing independent engineering services in association with the Sanpete County interests. But to date we have been rebuffed. The situation persists that the proposed project is presented to you in a political forum without the basic engineering and legal data which the Bureau of Reclamation and private industry, under both elementary principles and as the result of years of practical experience, would require before committing any funds.

If there is no available water as a practical matter for this multimillion dollar transmountain diversion project, this should end the matter and cease the attempts to impair some of Utah's largest private payrolls. But if there should be sufficient available unappropriated water, Utah's citizens—including its industries—would not oppose its badly needed use by Sanpete County. What we cannot understand are the continual efforts to push this project without a proper foundation. This has resulted in bitterness, expense, and threats of litigation, instead of the united efforts of the citizens of Utah to develop still further the sound economy of our State.

We respectfully oppose the north Sanpete watershed work plan in its present form, and urge its rejection in the public interest.

Mayor WELSH. Mr. Waterman.

STATEMENT OF GEORGE W. WATERMAN, CHAIRMAN, PRICE RIVER DISTRIBUTION SYSTEM

Mr. WATERMAN. Gentleman, my name is George W. Waterman. I represent the water users on the Price River system. I have been for the past 32 years the chairman of the Price River Distribution System, which is all waters on the Price River.

As has been mentioned before, we claim that the decreed rights have first rights, and we are not signatory to anything at all to give the waters away.

(Mr. Waterman's statement follows:)

STATEMENT OF WILLIAM MARSING, GEORGE W. WATERMAN, AND REX MATHIS

Mr. Chairman, we, George W. Waterman (chairman of the Price River Distribution System), Rex Mathis (president of the Price River Water Users Association), and William Marsing (president of the Carbon Canal Co.), respectfully submit:

We are residents of Price, Carbon County, Utah, and represent livestock men, irrigators, and approximately 500 farmers under the Price River water system in Carbon and Emery Counties, Utah. Our area is part of the arid West and was settled during the last century. Through years of labor and effort we and our predecessors have constructed canals and ditches beginning in 1879, and by the application of water have gradually reclaimed these arid lands and have made them productive so that at the present time our farming and livestock economy is directly dependent upon the use of these waters. These waters, although beneficially used and appropriated in the last century were in the year 1902 decreed by the district court to our predecessors. The facts and figures with respect to the water rights and filings are being submitted to you by others from our area. It is not our intention to duplicate their effort.

We should like to carry to your honorable bodies the result of our actual experience as farmers and ranchers who have lived year in and year out in this area and with these waters which are now sought to be taken from us by transmountain diversion.

We live in a mountainous country. Our water in the main is yielded from thawing snows. These snows melt in the spring of the year. As our seasons advance the streams decrease in size and flow, until in July and August invariably our flow rights have decreased to 10 percent of our demand. Of the waters which can be controlled, we have found through years of experience that we are in need of all of the same to beneficially irrigate our crops and provide for other beneficial uses in our valleys.

We do not and cannot depend upon rainfall. A close examination of the records of the U.S. Weather Bureau shows that for the 30-year period from 1926 through 1955 that the average annual total precipitation for that 30-year period at the Price Weather Station was 9.72 inches; whereas, for the Sanpete County Weather Station located at Manti, for the same period, shows that their average annual total precipitation was 11.89 inches. This indicates that we are a semiarid area and nearly totally dependent on mountain snows and streams. We also have storage rights totaling 30,000 acre-feet in Scofield Reservoir. These rights have not always been filled. This water is used to sup-

plement the natural streamflows so that we may mature our late crops. This also stabilizes our supply. We feel that if the supply of water into Scofield Reservoir is interrupted that the original intent and purpose of constructing Scofield is thereby defeated because sufficient water will not accrue to reservoir users such as ourselves for use late in the season.

We respectfully submit that there is no surplus water available for trans-mountain diversion except in the unusual year when there may be an excessive amount of moisture. Our experience further teaches us, and we are sure the figures which others will submit to you will substantiate the fact, that this unusual year only occurs approximately once every 20 years.

By the same reasoning it must be apparent that this water which is rarely available certainly does not justify the expenditure of the taxpayers' money to divert the same by expensive structures through and across our mountains.

Because of its high elevation and location, the proposed construction and diversion can have no beneficial effect in the control of flood in our area or elsewhere.

Water is our lifeblood. The proposed diversion will have a disastrous effect upon our ranching and livestock economy because of the simple fact that it is proposed to remove from our valleys waters which we must have in the late part of the season in order to save and mature our crops. The water which will be diverted, we repeat, is not the uncontrollable surplus which occasionally flows down the streams, but is the firm, late supply which is essential to the success of our irrigation system. The use of all of our other nonirrigated lands is directly affected by the success or failure of our irrigated land because without the crops produced on our irrigated lands, we cannot operate our livestock units.

We urge you to oppose the north Sanpete watershed project.

Mr. SMITH. Thank you, Mr. Waterman.
Mayor Welsh.

STATEMENT OF WILLIAM J. WELSH, JR., MAYOR OF PRICE CITY, UTAH

Mayor WELSH. Mr. Chairman, for the record, my name is William J. Welsh, Jr., mayor of Price, Utah. I have a prepared statement. At this time I would like to have it entered into the record.

(Mayor Welsh's statement follows:)

STATEMENT OF WILLIAM J. WELSH, JR., MAYOR OF PRICE CITY, UTAH

Mr. Chairman and members of the committee, since becoming mayor of Price in 1954, the matter of water has been of great concern to us. Our city has experienced persistent water shortages and in the last 8 years the municipal water system has had to ration water to users inside and outside the city using our domestic supply in all but 2 of the last 8 years. I was the spokesman for Carbon County interests in 1955 when the Gooseberry project (now known as the North Sanpete watershed project) was opposed as a participating project of the upper Colorado River storage project. By vigorous effort and with the support of members of the House Interior Committee, we were successful in having the project deleted from the authorization section of the Colorado River project in 1956. Since that time the Bureau of Reclamation has conducted additional feasibility studies with funds of \$40,000 appropriated in the fiscal year 1957. The Bureau concluded at that time that sufficient water was not available to build the proposed Gooseberry project without interfering to a great degree with the operation of Scofield Reservoir. The U.S. Government has a substantial monetary interest in this structure which impounds water for our county.

We have taken vigorous steps to stabilize the culinary supply, and as a consequence Price City has just completed a \$654,000 project involving the installation of additional pipeline and a water treatment plant which is in operation for the first time this year.

My city was instrumental in urging the formation of the Price River Water Improvement District to take care of industrial and municipal users.

We recognize one of the detrimental aspects of industrial development in Carbon County is the lack of a stable water supply which can be stored in

a reservoir having a carryover right. The present Scofield Reservoir is a reclamation project and carryover storage rights to industry and domestic interests are not permitted. We are still seeking usable sites to overcome this defect.

We strenuously object to the construction of any facility that would permit a transmountain diversion. We have continuously urged the agencies of the Department of Interior, as well as the Department of Agriculture, that if such transmountain diversions can be justified, that an exchange or replacement of at least an equal supply from new sources must be programed as well.

As municipal officials and leaders in our county, we have adopted the attitude of planning for the future, not only for the expanded uses of water that all of us are well acquainted with, but also for the benefit of the generations to follow. The economy of our county is not yet complete. By no means have we reached the peak of our potential, and consider ourselves still in the pioneering era.

It appears to us that planning for the future is of the utmost importance, taking into consideration the fact that natural resources abound in the county and that water presently being used for agricultural purposes will ultimately be used on a higher economic level. The history of our county is that it is principally an industrial county, one that has contributed much to the State of Utah by way of taxable property and substantial payrolls. These payrolls have been depleted because of the depressed condition of the coal industry. Predictions by experts acquainted with the fuel requirements of our Nation have encouraged us by indicating that coal and other fuels in our county will be used to a greater degree in the future. In order to make full use of these fuels, water is the necessary essential.

Finally, as the mayor of the largest city in eastern Utah and the county seat of Carbon County, and also the city that is the shopping center of the county, and also one that is supplying over 13,000 people with domestic water, we find that this project threatens our water supply, our basic rights, our primary water rights, and the construction of this project envisions interrupting part of the water supply to us and thus part of our water right. We feel that the guarantees as outlined in the tripartite contract executed in 1945 are not sufficient to permit us to remain quiet on this matter. We support the position of the Bureau of Reclamation that water studies since the construction of Scofield Reservoir reveal that the present situation is different than what had been originally assumed, that somewhere an error has been made, or a wrong conclusion had been reached.

We further support the position of the Department of the Interior that complete, comprehensive water resource study be made of the Price River Basin and Sanpete County area, taking into account present uses and future uses of available water. We further feel that the rights of the people who have resided in this valley since 1879 should be respected and that they should not be threatened in any manner, shape, or form.

Carbon County has been designated as a redevelopment area by the Department of Commerce. I have been serving as the chairman of the redevelopment group. Our overall economic development plan, which was approved in March 1962, contains a statement on water that says in essence that we will require technical assistance to complete water studies to assist us in industrial development, and that additional water supplies are necessary for development. No other source is readily available, so we must make the best use of what we have. We cannot get along on a lessened supply.

We sincerely urge that you reject this project and this concept of transmountain diversion.

Mayor WELSH. I have a letter from the Utah Power & Light Co., signed by its president, Mr. E. M. Naughton, who comments on the project. It is addressed to the chairman. He submitted only one copy to us. May we have that entered into the record?

Mr. SMITH. That will be entered at this point in the record.

(The letter referred to follows:)

UTAH POWER & LIGHT CO.,
Salt Lake City, Utah, August 11, 1962.

HON. FRANK E. SMITH,
*Chairman, Subcommittee Watershed Development, Public Works Committee,
House of Representatives, Washington, D.C.*

DEAR MR. SMITH: Utah Power & Light Co. has constructed a steam electric generating plant at Castle Gate, Utah. It consists of two units with a capacity of 166,000 kilowatts and, when operating at full capacity, the boilers will require 1,690 tons of Carbon County coal each day. This coal requirement will keep 300 Utah miners fully employed 7 days a week. In addition to coal, a constant and firm supply of water from a dependable source is required. The plant is ideally located so far as coal is concerned and it is so constructed with cooling towers as to conserve and reuse the water whenever possible. Nevertheless, the plant requires a constant flow of 7 second-feet when it is operating at full capacity.

The water supply in the Carbon area is limited. A major portion of its water supply originates in the high mountains above Scofield Reservoir. Lower areas are subject to quick runoff and ground water supplies in the valley are very limited.

In view of the fact that a dependable annual supply of water is required in all industrial enterprises, the future development in Carbon County will necessarily depend upon the availability of an adequate and continuous supply of water. At the present time industrial water use must compete with agricultural uses for the remaining short water resource.

Inasmuch as an important part of the source of water for the plant is the Price River watershed that supplies water to the Scofield Reservoir, it is vital to our operation that we preserve the availability of that water. In view of the shortages of water that have occurred during the past several years, we are convinced that a diversion of water into another drainage area would be damaging to our interests.

Very truly yours,

E. M. NAUGHTON,
President and General Manager.

Mayor WELSH. I am the so-called political leader of our area, the mayor of the largest town in Carbon County. I was elected to office first in 1954, and was immediately confronted with this project, which at that time was included as part of the upper Colorado River storage project as one of the participating projects. I led the delegation here in Washington and appeared before the Senate and the House Interior Committees in opposition to the project based on what we felt were very valid arguments and based on what we felt were very valid needs.

The history of that has been covered pretty well today. The House Interior Committee considered a bill which had been submitted by its chairman, Congressman Wayne Aspinall, of the western slope of Colorado. Congressman Aspinall had deleted the Gooseberry project as one of the participating projects. As I recall, at least three or four other House bills were submitted which included the Gooseberry project. However, his bill was the only one that was considered. In conference, the project was deleted by the Senate and House conferees and sent back for further feasibility studies.

The documents we have submitted to you and Mr. Pappas in his statement to you indicate the reason for the comment in 1957 by the regional director of the Bureau of Reclamation, Mr. E. L. Larsen, that the Bureau in substance felt that a settlement should be made between the Carbon and Sanpete interests before the Bureau could proceed with it. Such a settlement has not been made, and on all occasions it has not been attempted, Mr. Chairman.

I also refer you to the letter that Congressman Baldwin has quoted from extensively this morning, the letter which was sent to the Bureau of the Budget commenting on the project. There is one section in there which I think sums up the basic part of our argument in that both counties, quoting Mr. Holum, have experienced almost continual drought, particularly in the last few years.

It is surprising to me, as the mayor of the town and as one who has taken a great deal of interest in all types of water in the county—farming, industrial, and culinary—to find that we have so much, as has been alluded to here this morning. I find it difficult to reconcile that with the fact that since 1954, in 6 out of those 8 years we have had to ration water and put people in my town, not only the community but 13,000 people in the metropolitan area, on turns. It is completely inconceivable that such could take place.

We have made vigorous efforts, as has Sanpete County, to attract new industry. With our natural resource of coal, water is required to treat the coal. It requires water for nearly any industry. We have not been able to find it. We were able to retire some sour land in order to sell water to Utah Power & Light Co. for the construction of a steamplant at Castle Gate. It is a somewhat stabilized industry, although we are in a distressed area and have received such a designation by the Area Redevelopment Administration.

I feel that the Sanpete County people must apologize to you for being here today. I do not feel too apologetic for our side. We feel sorry that you must listen to this State argument. I agree with Congressman Aspinall, who has developed the theory that Congress should not consider projects of this type until a settlement has been reached among the neighbors and in the State itself. I feel it is impossible for you in this short period of time to develop the knowledge that we have of the varying points of view and the disagreements that exist, and legislate on it intelligently.

Our position has been upheld and sustained on many occasions, and any attempt to authorize this project has been successfully defended.

We are making good use of the water, such as is there. Last year our irrigators were out of water on August 4. I happened to be on my vacation in this very city on June 3 when my city recorder called me and said, "The city is out of water. What do you want to do about it?" I had the Potomac outside the motel window. I could not do anything about it except stipulate to him what our usual procedure was.

I would like to emphasize, we do have chronic shortages. There is not a stable supply.

Apparently there is not a water supply above Scofield Reservoir. There is some return flow in the Price River. We would like to take advantage of some of the return flows into the river below the sites that they are discussing this morning. We have not been able to find adequate reservoir sites.

I would like to point out to you, also, that perhaps on occasion in our county we will make a higher and better economic use of any water that might be available, which will contribute substantially to the industrial payroll of our State and, we hope, also to our Nation.

I would like to reiterate that the Bureau of Reclamation—both sides—say this—have studied this project for many years. Apparently, there

is a deep and burning question in their minds as to whether or not there is available water and as to whether or not it is possible to build this project. In the last few years, both reservoirs would have been empty if such had been the case.

I see we are just about at the end of our time, Mr. Chairman. We thank you for your consideration, and we thank you for your patience. If there are any questions, we will be glad to try to answer them.

Mr. SMITH. Thank you, Mr. Welsh.
(Statement of Louis Kosec follows:)

STATEMENT OF LOUIS KOSEC, CHAIRMAN OF CARBON COUNTY COMMISSION

Mr. Chairman and members of the committee, I am Louis Kosec, representing the people of Carbon County, Utah, and the Carbon County Commission to request that approval not be granted to authorize the north Sanpete watershed project.

Our county is primarily a coal mining area, but has a substantial investment in agriculture. Agriculture as an industry means approximately \$1 million a year in income to our people derived from cash crops and livestock. As a responsible county official I have noted with deep regret the serious decline in cash income to our farm population because of persistent shortages of water. This adversely affects the economy and tax base of the county when lands become unproductive because of the shortage of water, and when the people have to rely more on local, State, and Federal Government for assistance because of lack of income.

Our county has an assessed valuation of \$36,357,966; we have a population of 21,135. In the census concluded in 1960 our county followed the downward trend in population that is prevalent in the rural counties of Utah. We showed a net decline of approximately 4,000 people, principally because of the depressed coal-mining industry.

The county commission, together with other interested groups and municipalities has inaugurated and participated in a program to stabilize and expand and diversify the economy of the county by a vigorous program of industrial development. The key to industrial development in our county is adequate water supply and, while vigorous action has been taken to secure such a supply, the threat posed by this project to further reduce the available water to our people represents a serious backward step. We cannot in good conscience solicit industry to come into the county when they are advised that a proposed transmountain diversion of a portion of the already short supply of water may take place.

We have also instigated and participated in water studies as represented by the Price River Water Improvement District in an attempt to stabilize the existing supply for culinary and industrial use. The work of the improvement district is still underway and they are receiving assistance from the Corps of Engineers and the U.S. Geological Survey. Planning funds have been advanced by the Housing and Home Finance Agency of Community Facilities Administration, and also some planning funds have been expended by the Corps of Engineers and an additional budget request is before Congress at this moment.

While we are very interested in industrial development and the higher economic use of water for industry that produces payrolls and can partially replace lost payrolls in the depressed coal mining industry, we must take a strong position against the project to protect the agricultural users and irrigators of the county whose livelihood and whose fortunes depend upon the already existing supply.

As a county commission we strongly condemn persons responsible for attempting to secure passage of this project. Its net effect would be to deprive our farmers and irrigators of their livelihood and drive them from their homesteads. Any attempt to deplete the supply of our county, which is classified as semiarid, would create a substantial hardship on any and every water user along the river.

I will not attempt to go into other aspects of this problem as other witnesses will discuss it and present evidence in great detail. I want you to know that as chairman of the county commission that we are strongly opposed to the project and unalterably opposed to any attempt to transmountain diversion that would remove the water from our watershed.

Thank you.

Mr. SMITH. Thank you very much.

This concludes the hearing. The committee will probably have some further hearings on additional projects next week. Thank you.

(The subcommittee adjourned at 12:10 p.m.)

(The following was furnished for insertion.)

Annual repayment costs required by local people

	Construc- tion	Other land rights and contract adminis- tration	Installa- tion services	Total
Narrows Reservoir and distribution system:				
Tunnel.....	\$334,040	\$5,000	(1)	\$339,040
Feeder canal.....	37,580	(2)		37,580
North Highline Canal.....	70,000	11,000	(1)	81,000
South Highline Canal.....	465,260	54,000	(1)	519,260
Narrows Dam.....	226,520	3 134,315	(1)	360,835
Channel stabilization.....	129,990	(2)		129,990
Total.....	1,263,390	204,315		1,467,705
Annual local costs: \$1,467,705 times 0.03839 equals \$56,345.				
Irrigation companies distribution systems:				
Pipeline.....	124,670	31,915	(1)	4 156,585
Canal lining.....	662,570	20,000	(1)	682,570
Reservoir.....	20,510	500	(1)	21,010
Diversion dams.....	16,180	400	(1)	16,580
Total.....	823,930	52,815		876,745
Annual local costs: \$876,745 times 0.03839 equals \$33,660.				

¹ Installation services are paid currently; not annual repayment cost.

² Part or all of cost of land rights or contract administration; not annual repayment cost. This will be paid from annual income and other sources.

³ With deduction of \$124,845 for road relocation allocated to AWM which is to be assumed by Sanpete County.

⁴ Does not include municipal water supply.

U.S. SOIL CONSERVATION SERVICE

NORTH SANPETE WATERSHED PROJECT SUMMARY

The watershed area of the north Sanpete project covers approximately 205,000 acres; the irrigated area contains 23,300 acres of cropland with primary water rights served by 26 irrigation companies; all of these irrigation companies are participating in this project. Twenty-one of these companies have conservation plans. The benefit-cost ratio is 2.7 to 1. Total project costs are: Public Law 566 funds: \$2,853,105, or 42 percent; other funds: \$3,942,750, or 58 percent; and total: \$6,795,855.

Land treatment program

Land treatment measures on the irrigated land to be included in the watershed project are those which will provide more efficient use of irrigation water, such as land leveling, ditch lining, farm ponds, etc. The present rate of installation of these measures will be more than doubled. The total cost of installing these measures will be \$567,640. The cost to the farmer will be \$1.80 per acre per year. The estimated net return to the farmer is approximately \$3.85 per acre per year, based on 23,300 acres of irrigated land and amortized over 25 years at 4-percent interest.

In addition to the work on the irrigated land, \$388,425 will be used for land treatment on the dry cropland, range, and national forest lands in the watershed. These will provide protection of critical flood and sediment source areas, as well as increased forage production.

Irrigation system improvements

The next step in the improvement of the water supply in the watershed is the improvement of the water distribution system. Of the 26 irrigation com-

panies participating, 509,000 lineal feet, or over 96 miles of main canals will be lined with concrete, nearly 75,000 feet of pipeline, 7 regulating reservoirs, 9 new diversion dams, and one-half mile of new canal will be installed. The total installation cost of these measures is estimated to be \$2,020,815. The companies will be required to bear \$1,063,705 and includes rights-of-way costs. Cost to the irrigation companies will be \$1.65 per acre per year. The net benefits from increased production from the water saved will be \$10.99 per acre per year based upon 23,300 acres.

Supplemental water supply

To supplement the existing water supply in the valley, water will be brought from Gooseberry Creek, a tributary to the Price River. This involves the construction of a reservoir with a capacity of 17,500 acre-feet, feeder canals, a 3,300-foot tunnel, protective works in Cottonwood Canyon, and 14.7 miles of highline canal in the valley to distribute the water to the irrigation companies. The reservoir will deliver 9,330 acre-feet of water, on the average, through the tunnel. Total installation cost of the Narrows Reservoir system is \$3,223,450. The companies will pay \$1,532,150, and the Utah Fish and Game Department will pay \$180,000. Cost to the water users will be \$4, including 81 cents on operations and maintenance per acre per year compared to a benefit of \$17.50 per acre per year based upon 17,300 acres.

Yield study, Narrows Reservoir: The Soil Conservation Service conducted water yield studies of the drainage area into the Narrows Reservoir, and these studies show that an average annual volume of 12,780 acre-feet of water will be impounded by the reservoir. With normal reservoir operation and losses, the average annual tunnel release is expected to amount to 9,330 acre-feet.

Effect of storage at the Narrows Reservoir on the water supply of the Price River: Two analyses were made based on (a) beneficial use requirements, and (b) primary flow and storage rights.

(a) This analysis showed that there has been an average of 41,950 acre-feet of water released annually from Scofield Reservoir during the April 15–September 30 period for 1945–60. Based on the irrigation requirements for the Price area, an average of 32,080 acre-feet of water must be released from Scofield during this period to supplement the usable natural streamflow in the Price River. This leaves an average excess of more than 9,800 acre-feet of Scofield Reservoir water which has been released annually during the past 16 years (during the April 15–September 30 period). This is more than sufficient to permit the expected future depletion by the proposed Narrows Reservoir of 8,410 acre-feet annually.

(b) The second analysis was made to determine if there was any excess water over primary water rights on the Price River drainage. This analysis was based on flow measurements at the Heiner gage. The Scofield Reservoir storage record and operation were also analyzed.

In order to determine whether there has been sufficient flow available in the Price River at the head of the irrigated area to meet the total primary decreed rights (direct flow—classes 1 through 7), the daily discharges recorded at the U.S. Geological Survey Heiner gaging station were analyzed in cooperation with the Utah State engineer's office for the 1942–60 period (19 years). The Heiner station measures the total Price River flow for all irrigation and industrial diversions below Castle gate. River diversions above the Heiner gaging station include the White River irrigation diversions, the Independent Coal & Coke Co. coal treatment plant, and the Utah Power & Light Co. Carbon steam-electric generating plant.

The average daily flow recorded at the Heiner gaging station which include storage released from Scofield in excess of primary rights were determined for the 19-year period, 1942 through 1960. The daily flows exceeding primary direct flow rights of 25 cubic feet per second for December through February, 167 cubic feet per second for March and April, 244 cubic feet per second for May through September, and 167 cubic feet per second for October and November, were summed for each month. During 17 of the past 19 years, there were daily flows in excess of total primary rights which, when converted to volumes on an annual basis, ranged from 400 acre-feet to a maximum of 145,900 acre-feet. Only during 1959 and 1960 were the daily Heiner flows less than or equal to the total primary rights. The average annual volume of flows exceeding the total primary rights amounted to about 15,800 acre-feet for the past 19 years. The major portion of the annual flow volume in excess of the total primary rights

occurs during the May through July period. This indicates that there is ordinarily a considerable amount of water in excess of direct flow rights which could be saved for use later in the irrigation season. The Narrows Reservoir is estimated to cause an average annual depletion of 8,410 acre-feet. The average annual excess of 15,800 acre-feet is more than sufficient to allow for the expected depletion by the proposed Narrows Reservoir. The excess water over and above the Narrows Reservoir depletion could be utilized for industrial and municipal use by storing it in Scofield Reservoir and other proposed storage sites which could be developed on the White River and on the other principal tributaries to the Price River.

Irrigation water diversions for the April through October period were tabulated from the Price River water commissioner's reports for the years 1942 through 1960. Diversions prior to April and after October were not available. Total annual irrigation water diversions from the Price River for all diversions below Castlegate inclusive of the Carbon Canal, ranged from 38,740 to 78,850 acre-feet with an average of 60,240 acre-feet. Water diverted into the canals before April and after October was not included in the tabulation. Based on an irrigated acreage of 13,200 acres, diversions have ranged from 2.9 to 6 acre-feet per acre for an average of 4.6 acre-feet per acre.

At the eastern (lower) end of the irrigated area, the U.S. Geological Survey operated the Price River near Wellington, Utah, gaging station (No. 3140), for 9 years (1949-58). Annual runoff volumes ranging from 15,480 to 208,800 acre-feet, with an average of 54,590 acre-feet were recorded at the Wellington gage during this period. In terms of percent of the annual runoff volumes recorded at the Heiner station, the downstream Wellington gage had volumes ranging from 25 to 95 percent of the amount passing Heiner. The average percentage for this period was about 50 percent, indicating that at the bottom of the irrigated area the annual river discharge is approximately one-half of the amount entering at the head of the irrigated area. Essentially, there is no further demand on the waters of Price River below the Wellington gage. The last major industrial user, United States Steel's Wellington coal washing plant, is located above this station. No estimates were made by this study of how much of the average annual 54,590 acre-feet outflow near Wellington could be recovered for use in the Helper-Price area.

Following is a summary of benefits and costs to irrigation companies and farmers:

	Benefits	Costs	Benefit-cost ratio
1. Narrows Reservoir system (based on 17,300 acres)-----	\$17.50	\$4.00	4.4:1
2. Irrigation system improvements (based on 23,300 acres)-----	10.99	1.65	6.7:1
Total structural treatment averaged over 23,300 acres of irrigated land ¹ -----	24.00	4.64	5.2:1
3. Land treatment (based on 23,300 acres)-----	2 3.85	2 1.80	2.1:1
Grand total averaged over 23,300 acres-----	27.85	6.44	4.3:1

¹ Items 1 and 2 cannot be added directly because they are factored on different acreages for costs and benefits received.

² Amortized over a 25-year period at 4 percent interest.

It is also believed that additional supplemental water can be developed from ground water in the watershed. Dr. Ray Marcell, formerly head of the University of Utah Geology Department, and now consultant with the Utah Water and Power Board, prepared a report on the potential ground water resources of Sanpete Valley, Utah. This report includes the yield for the entire Sanpete Valley.

Because of this report we consulted with and worked with Dr. Marcell on ground water investigations in the North Sanpete project. Dr. Marcell, after examining the geologic cross sections prepared by Soil Conservation Service geologists and tabulations of existing well logs in the watershed, concurred in the conclusion that 3,700 acre-feet of water annually was the maximum yield that could be expected from ground water in the North Sanpete watershed.

From the study it was estimated that about 20 new wells could be developed in the watershed. The average capacity of these wells was estimated to be 550 gallons per minute, based on existing wells in the area. A pumping season of 75 days was used to compute annual ground water production because surface supplies are generally sufficient to meet irrigation needs during the early part of the growing season. Surface storage of the well water is not practical because there are no storage sites. Using 550 gallons per minute as the average yield per well and 75 days for the pumping season, the maximum annual production amounts to about 3,700 acre-feet.

Also to be included in the project is the conversion of the present Fairview Lakes Reservoir to a fishery by the State department of fish and game, at a cost of \$120,000. The irrigation water presently stored at Fairview Lakes will be moved down to the new reservoir. The State department of fish and game also will install a waterfowl area of 535 acres on the wet lands near the west side of the project area at a cost of \$103,500 and will assist private range owners in clearing and reseeding juniper areas to produce more forage for domestic livestock and big game. Spring City will construct a fishery at a cost of \$2,525.

Average per acre production from the present water supply brings a net return per acre just above the break-even point. The increased production from the water stored at the Narrows site and the water saved by improved irrigation systems will produce high net benefits, since fixed expenses are satisfied by crop production from the present water supply.

The distinguishing features of the North Sanpete project are the program for improvement of existing canal systems, on-farm land treatment, and wildlife development, in addition to storage for irrigation and flood prevention. The project reflects recognition by the sponsors, farmers, and participating agencies of the need and desire for complete water resources development. Thus, through canal lining and improved control structures, seepage losses will be reduced and more water will be delivered to the farm headgate. It is estimated that this phase of the project will increase the delivery of present base flow supplies by 22 percent. The on-farm program consists largely of water conservation practices, such as land leveling, ditch lining, irrigation system reorganization, and improved water management. The on-farm program will reduce gross water requirements at the farm headgate by approximately 10 percent. The total effect of distribution system improvement and on-farm measures is equivalent to increasing the farm headgate supply by 11,790 acre-feet. This conservation of the water supply through improved delivery and on-farm efficiency makes a substantial contribution to the total project water supply.

Although it is physically feasible to apply the system improvement and the on-farm program to a limited extent without the development of supplementary stored water, the various phases of the project are highly interdependent. The stored water constitutes a segment of controlled supply which is needed during the midsummer and late summer months, when the natural streamflow is low. The system improvement makes an important contribution to the project by insuring delivery and use of the natural flow and stored water at the highest practical levels of efficiency. In this way, the stored water complements the natural streamflow supply and is, in turn, enhanced by the improved delivery and on-farm efficiencies.

DEPARTMENT OF AGRICULTURE,
SOIL CONSERVATION SERVICE,
February 19, 1962.

A water supply study for the North Sanpete Public Law 566 watershed project was made by the Soil Conservation Service in cooperation with the State engineer. The objectives of this study were to determine: (1) the need for additional irrigation water in the North Sanpete watershed project; (2) what part of the need could be satisfied by underground water development; (3) the expected water yield to the Narrows site on upper Gooseberry Creek, tributary to the Price River; and (4) the effect of the proposed Narrows storage on the water supply and water rights of the downstream Price River water users. The studies and results are described in the following paragraphs:

1. Need for additional supplemental water to irrigate the 23,300 acres of cropland in the watershed having primary water rights

	Net incremental increase, average annual	Average annual farm headgate supply (May- September) on 23,300 acres of cropland
Nonproject: Present streamflow supply:		
Total acre-feet -----		37,650
Acre-feet per acre -----		1.62
With Public Law 566 project: Supply available for beneficial use:		
With on-farm land treatment measures effective:		
Total acre-feet -----	3,530	41,180
Acre-feet per acre -----	.15	1.77
With irrigation company system improvement measures installed:		
Total acre-feet -----	8,260	49,440
Acre-feet per acre -----	.35	2.12
With ground water development:		
Total acre-feet -----	3,330	52,770
Acre-feet per acre -----	.15	2.27
With supplemental storage water from the Narrows Reservoir system:		
Total acre-feet -----	6,560	59,330
Acre-feet per acre -----	.28	2.55
Total requirement needed with all improvements installed: Acre-feet per acre -----		3
Acre-feet available with all improvements installed: Acre-feet per acre -----		2.55
Acre-feet still needed to satisfy total requirements: Acre-feet per acre -----		.45

2. Ground water study

A detailed study of watershed geology and existing wells was made to predict future ground water development in the North Sanpete area. A geologic map was compiled from information collected by Dr. E. M. Spieker and associates of Ohio State University. This map was later supplemented by a geologic structure map prepared by P. T. Walton, Walter-Kearns, Salt Lake City, Utah.

Eight geologic sections were drawn, using well log data, geologic maps, and information collected in the field. These geologic sections were used to locate favorable locations for bedrock wells and proposed test wells. Test wells are needed to more accurately determine the character and thickness of subsurface formations and to better predict the effects of additional pumpage on existing water supplies.

From the study, it was estimated that about 20 new wells could be developed in the watershed. The average capacity of these wells was estimated to be 550 gallons per minute, based on existing wells in the area. A pumping season of 75 days was used to compute annual ground water production because surface supplies are generally sufficient to meet irrigation needs during the early part of the growing season. Surface storage of the well water is not practical because there are no storage sites. Using 550 gallons per minute as the average yield per well and 75 days for the pumping season, the maximum annual production amounts to about 3,700 acre-feet. Alluvial aquifers will supply about one-half of this volume. Dr. Ray Marcell, geologist, of the University of Utah, and consultant with the Utah Water & Power Board, was consulted during the investigations. He presently believes a 3,700-acre-feet yield from ground water in the project is a maximum yield.

From all indications, there is not a large volume of ground water available in the northern part of the Sanpete Valley. The alluvial fill in the valley is quite shallow and the sediments are not well sorted. Bedrock underlying the alluvium consists mainly of shales with some interbedded sandstones and limestones for several hundred feet in depth. The sandstones and limestones are usually too tight to yield adequate size irrigation streams, except where they are highly fractured due to faulting.

3. Yield study—Narrows Reservoir

The 50-percent chance long-term annual yield to the Narrows Reservoir from the natural Gooseberry Creek drainage, the two proposed feeder canals, and overflow and seepage from the proposed Fairview Lakes fishery is estimated

to be 13,880 acre-feet. It is conservatively estimated that over the evaluation period the proposed Narrows Reservoir will impound an average annual volume of approximately 12,780 acre-feet. With normal reservoir operation and losses, the average annual tunnel release is expected to amount to 9,330 acre-feet.

4. Effect of storage at the Narrows Reservoir on the water supply of the Price River

Two analyses were made based on (a) beneficial use requirements, and (b) primary flow and storage rights.

(a) This analysis showed that there has been an average of 41,950 acre-feet of water released annually from Scofield Reservoir during the April 15–September 30 period for 1945–60. Based on the irrigation requirements for the Price area, an average of 32,080 acre-feet of water must be released from Scofield during this period to supplement the usable natural streamflow in the Price River. This leaves an average excess of more than 9,800 acre-feet of Scofield Reservoir water which has been released annually during the past 16 years (during the April 15–September 30 period). This is more than sufficient to permit the expected future depletion by the proposed Narrows Reservoir of 8,410 acre-feet annually.

(b) The second analysis was made to determine if there was any excess water over primary water rights on the Price River drainage. This analysis was based on flow measurements at the Heiner Gage. The Scofield Reservoir storage record and operation were also analyzed.

In order to determine whether there has been sufficient flow available in the Price River at the head of the irrigated area to meet the total primary decreed rights (direct flow—classes 1 through 7), the daily discharges recorded at the U.S. Geological Survey Heiner Gaging Station were analyzed in cooperation with the Utah State engineer's office for the 1942–60 period (19 years). The Heiner station measures the total Price River flow for all irrigation and industrial diversions below Castle Gate. River diversions above the Heiner Gaging Station include the White River irrigation diversions, the Independent Coal & Coke Co. coal treatment plant, and the Utah Power & Light Co. Carbon steam-electric generating plant.

The total decreed rights on the Price River were listed by the State engineer's office as follows:

Right	Flow, cubic feet per second	Period of use
Price River (Morse) decree of 1902.....	87.5	Irrigation season (Mar. 1–Nov. 30).
Supplemental (Morse) decree of 1910.....	80.0	Do.
Application No. 1036.....	77.0	Period Apr. 1–Sept. 30.
Application No. 1036 (domestic and culinary).....	25.0	Period Oct. 1–Mar. 31.

The average daily flows recorded at the Heiner gaging station which include storage releases from Scofield in excess of the above primary rights, for the periods of use shown, were determined for the 19-year period, 1942 through 1960. The daily flows exceeding primary direct flow rights of 25 cubic feet per second for December through February, 167 cubic feet per second for March and April, 244 cubic feet per second for May through September, and 167 cubic feet per second for October and November, were summed for each month. During 17 of the past 19 years there were daily flows in excess of total primary rights, which when converted to volumes on an annual basis, ranged from 400 acre-feet to a maximum of 145,900 acre-feet. Only during 1959 and 1960 were the daily Heiner flows less than or equal to the total primary rights. The average annual volume of flows exceeding the total primary rights amounted to about 15,800 acre-feet for the past 19 years. The major portion of the annual flow volume in excess of the total primary rights occurs during the May through July period. This indicates that there is ordinarily a considerable amount of water, in excess of direct flow rights, which could be saved for use later in the irrigation season. The Narrows Reservoir is estimated to cause an average annual depletion of 8,410 acre-feet. The average annual excess of 15,800 acre-feet is more than sufficient to allow for the expected depletion by the proposed Narrows Reservoir. The excess water over and above the Narrows Reservoir depletion

could be utilized for industrial and municipal use by storing it in Scofield Reservoir and other proposed storage sites which could be developed on the White River and on the other principal tributaries to the Price River.

Irrigation water diversions for the April through October period were tabulated from the Price River water commissioner's reports for the years 1942 through 1960. Diversions prior to April and after October were not available. Total annual irrigation water diversions from the Price River for all diversions below Castle Gate inclusive of the Carbon Canal, ranged from 38,740 acre-feet to 78,850 acre-feet with an average of 60,240 acre-feet. Water diverted into the canals before April and after October was not included in the tabulation. Based on an irrigated acreage of 13,200 acres, diversions have ranged from 2.9 to 6 acre-feet per acre for an average of 4.6 acre-feet per acre.

At the eastern (lower) end of the irrigated area, the U.S. Geological Survey operated the Price River near Wellington, Utah, gaging station (No. 3140), for 9 years (1949-58). Annual runoff volumes ranging from 15,480 to 208,800 acre-feet, with an average of 54,590 acre-feet, were recorded at the Wellington gage during this period. In terms of percent of the annual runoff volume recorded at the Heiner station, the downstream Wellington gage had volumes ranging from 25 to 95 percent of the amount passing Heiner. The average percentage for this period was about 50 percent, indicating that at the bottom of the irrigated area, the annual river discharge is approximately one-half of the amount entering at the head of the irrigated area. Essentially there is no further demand on the waters of Price River below the Wellington gage. The last major industrial user, United States Steel's Wellington coal washing plant, is located above this station. No estimates were made by this study of how much of the average annual 54,590 acre-feet outflow near Wellington could be recovered for use in the Helper-Price area.

Examination of the operation records of Scofield Reservoir show that the usable reservoir contents have exceeded the allowable storage of 30,000 acre-feet under application No. 1035 (1906, 12,020 acre-feet) and application No. 8989-a (1937, 17,980 acre-feet) during 13 of the past 19 years (since 1942). Storage right No. 1035 (1906, 12,020 acre-feet) is the only senior storage rights to application 9593 (1924, 15,000 acre-feet), storage application of the Sanpete Water Users Association for the proposed Narrows storage reservoir. Storage application 8989-a (1937, 17,980 acre-feet) is junior to application 9593. The entire reservoir, having a usable capacity of 65,780 acre-feet, was filled in 1952 and 1958. Neglecting differences between inflow and outflow, the total annual range between the maximum and minimum storage levels ("minimum controlled storage") has ranged from 18,000 acre-feet to over 40,000 acre-feet, with an average of some 28,000 acre-feet for the 1942-60 period.

U.S. DEPARTMENT OF AGRICULTURE,
SOIL CONSERVATION SERVICE,
Salt Lake City, Utah, January 17, 1962.

Mr. JAY R. BINGHAM,
*Executive Director, Utah Water and Power Board, State Capitol Building,
Salt Lake City, Utah.*

DEAR JAY: I believe that solutions to a considerable part of the water problems on the Price River watershed could be worked out under the authority of Public Law 566.

The area of the Price River from the lowest point of water use to the top of the watershed exceeds 250,000 acres. There are approximately 425,000 acres in the drainage from the divide down to and including the cultivated area at Wellington. However, two or three applications for assistance under Public Law 566 could be submitted simultaneously covering the whole drainage and work plans developed concurrently for each segment of the total watershed. This way, interrelated problems between the segments could be studied and a correlated development for the entire drainage carried out as if it were one work plan. I very much doubt that there are any potential storage sites which would exceed the 25,000 acre-feet maximum capacity allowed under Public Law 566.

If the entire Price River watershed were planned under Public Law 566, a water supply study would be made of the drainage area and all storage sites investigated as to economic and physical feasibility. Irrigation distribution system efficiencies would be studied and feasible recommendations made for getting maximum efficiency in the delivery of water to the farm. As I under-

stand the situation under present conditions, canal losses are on the high side. In certain sections these losses may account to as much as 30 percent. On farm efficiencies would be materially increased under a Public Law 566 project as on-farm conservation measures would be accelerated.

A combination of storage development, irrigation system improvement, and increased on-farm efficiencies could conceivably be equivalent to increasing the water supply at the farm headgate as much as 25 to 30 percent.

As you know, serious erosion is going on in the upper watershed. Treatment of these watershed lands under Public Law 566 would reduce downstream flood damages, both water and sediment. Structural treatment to prevent flood damages would be planned where economically feasible.

Municipal and industrial storage could be included in any flood prevention, agricultural, or fishing reservoir. The cost in a structure allocated to municipal or industrial storage would have to be borne 100 percent by local funds. The cost allocated to flood prevention would be borne entirely by Federal funds. The cost allocated to agricultural storage would be shared in by Federal funds not to exceed 46 percent. The cost allocated to fishery storage would be shared in by Federal funds not to exceed 50 percent.

As you no doubt know the Utah Fish and Game Department, U.S. Forest Service, U.S. Bureau of Land Management, and the State of Utah have lands and developments within the Price River drainage. The first three were in attendance at a meeting in Price on January 5 and were very much interested in improvements that could be installed under a Public Law 566 watershed project.

I believe with the cooperative effort of the cities, irrigation companies, industry, and Federal and State agencies a satisfactory development could be carried out on the Price River drainage.

Sincerely yours,

J. A. LIBBY, *State Conservationist.*

STATE OF UTAH,
OFFICE OF THE GOVERNOR,
Salt Lake City, February 20, 1962.

Mr. FRANK J. WELCH,
*Assistant Secretary,
Department of Agriculture,
Washington, D.C.*

DEAR MR. WELCH: In response to your letter of February 9, 1962, concerning the water supply and rights for the north Sanpete Public Law 566 watershed project, I would like to say that we have made an intensive review of these matters and find that our analysis of the facts does not bear out the conclusions reached by Mr. Monson who retired from the State engineer's office some 6 years ago. We feel that the Monson analysis is neither an accurate summary of the water rights nor a realistic appraisal of the water supply and requirements. He assumes that the appropriated flow right is always available and needed. Neither of these assumptions is correct. At times, the flow of the river far exceeds that which the Price River users have any right to divert. And under the theory of beneficial use, the laws of Utah would not allow a diversion of 10 acre-feet per acre of irrigated land. Our analysis shows that, instead of water being available only for 3 years out of 16, as indicated by Monson, it would be available 12 out of 16 without any carryover in Scofield Reservoir. This reservoir, with an active capacity of 65,780 acre-feet, was constructed by the Bureau of Reclamation under agreement with both groups of users that it would be used for carryover storage.

The problem from the standpoint of the Price River people can be approached by reviewing the respective priorities of the three approved storage applications on the Price River. The applications are as follows:

Application Number	Ownership	Priority	Storage
1935	Price River Water Users Association.....	1906	<i>Acres-feet</i> 12,020
9593	Sanpete Water Users Association.....	1924	15,000
8989-a	Price River Water Conservation District.....	1937	17,980

At the present time, without the north Sanpete project storage facilities, the Price River Water Users Association, and the Price River Water Conservation District have been storing water in Scofield Reservoir under applications 1035 and 8989-a. With the north Sanpete storage in existence, the project will be entitled to receive water available from Gooseberry Creek for storage with a priority ahead of storage under application 8989-a.

The State engineer is required to distribute the available storage water on the basis of the priorities outlined above. As seems to always occur with the transmountain diversion of water, the people in the basin of origin are attempting to block any development that would draw on the water supply.

It is becoming increasingly clear that the Price River interests are not likely to be able to upset the legality or priority of application No. 9593 in the courts. The Utah State Supreme Court has directed the north Sanpete people to proceed to develop the project with diligence and, in my opinion, they are doing so. Apparently, realizing this, the alternative to the Price River interests has been to attack the project from other directions; namely, water supply and the appropriation of Federal funds. Their attack on the water supply is unfounded according to our analysis. With the establishment of the facts that the water rights and water supply are adequate and that the project is reported as being physically and economically feasible, the attack through the Bureau of the Budget should be fruitless.

I am convinced from my own work on the watershed, from my personal knowledge of the agreement between the Price River and San Pitch River interests, and from a study of the water rights and water supply records, that the north Sanpete watershed project is legally and morally sound, that the report submitted to you by the Soil Conservation Service shows it is physically and economically feasible and that the watershed project should proceed.

Sincerely yours,

GEORGE D. CLYDE, *Governor.*

DEPARTMENT OF AGRICULTURE,
Washington, D.C., April 26, 1962.

HON. DAVID E. BELL,
Director,
Bureau of the Budget.

DEAR MR. BELL: During recent discussions relating to the north Sanpete watershed work plan prepared under the authority of the Watershed Protection and Flood Prevention Act (Public Law 566, 83d Cong., as amended) and transmitted to you on January 12, 1962, for transmittal to the Congress, the staff of your Bureau requested that we furnish answers to the following questions:

1. What impact will the project have on existing industries using Price River water?
2. Do the local people have ability to obtain financing of the local cost share and have reasonable and sound repayment ability for the project?

We are pleased to furnish the following information relating to the two questions raised:

Question 1. Based on water supply studies including industrial uses in Carbon County, the project will have no detrimental effect on existing industrial development. The industries dependent upon the Price River for their water supply have "decreed" direct-flow and storage rights which are prior to the storage rights associated with the north Sanpete project. The industrial water users having decreed rights include the United States Steel Corp., the Utah Power & Light Co., and the Independent Coal & Coke Co. Their direct-flow rights are 5.7, 5.1, and 1.4 cubic feet per second, respectively.

The Kaiser Steel Co. mine at Sunnyside and the Geneva Steel Co. mines at Horse Canyon and Columbia are not dependent upon flow from the Price River.

At the Heiner gaging station, which is below all industrial and municipal diversions except for the United States Steel Corp. coal washing plant below Wellington, there has been an average annual runoff volume of some 15,800 acre-feet in excess of the total decreed primary rights of the downstream users including the United States Steel Corp. coal washing plant. All Price River direct-flow rights must be satisfied before storage can be made at Scofield Reservoir or at the proposed Narrows Reservoir.

Seepage losses from the proposed Narrows Reservoir in the north Sanpete project will, especially in drought years, increase the downstream base stream-

flow below the reservoir during the low runoff season (July–September). This will result in an increased water supply for the downstream direct-flow users during low runoff periods. In addition, 35,000 acre-feet of replacement storage capacity is provided in the enlarged Scofield Reservoir to compensate Price River direct-flow rights for streamflow depletion from the proposed storage reservoir to be built on upper Gooseberry Creek by the north Sanpete interests.

The proposed Narrows Reservoir is expected to have an average annual depletion—to Gooseberry Creek—of 8,410 acre-feet. Allowing a conservative conveyance loss of only 10 percent (for seepage, evaporation, and consumptive use by vegetation) an average annual net depletion of about 7,500 acre-feet would result at the Scofield Reservoir, approximately 12 miles downstream.

Question 2. The sponsors of the north Sanpete project are able to, and can without question, repay their costs of the project. This opinion is based upon the study made by the Soil Conservation Service, including the following factors: (a) annual benefits of \$17.50 per acre, which will accrue to the direct users of the reservoir system as against an annual cost to the user of \$4 per acre; (b) the total project annual development costs per acre of the north Sanpete watershed project, including land treatment, distribution system improvement and the Narrows storage system are \$6.45—this will return annual net benefits to the user of \$27 per acre; (c) 120 water conservation projects serving about 300,000 acres of irrigated land in Utah financed by the Utah Water & Power Board, with comparable benefit-cost ratios, have no record of delinquency; (d) approximately 100 irrigation company water conservation projects financed by the Farmers Home Administration, with comparable benefit-cost ratios, have no delinquencies; (e) in Sanpete County, 5 irrigation companies have loans with the Farmers Home Administration and have not been delinquent; (f) the Sanpete Water Users Association, Inc., which will finance repayment of local cost of the Narrows Reservoir system by assessments on its stockholders, has no other outstanding indebtedness; (g) the Utah State office of the Farmers Home Administration believes, and has stated to us, that in its judgment the local people have the ability to repay their share of the costs of the north Sanpete project; (h) 21 irrigation companies and the Sanpete Water Users Association in the project area are now qualified as sponsors under the recent amendment to Public Law 566, and plan to become sponsors; (i) all sponsors, present and expected, are eligible for financing either through the Farmers Home Administration or the Utah Water & Power Board; (j) under other programs of assistance to agriculture now in progress by the Soil Conservation Service and the agricultural conservation program, many farmers using private financing in the State of Utah are doing development work costing in excess of \$200 per acre, exclusive of water supply costs. The annual cost of these improvements to the farmer is in excess of \$13 per acre; (k) these costs per acre are not unusual for supplemental water. Actual water rentals in Utah for supplemental irrigation water range from \$10 to \$30 per acre-foot per year. Supplemental water during July–September, on lands without a full water supply, has greater net return value than the base water supply. Marginal farming is changed to a sound economic enterprise by developing supplemental water. All water supply planned for development under the north Sanpete project will only supplement existing supplies.

We sincerely hope that this information provides the necessary clarification and that you will now be in a position to transmit the plan to the Congress.

Sincerely yours,

FRANK J. WELCH, *Assistant Secretary.*

APRIL 27, 1962.

D. A. WILLIAMS,
Administrator, Soil Conservation Service, Washington, D.C.
J. A. LIBBY,
State Conservationist, Soil Conservation Service, Salt Lake City, Utah.

WATERSHED PROTECTION (PUBLIC LAW 566), NORTH SANPETE, UTAH

The water supply for the proposed Narrows Storage Reservoir on upper Gooseberry Creek does not depend upon and was not based upon the 1943 tripartite contract between the United States of America, the Carbon Water Conservancy District, and the Price River Water Conservation District. However, it was

taken into consideration in the work plan, because it is a valid, binding contract between the United States (which is and will be a party to the development of the North Sanpete watershed project) and the other parties named. In addition, at a meeting with the Bureau of Reclamation they informed us that the tripartite contract would have to be recognized in the work plan as a binding contract. Otherwise, the Bureau would be unable to give their approval to the work plan. Mr. Jay Bingham, executive director of the Utah Water and Power Board, was in attendance at the meeting. However, the water supply used in the work plan was justified and substantiated by the fact that there was sufficient water available in excess of beneficial-use requirements and the existing Price River decreed flow and senior storage rights to more than allow for the expected depletion by the Narrows Reservoir—8,410 acre-feet annually.

A beneficial-use study was made in which it was determined that the average annual diversion requirements for the 13,200 acres of irrigated land below the Heiner gaging station amounted to 46,130 acre-feet for the April 15–September 30 period. Tabulation of diversion records from the Price River water commission's annual reports for 1942–60 gave a total average annual volume of 60,240 acre-feet for all the irrigation diversions below Castle Gate (diversion records prior to April and after October were unavailable).

Analysis of Price River streamflow recorded at the Heiner gage, for the 1945–60 period (same Apr. 15–Oct. 30 season), gave an average annual volume of 68,450 acre-feet. For the same 16-year period of record, average annual releases from Scofield Reservoir—for the April 15–September 30 period—amounted to 41,950 acre-feet. Our analysis found that an average annual release of some 32,080 acre-feet from Scofield Reservoir was necessary in order to supplement the usable natural streamflow available at the Heiner gage and furnish the needed diversion requirements (Apr. 15–Sept. 30 period, 1945–60). Thus, from Scofield Reservoir alone, there was an average of over 9,800 acre-feet of excessive release, more than ample to allow for the depletion from the proposed Narrows Reservoir.

Analysis of the decreed direct flow rights on the Price River, based on streamflow records at the Heiner gage and Scofield Reservoir operation records (for the 1942–60 period of record), was made in cooperation with the Utah State engineer's office. The average annual volume of flows exceeding the total decreed direct flow (primary) water rights amounted to some 15,800 acre-feet for the 1942–60 period. Again, this analysis determined that the average annual Narrows Reservoir depletion would not adversely affect existing Price River decreed rights.

The Sanpete Water Users Association, the Soil Conservation Service, and the sponsoring local organizations formulated the proposed Narrows Reservoir system recognizing that operation of the reservoir would be in accordance with decisions and regulations of the Utah State engineer's office, especially in regard to existing downstream water rights having a senior priority. The only downstream storage right senior to approved application No. 9593, the storage application of the Sanpete Water Users Association (15,000 acre-feet, 1924 priority), is the certified Scofield Reservoir right to store 12,020 acre-feet under application No. 1035 (1906 priority). However, the gaging station at the mouth of the principal drainage entering Scofield Reservoir—Price River above Scofield Reservoir No. 3105, having a total drainage area of approximately 62 square miles—has had an average annual runoff of some 33,900 acre-feet during the 1942–60 period. The least annual runoff ever recorded at this gage was 15,160 acre-feet during the 1959 water year.

The petition filed by several of the holders of primary rights on Price River does not assert any new material matter but makes a claim to the decreed rights held by such users. These rights are recognized in the work plan and are in no way jeopardized by the construction of the Narrows Reservoir.

Since the Budget Bureau has probably been furnished a copy of the petition for interlocutory order, the information in this letter should probably be furnished to them also.

J. A. LIBBY.

WATERSHED DEVELOPMENT—1962

THURSDAY, AUGUST 16, 1962

HOUSE OF REPRESENTATIVES,
COMMITTEE ON PUBLIC WORKS,
SUBCOMMITTEE ON WATERSHED DEVELOPMENT,
Washington, D.C.

The subcommittee met, pursuant to recess, at 10:15 a.m., in room 1302, New House Office Building, Hon. Frank E. Smith (chairman of the subcommittee) presiding.

NORTH SANPETE WATERSHED, UTAH

Mr. SMITH. The hearings will be continuing this morning on the same basis as we carried them on yesterday. We will provide the time in turn, 50 minutes for each side—the proponents and the opponents.

Yesterday, as the witnesses for the proponents we had Mr. Nielsen as the last witness. Should we call Mr. Jensen next, or would you like to say something first?

Mr. NIELSEN. If I may, Mr. Chairman, may I introduce them in a different order?

Mr. SMITH. Yes. In whatever manner you would like to have, for the 50 minutes.

Mr. NIELSEN. I would like to introduce to the subcommittee Mr. Thomas Jensen, who is secretary-manager of the Utah Water Users Association, who will speak first. If I may, I would like to introduce them all and then let them come up in turn.

Mr. Keith S. Hansen of Fairview, Utah, will speak after Mr. Jensen. Will you stand, Mr. Hansen?

Following Mr. Hansen will be Mr. Grant Johansen of Mount Pleasant, director of the Soil Conservation District of Sanpete County.

Following him will be Mr. Clifford S. Blackham of Moroni, Utah, the chairman of the Six-County Organization.

Then I or Mr. McConkie will conclude.

Mr. SMITH. Fine. Mr. Jensen.

STATEMENT OF THOMAS W. JENSEN, SECRETARY-MANAGER, UTAH WATER USERS ASSOCIATION, SALT LAKE CITY, UTAH

Mr. JENSEN. Mr. Chairman and members of the committee, my name is Thomas W. Jensen, secretary-manager of the Utah Water Users Association, an association that is deeply interested in the conservation of our water resources for the helping of agriculture. Utah is the mother State in the use of water for irrigation in the Anglo-Saxon area. We have long been interested in the conservation

and the development of our water for agricultural purposes. That does not mean to say we are against the development of water for other purposes. We are deeply interested in industry. We are deeply interested in our communities' welfare and domestic or culinary waters, but in general we are deeply interested in the agricultural development and conservation of our water.

My father before me was deeply interested in the developing of water resources in Sanpete County. Long before the turn of the century he and a group of other men were promoting what was then known as the Mammoth Reservoir site, which was built for the purpose mainly of helping to supply Carbon County, together with the surplus water to go on a transmountain diversion into Sanpete, and from that day to this we have been working unitedly, I was going to say, and it has been pretty much unitedly for the conservation of that area of the State, which would help with a full water program for Carbon County and their agricultural pursuits, and would help with supplemental water for many thousands of acres in Sanpete County.

In Sanpete it is a sad story on account of not having water fully to develop their crops later in the year. Many people, including myself and a large family, had to seek work and other employment last year and leave Sanpete County because of the failure of our crops in the latter part of the season. This small amount of water that would be available and is available for Sanpete would help to mature thousands of acres of crops which we see annually go by the way because they burn up in the latter part of the summer.

So, gentlemen, from the standpoint of water conservation and water development, our purpose, and our sole purpose, is for the full utilization of our water resources within the State of Utah. As an organization we are deeply interested in this project, as it is one that will help to supply supplemental water to the great area of Sanpete County.

At one time, for your information, Sanpete County was considered the granary of Utah. Today hundreds of carloads of grain and small grains and feed are shipped into that county annually to help take care of livestock. As mentioned here yesterday, it is one of the largest turkey areas in the State. The Sanpete people are a thrifty people and they are a people who enjoy wanting to take care of themselves; with the help of themselves, and with a little help toward the developing of their resources, which has proven to be a burden that is too great and expensive at the present time for them to do it themselves, they will be able to do it. But there is not a finer project that has been engineered under the Soil Conservation Service than this project, which has been studied and engineered by the Soil Conservation Service.

Just in passing, I want to say that I am the father—I introduced the first legislation statewide in Utah to create a soil study and soil districts. I have been deeply interested all my life in the betterment and better care of our soils. Likewise, I have been deeply interested in helping to conserve our water resources.

It has been a pleasure to be here before you. I left a short statement with you yesterday, a statement of our water users, and I trust that this committee will look with favor on helping a disaster area out in the State of Utah, which is one of our fine counties in the State. I am not saying anything against Carbon County and their industries and their resources, but we feel that there is some water to be transmountain

diverted over to help for supplemental purposes into the agricultural area of Utah.

Gentlemen, I thank you for this opportunity of saying these few words, and I assure you that our water users of the State will appreciate your consideration in a provision of the North Sanpete Watershed.

Mr. SMITH. Thank you, Mr. Jensen.

I might point out I know Mr. Jensen personally and I know of his great contribution to water conservation.

The next witness is Mr. Hansen, whom I have also known personally.

STATEMENT OF KEITH S. HANSEN, FAIRVIEW, UTAH, COUNTY COMMISSIONER, PRESIDENT, SANPETE WATER USERS ASSOCIATION, AND CHAIRMAN OF THE NORTH SANPETE WATERSHED COMMITTEE

Mr. HANSEN. I am Keith S. Hansen. I reside at Fairview, Utah. I was born and raised in Sanpete County and am now a county commissioner, president of the Sanpete Water Users Association, and chairman of the North Sanpete Watershed Committee.

Sanpete County has been declared a depressed area and is in need of help to boost its employment and improve its economic condition. The North Sanpete watershed project, which covers approximately 204,000 acres in the north end of the county, will help to stimulate the economy of the entire county area. We have lost one-third of our population in the last 20 years. Last January our unemployment was 21 percent.

Our livelihood is mainly agriculture, so that we need this watershed project to help make our agriculture economy more stable. We are likewise very interested in attracting some industrial business to the area, which cannot be done without a more firm water supply. To date we have very little water storage for the area, so that our farmers, as well as our various communities and small industrial users, must depend upon a very irregular and uncertain water supply governed principally by the streamflows, which are greatly reduced in the late summer months.

This project will provide storage facilities for irrigation which will furnish a supplemental water supply to our lands already under cultivation. It will not bring additional acreage into production. It will also provide for the development of such recreational facilities as public fisheries, boating, camping, hunting. There are other important possibilities such as skiing, resorts, lodges, and so forth, which will attract tourists into our area.

Other aspects of the project will convert our wet bottom lands to duck, geese, and other bird habitat; and 4,300 acres of rangeland will be renovated for multiple use, mainly livestock and big game. In fact, the Utah State Fish and Game Commission is participating in the project and will contribute about \$200,000 to the construction of the reservoir and water storage facilities.

It is planned that the farmers and irrigation companies will apply conservation improvements that will conserve our water supplies and soils so that the fullest value can be obtained from our water. The farmers in our county realize the importance of conserving water.

In the last few years they have lined 300,000 feet of canals. They have built many ponds and leveled many acres of land and put forth a lot of effort and work to conserve the water we already have. The economy in our county is one of the lowest of the counties in Utah, and yet application of conservation measures ranks among the highest.

The work plan of the North Sanpete watershed project was prepared by the Sanpete County Soil Conservation District, Sanpete County Water Conservancy District, Sanpete County, Fairview City, Mount Pleasant City, Spring City, Moroni City, and the Utah State Department of Fish and Game. Technical and other assistance was provided by the Soil Conservation Service, Forest Service, and the State and county offices of the Agricultural Stabilization and Conservation Committee of the U.S. Department of Agriculture; the Bureau of Land Management; the Bureau of Reclamation; and the Geological Survey of the U.S. Department of the Interior; the Bureau of Public Roads of the U.S. Department of Commerce; the Utah Water & Power Board; the Utah State Land Board; the Utah State Board of Forestry and Fire Control; the Utah Cooperative Extension Service; the Sanpete Water Users Association (a corporation), and 26 local irrigation companies.

There is just one reason why I would like to draw the attention of you gentlemen to this, and that is the reason why I think you should give your final approval to this project, so that funds can be made available to this project, and that is the moral obligation that I feel you gentlemen, representing the U.S. Government, have toward this project through what is known as, as was mentioned yesterday, the tripartite agreement. This is the agreement that the U.S. Government has with the Bureau of Reclamation for the construction of this Gooseberry project, which should have been built years ago.

The work plan has been audited and screened by all necessary State agencies, the U.S. Department of Agriculture, and the Bureau of the Budget. Both State and Federal agencies have also heard, in private conference and by public hearing, the arguments presented by our opposition, and thereafter have approved the project. In behalf of Sanpete County, the Sanpete County Water Users Association, Inc., and the North Sanpete Watershed Committee, I ask your approval for this very much needed project. I think the work plan is well conceived and the material therein reliable and correct. It is one of the most economical projects planned by the Soil Conservation Service in Utah, with a benefit-cost ratio of 2.7 to 1.

We have men here today who can answer and explain questions about water supply, water rights, or any other technical or legal matter concerning this project; but I would like to draw to your attention just one reason why I think you, representing the U.S. Government, should give your final approval to this project so that Federal funds will be made available to assist the local organizations in putting the work plan into effect. Our opposition is attempting to repudiate an honorable and moral obligation to Sanpete County which has been protected by the Bureau of Reclamation through a valid contract between the U.S. Government, the Carbon Water Conservancy District, and the Price River Water Conservation District, with Sanpete as a third-party beneficiary. This agreement is known as the tripartite contract agreement. It specifies and provides for the build-

ing of two reservoirs, the Scofield and the Gooseberry. It guarantees existing rights in Carbon County and provides additional water for Sanpete from the unappropriated supply through extra storage in the Scofield Reservoir and construction of the Gooseberry Reservoir. Although this is only a part of the North Sanpete watershed project, our opponents are here today to resist the entire work plan.

Just last week an article about this hearing today was published in one of our State newspapers which said that certain people were coming here today to protest this project because they say only 3 years out of 16 is water available for this project, and just last year they filed an application with the Utah State engineer to build a reservoir in approximately the same place where we are going to build the Gooseberry Dam. This move was obviously made to take advantage of our water filings if we fail to construct our reservoir.

In summary:

1. This project is a sound, economically feasible project.
2. There is water available for this project and the water in question, which by the way originates in Sanpete County, is held under legal and valid filings by the Sanpete Water Users Association.
3. Recognizing the importance of conserving water, Sanpete people have in the last few years lined 300,000 feet of canals to their farms and are trying to use all available water in a more economical and beneficial way.
4. The Sanpete water users cooperated in good faith with Carbon County and the Government in the rebuilding of Scofield Reservoir before the Gooseberry project, which latter project was protected by the tripartite agreement.
5. No prior valid and existing water rights in Carbon County will be jeopardized by the North Sanpete watershed project.
6. We have the endorsement and support of our local people, irrigation companies, cities, counties, State organizations and agencies, the U.S. Department of Agriculture, and the approval of the Bureau of the Budget for this project.
7. Our county has been declared a depressed area; and we need this project to help our local economy.
8. We appreciate the support we have received from all State and Federal agencies in the past, and I earnestly urge you to give your approval to this project.

Mr. SMITH. Thank you, Mr. Hansen.

Mr. Johansen.

STATEMENT OF GRANT JOHANSEN, MOUNT PLEASANT, SANPETE COUNTY, UTAH, APPEARING FOR THE SANPETE COUNTY SOIL CONSERVATION DISTRICT

Mr. JOHANSEN. Mr. Chairman and members of the committee, my name is Grant Johansen. I reside in Mount Pleasant, Sanpete County, Utah. I am the former mayor of Mount Pleasant and now am supervisor for the Sanpete Soil Conservation District, whom I represent.

Yesterday I filed a statement for your group. There are a few points I would like to call your attention to this day. In the interests of time I shall cut my remarks down and make them brief.

This project, as we have worked on it as one of the sponsors, and as we have followed it through the process of its history, meets every in-

tent and requirement set up under Public Law 566 for a participating project. I can assure you that Sanpete County Soil Conservation District is now prepared to carry out its responsibilities for the installation as stipulated in the watershed work plan, which I assume you have a copy of.

This project you have before you would never have reached your honorable body, I am sure, had it not been feasible from an economic standpoint, with firm water rights, and from a moral standpoint, as has been mentioned by Mr. Hansen.

Let me review, briefly, the process through which it has traveled during the last 2 years, during its planning. Mr. Hansen mentioned the many participating organizations that worked and scrutinized and analyzed this project to make it feasible, and a worthwhile project. Local approval had to be obtained, and it went from there to the Governor of the great State of Utah, who had to sign it. Before signing it, he referred it to the State water engineer, to make sure that the water rights were firm, and referred it to the Utah Water and Power Board, which is an impartial board representing the various regions of the State of Utah.

The Governor signed the bill for the project. It was sent to Washington, to all Federal agencies involved with water, for approval. Some of these Federal agencies, you will recall, are the Corps of Engineers, the Department of Health, Education, and Welfare, the Fish and Wildlife Bureau, the Bureau of Reclamation, the Bureau of Mines, and, last but not least, the Bureau of the Budget.

After seeking additional information, they endorsed and approved this project. So to this point, gentlemen, the project has been approved by every Bureau and agency that has anything to do with the approval of such a project.

The question was brought up yesterday as to the ability of these people to pay. I only cite you one case from experience. During my years which I served as mayor of Mount Pleasant City, Utah, the Pleasant Creek "Pilot" watershed project, one of the Nation's pilot projects, was planned and constructed during a 5-year period. We found, from our experience with these people—and this is only a few of the people who will be involved in this tremendous project—but we found, in working with these people that participated in this project, which was over a half a million dollar project, that they met the demands of their sponsorship and did their share as it came due.

They have, since that time, continued to meet their obligations with reference to maintenance, and during all this period of time these same farmers participated in over \$60,000 a year worth of conservation practices on the farm in addition.

There is no question in my mind, gentlemen, but that the benefit-cost ratio as demonstrated in this project, being 2.7 to 1, is one in which the local people have confidence. These Scandinavians—and you have probably noticed our names—these Scandinavians are honorable people, and will meet their obligations.

I would appreciate it if you would read the testimony which I have presented for the record. I certainly appreciate this opportunity to be heard before your body. Thank you very much.

Mr. SMITH. Thank you, Mr. Johansen.

The next witness is Mr. Blackham.

STATEMENT OF CLIFFORD S. BLACKHAM, MORONI, SANPETE COUNTY, UTAH, CHAIRMAN, SIX-COUNTY ORGANIZATION, AND MEMBER, BOARD OF COUNTY COMMISSIONERS, SANPETE COUNTY, UTAH

Mr. BLACKHAM. Mr. Chairman and members of the committee, my name is Clifford S. Blackham, and I live in Moroni, Sanpete County, Utah. It is a pleasure to appear before you in support of the North Sanpete watershed project which has been planned to assist in the needed development of my county. I am a member of the Board of County Commissioners, Sanpete County, and have served in this capacity during the past 10 years. Also, I appear before you today as chairman of the Six-County Organization in Utah, which is an organization composed of the 18 county commissioners of 6 central Utah counties. I will present to you, at this hearing, a resolution from this organization, signed by all 18 commissioners, urging your approval of the North Sanpete watershed project.

Sanpete County is virtually the geographic center of Utah. It is positioned approximately 100 miles south of Salt Lake City. The valley is from 5 to 20 miles in width, and 60 miles long, flanked on the west by the Sanpitch Mountains, and on the east by the Wasatch Plateau, which rises to an impressive altitude of 12,300 feet. The valley terrain is characterized by low rolling hills with a gentle slope from the northwest and northeast to the Sanpitch River, which is fed by small streams and springs from the higher altitude.

Sanpete County's history dates from November 1849, when a caravan of 50 families, in covered wagons, migrated from Salt Lake City to the virgin Sanpete Valley. From this humble beginning, Sanpete Valley developed into a substantial agricultural center. Water is the lifeblood of the valley, and the main economic controlling factor of our people. In 1940, our population was 16,063, but this number had dwindled to 13,891 by 1950, and to 11,053 by 1960. We believe that our insufficient water supply is the main contributing factor to this discouraging population trend. It becomes necessary for our young people to leave the valley in search of employment, because industrial employment is not available to take the place of the agricultural employment we have lost. Many of our people who have moved away to the urban areas constantly express their desires to return to the valley if and when water is available to increase the economic potential of our county.

The Federal Government has recognized, in our county, a condition of economic distress and has given Sanpete an official ARA designation, that we may be eligible for assistance under the Area Redevelopment Act. We are moving along as rapidly as possible under this program in an attempt to strengthen our economy. Our ARA committee is organized and working and have prepared and written the county overall economic development program. Water still remains the chief economic factor, and with additional supplies we can, by our own strength, reverse the trend and move toward better conditions.

When dry years come along, and we do not have average precipitation, we find our storage water to be inadequate. Our economy takes a serious setback such as has been the case in our sugarbeet industry

during recent years. Sugarbeet acreage has been curtailed and the sugar factory in the valley has been forced to close, which makes 200 additional of our people being unemployed.

Sanpete County sprawls over an area of 1,022,080 acres, of which 64 percent, or 654,132 acres, are included in farms and used as tillable land or pasture. Much of this land is used as grazing land for livestock. Sanpete ranks fourth in the State of Utah in agricultural income, with over \$12.5 million annually in cash receipts from the sale of agricultural products; ranks first in turkey production, first in sheep and wool production, fifth in beef production, and eighth in dairy production in the State. We have been proud of our valley and we have worked hard and long to hold the economy intact for ourselves and future generations, but the signs of economic deterioration face us and we realize that the key is water.

Our location favors agricultural expansion because we are next-door neighbors to the urban industrial areas of central and northern Utah, where agricultural lands are giving way to housing units, business and industrial firms, super highways, defense plants, and so forth. We envision our valley as a great source of milk supply to the cities of the north, if our pastures can be kept green with additional water.

In every possible way our people have resisted the loss of economic status in our agricultural valley. We have realized the importance of placing to the best beneficial use our present water supplies through every known means of conservation. The records will show that our people have exceeded most all counties in the State in agricultural conservation practices; they have been eager to cooperate with the Soil Conservation Service and the Agricultural Stabilization Committee in their serious attempt to improve their conditions. Your examination of the work plan of the North Sanpete watershed project will indicate to you the thorough planning of the many members of the North Sanpete Watershed Committee in cooperation with various State and Federal agencies in a further effort to improve our present condition.

With the decreasing valuation of property in the county the problem of financial support to cities, schools, and county government becomes greater each year. Costs continue to rise and in the face of reduced valuation, tax levies must be increased, placing a greater burden upon those who live in the county. As the population decreases, the increased burden must be carried by fewer and fewer people. It is our sincere feeling that this unfavorable situation can best be improved by the increase in our water supply which will result from the approval of the North Sanpete watershed project.

It is with a full understanding of our serious economic problem in Sanpete County that our sister counties in the six-county organization have joined together in passing the following resolution to solicit your approval of the North Sanpete watershed project:

Whereas the counties of central and southern Utah have for many years been and are now organized as a six-county organization for the purpose of promoting and furthering the economic and social development of the area encompassed by said counties, and particularly to work together to promote those activities in which said counties have a common interest and purpose; and

Whereas said counties are familiar with the North Sanpete watershed project, which has been planned under the auspices of the Soil Conservation Service of the U.S. Department of Agriculture, working in cooperation with Sanpete County and the various local organizations therein, with the approval and

support of the State of Utah, acting through the agricultural department and the Utah Water & Power Board; and

Whereas said project is now before the Public Works Committees of the U.S. House of Representatives and the U.S. Senate for approval, after having been endorsed by the State of Utah, the U.S. Department of Agriculture, and other governmental agencies involved; and

Whereas it appears that said project is economically feasible; that sufficient water is available to justify the proposed development; and that the people of Sanpete County are legally and morally entitled to have said project fully completed: Now, therefore, be it

Resolved, That said Six-County Organization wholeheartedly endorse and approve said North Sanpete watershed project, and earnestly urge and solicit the approval of said project by the Public Works Committees of the U.S. Senate and the U.S. House of Representatives, to the end that Federal funds will be made available for participation in the development of and the construction of the works therein provided for; be it further

Resolved, That the counties comprising said Six-County Organization execute this resolution, by and through their respective commissioners, and that copies of the same be mailed to the chairman of the respective committees concerned with the approval thereof, and the members of the subcommittees designated to hear the matter.

Dated this 27th day of July 1962.

It is signed by the people listed below.

(The list of signatures referred to is as follows:)

Albert Bath, R. E. Gardner, Carl Gallows, Juab County; Archie P. Christensen, Frank A. Lyman, Howard G. Nielson, Millard County; Pratt Segmiller, Ted W. Jolley, Suel B. Seuett, Piute County; A. Eugene Jinsin, Clifford S. Blackhorn, Keith S. Sausen, Sanpete County; Kendrick Harward, Blaine C. Curtis, Virge N. Brown, Sevier County; Vance Taylor, Carlyle Baker, Wontts Swenson, Wayne County.

Mr. BLACKHAM. It has been a pleasure to appear before you in behalf of the people in Sanpete County, Utah, and we earnestly ask your favorable consideration of the North Sanpete watershed project. I thank you for this privilege.

Mr. SMITH. Thank you, Mr. Blackham.

Mr. HARSHA. Mr. Chairman.

Mr. SMITH. Mr. Harsha.

Mr. HARSHA. I wonder if I might ask a question?

Did I understand you to say your area was fourth in agriculture in the State?

Mr. BLACKHAM. Fourth. That is correct.

Mr. HARSHA. Have you lost rating over the last few years? Apparently you have been doing pretty well with the water supply you have, as far as agriculture is concerned.

Mr. BLACKHAM. Well, we do the best we can with the water we have through the best conservation methods we can employ.

Mr. HARSHA. Of course, a rating of fourth in the State is a pretty fair rating, is it not?

Mr. BLACKHAM. Well, \$12½ million is still not large in total agricultural income, but it is fourth. Of course, our State is not as high in agricultural income as California is.

Mr. HARSHA. Are there any new areas to be irrigated with this project that are not now under irrigation?

Mr. BLACKHAM. No, I do not think so. This will supplement the present acres under irrigation.

As I remember it, I do not think there are any new acres to come under irrigation. Of course, I am talking about 1,300-and-some-odd

farmers now. In the neighboring county I think we have 340-some. I got those figures from the farm census. We are entirely an agricultural community.

Mr. HARSHA. I see. Thank you.

Mr. SMITH. Thank you, Mr. Blackham.

Mr. NIELSEN. Mr. Chairman, Mr. Richard Larsher, a hydrologist and engineer on the staff of the Soil Conservation Service of the State of Utah, has been here as a technical assistant to Mr. Bradshaw. We would like to introduce him to your committee and ask him to comment on these studies.

Mr. SMITH. Very well.

STATEMENT OF RICHARD LARSHER, HYDROLOGIST, SALT LAKE CITY, UTAH

Mr. LARSHER. Mr. Chairman and members of the committee, I am Richard Larsher of Salt Lake City and I would briefly like to recount our studies on water supply for the Narrows Reservoir in Gooseberry Creek.

The soil conservation service very carefully studied the reports of the Bureau of Reclamation. We have some three separate formal reports that the Bureau of Reclamation made on the Gooseberry project. We also studied the water and power board's report on that project made in 1958.

After studying this information, we made a very intensive investigation and study of what the dependable water supply would be at the Narrows Reservoir site on Gooseberry Creek.

There were available some 7 years of authorized stream gaging records at the Narrows Dam site from the period 1928 through 1941. This was our prior record. The U.S. Geological Survey installed a new water stage recorder at the damsite in the fall of 1959 and we had that additional record from the fall of 1959 to date to work with. We correlated this with two downstream gages. We had our damsite here on the map and we had two gages here, one at Gooseberry Creek at Scofield, and the other gage down near the Price River above Scofield Reservoir. We correlated all the data and had 9 years of stream gaging records at the Narrows Dam site, and had 20 years of records at the Scofield, and 22 years of records on the Price River above Scofield. That was the basis of our water supply, on which it was stated last year we had an available annual supply up at the Narrows of some 12,780 acre-feet per year, which comes from a total contributory drainage area of 15.8 square miles, and which includes a natural drainage area above the Narrows Dam site. Also a small existing feeder canal from the head of Bolger Creek coming in from the head of the Fairview Lakes, and includes two new proposed feeder canals we would construct on Gooseberry Creek. These feeder canals will intercept additional Gooseberry Creek drainage areas below the dam, so we will have a total drainage area of 15.8 miles, to provide these acre-feet, which are 15,000 acre-feet of storage capacity on the average.

We feel like this is a very dependable yield for our proposed project. We have done all our work on the area and a study of water rights and yield and our studies of the effects on the Price River drainage system, in cooperation and coordination with the State en-

gineer's office. We worked with the staff engineer and their people for all data pertaining to water rights, and things like that.

If there are any further questions, I will be glad to answer them.

Mr. SMITH. Thank you, Mr. Larsher.

Are there any questions?

Mr. LARSHER. Thank you very much, sir.

STATEMENT OF ARTHUR H. NIELSEN, ATTORNEY AT LAW, SALT LAKE CITY, UTAH—Resumed

Mr. NIELSEN. If I may take a few more minutes with respect to that matter, and then I would like to reserve a few minutes for Mr. Jay Bingham, who is a representative of the State of Utah.

My name is Arthur H. Nielsen. I appeared here yesterday and testified at this hearing and made a statement.

I think it would be well to augment what Mr. Blackham said in response to the question by Congressman Harsha with reference to the status that Sanpete County holds in the State of Utah as an agricultural county.

The land under cultivation, gentlemen, is greatly in excess of the lands under cultivation in most of the other counties, which contributes to its having its status there. Likewise, its poultry production, which is large enough to make it one of the largest poultry producing counties in the country, is held on the basis of a production over a large area. On a per acre production basis it would have probably the lowest county production in the State next to Carbon County itself. The reason why Carbon County is low in production is not because it does not have the water, but because the land tends toward alkalinity and, therefore, there is very little land under cultivation. Carbon County contains a substantial amount of crops grown in proportion to the land under cultivation in the county.

Those are the contributing factors I would like to add to what Mr. Blackham said.

In reference to the matter of the water rights themselves, I think your committee should be interested in a publication which has been put out by Carbon and Emery Counties, which they publish for the purpose of inducing industry to come into their counties. We have no objection to that, and think it is a fine and commendable thing for them to do. We would like to introduce some industrial activity into our own county, but calling your attention to page 13 of this publication on water resources, it states the following:

The Carbon-Emery area possesses an adequate supply of good quality water for industrial and culinary use. The source of water is from the mountains surrounding the area while mountain streams provide culinary water of superior quality. As an aid to a firm supply of industrial water the Carbon area formed a public water improvement district through whom industry may contract for their supply of water. The principal water supply is produced on a large watershed having an annual production averaging 81,000 acre-feet of water per year.

If I may stop to interpolate, that is the same figure which Mr. Bradshaw gave yesterday as having been determined by the Soil Conservation Service as having been produced from this watershed—81,000 acre-feet of water per year from this particular area. Not the entire area, but this particular watershed.

The water supply is further stabilized by the presence of a multiple-use reservoir having a storage capacity of 65,000 acre-feet.

No reference is made to the fact that out of that 65,000 acre-feet of this water supply reservoir, which is Scofield Reservoir, that 35,000 acre-feet of water has not water filing on it except by the Bureau of Reclamation, which was filed for the purpose of supplying water which may be taken out by the Gooseberry project. The specific filing for the storage of 35,000-acre feet of water in this 65,000 acre-foot reservoir capacity, is covered by the water filing which I have contained in my written statement and which I would like to refer to later, which was for the sole purpose of the replacement of the Gooseberry project.

It goes on to conclude then that the large stream supply in the State of Utah is the Green River, which flows through the immediate area. The waters of the Green River are still available to industrial users. The Green River has a minimum average flow of 6,300 second-feet to a high of 75,000 second-feet of water. The Green River does flow through the area and is available for industrial use, and it would be one of those streams which is intended to be captured and used as a part of the upper Colorado River portion of the division of waters of the Colorado River.

We have no objection to their using it and, as a matter of fact, they state in their brochure they have an adequate water supply.

With reference to certain of the statements made yesterday, I think it would be well for me to call attention to the fact that in the public works appropriation bill, which is dated August 14 of this year, and which I received yesterday, there is an item of appropriation which appears on page 10—for flood control on the Colorado River above Lee's Ferry, Willow Creek, and the Price River, the sum of \$50,000, which it is proposed will be appropriated by the House of Representatives and this Congress for the purpose of helping Carbon County to control their flood situation on one of the very rivers involved in this system. The Willow Creek River is this river which comes down, as you can see, above the city of Price, but from the right, from a large drainage area there into the Price River near the Hiner gaging station, and because of the problems they have been having in the past with flood problems and water coursing down they have need to help them capture and store that water, and make it available for use. We have no objection to their getting assistance from the Federal Government for that purpose, and we have no objection to their getting assistance in the past for their projects which will benefit their local economy.

It seems, as I pointed out yesterday, a rather anomalous situation that we do not find their support in our local projects. Yet, of course, it is understandable that perhaps they do not want to join with us because, as in the situation of the Colorado River, with all due apology to Mr. Baldwin and those who may be interested in it lower down, as long as the water runs down river those below may use it, no one else having taken it into actual appropriation. So, as long as the water comes down the streambed, without being captured, it can be used, but this is a point that is important. Nobody can use that unless it is stored. We have no question that Price had water problems in the year Mr. Welsh said they had. We had them over in our county.

We have no question that United States Steel was desperate for water at its plant down near Wellington, but it was not because there had not been water during the year, but the problem was that there had been no storage of that water at a time when it could be retained and held and carried over. There was substantial storage in the reservoir, but of all that water in the reservoir as far as I know none of it was appropriated or used for United States Steel, because they had no rights in the reservoir. The storage is the thing that must take place, because it must be stored in the winter and spring months, early in the season, so it will be available in the last part of the season when the streams dry up.

In answer to the question that was raised yesterday as to the fact that the water was not available in the latter part of the season, it is not available, because there is no adequate storage facility upstream to take care of it. As I pointed out yesterday, I think it is significant to note that since July of 1960, in the last 2 years, there have been eight water filings on the Price River to appropriate by storage some 35,000 acre-feet of water. This includes the storage you see on the map here—some of these various streams which are tributary to the Price River, including Miller Creek, which is the lower one, down near Wellington. There have been eight water filings made and five of them have been made by the Price Water Improvement District, the organization to which this brochure refers, when it states that industrial users should go to the improvement district for contracts for water supply. Five of those filings in the last 2 years have been made by this very organization. As I pointed out, one of the five is the filing for 15,000 acre-feet of water to be stored at a location which is just below the Gooseberry Reservoir.

We feel in view of that they are in a short position to come in here and claim to you gentlemen that there is no water, or there are no water rights. Even before 1960—and I only gave you those filed in the last 2 years—since our filing there have been numerous filings, and there is one by Price on the stream. It may come into play if our filing is defeated, because you go in on order of priority by date. There have been filings over the last 20 to 30 years for some over 150,000 acre-feet in addition to our filing.

I think those facts on their face show there is water available which people want to use for storage purposes, but the question you gentlemen must answer, I think, is who shall use it. Shall we give it to those and help and assist those who have the legal right to the water, or allow it to go downstream as it has been doing for many years, and allow those to take it down below who can then insert their filings in place of the others?

I think that should be answered by the contract which the United States of America entered into with the irrigation districts in Carbon County in connection with rebuilding of the reservoir. I direct your attention to that contract, and may I quote briefly from it in conclusion? The contract provides, and I refer to paragraph 12(a) of the contract which states as follows:

The United States proposes as the principal feature of the diversion plan herein called the Gooseberry plan, to build a storage and diversion works on the Price River system at a point or place above the confluence of Cabin Hall Creek and Gooseberry Creek.

Which would be about here. I want to point out it states: "The United States proposes to build." Not the Bureau of Reclamation, but the United States proposes to build.

When these works, hereinafter called the Gooseberry plan, have been constructed and put into operation, the relative rights of the United States and the irrigation district to the waters of Price River shall be as hereinafter stated in this order. The irrigation district's rights to the use of the water of the Price River and its tributaries, either by way of direct diversion or storage, are agreed to be as of the date of this contract only those based on the following applications in the office of the State engineer.

One, 1035, which is the one I referred to yesterday, constituting 12,020 acre-feet. Two, 8989a, with a priority date of October 11, 1937, for 17,980 acre-feet of water; and, three, 9594, with a priority date of September 12, 1934, all of which are subsequent to ours, for 90,000 acre-feet. But this is what the irrigation company agrees to. It agrees—

to assign its application 9594 to the United States within 60 days after notice from the Secretary to the effect that the Scofield dam and reservoir have been completed to the point where there is an active storage capacity available for use of approximately 65,000 acre-feet, and its rights under applications 1035 (certificate 2046), 8989a and 13334, are hereby subordinated to the rights of the United States as defined and agreed to in article 12 hereof, and to whatever permits for the diversion or storage of water that have been or may be procured by the United States within the limits of its rights under this contract. * * *

And also its rights under this contract are subject to the provisions of section 13 of the Boulder Canyon Project Act, which means in essence that the irrigation district assigned to the Government its rights except the rights for the 30,000 acre-feet, and as to that it said, we will subordinate it to make sure that the Gooseberry project is completed.

We think morally and legally—legally by contract with the United States of America, and by moral obligation to the people of Sanpete County—they have committed themselves to this project.

I would like to have Mr. Bingham take the last few minutes of our time.

Mr. BALDWIN. Mr. Chairman.

Mr. SMITH. Mr. Baldwin.

Mr. BALDWIN. I would like to make one comment, Mr. Nielsen. First of all, I believe I was one of a small minority of Californians who voted for the Upper Colorado River storage project when it was approved by Congress some years ago. I did so because I thought it was an equitable project, although all of the correspondence I got from California, I believe, was opposed to it. However, I think it only fair to point out that this particular project now before us has been the most controversial project that has come before this watershed subcommittee and this committee in the 8 years I have been on the committee. We do not have any moral obligation on this subcommittee as far as approving or not approving soil conservation projects. We have a law, Public Law 566, which gives us the right to approve projects, if we deem that desirable.

Right now we have more applications coming in to Congress each year, and they are accumulating more rapidly than there are funds appropriated now to carry it out. This was not true up to 2 or 3 years ago. Up to that time we had appropriations about comparable to the

number of projects coming in requesting action. But now the number of projects coming in to us is materially exceeding the amounts appropriated by the Congress for this purpose. It seems to me we are not here to act as a court to resolve controversies within the States.

When we have a demand upon us for Public Law 566 projects far in excess of the amounts appropriated per year, it seems to me that the logical thing for us to do is to give first priority to those in which all of the local people are in agreement. If we do not have enough funds appropriated anyway for all of the projects before us we should take a second look at those projects where the local people are obviously split. We have had more opponents to this project come here 2,000 miles to appear before this committee than we have had on any other project before this watershed subcommittee, since it was established, and it seems to me we have to give that consideration.

This is an optional matter from the standpoint of the U.S. Congress, and I do not think it was intended for us to cram a project down the throats of a militantly split group.

Mr. NIELSEN. I think you stated a very serious problem, which we are concerned about in our locality. Of course, in 1941 and in 1943 we deferred it because we couldn't build them both, to give them a chance to get Federal appropriation. We felt we would have their support when the logical time came. Again it was through our permission it was withdrawn from the Upper Colorado River because it was felt by Congressman Aspinall and others that it might jeopardize the entire bill because they were here protesting it; and they have been here protesting and, of course, as long as they have an audience they will protest, as long as they are encouraged in it.

I submit it is a judgment for you gentlemen, but we feel the Government has an interest in it because it is a valid contract they executed with the Government, and we feel the Government has an interest in protecting it. But even as late as yesterday I had a conference with Mr. Horan and Mr. Bingham in which we asked him to come over and explain the position of the Bureau with respect to that letter which had been written. He stated it would be necessary to ask him to come over to explain it, but again he told us it was not intended in any way to minimize the necessity of going ahead with the project known as the Gooseberry project as far as they were concerned, but all they wanted to do was to help to soften the opposition by encouraging additional water on the Price River, which Senator Morse tried to do, and others tried to do, and your own honorable body is appropriating money to help them with their problem.

Of course, it is hard for us, in the small position we hold in the entire overall scheme of our social economy, to feel that one small segment should be pushed aside, who they encourage and assist in other projects, and are not opposed to them because they are beneficial, because they themselves are opposed to a project they would like to have. I don't know whether that has taken up my time.

Mr. SMITH. You have a couple of minutes more.

Mr. NIELSEN. I think Mr. Bingham said he could summarize in 2 minutes.

Mr. SMITH. All right.

**STATEMENT OF JAY R. BINGHAM, EXECUTIVE DIRECTOR, UTAH
WATER AND POWER BOARD—Resumed**

Mr. BINGHAM. Mr. Chairman and members of the committee, we appreciate your interest and thoughtful consideration of this matter, and I might say in support of the State's participation in this project and others, that we have prided ourselves at the local level in doing those things at the local level which we could do. At the present time through State financing we have accomplished in excess of \$10 million worth of water conservation construction projects, representing small projects, 201 in number. Some of those are located in each of these counties.

I am sure that the facts essentially are before you that are available. Let me give you what I believe was in the minds of the board and the compelling reason it took action as it did with respect to this project.

As it has been presented here, our area is an arid area, and we will never be able to guarantee 100 percent water supply in any year to any project. We find in our water supply studies in the Price area, so far as agricultural land is concerned, that there is a canal diversion in excess of $4\frac{1}{2}$ acre-feet per acre. I am sure it is a well-known fact to you men that 3 acre-feet per acre is the generally accepted figure to mature crops. In the other areas it is in the order of 1.6 acre-feet per acre. In this project, to equate that upward too, we are in the region of 2.6 acre-feet per acre.

We feel in the development of our State that industry, as has been presented, makes a more economic use of water, certainly, but conversion from agriculture to industry is a gradual economic process, and our industries set a high example for efficiency and use. For example, the United States Steel Co., located in Utah Valley, occupied some 1,500 acres of land which formerly supported about 1,200 farm families. Last year that facility used water supply basically available to agriculture for supplying 5,000 families. So in the long range view we think the equating of a water supply between areas and uses is a natural process, and this is one means of performing it.

Again we appreciate your consideration and hope you will weigh the merits of this project. I might say in support of the economics, that in the experience of the State of Utah, with \$10 million worth of construction stretched over a 15-year period, and in 28 of our 29 counties, there has never been a default. We feel that necessarily is attributable to the wisdom of the board and the fact that these projects prove when you put water on land, with good people, the results pay for the cost of construction.

Thank you.

Mr. SMITH. Thank you. Mayor Welsh.

Mr. WELSH. Chairman Smith, inadvertently I made a bad political mistake yesterday by overlooking the chairman of our county commission, so I would like at this time to call on Commissioner Louis Kosec for just a very brief statement.

Commissioner Kosec.

**STATEMENT OF LOUIS KOSEC, CHAIRMAN, CARBON COUNTY
COMMISSION, CARBON COUNTY, UTAH**

Mr. KOSEC. Mr. Chairman and members of the committee, I am Louis Kosec, representing the people of Carbon County, Utah, and the Carbon County Commission, to request that approval not be granted to authorize the North Sanpete watershed project.

Our county is primarily a coal mining area, but has a substantial investment in agriculture. Agriculture as an industry means approximately \$1 million a year in income to our people derived from cash crops and livestock. As a responsible county official I have noticed with deep regret the serious decline in cash income to our farm population because of persistent shortages of water. This adversely affects the economy and tax base of the county when lands become unproductive because of the shortage of water, and when the people have to rely more on local, State, and Federal Government for assistance because of lack of income.

Our county has an assessed valuation of \$36,357,966; we have a population of 21,135. In the census concluded in 1960, our county followed the downward trend in population that is prevalent in the rural counties of Utah. We showed a net decline of approximately 4,000 people, principally because of the depressed coal mining industry.

The county commission, together with other interested groups and municipalities, has inaugurated and participated in a program to stabilize and expand and diversify the economy of the county by a vigorous program of industrial development. The key to industrial development in our county is adequate water supply and, while vigorous action has been taken to secure such a supply, the threat posed by this project to further reduce the available water to our people, represents a serious backward step. We cannot in good conscience solicit industry to come into the county when they are advised that a proposed transmountain diversion of a portion of the already short supply of water may take place.

We have also instigated and participated in water studies as represented by the Price River Water Improvement District, in an attempt to stabilize the existing supply for culinary and industrial use. The work of the improvement district is still underway and they are receiving assistance from the Corps of Engineers and the U.S. Geological Survey. Planning funds have been advanced by the Housing and Home Finance Agency of the Community Facilities Administration, and also some planning funds have been expended by the Corps of Engineers, and additional budget request is before Congress at this moment.

While we are very interested in industrial development and the higher economic use of water for industry that produces payrolls and can partially replace lost payrolls in the depressed coal mining industry, we must take a strong position against the project to protect the agricultural users and irrigators of the county whose livelihood and whose fortunes depend upon the already existing supply.

As a county commission we strongly condemn persons responsible for attempting to secure passage of this project. Its net effect would

be to deprive our farmers and irrigators of their livelihood and drive them from their homesteads. Any attempt to deplete the supply of our county, which is classified as "semiarid," would create a substantial hardship on any and every water user along the river.

I will not attempt to go into other aspects of this problem as other witnesses will discuss it and present evidence in great detail. I want you to know as chairman of the county commission that we are strongly opposed to the project and unalterably opposed to any attempt to transmountain diversion that would remove the water from our watershed.

I might add, gentlemen, since at this point the rights of water are under litigation, we feel this project should not be allowed, as we feel the water is not there. Let the water on our side come our way, and let the water on Sanpete's side go their way.

Thank you.

Mr. SMITH. Thank you, Mr. Kosec.

**STATEMENT OF WILLIAM J. WELSH, JR., MAYOR, PRICE CITY,
UTAH—Resumed**

Mayor WELSH. Mr. Chairman and members of the committee, I have just a couple of exhibits that I would like to have introduced into the record. One is a copy of a petition for interlocutory order filed in the district court of the Seventh Judicial District in and for Carbon County, State of Utah, which has to do with the general determination of the rights for use of water, both surface and underground in our area, to show the validity of our statement that these rights are still subject to litigation. Also, a copy of the order to show cause. As you will recall, Mr. Skeen mentioned that this case had been set over to September 11. The United States already has been served and answered, and they will be adequately represented in this general determination. If I may leave them with the clerk I will appreciate it.

(The documents referred to above are as follows:)

IN THE DISTRICT COURT OF THE SEVENTH JUDICIAL DISTRICT IN AND FOR
CARBON COUNTY, STATE OF UTAH

PETITION FOR INTERLOCUTORY ORDER

In the Matter of the General Determination of the Rights to the Use of Water, Both Surface and Underground, Within the Drainage Area of the Price River and of the Green River From the Confluence of the Green and Colorado Rivers Excluding the Drainage Area of the San Rafael River.

The petition of Alred Ditch Company, a corporation, Bryner-Hansen Ditch Company, a corporation; Pioneer Ditch Company No. 1, a corporation; Pioneer Water Company, No. 2, a corporation; Price Water Company, a corporation; Spring Glen Canal Company, a corporation; Stowell Mutual Water & Canal Company, a corporation; Wellington Canal Company, a corporation; Bryner-Ploutz Ditch Company, an association; Gay Ditch Company, an association; Carbon Canal Company, a corporation; Independent Coal and Coke Co., a corporation; Price City, a municipal corporation; and Helper City, a municipal corporation, respectfully shows to the Court:

1. The petitioners and each of them are owners of a right, or rights, to the use of the water of the Price River and its tributaries, which said water rights are evidenced by the decree of the above-entitled Court dated December 18, 1902, as amended by the Order Correcting Decree dated November 28th, 1904, and as supplemented by the Supplemental Decree dated May 6, 1910, in that

certain action entitled *The Tidwell Canal Company, a Corporation, et al., plaintiffs, v. The Pioneer Ditch Company No. 1, et al., defendants*, being Civil No. 223, and are evidenced by applications for appropriation of water and certificates of appropriation of water on file in the office of the State Engineer of the State of Utah.

2. That the United States of America and the Price River Water Users' Association, a corporation, successors-in-interest to the Price River Water Conservation District, are owners of water rights evidenced by applications for appropriation of water and certificates of appropriation of water on file in the office of the State Engineer of Utah, all of which are subordinate to the water rights of your petitioners.

3. The Sanpete Water Users' Association, a corporation, is the owner of an approved application, No. 9593, for the appropriation of water from Gooseberry Creek, a tributary of the Price River. The said application proposes the impoundment of 15,000 acre-feet of water on Gooseberry Creek and the diversion of said water out of the Price River watershed by means of a tunnel and the use of said water in the San Pitch River drainage area. The project proposed by said application is a part of a project known as the "North Sanpete Watershed Work Plan," which is outlined in a report prepared by the Soil Conservation Service, United States Department of Agriculture, is being sponsored by Sanpete County organizations including the Sanpete Water Users' Association, and is being considered by departments and agencies of the United States. Said application No. 9593 is subordinate to the said water rights of the petitioners.

4. On October 11, 1943, the United States of America, acting by and through the Secretary of the Interior, the Carbon Water Conservancy District, and the Price River Water Conservation District entered into a contract generally known as the "Tripartite Contract," which provides, among other things, (a) for the impoundment and releases of water in and from the Scofield Reservoir, located on the Price River system, (b) for the impoundment and releases of water in and from a storage reservoir on the Price River system at a point above the confluence of Cabin Hollow Creek and Gooseberry Creek, and (c) for the subordination of certain applications for appropriation of Price River water to the rights of the United States to impound water in said proposed reservoir to be located above the confluence of said Cabin Hollow Creek and Gooseberry Creek. In Article 12(d) of said contract, it is provided:

"Subject to the conditions precedent stated in subsection (a) of Article 13, the United States or its successors or assigns shall have the right to store and divert in any year for use within or without the Price River watershed all of the waters arising in the Price River system at or above the confluence of Cabin Hollow Creek and Gooseberry Creek located in or near Section 31, Township 12 South, Range 6 East, Salt Lake Base and Meridian * * *."

Said subsection (a) of Article 13 provides:

"(a) The rights of the United States under Article 12 are dependent on the satisfaction of these conditions precedent:

(i) The completion of Scofield Dam and Reservoir to a point as determined by the Secretary, that there is usable active capacity of approximately 65,000 acre-feet;

(ii) The making of contractual arrangements between the United States and the Conservancy District reducing the construction charge obligation of the latter to the United States to \$100,000; and

(iii) The principal works of the Gooseberry plan having been completed and made ready for operation.

Written notice as to the time when these conditions have been satisfied shall be given to the Irrigation District by the Secretary."

5. It is asserted in the report of the United States Soil Conservation Service on said North Sanpete Watershed project that "The April 15 through September 30 period was selected for comparisons since the Tripartite Contract will require regulation of the flow from the Scofield Reservoir and will limit the total flow past the Heiner gage to 46,000 acre-feet during this period," and the streamflow and water supply portions of said report are based upon the assumption that the said Tripartite Contract is controlling with respect to the flow of the Price River below said Heiner gage. It is further asserted by the Sanpete Water Users' Association and the Soil Conservation Service that the Tripartite Contract is binding not only upon the parties thereto but also upon the peti-

tioners and all other owners of water rights on the Price River, and that by reason thereof the flow of water past the Heiner gage shall be limited to 46,000 acre-feet during the period April 15 through September 30, and that regardless of the availability of replacement water in Scofield reservoir, the United States and its successors or assigns shall have the right to store all water arising in the Price River system at or above the confluence of Cabin Hollow Creek and Gooseberry Creek.

6. The petitioners' rights to the use of the waters of the Price River system are prior and superior to the water rights set out in the said Tripartite Contract. The assertions, assumptions, and claims of the United States Soil Conservation Service and the Sanpete Water Users' Association and other sponsors of the said North Sanpete Watershed project that said Tripartite Contract is binding upon the petitioners and limits the flows they are entitled to below Heiner gage or at all, are without foundation in fact or law, but nevertheless cloud petitioners' rights of water and if not decreed to be without merit and void will cause irreparable damage to petitioners, will be confusing and misleading to those in charge of distribution of water during the pendency of this general adjudication suit, and may well give false assurance to the departments and officials of the United States who are now considering, or in the future will consider, the financing and construction of the North Sanpete Watershed project, that there will be water available for such project.

Wherefore, your petitioners pray for an interlocutory order of this court adjudicating and declaring (1) that the Tripartite Contract is not binding upon your petitioners and other water users of the Price River and tributaries who are not parties to said contract, (2) that said contract does not and cannot limit the flows of water past Heiner gage required to satisfy the prior rights of petitioners and others, and (3) that said contract does not and cannot grant to the United States, its successors and assigns, the right to store and divert in any year for use within or without the Price River watershed all of the waters arising in Gooseberry Creek without regard to the prior rights of your petitioners.

It is further prayed that this court enter an order forthwith requiring the United States of America, the Carbon Water Conservancy District, the Price River Water Users' Association, and the Sanpete Water Users' Association, and such others as the Court may direct, to appear at a time certain and show cause why an interlocutory order should not be entered herein as prayed.

Petitioners pray for general relief.

E. J. SKEEN,
LUKE PAPPAS,
STANLEY V. LITIZZETTE,
Attorneys for Petitioners.

IN THE DISTRICT COURT OF THE SEVENTH JUDICIAL DISTRICT IN AND FOR CARBON COUNTY, STATE OF UTAH

ORDER TO SHOW CAUSE

In the Matter of the General Determination of the Rights of the Use of Water, Both Surface and Underground, Within the Drainage Area of the Price River and of the Green River From the Confluence of the Green and Colorado Rivers Excluding the Drainage Area of the San Rafael River

The petition for interlocutory order having heretofore been filed by Allred Ditch Company, a corporation; Bryner-Hansen Ditch Company, a corporation; Pioneer Ditch Company No. 1, a corporation; Pioneer Water Company, No. 2, a corporation; Price Water Company, a corporation; Spring Glen Canal Company, a corporation; Stowell Mutual Water & Canal Company, a corporation; Wellington Canal Company, a corporation; Bryner-Ploutz Ditch Company, an association; Gay Ditch Company, an association; Carbon Canal Company, a corporation; Independent Coal and Coke Co., a corporation; Price City, a municipal corporation; and Helper City, a municipal corporation; owners of rights to the use of water of the Price River, and

It appearing to the court that this is a suit for the general determination of the rights to the use of water, both surface and underground, within the drainage area of the Price River and other sources, and

It appearing that the adjudication of the questions regarding the construction of the Tripartite Contract, which are raised by said petition, is essential to the completion of the adjudication of all water rights on the said Price River and should be determined at this time, and good cause appearing therefor,

It is ordered that the United States of America, by its proper representatives, the Carbon Water Conservancy District, the Price River Water Users Association, and the Sanpete Water Users Association, be and appear before the above-entitled court on the 2d day of July —, 1962, at 10:00 o'clock A.M., and there show cause, if any they, or any of them have, why an interlocutory order should not be entered herein determining whether the said Tripartite Contract is binding upon the petitioners and other water users on Price River, whether the said Contract limits the flows of Price River water past the Heiner gage required to satisfy the water rights of the petitioners and others and whether such Contract grants to the United States, its successors and assigns the right to store and divert, in any year for use within or without the Price River watershed, all of the waters arising in Gooseberry Creek without regard to the water rights of the petitioners and other water users, who are not parties to said Contract.

Dated this 4th day of June 1962.

F. W. KELLER, *District Judge.*

MAYOR WELSH. As a further statement, I have just a short one. This is from Kaiser Steel. It is a copy of the statement submitted by Mr. Ted Newell of the Kaiser Steel Co., with mines in Carbon County, Utah. His position is that there is a very serious question as to the adequacy of the water supply, and if there were, they, as an industry, cannot count on the supply in the area.

With your permission, I should like to have this statement included in the record.

MR. SMITH. That will be filed.

(The statement referred to is as follows:)

STATEMENT OF MR. TED NEWELL, KAISER STEEL

Kaiser Steel operates three coal mines in East Carbon at the present time employing approximately 650 men, and our present operation is not dependent on Price River water. We get a through tributary to the Price River.

We are operating mines that have been in use for over 60 years, and are becoming depleted. We hold a large block of State and Federal leases to the south of us that we are going to have to use to supplement and eventually replace the mines that we are now using and that time is not too far off. We are going to be entirely dependent on Price River for the water to develop these other properties and our company right now questions the availability of water from the Price River without this transmountain diversion particularly after our competitor's experience this last year.

We have a 5 second-foot filing in the river that is below U.S. Steel's filing; they could not fill their filing this year without using sewage outfall. So you see the position that it puts us in. What would you do in that case? We have other coal around the State, but maybe we will have to leave Utah and move into New Mexico for our future developments if this water is not held. I think that pretty well covers our position.

MAYOR WELSH. Mr. Chairman, we have carefully listened to the proponents of the project this morning. We find that nothing that has been said today is much changed over what has been said in the past, and it probably is indicative of what is contained in their written statements which were submitted in a group yesterday. We feel that the Department of the Interior, as represented by Mr. Holland's letter, is adequate basis for this committee not acting on the project at this time. We just wish to remind you further that the water rights are in litigation and much further study is required, and that the question of

water in the respect that we have a project here envisioning not only a transmountain diversion, but also a transbasin diversion, is one of serious import.

Once that takes place, that is an irrevocable election, and one that should be considered carefully by all parties concerned. With the permission of the chairman we would like, if we might, at some later time, to file additional exhibits as might be necessary to show streamflows relating to water rights, as information to the chairman and the committee. These exhibits will be photocopies of the U.S. Geological Survey flow studies, if we may do that and file them with the clerk at a later time?

Mr. SMITH. That may be done.

Mayor WELSH. Our statements are already in the record. We feel what we have said is adequate. While it is a great temptation to answer the proponents of this project on a point-by-point basis, by the same token we feel we are putting the committee to an extended hearing that is perhaps not absolutely necessary. A careful reading of the statements of each of the individuals of this 12-man delegation, I think, will adequately state our position, and it is one that has been stated time and time again.

We would like to conclude our presentation with this very brief statement.

Mr. SMITH. Thank you, Mayor Welsh. I might state that if there are any statements which either the proponents or opponents think would supplement their case, if they would like to file them within the next week we will be glad to receive them. Either statements or exhibits. The statements will be made a part of the record, and the exhibits will be made available to the members of the committee for the benefit of the committee, when it acts on this proposal.

Mayor WELSH. Thank you, sir.

Mr. SMITH. Thank you. If there is nothing further, the hearing will now be adjourned.

(Whereupon, at 11:15 a.m., the hearing was adjourned.)

(The following was furnished for insertion.)

9-10c
 * Estimated
 † Partly estimated

UNITED STATES DEPARTMENT OF THE INTERIOR
 GEOLOGICAL SURVEY
 WATER RESOURCES BRANCH

Sheet _____ of _____ Sheets

Monthly and annual discharge, in acre-feet, of Gooseberry Creek, Hyogo Co., Scofield, Utah
 [Drainage area, 16.4 square miles]

YEAR	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	ANNUAL
1931	†277	†359	*245	*104	*167	*184	†1060	2510	750	264	168	†119	6330
1940								†560	1460	728	353	282	
1941		*238	†224	*184	*167	*278	*490	†10450	4300	1360	811	589	19910 <i>11946</i>
1942	*738	*595	*583	*430	*383	*514	*3300	†8220	4030	1820	†778	†501	21130 <i>12673</i>
1943	262	†180	†186	*123	*167	†210	†2550	3370	2320	†934	†653	†252	11810 <i>7036</i>
1944	†271	*238	*246	*184	*173	*215	*298	†7910	†5550	1040	435	294	16870 <i>10123</i>
1945	281	†269	*184	*184	*194	*215	†403	†7720	4170	1110	657	367	15750 <i>10450</i>
1946	288	†258	*194	*184	*174	*232	†2670	4000	1420	560	848	188	10520 <i>6342</i>
1947	313	238	*206	*154	*139	†222	1370	7190	1590	764	519	304	11610 <i>8164</i>
1948	294	†253	†206	*154	*132	*146	†622	4810	1420	619	397	183	9240 <i>5544</i>
1949	†203	†193	*191	†178	*161	*231	*2260	8400	2900	810	397	224	16150 <i>9690</i>
1950	240	173	136	123	111	166	1130	5660	2420	764	384	343	11670 <i>7002</i>
1951	223	372	203	151	136	202	1480	6040	2500	829	561	276	12970
1952	335	264	220	184	173	225	1220	14600	9270	1,600	869	178	29520
1953	328	300	206	160	141	210	615	4270	4690	940	593	343	12200
1954	277	296	262	246	250	293	1710	3230	925	502	246	257	8430

UNITED STATES DEPARTMENT OF THE INTERIOR—Geological Survey—Water Resources Division
 File No. _____
 Daily discharge, in second-feet, of Gooseberry Creek near Fairview, Utah for the year ending September 30, 19 61

Day	Oct. *	Nov. *	Dec. *	Jan. *	Feb. *	Mar. *	Apr. *	May *	June *	July *	Aug. *	Sept. *
1	1.3							5.4	8.8	1.7	1.1	2.2
2	1.7							3.8	8.3	1.6	1.1	3.4
3	1.6							4.2	7.8	1.5	1.0	5.0
4	1.7							4.5	7.4	1.4	1.0	5.0
5	1.7							4.9	7.0	1.3	1.1	5.0
6	1.7							5.2	7.1	1.3	1.2	5.4
7	1.6							10.0	6.0	1.2	1.3	6.0
8	1.7							6.0	9.2	1.2	1.3	6.7
9	1.9							6.3	8.3	1.2	1.3	7.7
10	1.8							6.7	7.6	1.1	1.4	8.4
11	1.7						2.0	6.6	6.9	1.1	1.4	8.9
12	1.6							8.8	6.2	1.1	1.4	9.7
13	1.7							10.7	5.5	1.3	1.3	1.0
14	1.9							1.0	5.0	1.2	1.3	1.1
15	1.9	1.3	1.3	1.5	1.5	1.5		8.4	4.4	1.2	1.4	1.0
16	1.9							9.1	3.9	1.2	1.2	8.4
17	1.9							1.0	3.4	1.2	1.2	7.2
18	1.9							1.3	3.2	1.2	1.2	6.2
19	1.7							9.7	3.0	1.3	1.3	4.0
20	1.7							8.5	2.8	1.2	1.2	3.4
21	1.7							1.0	2.6	1.2	1.2	3.7
22	1.7							1.3	2.4	1.1	1.1	4.3
23	1.7						5.6	1.4	2.4	1.1	1.1	4.8
24	1.7						9.2	1.4	2.3	1.1	3.2	4.2
25	1.7						1.3	1.3	2.2	1.1	3.2	4.2
26	1.7						1.6	1.4	2.1	1.3	2.9	3.4
27	2.4						2.0	1.2	2.4	1.2	2.7	2.7
28	1.7						2.4	1.0	1.9	1.2	2.6	2.7
29	1.7						2.7	9.6	1.8	1.1	2.6	2.7
30	1.7						5.1	8.6	1.7	1.1	2.9	2.7
31	1.7						8.8	8.8	1.1	1.1	2.9	2.7
	54.5*	39.0*	40.3*	46.5*	42.0*	46.5	189.8*	275.2*	147.2*	383*	256.9*	170.1*

Mean	1.76	1.30	1.50	1.50	1.50	1.50	6.33	88.8	49.1	12.4	8.29	5.67
Acres	108	77	80	92	83	92	376	5,160	2,920	760	510	337

Unpublished records collected by U.S. Bureau of Reclamation
 Year: _____
 Mean: 15.0
 Acres-Foot: 10,900
55 ft of Gooseberry near Sedgwick

9-211c UNITED STATES DEPARTMENT OF THE INTERIOR—GEOLOGICAL SURVEY—WATER RESOURCES DIVISION

Files No. 09-3098-00

Daily discharge, in acre-feet, of Gooseberry Creek near Fairview, Utah, for the year ending September 30, 19 60.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								6.6	3.4	9.0	7.2	
2			1.1					7.2	3.1	6.9	6.6	
3		3.0	1.0				3.5	9.9	2.9	8.5	6.6	
4			1.3					1.4	2.6	6.0	5.7	2.5
5			1.0					2.0	2.3	8.0	5.1	
6	2.5		1.0			1.4		2.5	2.7	4.8	4.8	
7			0.9					3.0	2.2	4.3	4.1	2.0
8			1.0					3.5	2.2	4.1	4.1	
9			1.0					4.0	1.7	4.1	4.1	
10		2.5	0.9					5.7	1.6	7.2	3.6	1.4
11			1.2				5.0	8.4	1.6	7.2	3.2	
12			1.2					9.7	1.5	7.2	3.2	
13			1.0					7.5	1.4	6.9	2.8	
14			1.0					7.8	1.4	6.6	2.0	
15			0.9	0.8				9.2	1.3	6.0	1.5	1.3
16						2.0		8.8	1.2	6.0	1.5	1.8
17							4.3	6.4	1.1	6.3	1.5	
18		2.2					4.6	5.4		6.0		1.4
19							8.8	5.7		6.0		
20							8.5	6.4		5.7		
21							8.8	6.2		5.7	1.8	
22							1.4	5.7	1.0	5.7		1.8
23							1.1	5.4		6.0		
24							1.1	5.1		6.0		
25							6.0	5.1		6.3		
26						2.5	5.1	4.9		6.0		
27							4.8	4.7		6.3		
28							5.1	4.4	9.5	7.2	1.5	1.4
29							5.4	4.1		7.5		
30							5.7	4.0	9.0	7.2		
31							3.7	3.7		7.5		
78.0	66.0	28.3	2.4.8	23.2	5.91	169.6	479.5	217.4	52.3	9.4.8		
MEAN	2.51	2.20	0.91	0.8	0.8	1.91	48.3	16.0	7.01	3.06		1.74
ACRE-	153	131	56	49	46	117	336	2,970	951	431	188	104
FEET												

Year XX 1962
 MEAN 5,530 = 6.2% of Gooseberry near Seefeld
 ACRES-FEET 7,62

Max. disch., 155 cfs May 13

UNITED STATES DEPARTMENT OF THE INTERIOR—GEOLOGICAL SURVEY—WATER RESOURCES DIVISION
 File No. 09-3068.00
 Daily discharge, in second-feet, of _____ for the year ending September 30, 19 61.
 Gooseberry Creek near Fairview, Utah

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	1.4	1.4	1.4				1.1	1.7	6.5	1.2	1.9
2	1.4	1.4	1.4	1.4				1.2	1.6	6.0	1.3	1.6
3	1.4	1.4	1.4	1.4				* 1.6	1.5	6.2	1.3	1.6
4	1.4	1.4	1.4	1.4				1.4	1.5	8.3	1.3	1.6
5	1.2	1.2	1.2	1.2				1.2	1.5	7.1	1.3	1.6
6	1.2	1.2	1.2	1.2				1.2	1.4	7.1	1.3	1.4
7	1.2	1.2	1.2	1.2				1.2	1.4	6.0	1.4	1.4
8	2.0	2.0	2.0	2.0		0.0	1.2	1.2	1.1	6.0	1.4	* 1.9
9	2.0	2.0	2.0	2.0				1.9	1.0	5.7	1.4	2.9
10	2.5	2.5	2.5	2.5				4.0	9.4	5.7	* 1.4	1.7
11	2.4	2.4	2.4	2.4				5.1	8.7	5.7	1.7	1.6
12	2.2	2.2	2.2	2.2				3.3	8.7	5.4	1.6	1.3
13	2.0	2.0	2.0	2.0			*	2.2	8.0	5.1	1.3	1.3
14	1.6	1.6	1.6	1.6				2.4	8.3	4.8	1.2	1.3
15	1.3	1.3	1.3	1.3				2.6	8.0	4.8	1.2	1.3
16	1.4	1.4	1.4	1.4				2.7	8.0	4.3	2.2	1.4
17	1.4	1.4	1.4	1.4				2.6	7.7	4.2	1.4	3.0
18	1.4	1.6	1.6	1.6			5.0	2.6	7.4	4.0	1.2	3.7
19	* 1.4	1.6	1.6	1.6				2.5	7.1	* 4.2	1.1	2.7
20	1.6	1.6	1.6	1.6				2.4	7.1	4.0	2.9	3.3
21	1.4	1.4	1.3	1.3				2.4	7.1	3.5	2.5	2.5
22	1.3	1.3	1.3	1.3				2.6	7.1	3.1	1.3	2.7
23	1.2	1.2	1.2	1.2			1.0	2.6	7.1	2.7	1.2	3.4
24	1.2	1.2	1.2	1.2				2.6	7.1	2.4	1.2	3.1
25	1.3	1.3	1.2	1.2				* 2.6	6.8	1.9	1.3	2.5
26	1.4	1.3	1.2	1.2			1.4	2.5	6.8	1.6	1.4	2.2
27	1.3	1.3	1.1	1.1			1.3	2.3	6.8	1.4	1.2	2.2
28	1.4	1.4	1.1	1.1			1.2	2.2	6.5	1.3	1.9	1.7
29	1.4	1.4	1.0	1.0			1.1	2.1	6.2	1.2	2.0	2.5
30	1.4	1.4	1.0	1.0			1.0	2.0	6.5	1.2	2.0	1.7
31	1.0	1.0	1.0	1.0			1.0	1.8	6.5	1.2	2.0	1.7
Mean	4.54	4.48	3.79	2.94	2.52	2.95	1.580	6.931	26.14	132.4	46.8	62.7
Max.	1.46	1.69	1.22	0.95	0.90	0.95	5.27	22.4	9.38	4.27	1.51	2.09
Min.	0.89	0.89	0.75	0.58	0.50	0.59	0.313	1.370	0.588	0.263	0.93	0.124

Year Mean 4.35
 OR
 Period Mean 3.140
 Ann-Fact. 58.8
 Discharge measurement made on this day.

Max. Disch. '93 of same gage May 11.
 * Discharge measurement made on this day.

WATERSHED DEVELOPMENT—1962

TUESDAY, OCTOBER 2, 1962

HOUSE OF REPRESENTATIVES,
COMMITTEE ON PUBLIC WORKS,
SUBCOMMITTEE ON WATERSHED DEVELOPMENT,
Washington, D.C.

The subcommittee met, pursuant to call, in room 1302, New House Office Building, at 10:15 a.m., Hon. Frank E. Smith (chairman of the subcommittee) presiding.

Mr. SMITH. The subcommittee will come to order.

Mr. WETZEL, are you representing the Soil Conservation Service?

Mr. WETZEL. Yes, Mr. Chairman.

Mr. SMITH. We will proceed this morning with a brief outline of each of the projects under consideration. What I would like to do is, in the interests of getting each one covered before the expiration of our time, is to have you just devote 2 or 3 minutes to each.

Mr. WETZEL. We will be pleased to do that, Mr. Chairman.

Mr. SMITH. There will be no questions, or, rather, we will not pause for any questions. If anyone has any information they need from Mr. Wetzel, just interrupt.

Mr. WETZEL. We will ask Mr. Lane and Mr. Swigart to cover in about 2 minutes the projects that are listed here, and I will take part in them also.

I presume you do not want the big maps up?

Mr. SMITH. It will not be necessary to have the maps.

TOWN CREEK WATERSHED, ALABAMA

Mr. WETZEL. Mr. Lane.

STATEMENT OF NEIL LANE, CHIEF, PROJECTS, BRANCH, SOIL CONSERVATION SERVICE, U.S. DEPARTMENT OF AGRICULTURE— Resumed

Mr. LANE. The first watershed is the Town Creek watershed in Alabama. It is located in northwest Alabama. The Town Creek is a tributary to the Tennessee River at the Wilson Dam, which is a Tennessee Valley Authority reservoir.

The problems in this watershed are primarily flood problems of agricultural land. There are about 15,000 acres flooded. The project is a combination of land treatment measures supplemented by about 15 floodwater retarding structures and about 71 miles of channel improvements.

The total installation cost is estimated at about \$3.2 million, with the Federal Government bearing about \$2.4 million of that, and non-Federal interest being about \$800,000.

It is estimated that the project will reduce the frequency and severity of flooding by about 71 percent.

There are about 415 landowners in the watershed who will be benefited by the project. A high proportion of the benefited area will be used for improvement of the project.

The estimated annual average benefits amount to about \$216,600 annually. The benefit-cost ratio is estimated at 1.8.

A very significant benefit that has not been evaluated is the rate of sediment delivered to Wilson Dam will be reduced by 1,200 acre-feet per year.

Mr. EDMONDSON. I move the approval of this project.

Mr. WRIGHT. Second the motion.

Mr. SMITH. The question is on the approval.

I think perhaps we had better reserve that to the end and consider them all en bloc.

Mr. EDMONDSON. All right.

(The summary statement on the Town Creek watershed, Alabama, is as follows:)

TOWN CREEK WATERSHED WORK PLAN

Size and location.—161,000 acres in Lawrence, Franklin, and Colbert Counties.

Sponsors.—Town Creek Watershed Conservancy District; Lawrence County, Franklin County, and Colbert County Soil Conservation Districts; Lawrence County, Franklin County, and Colbert County Boards of Revenue; Town Council of Town Creek.

Purposes.—Watershed protection, flood prevention, drainage, and irrigation.

Principal measures.—Soil conservation practices on farms; and structural measures consisting of 14 floodwater retarding structures, 1 multiple-use storage structure, and 71 miles of channel improvements. Storage capacity of the structures ranges from 258 to 4,236 acre-feet.

	Amount	Percent
Annual benefits—		
To agricultural acreage (land and crops).....	\$186,127	82
Flood prevention.....	(178,585)	(79)
Drainage.....	(1,117)	(-----)
Irrigation.....	(6,425)	(3)
To agricultural improvements.....	21,369	9
To transportation facilities.....	2,355	1
Indirect.....	6,733	3
Secondary.....	10,186	5
Total.....	226,770	100

Project costs

	Public Law 566 funds		Other funds		Total
	Amount	Percent	Amount	Percent	
Land-treatment measures.....	\$56,630	11	¹ \$468,075	89	\$524,705
Structural measures:					
Flood prevention.....	2,337,801	88	328,115	12	2,665,916
Drainage.....	2,816	32	5,929	68	8,745
Irrigation.....	9,203	46	10,803	54	20,006
Subtotal.....	2,349,820	87	² 344,847	13	2,694,667
Total.....	2,406,450	75	812,922	25	3,219,372

¹ This is primarily the cost of applying land-treatment measures by landowners. Cost sharing from Federal funds appropriated for the agricultural conservation program may be available if included in the county program developed each year in consideration of approved State and National programs and the annual authorization by the Congress.

² Consisting of—

Administration of contracts.....	\$6,500
Construction cost of drainage measures.....	3,461
Construction cost of irrigation measures.....	7,193
Facility relocations.....	30,598
Land, easements, and rights-of-way.....	297,095

Benefit-cost ratio.—1.8 to 1.

Mr. WETZEL. Mr. Swigart.

STATEMENT OF CHARLES SWIGART, ASSISTANT DIRECTOR, WATERSHED PLANNING DIVISION, SOIL CONSERVATION SERVICE, DEPARTMENT OF AGRICULTURE—Resumed

UPPER BLUE RIVER WATERSHED, OKLAHOMA

Mr. SWIGART. The Upper Blue River watershed is located in Atoka, Bryan, Johnston, Murray, and Pontotoc Counties. It involves an area of 203,100 acres.

The flood problem extremely serious, with some 19,421 acres subject to flood damage. In many places in parts of the watershed there are five floods per year, and there were four major floods in 1957.

The proposed project consists of 74 floodwater retarding structures with a storage capacity of 65,165 acre-feet, which controls 69 percent of the drainage area. It is anticipated damages will be reduced by 85 percent.

The total cost of the project is \$6,480,823, of which the Federal Government will bear \$3,573,286, and other funds of local people will be \$2,907,537.

The benefit-cost ratio is 1.8 to 1, with a benefit of \$270,411.

I think that briefly summarizes the project.

Mr. SMITH. Thank you, sir.

Mr. CRAMER. May I ask a question, Mr. Chairman?

Mr. SMITH. Mr. Cramer.

Mr. CRAMER. What has been the damage caused by these floods? what is the dollar value?

Mr. SWIGART. The average annual damage is \$271,616.

Mr. CRAMER. And the total cost of the project is what?

Mr. SWIGART. \$6,480,823, of which the local people are bearing \$2,907,537. Besides the floodwater retarding structures, it also includes required land treatment on the watershed to stabilize lands now being utilized for farming and other purposes.

Mr. EDMONDSON. For the purposes of our record, Mr. Chairman, I wonder if we could have a unanimous consent request that the summary of each project be made a part of the record as the witness appears, so that we would have that record made as to each project, even when he summarizes it.

Mr. SMITH. That is a very good idea. Without objection, that will be done.

(The summary statement on the Upper Blue River watershed, Oklahoma, is as follows:)

UPPER BLUE RIVER WATERSHED WORK PLAN

Size and location.—203,100 acres in Atoka, Bryan, Johnston, Murray, and Pontotoc Counties.

Sponsors.—Atoka County Soil and Water Conservation District, Johnston County Soil and Water Conservation District, Murray County Soil and Water Conservation District, Pontotoc County Soil and Water Conservation District, Bryan Soil and Water Conservation District, and Blue River Conservancy District.

Purposes.—Watershed protection, flood prevention.

Principle measures.—Soil conservation practices on farms and ranches and structural measures consisting of 74 floodwater retarding structures with a storage capacity of 65,165 acre-feet.

	Amount	Percent
Annual benefits—		
To agricultural acreage (land and crops).....	\$230, 765	85
To agricultural improvements.....	14, 380	5
To nonagricultural improvements.....	5, 772	3
Indirect.....	19, 494	7
Total	270, 411	100

Project costs

	Public Law 566 funds		Other funds		Total amount
	Amount	Percent	Amount	Percent	
Land treatment measures.....	\$101, 633	4	¹ \$2, 444, 447	96	\$2, 546, 080
Structural measures, flood prevention...	3, 471, 653	85	² 463, 090	12	3, 934, 743
Total	3, 573, 286	55	2, 907, 537	45	6, 480, 823

¹ This is primarily the cost of applying land treatment measures by landowners. Cost sharing from Federal funds appropriated for the agricultural conservation program may be available if included in the county program developed each year in consideration of approved State and national programs and the annual authorization by the Congress.

² Consisting of—
 Administration of contracts \$22, 200
 Facility relocations..... 31, 390
 Land, easements, and rights-of-way..... 409, 500

Benefit-cost ratio.—1.8 to 1.

THICKETTY CREEK WATERSHED, SOUTH CAROLINA

Mr. LANE. Mr. Chairman and members of the subcommittee, this is the Thicketty Creek watershed in South Carolina, located about 10 miles east of the city of Spartanburg, and located in the Piedmont plateau portion of South Carolina.

The problem here is primarily one of agricultural flooding. To correct that problem it is proposed to install a combination of land treatment measures reinforced by measures to stabilize critical areas in the watershed, and a system of eight floodwater retarding structures, with about 11 miles of channel improvement for watershed protection and prevention of floods.

In addition, one of the floodwater retarding structures will contain capacity for fish and wildlife development.

The estimated total cost of the project is \$1,647,675, with the Federal funds bearing about \$973,000 and the non-Federal interest bearing about \$674,000.

The estimated benefit-cost ratio is 1.2 to 1. The average annual benefits are estimated at \$70,000.

Mr. SMITH. Thank you, sir.

(The summary statement on the Thicketty Creek watershed, South Carolina, and statement by Congressman Hemphill follow:)

THICKETTY CREEK WATERSHED WORK PLAN

Size and location.—There are 74,640 acres in Spartanburg and Cherokee Counties.

Sponsors.—Thicketty Creek Watershed Conservation District, Cherokee Soil Conservation District, Spartanburg Soil Conservation District, and South Carolina Wildlife Resources Department.

Purposes.—Watershed protection, flood prevention, fish and wildlife development.

Principal measures.—Soil conservation practices on farms; stabilization of critical eroding areas by vegetation; and structural measures consisting of about 11 miles of stream channel improvement, eight floodwater retarding structures, and one fish and wildlife development reservoir. Total storage capacity of structure is 11,841 acre-feet.

	Amount	Percent
Annual benefits—		
To agriculture acreage (land and crops).....	\$57,835	83
To roads and bridges.....	1,875	3
Fish and wildlife.....	10,004	14
Indirect.....	273	.....
Total.....	69,987	100

Project costs

	Public Law 566 funds		Other funds		Total Amount
	Amount	Percent	Amount	Percent	
Land-treatment measures.....	\$107,337	18	¹ \$481,175	82	\$588,512
Structural measures:					
Flood prevention.....	815,695	85	142,920	15	958,615
Fish and wildlife.....	50,274	50	50,274	50	100,548
Subtotal.....	865,969	82	² 193,194	18	1,059,163
Total.....	973,306	59	674,369	41	1,647,675

¹ This is primarily the cost of applying land-treatment measures by landowners. Cost sharing from Federal funds appropriated for the agricultural conservation program may be available if included in the county program developed each year in consideration of approved State and National programs and the annual authorization by the Congress.

² Consisting of—

Construction cost.....	\$24,619
Administration of contracts.....	3,300
Land, easements, and rights-of-way.....	112,455
Relocation of facilities.....	52,820

Benefit-cost ratio.—1.2 to 1.

STATEMENT OF HON. ROBERT W. HEMPHILL, FIFTH DISTRICT OF SOUTH CAROLINA

Mr. Chairman and members of the committee, my purpose in introducing this statement is to save your valuable time. I am most grateful for your consideration of the Thicketty Creek watershed project and urge your favorable consideration. Since you have the expertise in these matters and have a long record of effective consideration by your great committee, my statement will be very brief.

The Thicketty Creek watershed work plan, if effected, will give great benefit to 750 farm families in the watershed and indirectly benefit 100,000 to 200,000 people in Cherokee and Spartanburg Counties in South Carolina and neighboring counties in North Carolina. The justifications have been presented to you in formal form and I will not go into details. I am available for any questions and will be happy to give to the committee any information you may need.

Thank you again for your favorable consideration.

STATEMENT OF JOHN H. WETZEL, DIRECTOR, WATERSHED PLANNING DIVISION, SOIL CONSERVATION SERVICE, U.S. DEPARTMENT OF AGRICULTURE—Resumed

BRANDYWINE CREEK WATERSHED, DELAWARE AND PENNSYLVANIA

Mr. WETZEL. Mr. Chairman, the next watershed is the Brandywine Creek watershed, located in southeastern Pennsylvania and northern Delaware. This is a watershed which I presume many of you have heard about over the past years, in that there has been tremendous interest in this watershed, in developing the watershed concept upon which Public Law 566 has been based.

The past interest has resulted in many of the needed land treatment measures having been already installed.

This project, as now proposed, will provide the structural measures that are needed to complete the watershed plan in the Brandywine Creek watershed. The plan as proposed will include six floodwater

retarding structures and four multiple-purpose structures, providing fish and wildlife capacity and municipal water supply.

There are two State agencies involved in sponsoring the project—the Pennsylvania Department of Forests and Waters and the Pennsylvania Fish Commission.

The total cost of the project is \$6,778,000, with the local people paying 69 percent, or \$4,697,000, and the Public Law 566 funds representing \$2,080,000.

The reason for the high local cost sharing is the fact that the local cost sharing is required on fish and wildlife and the water supply measures.

The benefit-cost ratio is 1.6 to 1. This plan has already been recognized in the comprehensive plan for phase 1 of the Delaware River Basin Commission.

Mr. SMITH. Thank you, Mr. Wetzel.

Mr. ROBISON. One question, Mr. Chairman.

Mr. SMITH. Mr. Robison.

Mr. ROBISON. Under annual benefits, Mr. Wetzel, you list \$4,000 for transportation facilities. What does that mean?

Mr. WETZEL. That would be to railroads and to bridges and to highways, that is, the benefits to them.

Mr. ROBISON. How do they benefit from them?

Mr. WETZEL. In this case, from the flood protection, sir.

Mr. ROBISON. I see. Thank you.

Mr. WETZEL. In this case it is primarily railroad.

Mr. ROBISON. Thank you.

(The summary statement on the Brandywine Creek watershed, Pa. and Del., is as follows:)

BRANDYWINE CREEK WATERSHED WORK PLAN

Size and location.—211,200 acres in Chester, Lancaster, and Delaware Counties, Pa. and New Castle County, Del.

Sponsors.—Chester County Commissioners, Chester County Soil Conservation District, New Castle Soil Conservation District, Pennsylvania Department of Forests and Waters, and Pennsylvania Fish Commission.

Purposes.—Watershed protection, flood prevention, municipal and industrial water supply, and fish and wildlife development.

Principal measures.—Soil conservation practices on farms; and structural measures consisting of six floodwater retarding structures and four multiple-purpose structures. Storage capacity of the structures ranges from 187 to 20,920 acre-feet.

	Amount	Percent
Annual benefits—		
To agricultural acreage (land and crops)		1
To transportation facilities	\$4, 418	35
To urban properties and improvements	116, 190	7
Indirect	23, 294	57
Municipal and industrial water supply	185, 793	
Total	329, 695	100

Project costs

	Public Law 566 funds		Other funds		Total
	Amount	Percent	Amount	Percent	
Land treatment measures.....	\$174,000	31	¹ \$387,150	69	\$561,150
Structural measures:					
Flood prevention.....	1,624,567	67	810,336	33	2,434,903
Municipal and industrial water.....		0	3,115,474	100	3,115,474
Fish and wildlife development.....	282,411	42	384,381	58	666,792
Subtotal.....	1,906,978	31	² 4,310,191	69	6,217,169
Total.....	2,080,978	31	4,697,341	69	6,778,319

¹ This is primarily the cost of applying land treatment measures by landowners. Cost sharing from Federal funds appropriated for the agricultural conservation program may be available if included in the county program developed each year in consideration of approved State and National programs and the annual authorization by the Congress.

² Consisting of—

Administration of contracts.....	\$34,000
Construction and engineering cost of multiple-purpose measures.....	1,461,365
Land, easements, and rights-of-way.....	2,806,826

TWIN CANEY WATERSHED, KANS.

Mr. WETZEL. The next project is the Twin Caney watershed work plan of 98,000 acres in Chautauqua, Elk, and Montgomery Counties, Kans.

This project is one of three which were planned together, and the other two projects have already been approved by the House and Senate Agriculture Committees.

The purposes of this project are flood prevention and recreation, the recreation being the utilization of one of the structures by the Boy Scouts organization. The Boy Scouts have already raised adequate funds to finance 100 percent of the recreational costs of this structure and they plan on building five camps around the periphery of the reservoir which will be utilized by about 10,000 Boy Scouts.

The plan includes 27 miles of stream channel improvement, 15 floodwater retarding structures, and this one multiple-purpose reservoir for flood prevention and recreation.

All three of these watershed projects are located upstream from the proposed Corbin Reservoir of the Corps of Engineers. If the reservoir is authorized and built, some of the benefits will be deleted. However, the project is very adequately justified, even though the Corbin Reservoir is constructed.

Only 6 percent of the total benefits for the project are in the area that would be inundated by the Corbin Reservoir. The project has been coordinated with the plans of the Corps of Engineers for the Vertiker Basin and Corbin Reservoir.

The total cost of the project is \$3,652,000, of which the local people will provide 22 percent, or \$718,000, and the Federal Government will provide 78 percent, or \$2,843,000.

The benefit-cost ratio is 1.7 to 1.

Mr. EDMONDSON. Mr. Chairman, could I ask a question on this project?

Mr. SMITH. Yes, Mr. Edmondson.

Mr. EDMONDSON. I am very pleased to hear you state that this project had been coordinated with the Corbin Reservoir. Was the figure you gave only 6 percent of the project is affected?

Mr. WETZEL. About 6 percent of the total benefits on which the project is justified will be flooded out if the Corbin Reservoir is built now.

Mr. EDMONDSON. The initial plans for Corbin would have flooded a much larger percentage of this watershed, would they not?

Mr. WETZEL. That's right, sir. The initial plans provided for a very sizable water supply reservoir, which would have almost eliminated the opportunity to develop these three Caney Creek watershed plans.

Mr. EDMONDSON. But as the result of your working with the Corps of Engineers it has brought about the result of reducing substantially the impact of that reservoir upon your watershed program?

Mr. WETZEL. That is right, Mr. Edmondson.

Mr. EDMONDSON. Thank you.

(The summary statement on the Twin Caney watershed, Kansas, and statement of Thad Kinnaman are as follows:)

TWIN CANEY WATERSHED WORK PLAN

Size and location.—98,370 acres in Chautauqua, Elk, and Montgomery Counties.

Sponsors.—Chautauqua County Soil Conservation District, Elk County Soil Conservation District, Montgomery County Soil Conservation District, and Twin Caney Watershed Joint District.

Purposes.—Watershed protection, flood prevention, and recreation.

Principal measures.—Soil conservation practices on farms; and structural measures consisting of about 27 miles of stream channel improvement, 15 flood-water retarding structures, and 1 multiplepurpose reservoir. Storage capacity of the structures totals 27,070 acre-feet.

	Amount	Percent
Annual benefits—		
To agricultural acreage (land and crops).....	\$157,337	75
To agricultural improvements.....	12,646	6
To roads and bridges.....	13,724	7
To railroad.....	7,352	4
Indirect.....	17,841	8
Total.....	208,900	100

Project costs

	Public Law 566 funds		Other funds		Total
	Amount	Percent	Amount	Percent	
Land treatment measures.....	\$20,000	9	¹ \$239,600	91	\$259,600
Structural measures:					
Flood prevention.....	2,823,300	90	329,500	10	3,152,800
Recreation.....	0	0	149,300	100	149,300
Subtotal.....	2,823,300	86	² 478,800	14	3,302,100
Total.....	2,843,300	78	718,400	22	3,561,700

¹ This is primarily the cost of applying land treatment measures by landowners. Cost sharing from Federal funds appropriated for the agricultural conservation program may be available if included in the county program developed each year in consideration of approved State and National programs and the annual authorization by the Congress.

² Consisting of—

Construction cost.....	\$107,300
Installation services cost.....	17,200
Administration of contracts.....	6,000
Relocation of facilities.....	115,389
Land, easements, and rights-of-way.....	232,911

Benefit-cost ratio.—1.7 to 1.

STATEMENT OF THAD KINNAMAN

The Twin Caney watershed work plan is integrated with the Bee Creek watershed work plan and the Middle Caney watershed work plan which seek authorization from the House Committee on Agriculture. This cooperative procedure is suggested in section 2 of the Watershed Protection and Flood Prevention Act (Public Law 566): "A number of such subwatersheds when they are component parts of a larger watershed may be planned together when the local sponsoring organizations so desire."

The three work plans are sponsored by two watershed districts: Bee Creek Watershed (Joint) District 15, chartered under Kansas law, July 1958, and Twin Caney Watershed (Joint) District 34, chartered in October 1959. These watershed districts, under Kansas law, have sufficient powers to meet their responsibilities in carrying out works of improvement called for in the three work plans with Federal assistance as provided in Public Law 566. The Federal Government is asked to pay only the construction cost (and engineering) of the system of flood detention structures and channel improvement.

Cost sharing of land treatment measures is covered by other programs. The watershed districts have the power to levy general taxes, special taxes, the right of eminent domain, and other appropriate powers to insure the necessary sites, easements, road and bridge alterations, pipeline relocations, fencing, contract negotiations, cost of water storage for purposes other than flood control, and all operation and maintenance expense of the completed works.

The work plans are cosponsored, as appropriate, by Chautauqua County Soil Conservation District, Montgomery County Soil Conservation District, Elk County Soil Conservation District, and the city of Sedan, Kans.

Together, the three work plans cover an area of 243,940 acres and call for 41 structures and 37.4 miles of channel improvement for a total Federal cost estimated at \$5,674,400. Of these totals, the Twin Caney work plan covers 98,370 acres, calling for 16 structures and 27.7 miles of channel improvement at a Federal cost estimated to be \$2,843,300.

The sponsoring watershed districts have exhibited unusual initiative and aggressive approach to their responsibilities in securing, at local expense, aerial photographs of a quality to materially aid in planning and significantly reduce the expense of engineering; and in proposing the use of private engineers, and securing State of Kansas appropriations for the purpose, to expedite and accomplish the integrated planning of contiguous watershed components.

It is with considerable personal pleasure that I heartily recommend the authorization of Twin Caney watershed work plan, and confidently expect that authorization to produce more fine examples of Federal, State, and local partnership.

Thank you.

SANDY CREEK WATERSHED, PENNSYLVANIA

Mr. WETZEL. The next project is the Sandy Creek watershed project in Crawford and Mercer Counties, Pa.

The purposes of the project are flood prevention and fish and wildlife development. It is of interest that three of the sponsors of the project are three agencies of the Pennsylvania State government, namely, the Pennsylvania Fish Commission, the Pennsylvania Department of Forests and Waters, the Pennsylvania Game Commission, and the Pennsylvania Department of Highways—three State agencies who are official sponsors of this project.

The plan as proposed would have as its purposes the flood prevention and fish and wildlife development.

There are two structures proposed in the plan. One will be a single-purpose floodwater retarding structure and the other will be a relatively large multiple-purpose structure for flood prevention and fish and wildlife development. There is a very serious need for both flood protection and some types of recreational facilities in this western Pennsylvania area.

This fish and wildlife addition to the flood prevention reservoir will provide a surface area of 1,740 acres for fishing purposes.

The total cost of the project is \$1,624,000, of which the local people will provide 52 percent, or \$838,000, and the Public Law 566 funds will be 48 percent, or \$785,393.

The benefit-cost ratio is 1.6 to 1.

Mr. SMITH. Thank you.

Mr. THOMPSON. May I ask one question?

Mr. SMITH. Mr. Thompson.

Mr. THOMPSON. What, if any, objections have occurred in these last-mentioned watershed projects? Have you encountered any objectors? Are people coming up raising objections to the approval of any of these projects?

Mr. WETZEL. We have not had objections to any of these projects that we are aware of.

Mr. THOMPSON. I would like to know, because in my State there always seem to be some people who have lands that are being taken or flooded, and they object because they have hardwoods growing there, or something else. I would like to know, are there any objections that have been raised on any of these projects?

Mr. WETZEL. Your situation is rather peculiar to Louisiana in that the timber interests just have a feeling that these watershed projects are going to flood vast acreages of commercial timberland. We have worked with them in attempting to show them that very small acreage of timberland will be involved in these structures, and the sediment pools which are the permanent water storage, involve almost infinitesimal acreages of timberland.

Now, the flood pools will involve larger areas. It is only there for very short periods of time, and our forestry people have indicated that this very brief and temporary flooding would have practically no effect on the timber production from these areas.

Mr. THOMPSON. Of course, I have been trying to assist you in offsetting these objections.

Mr. WETZEL. I know you have.

Mr. THOMPSON. But I think your people should have gone out much earlier on a public relations or educational tour prior to bringing these things up and having them approved. The reason why there has been difficulty, I believe, is mostly the contingent liability aspect which is the fear of one man going out and throwing a load on all of them, and creating a liability against the landowner.

Have you ever cleared that up for them to their satisfaction?

Mr. WETZEL. I really could not say, sir.

Mr. THOMPSON. It is a matter of law as to whether there is a contingent liability on the landowner or not. They want something to hang their hat on. If they have something to offset the contingent liability feature, we can go ahead on the projects.

Mr. WETZEL. We are attempting to work very closely with the lumber interests in Louisiana. I am sure we will do everything we can to bring about a complete understanding not only as to the value of these projects, but the problems which they envision in having structures on their lands.

Mr. THOMPSON. If between now and January you could ask your staff either here or in Louisiana to give me a report on that one point

of the contingent liability of the landowners in this eventuality, and I think that I can assure them that it is not. So far I have not been able to receive such a report.

Mr. WETZEL. We will be very pleased to provide you with information on that.

Mr. THOMPSON. Thank you very much. That is all, Mr. Chairman.

Mr. ROBISON. Mr. Chairman.

Mr. SMITH. Mr. Robison.

Mr. ROBISON. On all of these projects listed on our agenda today, as I understand it, there is no local objection or opposition made to you. Is that right?

Mr. WETZEL. We are not aware of any local opposition to these projects.

Mr. ROBISON. Have you had public hearings at the location, or in the local area where the projects will be built?

Mr. WETZEL. There is no requirement by act that there be a formal public hearing on these projects. In most cases the local organizations that are sponsoring the projects do hold a form of public hearing even in the planning stage to determine that they do have the support of the people whom they are representing in moving ahead with the project.

Mr. ROBISON. Your agency probably participates in those to the extent at least of having someone there to explain the project; is that right?

Mr. WETZEL. That is right. It is a meeting of the local organization, but we are available to explain the project.

Mr. ROBISON. Thank you.

(The summary statement on the Sandy Creek watershed, Pennsylvania, is as follows:)

SANDY CREEK WATERSHED WORK PLAN

Size and location.—42,000 acres in Crawford and Mercer Counties.

Sponsors.—Mercer County Commissioners, Mercer County Soil Conservation District, Crawford County Soil Conservation District, Borough Council of Stoneboro, Borough Council of Sandy Lake, Deer Creek Township Supervisors, Sandy Creek Township Supervisors, Mill Creek Township Supervisors, New Vernon Township Supervisors, Sandy Lake Township Supervisors, Pennsylvania Fish Commission, Pennsylvania Department of Forests and Waters, Pennsylvania Game Commission, and Pennsylvania Department of Highways.

Purposes.—Watershed protection, flood prevention, and fish and wildlife development.

Principal measures.—Soil conservation practices on farms; and structural measures consisting of one floodwater retarding structure with storage capacity of 357 acre-feet and one multiple-purpose storage structure with storage capacity of 25,000 acre-feet.

	Amount	Percent
Annual benefits:		
Flood prevention—		
To agricultural acreage (land and crops).....	\$133	1
To nonagricultural improvements.....	18, 873	82
Indirect.....	3, 774	16
Benefits outside watershed.....	267	1
Total.....	23, 047	100

Project costs

	Public Law 566 funds		Other funds		Total amount
	Amount	Percent	Amount	Percent	
Land-treatment measures.....	\$83,305	23	¹ 281,867	77	\$365,172
Structural measures:					
Flood prevention.....	257,906	70	112,900	30	370,806
Fish and wildlife development.....	444,182	50	444,182	50	888,364
Subtotal.....	702,088	56	² 557,082	44	1,259,170
Total.....	785,393	48	838,949	52	1,624,342

¹ This is primarily the cost of applying land-treatment measures by landowners. Cost sharing from Federal funds appropriated for the agricultural conservation program may be available if included in the county program developed each year in consideration of approved State and National programs and the annual authorization by the Congress.

² Consisting of—

Administration of contracts.....	\$9,000
Construction and installation services cost for fish and wildlife measures.....	79,038
Land, easements, and rights-of-way.....	469,044

Benefit-cost ratio.—1.6 to 1.

STATEMENT OF CHARLES SWIGART—Resumed

VALLEY CREEK WATERSHED, TEXAS

Mr. SWIGART. Gentlemen, the Valley Creek watershed is the next plan under consideration. This involves an area of 150,464 acres in Runnels, Taylor, and Nolan Counties. The Valley Creek originates in Nolan County, 20 miles southeast of Sweetwater, Tex., and flows through Lake Balancher to the Colorado River.

The project proposed for the watershed consists of 20 floodwater retarding structures, with a storage capacity and drainage of from 264 acre-feet to 4,658 acre-feet, which will control the floods from 44 percent of the entire drainage area.

It also includes necessary land-treatment measures on the watershed lands.

The total cost is \$2,733,142, of which the local organizations will bear 26 percent, or \$709,191, and the Federal Government will bear \$2,023,951, or 74 percent.

The project has a benefit-cost ratio of 1.2 to 1 and will affect a 59½-percent reduction in the flood damages now occurring in the area.

That is all.

Mr. SMITH. Thank you.

(The summary statement on the Valley Creek watershed, Texas, is as follows:)

VALLEY CREEK WATERSHED WORK PLAN

Size and location.—150,464 acres in Runnels, Taylor, and Nolan Counties.

Sponsors.—The Runnels County, Middle Clear Fork, and Upper Clear Fork Soil Conservation Districts, the Valley Creek Water Control District, and the Commissioners Courts of Runnels, Taylor, and Nolan Counties.

Purposes.—Watershed protection and flood prevention.

Principal measures.—Soil conservation practices on farms and ranches; and structural measures consisting of 20 floodwater retarding structures having storage capacities ranging from 264 to 4,658 acre-feet.

	Amount	Percent
Annual benefits—		
To agricultural acreage (land and crops).....	\$51,362	54
To agricultural improvements.....	19,142	20
To nonagricultural improvements.....	11,519	12
Benefits outside project area.....	1,910	2
Indirect and incidental.....	11,625	12
Total.....	95,558	100

Project costs

	Public Law 566 funds		Other funds		Total
	Amount	Percent	Amount	Percent	
Land treatment measures.....		0	¹ 589,151	100	\$589,151
Structural measures: Flood prevention..	\$2,023,951	94	² 120,040	6	2,143,991
Total.....	2,023,951	74	709,191	26	2,773,142

¹ This is primarily the cost of applying land treatment measures by landowners. Cost sharing from Federal funds appropriated for the agricultural conservation program may be available if included in the county program developed each year in consideration of approved State and National programs and the annual authorization by the Congress.

² Consisting of—

Administration of contracts.....	\$10,000
Land, easements, and rights-of-way.....	110,040

Benefit-cost ratio.—1.2 to 1.

SALADO CREEK WATERSHED, TEXAS

Mr. SWIGART. The next project is the Salado Creek watershed, also in Texas.

Salado Creek heads 24 miles northwest of San Antonio and flows southeast and south through the eastern edge of San Antonio, and then 35 miles to its confluence with the San Antonio River.

This project is also primarily for flood prevention. It consists of 16 floodwater retarding structures, with storage capacities ranging from 1,656 to 4,875 acre-feet.

One of the serious problems is the flood damage that occurs along the eastern edge of San Antonio. This project is designed to provide at least 100-year protection to that area.

The total benefits will amount to \$158,244 annually, and will result in a benefit-cost ratio of 1.3 to 1.

The total cost of the project is \$5,071,045, of which local organizations will bear 22 percent, or \$1,136,747, and the Federal Government will bear \$3,934,298, or 78 percent.

Another interesting feature of this is that the entire cost of the plan was borne by the San Antonio River Authority, which has general responsibility for flood control and flood prevention efforts in this particular area.

Mr. SMITH. Thank you.

(The summary statement on the Salado Creek watershed, Texas, is as follows:)

SALADO CREEK WATERSHED WORK PLAN

Size and location.—139,808 acres in Bexar County.

Sponsors.—Alamo Soil Conservation District and San Antonio River Authority.

Purposes.—Watershed protection and flood prevention.

Principal measures.—Soil conservation practices on farms and ranches; and structural measures consisting of 16 floodwater retarding structures. Storage capacity of the structures ranges from 1,656 to 4,875 acre-feet.

	Amount	Percent
Annual benefits:		
Flood prevention—		
To agricultural acreage (land and crops).....	\$5,357	3
To agricultural improvements.....	4,084	3
To transportation facilities.....	12,332	8
To nonagricultural improvements.....	96,256	61
Indirect and incidental.....	31,814	20
Benefits outside project area.....	8,401	5
Total.....	158,244	100

Project costs

	Public Law 566 funds		Other funds		Total
	Amount	Percent	Amount	Percent	
Land-treatment measures.....	12,850	2	1,822,357	98	835,207
Structural measures: Flood prevention..	3,921,448	93	2,314,390	7	4,235,838
Total.....	3,934,298	78	1,136,747	22	5,071,045

¹ This is primarily the cost of applying land-treatment measures by landowners. Cost sharing from Federal funds appropriated for the agricultural conservation program may be available if included in the county program developed each year in consideration of approved State and National programs and the annual authorization by the Congress.

² Consisting of—

Administration of contracts.....	\$8,000
Facility relocations.....	81,740
Land, easements, and rights-of-way.....	220,950
Legal fees.....	3,700

Benefit-cost ratio.—1.3 to 1.

STATEMENT OF JOHN H. WETZEL—Resumed

TOBESOFKEE CREEK WATERSHED, GEORGIA (Supplemental)

Mr. WETZEL. The next project, Mr. Chairman, is merely a supplement to a work plan which your committee approved on June 25, 1959. After the project was completed, the local organizations desired to incorporate one additional structure, a multiple-purpose fish and wildlife and industrial water supply structure. This merely supplemented the authorization, which included these two additional purposes in a project that is now practically completed. This one structure will be a 25,000 acre-foot multiple-purpose reservoir providing 3,500 acre-feet for industrial water supply and 21,000 acre-feet for fish and wildlife development.

The total cost of this additional structure is \$2,418,000, of which the local people will bear 60 percent, or \$1,454,000, and Public Law 566 funds will cover \$964,000.

The benefit-cost ratio is 1.3 to 1.

I might point out that the Food and Agriculture Act of 1962, which was just signed by the President within the past week, does provide a more favorable degree of Federal cost sharing for the fish and wildlife development, and the recreational purpose.

The local organizations have indicated that they would like to be considered for this more favorable Federal cost sharing when the actual project agreements are worked out for this structure.

Mr. ROBISON. Mr. Wetzel, you do not list on the sheet in front of us the annual benefits, as you do with most of the other projects. Is there any reason for that? Is it because it is a supplemental plan?

Mr. WETZEL. There are no flood prevention benefits involved in this one structure, Mr. Robison. Our procedure is that on both fish and wildlife development and municipal and industrial water supply we will assume that the benefits are equal to the costs if the local people are willing to meet the required cost sharing of 50 percent of the fish and wildlife and 100 percent on the industrial water supply.

Mr. ROBISON. Thank you.

(The summary statement on the Tobesofkee Creek watershed, Georgia, is as follows:)

SUPPLEMENTAL WATERSHED WORK PLAN—TOBESOFKEE CREEK WATERSHED

Location of watershed.—Bibb, Lamar, and Monroe Counties.

Sponsors.—Towaliga Soil Conservation District, Ocmulgee Soil Conservation District, and county government of Bibb County.

Purpose of supplemental plan.—To add fish and wildlife development and industrial water supply to the project.

Measures included in supplemental plan.—A 25,000 acre-foot multiple-purpose reservoir providing 3,500 acre-feet of industrial water supply, 21,000 acre-feet for fish and wildlife development, and 500 acre-feet for sediment.

Estimated cost of supplemental plan

	Public Law 566 funds		Other funds		Total
	Amount	Percent	Amount	Percent	
Multiple-purpose reservoir.....	\$1,092,030	43	\$1,455,870	57	\$2,547,900
Less deleted channel improvement.....	127,672	-----	2,120	-----	129,792
Total.....	964,358	40	1,453,750	60	2,418,108

Revised benefit-cost ratio.—1.3 to 1.

STATEMENT OF NEIL LANE—Resumed

COTTONWOOD CREEK WATERSHED, OKLAHOMA

Mr. LANE. Mr. Chairman and members of the committee, the Cottonwood Creek watershed is located in Oklahoma. In the upper end of the watershed is included the outskirts of the city of Oklahoma City, and the lower end is at Guthrie, Okla.

There are about 16,000 acres in this watershed subject to flooding, including a substantial area in the city of Guthrie.

The project includes a system of 58 floodwater retarding structures with an aggregate capacity of 75,000 acre-feet, which will control runoff from 64 percent of the watershed.

The estimated installation cost was about \$6.5 million, with a Federal cost being \$3.48 million, and the non-Federal cost being about \$3.18 million. The estimated benefits amount to \$287,411, and the estimated benefit-cost ratio is 1.4 to 1.

This plan has been coordinated with a survey now underway by the Corps of Engineers in the city of Guthrie.

Mr. THOMPSON. Is there any discussion?

Mr. Edmondson?

(No response.)

(The summary statement on the Cottonwood Creek watershed, Oklahoma, is as follows:)

COTTONWOOD CREEK WATERSHED WORK PLAN

Size and location.—242,470 acres in Logan, Oklahoma, Canadian, and Kingfisher Counties.

Sponsors.—Logan County Soil and Water Conservation District; Oklahoma County Soil and Water Conservation District; East Canadian County Soil and Water Conservation District; Kingfisher County Soil and Water Conservation District; and Cottonwood Creek Conservancy District.

Purposes.—Watershed protection and flood prevention.

Principal measures.—Soil conservation practices on farms and structural measures consisting of 58 floodwater-retarding structures with storage capacity ranging from 264 to 6,639 acre-feet.

	Amount	Percent
Annual benefits—		
To agricultural acreage (land and crops).....	\$142,318	50
To agricultural improvements.....	37,375	13
To nonagricultural improvements.....	76,184	27
Indirect.....	21,197	7
Benefits outside project.....	10,337	3
Total.....	287,411	100

Project costs

	Public Law 566 funds		Other funds		Total
	Amount	Percent	Amount	Percent	
Land-treatment measures.....	\$75,600	6	¹ \$1,162,805	94	\$1,238,405
Structural measures (flood prevention).....	3,761,755	70	² 1,649,595	30	5,411,350
Total.....	3,837,355	58	2,812,400	42	6,649,755

¹ This is primarily the cost of applying land-treatment measures by landowners. Cost sharing from Federal funds appropriated for the agricultural conservation program may be available if included in the county program developed each year in consideration of approved State and national programs and the annual authorization by the Congress.

² Consisting of—

Administration of contracts.....	\$17,400
Land, easements, and rights-of-way.....	1,242,500
Facility relocations.....	368,215
Legal fees.....	21,480

Benefit-cost ratio.—1.4 to 1.

DELAWARE CREEK WATERSHED, OKLAHOMA

Mr. LANE. The next plan is the Delaware Creek watershed plan proposed in Oklahoma, located in south-central Oklahoma.

This is one of six watersheds tributary to the Clear Boggy River watershed. Two of those watersheds are now in construction, and plans are being developed on the other watersheds tributary to the Clear Boggy.

This is primarily an agricultural watershed, with flooding of about 4,800 acres of agricultural land. The projects include a combination of land-treatment measures supplemented by 14 floodwater-retarding structures, with a total estimated cost of \$1,450,000, with \$1,118,000 of Federal funds and \$332,000 of non-Federal funds.

The estimated benefits total \$82,600 annually, with an estimated benefit-cost ratio of 1.9 to 1.

It is expected that this project, in combination with other projects on the Clear Boggy River, will reduce the sediment delivery to the authorized Boswell Reservoir downstream.

Mr. SMITH. Off the record.

(Discussion off the record.)

Mr. SMITH. Thank you, sir.

(The summary statement on the Delaware Creek watershed, Oklahoma, is as follows:)

DELAWARE CREEK WATERSHED WORK PLAN

Size and location.—50,016 acres in Atoka, Coal, Johnston, and Pontotoc Counties.

Sponsors.—Atoka County Soil and Water Conservation District, Coal County Soil and Water Conservation District, Johnston County Soil and Water Conservation District, Pontotoc County Soil and Water Conservation District, and Lower Clear Boggy River Conservancy District.

Purposes.—Watershed protection and flood prevention.

Principal measures.—Soil conservation practices on farms and ranches; and structural measures consisting of 14 floodwater-retarding structures with a total storage capacity of 15,903 acre-feet.

	Amount	Percent
Annual benefits—		
To agricultural acreage (land and crops).....	\$50,195	61
To agricultural property.....	950	1
To nonagricultural property.....	1,356	2
To Boswell Reservoir.....	1,285	2
Outside project.....	25,172	30
Indirect.....	3,623	4
Total.....	82,581	100

Project costs

	Public Law 566 funds		Other funds		Total
	Amount	Percent	Amount	Percent	
Land-treatment measures.....	\$24,340	9	¹ \$246,965	91	\$271,305
Structural measures, flood prevention....	1,093,344	93	² 85,470	7	1,178,814
Total.....	1,117,684	77	332,435	23	1,450,119

¹ This is primarily the cost of applying land treatment measures by landowners. Cost sharing from Federal funds appropriated for the agricultural conservation program may be available if included in the county program developed each year in consideration of approved State and National programs and the annual authorization by the Congress.

² Consisting of—

Administration of contract.....	\$4,200
Water rights.....	1,400
Relocation of facilities.....	8,100
Land, easements, and rights-of-way.....	71,770

Benefit-cost ratio.—1.9 to 1.

STATEMENT OF JOHN H. WETZEL—Resumed

BOULDER LAKE WATERSHED, WYOMING

Mr. WETZEL. The last project is the Boulder Creek watershed project in Sublette County in Wyoming.

The purposes of this project are fish and wildlife development and irrigation. The area that is involved in the project is a high mountain area, where they have been having a great deal of difficulty in not only carrying out or in raising their crops due to the extremely short growing season, but the fact is that they have a very erratic water supply. This is a water supply which they have been taking directly from Boulder Creek in direct diversion, which will vary from about 4 cubic feet per second during the winter to almost 3,000 cubic feet per second during the summer. As a result, the production has been very low and the land deterioration has been a serious problem.

This project proposes a multiple-purpose reservoir known as the Boulder Creek Reservoir for irrigation and fish and wildlife purposes, and two small regulation reservoirs in the benefited area, and about 18 miles of canals as a part of the irrigation distribution system. It is interesting that this project will provide a 90-percent chance water supply for almost 9,000 acres that are currently being irrigated in a very unsatisfactory method from the direct diversions from Boulder Creek.

The total cost of the project is \$1,242,000, of which the local people will put up 66 percent, or \$822,000, and the Federal Government will put up 34 percent, or \$421,000.

The benefit-cost ratio is 1.4 to 1.

Mr. SMITH. Thank you, Mr. Wetzel.

Mr. ROBISON. What crops do they raise out there?

Mr. WETZEL. This is mostly pasture and hay land, with alfalfa being the principal crop.

Mr. HARSHA. Mr. Chairman.

Mr. SMITH. Mr. Harsha.

Mr. HARSHA. I notice on this worksheet here you have structural costs, non-Federal 56 percent, and total cost, non-Federal 44 percent.

Mr. WETZEL. That is for the structural measures.

Mr. HARSHA. That is correct.

Mr. WETZEL. The local people, in addition to what they are putting into the structural measures, will provide the land treatment measures to the value of \$477,000.

Mr. HARSHA. That raises it to the overall figure?

Mr. WETZEL. That raises it to 66 percent.

Mr. HARSHA. Thank you, sir.

Mr. SMITH. Thank you, Mr. Wetzel.

(The summary statement on Boulder Lake watershed, Wyoming, is as follows:)

BOULDER LAKE WATERSHED WORK PLAN

Size and location.—99,961 acres in Sublette County.

Sponsors.—Pinedale Soil & Water Conservation District and Boulder Irrigation District.

Purposes.—Watershed protection, irrigation, and fish and wildlife development.

Principal measures.—Soil conservation practices on farms, ranches, and forest land; and structural measures consisting of one multiple-purpose (irrigation and fish and wildlife) reservoir, two regulation reservoirs, and an irrigation distribution system.

	Amount	Percent
Annual benefits—		
To agricultural acreage (land and crops).....	\$33,695	45
Secondary.....	40,925	55
Total.....	74,620	100

Project costs

	Public Law 566 funds		Other funds		Total
	Amount	Percent	Amount	Percent	
Land treatment measures.....	\$154,605	24	¹ \$476,705	76	\$631,310
Structural measures:					
Irrigation.....	255,120	43	333,860	57	588,980
Fish and wildlife development.....	10,975	50	10,975	50	21,950
Subtotal.....	266,095	44	² 344,835	56	610,930
Total.....	420,700	34	821,540	66	1,242,240

¹ This is primarily the cost of applying land treatment measures by landowners. Cost sharing from Federal funds appropriated for the agricultural conservation program may be available if included in the county program developed each year in consideration of approved State and National programs and the annual authorization by the Congress.

² Consisting of—

Construction cost.....	\$297,050
Land, easements, and rights-of-way.....	36,340
Administration of contract.....	6,045
Water rights.....	5,400

Benefit-cost ratio.—1.4 to 1.

Are there any further questions about any of the projects?

Mr. THOMPSON. Mr. Chairman, I would like to state at this point I believe this committee has been the most productive committee through your efforts and the efforts of the Watershed Subcommittee. I feel

this committee has served such a great purpose all over the United States with the least confusion and debate here in this committee room of any other committee in Congress, and, therefore, I would like to move now that this subcommittee adopt these projects en bloc without discussion.

Mr. WRIGHT. Second the motion.

Mr. SMITH. Without objection, the projects are all adopted and will be reported to the full committee.

Mr. EDMONDSON. Could I be recognized for one moment, Mr. Chairman?

Mr. SMITH. Mr. Edmondson.

Mr. EDMONDSON. This may very well be the last session of this committee over which our distinguished colleague from Mississippi presides as chairman, and I would just like to express the appreciation of the committee to him for the leadership he has given in this field. I think he probably had more to do than any other Member of Congress in creating this subcommittee to deal specifically with watershed projects, and to put new emphasis on the importance of watershed development in connection with the work of the Public Works Committee. I think he has been an outstanding chairman of the subcommittee, and I feel farm people all over the Nation owe a debt of gratitude to him for the leadership he has given in this field.

Mr. THOMPSON. Will the gentleman yield?

Mr. EDMONDSON. Yes.

Mr. THOMPSON. I wonder if this subcommittee could consider a motion which in effect would change the name of TVA to something to the effect of Head Watershed, U.S.A.?

Mrs. FOST. Will the gentleman yield?

Mr. EDMONDSON. Yes.

Mrs. FOST. I would like to add my words of gratitude also for the wonderful job our chairman has done in this field, and to say that so far as the West is concerned, we look toward this type of legislation to help us, and we all need it. I too feel, just as the gentleman from Oklahoma said, that the gentleman who is serving as our chairman today, in setting up this Watershed Subcommittee, has had a great deal to do throughout these 50 States with getting projects on the way which have developed this great Nation of ours. There will be many landmarks left to his honor because he did have a progressive mind and looked forward to projects along these lines.

Mr. WRIGHT. I too should like to join our colleague in providing an expression of appreciation which our Congress will always feel for our colleague, Frank Smith, who, I hope and trust, still does continue to have a progressive mind down there and a never-failing sense of humor on occasions when the committee has been meeting, which has frequently relaxed tensions. This is in addition to his constant dedication to this work of soil conservation and flood prevention all over America, not only in rural America, which is indebted to him for his services.

I know we all join in looking forward to many, many fruitful years of service in the future for him.

Mr. ROBISON. Mr. Chairman, if the gentleman will yield, on behalf of the minority on this side of the aisle I do not want the record

to go without anything being said in behalf of us and stating that we too, Mr. Chairman, appreciate your service, as well as your friendship. You and I personally have not always agreed, but we managed to get along, and I am sure we are going to part as friends. Maybe we won't completely agree until you give me a TVA up in upstate New York.

Mr. THOMPSON. I might add, if the gentleman will yield, you might not even completely part.

Mr. ROBISON. I hope not, but seriously, I do, on behalf of the minority, wish to speak in full appreciation for your leadership in forming this committee, and for the very useful service to the Nation that you have rendered as its chairman.

Mr. SMITH. Thank you.

Mr. HARSHA. If the gentleman will yield, I would like to associate myself with the remarks of my colleagues on both sides of the aisle in recognizing your leadership and ability. Certainly the full Committee on Public Works and the people of the United States owe you a debt of gratitude for your untiring effort and leadership in this particular field.

Mr. SMITH. I thank the members of the committee for their remarks. I am especially grateful to the members of this subcommittee. I think we have had some powerful results that will be of benefit to our entire program of water resource development in the country, not only in regard to the individual projects which we have considered, but through the framework we have laid down for legislative programs to make the overall watershed development program more efficient and more productive in the future.

I am proud of the fact that our first legislative effort became law early last month, and I am hopeful that in the future this committee will be active and produce broader legislation on a broad scope in order to bring about better coordination of these programs, which, after all, we know is essential.

Those of us with any experience in this field have seen too much in the way of conflicts that are not necessary, and too much in the way of lost effort, because there has not been full coordination and full development in the earlier stages to insure the best possible use of these resources for all of the people.

The members of this subcommittee have worked as a unit and have worked very well. I do not believe we have ever had any controversies in the subcommittee. It is not necessarily a good sign, but it is a sign, I think, that we have approached all of these projects with full understanding.

In the overall work of our committee I have thoroughly enjoyed my experience here through the years. It is well known to all of the members who served on the committee that I have at times had a very partisan outlook with regard to some of the issues, but it has never been on a personal basis, and I am sure that is understood. I think this committee will, and I hope this committee will be, an even more important part of the future of the Committee on Public Works of the House of Representatives.

Mr. EDMONDSON. Mr. Chairman, I would like to bring up one further point which was not mentioned this morning; namely, to express my personal appreciation for the representatives of the Soil Conservation

Service for the way in which they very effectively and in a very illuminating manner presented these projects this morning in a record short period of time. It is a thorough tribute to them and their ability to highlight the importance of these projects in a brief period for us. They have been most helpful in that regard. Of course, we in Oklahoma think that the Soil Conservation Service is one of the great arms of the Government of the United States, and we are trying to get that last 3 inches.

Mr. SMITH. The people of the Soil Conservation Service who worked with this subcommittee and committee have certainly been very outstanding and cooperative, and have contributed to a great degree. I was about to say I hoped that one of the early actions of this subcommittee next year will be for the subcommittee, with many of the proper officials in the Soil Conservation Service and others, to visit the Tennessee Valley Authority to see some of the work done there, and to show us where we can learn from each other, so to speak, about some of the approaches to this problem that can be carried on in an area where there has been in some aspects great cooperation, and in others perhaps where we need to avoid some problems that might lead to conflict between the Soil Conservation Service and that agency.

So I am hopeful that you all can schedule something like that for next spring.

Mr. EDMONDSON. Is that an invitation, Mr. Chairman?

Mr. SMITH. As much as possible I am for it. Of course, the Tennessee Valley Authority is a very austere agency. We cannot be lavish in our entertainment, like some of the people in Oklahoma.

Mr. THOMPSON. Very briefly, if I might speak to the subcommittee I would like to state this: You graduated to the greatest watershed of them all. If there is ever any land enhancement or improvement you would like made in the TVA that could not be acquired otherwise, that you could possibly get qualified as a watershed program, we would be happy to see you here as a witness.

Mr. SMITH. The subcommittee meeting is adjourned. Thank you very much.

(Whereupon, at 11 a.m., the subcommittee adjourned.)



Dear Sir,
I have the honor to acknowledge the receipt of your letter of the 14th inst. in relation to the above mentioned matter. I am sorry to hear that you are unable to attend to the same at present. I will be glad to hear from you again when you are able to do so.

I am, Sir, very respectfully,
Your obedient servant,
J. H. [Name]

(The enclosed is for your information.)
Very truly,
Yours,
[Name]

