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WATER SUPPLY SYSTEMS AND INSURED FHA LOANS

GOVERNMENT

Storage

HEARING BEFORE THE COMMITTEE ON AGRICULTURE AND FORESTRY UNITED STATES SENATE EIGHTY-NINTH CONGRESS

FIRST SESSION

ON

S. 1766

A BILL TO AMEND THE CONSOLIDATED FARMERS HOME ADMINISTRATION ACT OF 1961 TO AUTHORIZE THE SECRETARY OF AGRICULTURE TO MAKE OR INSURE LOANS TO PUBLIC AND QUASI-PUBLIC AGENCIES AND CORPORATIONS NOT OPERATED FOR PROFIT WITH RESPECT TO WATER SUPPLY AND WATER SYSTEMS SERVING RURAL AREAS AND TO MAKE GRANTS TO AID IN RURAL COMMUNITY DEVELOPMENT PLANNING AND IN CONNECTION WITH THE CONSTRUCTION OF SUCH COMMUNITY FACILITIES, TO INCREASE THE ANNUAL AGGREGATE OF INSURED LOANS THEREUNDER, AND FOR OTHER PURPOSES

JUNE 18, 1965

Printed for the use of the Committee on Agriculture and Forestry



U.S. GOVERNMENT PRINTING OFFICE

WASHINGTON : 1965

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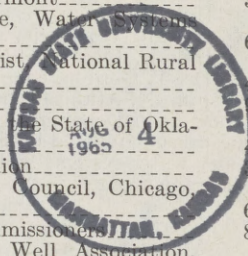
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WATER SUPPLY SYSTEMS AND INSURED FHA LOANS

FRIDAY, JUNE 18, 1965

U.S. SENATE,
COMMITTEE ON AGRICULTURE AND FORESTRY,
Washington, D.C.

The committee met, pursuant to recess, at 11:30 a.m., in room 324, Old Senate Office Building, Senator Allen J. Ellender (chairman) presiding.

Present: Senators Ellender (presiding), Holland, Jordan of North Carolina, Russell of South Carolina, Aiken, Young of North Dakota, Cooper, and Boggs.

(The proceedings at 11:30 a.m. begin on p. 30.)

* * * * *

AFTERNOON SESSION

The CHAIRMAN. We will now proceed to have testimony on S. 1766. (S. 1766 is as follows:)

[S. 1766, 89th Cong., 1st sess.]

A BILL To amend the Consolidated Farmers Home Administration Act of 1961 to authorize the Secretary of Agriculture to make or insure loans to public and quasi-public agencies and corporations not operated for profit with respect to water supply and water systems serving rural areas and to make grants to aid in rural community development planning and in connection with the construction of such community facilities, to increase the annual aggregate of insured loans thereunder, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section 306(a) of the Consolidated Farmers Home Administration Act is amended to read as follows:

"(1) The Secretary is also authorized to make or insure loans to associations, including corporations not operated for profit, and public and quasi-public agencies to provide for the application or establishment of soil conservation practices, shifts in land use, the conservation, development, use, and control of water, and the installation or improvement of drainage facilities, and recreational developments, all primarily serving farmers, ranchers, farm tenants, farm laborers, and other rural residents, and to furnish financial assistance or other aid in planning projects for such purposes.

"(2) The Secretary is authorized to make grants aggregating not to exceed \$25,000,000 in any fiscal year to such associations to finance specific projects for works for the storage, treatment, purification, or distribution of water in rural areas. The amount of any grant made under the authority of this paragraph shall not exceed the lesser of (i) 40 per centum of the development cost of that portion of the facility necessary to enable the project to serve the area which can be feasibly served by the facility and to adequately serve the reasonable foreseeable growth needs of the area, (ii) that portion of the development costs which are above the probable ability of the association to repay a loan for such purposes from income or assessments levied at a rate or charge for service within the ability of a majority of the users to accept and pay for such service and maintain a reasonable standard of living, or (iii) that part of the development cost of a facility constructed by a public body which is in excess of the costs which can be financed within the amount of obligations or levies permitted by law for which alternate revenue financing is not available.

"(3) No grant shall be made under paragraph 2 of this subsection in connection with any facility unless the Secretary determines that the project (i) will serve a rural area which is not likely to decline in population below that for which the facility was designed, (ii) is designed and constructed so that adequate capacity will be or can be made available to serve the present population of the area to the extent feasible and to serve the reasonable foreseeable growth needs of the area, or (iii) is necessary for orderly community development consistent with a comprehensive community water development plan of the rural area and not inconsistent with any planned development under State, county, or municipal plans approved as official plans by competent authority for the area in which the rural community is located. Until October 1, 1968, the Secretary may make grants prior to the completion of the comprehensive plan, if the preparation of such plan has been undertaken for the area.

"(4) The term 'development cost' means the cost of construction of a facility and the land, easements, and rights-of-way, and water rights necessary to the construction and operation of the facility.

"(5) No loan shall be made under this subsection which would cause the unpaid principal indebtedness of any association under this Act and under the Act of August 28, 1937, as amended, together with the amount of any assistance in the form of a grant to exceed \$4,000,000 at any one time.

"(6) The Secretary may make grants aggregating not to exceed \$5,000,000 in any fiscal year to any public body or such other agency as the Secretary may determine having authority to prepare official comprehensive plans for the development of water systems in rural areas which does not have funds available for immediate undertaking of the preparation of such plan.

"(7) Rural areas, for the purpose of water systems, shall include any area not included within the boundaries of any incorporated or unincorporated city, village, or borough having a population in excess of five thousand inhabitants."

SEC. 2. Section 308 of the Consolidated Farmers Home Administration Act of 1961 is amended by—

(1) striking out "\$200,000,000" and inserting in lieu thereof "\$450,000,000";

(2) in clause (a) striking out "except that no agreement shall provide for purchase by the Secretary at a date sooner than three years from the date of the note"; and

(3) striking out clause (b) and inserting in lieu thereof "(b) may retain out of payments by the borrower a charge at a rate specified in the insurance agreement applicable to the loan".

(b) Section 309(e) of such Act is amended by striking out "such portion of the charge collected in connection with the insurance of loans at least equal to a rate of one-half of 1 per centum per annum on the outstanding principal obligations and the remainder of such charge" and inserting in lieu thereof "all or a portion, not to exceed one-half of 1 percentum of the unpaid principal balance of the loan, of any charge collected in connection with the insurance of loans; and any remainder of any such charge".

(c) Section 309(f) (1) of such Act is amended by striking out "\$25,000,000" and inserting in lieu thereof "\$50,000,000."

Senator HOLLAND. I understand that Senator Aiken wishes to make a statement on this bill, and he may now proceed.

STATEMENT OF HON. GEORGE D. AIKEN, A U.S. SENATOR FROM THE STATE OF VERMONT

Senator AIKEN. Mr. Chairman, realizing the value of time, I shall not undertake to explain the provisions of S. 1766 in detail as witnesses for the Farmers Home Administration will undoubtedly cover these.

This bill was introduced for the purpose of meeting a vital need, an immediate need.

The full import of this need came home to me when I found that some 50 Vermont dairymen in one community are threatened with loss of a market unless a new source of water for cleansing utensils and other purposes is secured.

This situation is not peculiar to Vermont—all over the United States and particularly in the dairy areas farmers are finding it increasingly difficult to meet the high sanitary requirements for food production with old-fashioned supplies of water.

Not just any water will do these days—it must be clean and chemically acceptable.

It is not the plight of dairymen alone that concerns me.

Rural communities—some 30,000 of them, we are told—need new water systems for food processing, for preparing vegetables for market, for fire protection, for maintaining local industries, for household uses and for washing the kids.

Until this need is met, these communities cannot grow and make their proper contribution to the overall growth of the Nation.

Until this need is met, they cannot absorb their part of the increasing population of our country—estimated at 100 million gain within the next generation.

Many communities where a new water supply would result in increased population and an expanded economy are presently unable to meet the cost by themselves.

That is why S. 1766 provides for grants which in the aggregate would not exceed \$25 million for construction and \$5 million for planning annually.

I know there are some who will say we cannot afford this \$30 million—but when compared with the billions of dollars approved for space exploration, poverty programs, atomic energy and a hundred other purposes—the small amount of \$30 million to help insure the food supply for all and provide a decent living for our rural people seems insignificant.

The Farmers Home Administration was selected as the agency to carry out the provisions of S. 1766 for these reasons:

- (1) FHA is already in the business of lending and insuring loans for this purpose.
- (2) It does not require years of study to find out how to carry on the work.
- (3) It already has the trained personnel necessary to do a good job and would not need to hire 1,500 to 2,000 new employees as another agency might have to do.

While we must give ever-increasing attention to the problems of our cities and urban areas, we should also understand that our vast rural areas have to meet a different set of problems and must realize that the solution to one is not necessarily the solution to the other.

The realization is emphasized by the fact that every Senator from the heavily populated city areas is also a sponsor of S. 1766.

City and country must work together if we are to grow strong together.

Mr. Chairman, the need for this legislation is urgent, and I trust the Congress will approve it at the earliest possible date.

I now submit for the record selected letters from my State and from various other areas of our country, all the way from Arizona to the Eastern States. I also ask that my statement and those I am mentioning now appear at the beginning of this record.

Some of these letters refer to S. 493. This, of course, was the original bill introduced last January, which was later revised and reintroduced as S. 1766.

Also, Mr. Chairman, I submit for the record some statements and letters. The first one is from Senator Mike Mansfield who submits a statement in support of the bill. He is one of the original sponsors of it.

The second one is by the Honorable Joseph Montoya, a statement from U.S. Senator Hugh Scott of Pennsylvania who states that Pennsylvania has the biggest rural population of any State in the Nation, a statement by Senator George McGovern of South Dakota in strong support of the legislation.

Then here is a statement submitted by Bert Bandstra, a member of the House from Iowa; and a statement by William Welsh, executive director of the National Reclamation Association.

Also a statement signed by Warren Kimball, secretary of the National Fire Protection Association Committee on Rural Fire Protection, and a statement from the American Water Works Co., Inc., of Wilmington, Del. I believe his statement recommends a couple of amendments to the bill.

Maybe some of the others recommend amendments, but I think most of them are in support of the bill without any change.

(The statements and letters referred to follow:)

STATEMENT OF HON. MIKE MANSFIELD, A U.S. SENATOR FROM THE
STATE OF MONTANA

RURAL WATER SUPPLY PROGRAM

Mr. Chairman, S. 1766 and its predecessor, S. 493, as introduced by the senior Senator from Vermont, George Aiken, brings before us two of the most important domestic issues of today—the need for conserving our water resources and the tendency to concentrate on the problems of urban areas at the expense of rural America. Rural communities and our water resources are very basic to the future prosperity and welfare of this Nation.

The Aiken bill meets this situation directly and would establish a program of Federal aid to rural water systems. An insufficient effort is being made to develop and preserve our small cities and towns. In far too many cases the one major drawback is the lack of a dependable water supply. The program envisioned in the Aiken bill would provide the necessary aid through a program of loans and grants.

I, as many of my Senate colleagues, am concerned about the movement to the big cities and the complex problems which are compounded by this growth. The cities and urban areas are in need of all the help they can get, but it seems to me that one of the more reasonable ways to approach the problem is to redirect this movement of our population. Not every industry or every family wants to be located in a huge metropolitan area. The Congress can do a great service by authorizing the rural water supply program as proposed in the Aiken bill. It is the one big effort needed today.

It was with a great deal of pleasure that I joined with the Senator from Vermont in the introduction of this legislation, and it has my enthusiastic support. I sincerely hope that the Committee on Agriculture will report this proposal favorably during the course of its consideration of new farm legislation.

STATEMENT BY HON. JOSEPH M. MONTOYA, A U.S. SENATOR FROM THE STATE OF
NEW MEXICO

Mr. Chairman, thank you for granting me this opportunity to appear before you in support of S. 1034 and S. 1766, legislation to authorize Federal grants to aid rural community development planning.

Until 1961, no serious consideration was given to the plight and problems of the small towns throughout rural America. Sagging farm income, loss of a million farm families, two major economic recessions during the decade of the fifties had taken a terrible toll of the small rural communities.

People living in these communities had a feeling of despair and hopelessness. The communities were withering and dying without a whimper. They were boxed in economically. They were victims of a combination of economic and social circumstances from which there seemed no escape.

Then in 1961, things changed. The administration and Congress took the position that rural communities were not inevitably doomed—rather, that they were a vital and indispensable part of rural America. As Secretary Freeman said: "No town need die if the people who reside there want it to live."

While no one single program can solve all the ills of a stricken rural community, it seemed self-evident from the outset, that one of the basic problems of many small rural towns and villages was the lack of basic community facilities.

Without a central water system, without a waste disposal system, without a community center, no community could hope to grow and prosper. It could not attract new business and industry. It could not provide any economic or social opportunities for young people. Any way you looked at it, the future for such communities was bleak.

Realizing this, the President recommended and Congress enacted the Consolidated Farmers Home Administration Act of 1961 which provided, among other things, for a greatly expanded program of community water system loans.

The need for such a program was great. According to the 1960 census there were more than 3 million rural homes without running water. Other surveys showed 30,000 rural areas without adequate water systems.

Since 1961, Farmers Home Administration has loaned more than \$72 million to finance the construction or improvement of rural water systems in 538 rural communities to provide clean running water for more than 385,000 rural people. The bulk of the funds to construct these water systems was provided by private investors and insured by the Federal Government. Aside from providing water systems, the program, since 1961, has provided local residents with more than 1.5 million man-days of employment.

Compared to the size of the problem, this is but a modest beginning. More important, are some of the amazing and heartening changes that have taken place in these communities:

In all cases, property values increased immediately—often as much as 100 percent.

New homes are built.

New business and new industry starts to locate in the community, which increases employment.

As property values rise and new business comes to town, tax revenues increase to be used for additional or for improving other community facilities.

Surrounding towns, seeing progress being made in another community, are stirred to do the same thing and demand for community water system loans increase steadily.

Four years of experience with the community water system loan program has pointed up the need for expansion and certain improvements in the program:

Loan authorization should be increased: In too many instances, in order to stay within the loan limits, a water system has had to be cut back in size.

The program should provide grants where necessary: Many communities, because of the low income of potential water users, and because of high costs where water treatment plans should be installed with the system, cannot afford to construct a system even under a long-term low-interest loan program. Yet many of these communities, studies show, have great potential for growth. Under the existing program they are foreclosed from the program and forever denied even this most basic of community facilities.

Four years experience with the community water system program has sharply pointed up the lack of other basic community facilities that hinder growth and make a community unattractive to business and to its young people.

As might be expected, lack of a community waste disposal system becomes the No. 1 concern of communities which now have water systems. They find out that a water system without a disposal system is a job only half done. Pollution and health hazards remain and, in some cases, compounded.

Again, according to the 1960 census, there were more than 4 million farm and nonfarm rural homes without any kind of sewage disposal facilities and there were 8.5 million rural homes with private cesspools or septic tanks—many of them dangerously inadequate.

In a majority of rural areas, there is no possible way to remedy this problem without a loan assistance program similar to the community water system program.

One could name thousands of rural areas that urgently need waste disposal systems—every State has scores of such communities. For example:

In New Mexico, there are three small unincorporated villages—Ranchos, Llano, and Talpa in Taos County—each closely adjacent to each other. Total population is around 750. The villages have a common school, and a health clinic. Each village has a water system. Their greatest need is a sewage disposal system and with grant and loan assistance, it would be feasible and practical to install such a system for all three villages and thus insure a better community and chances for growth and expansion.

Point, Rains County, Tex., is another typical example of a small agricultural community that has a good potential for growth if it could have loan assistance to install a waste disposal system. About 5 years ago a large lake, Lake Tawakona, was constructed within a few miles of the community and is now a popular recreation area. Point, as a result of the new lake, has attracted a few new homes and business enterprises but because of lack of sewer system and a community firehall, growth is not as rapid as it could be and should be.

In Wisconsin, Wabeno is a small unincorporated town located in the middle of the Nicolet National Forest with a population of 900. It is almost immediately adjacent to another unincorporated community of Soperton with a population of 300. Most of the people work in the woods or in the sawmills. Earnings are small. Both communities are without water or sewer systems. The sewer system need became acutely apparent during the past 2 years when a near epidemic of hepatitis broke out because of water pollution. Stream pollution in the area is becoming serious. These communities could be served by one central water and sewer system and a thriving community area could be developed as a result.

Many rural communities and areas lie close to existing gas and oil pipelines. Many of them are denied the benefits of these resources because too many private companies and investors do not think it is profitable to extend their pipelines to these small, low-density areas. This is similar to the attitude that prevailed 35 years ago among private power utilities when they refused to bring power to rural America.

The addition of a fuel distribution system, where possible, can be a great asset to the town and surrounding farm families. Such a system would be especially attractive to new homebuilders and to new business and industry.

Among other basic community facilities that are urgently needed in many areas are:

Community centers and meeting places.

Recreation areas.

Recent land-grant college studies show that lack of social opportunities in rural areas is a more impelling factor in driving young people to the cities than lack of economic opportunity.

To halt the steady migration of rural youth to cities which saps rural America of their energy and enterprise and adds to the problems of cities, rapid development of basic social community facilities are necessary with a loan program.

The day is not long past when the country schoolhouse served not only as the community's education center but was its indispensable cultural, social, and entertainment center as well. In the interest of better education and better school facilities there has been a rapid consolidation of rural school districts and an equally rapid disappearance of the small rural school.

In 1948, there were nearly 75,000 one-teacher schools—practically all of them in rural areas. Today there are less than 10,000 such schools left. School districts of all kinds (most of them in rural areas) have declined from 100,971 in 1948 to approximately 26,000 today.

This change was inevitable and probably for the best, but it has left thousands of rural communities without a social and entertainment center. It leaves a huge and unattractive gap in rural life.

In some rural areas, development of recreation facilities has been hampered, not because a loan program was not available, but because of laws which demand

that land suitable for recreation development must first be put under a "shift in land use" program before recreation loans can be approved. In some areas this is not possible or practical and legislation is needed to correct this barrier to many fine recreation plans.

For communities that want and need them, loan assistance should be made available for the construction of reservoirs, firetowers, and other structures.

The need for an expanded community facility loan program was summed up by President Johnson in his agricultural message on February 4, when he said: "Yet gaps remain between the levels of living in rural America and those of urban America * * *. Parity of opportunity remains a distant hope for many. It is a challenge we must meet head-on * * *. The task of achieving a life of quality and dignity in rural as well as in urban America is one that will engage our minds and hearts and our energies for a lifetime."

I strongly urge the committee's favorable consideration of S. 1034 and S. 1766. Thank you.

STATEMENT OF HON. HUGH SCOTT, A U.S. SENATOR FROM THE STATE OF
PENNSYLVANIA

Mr. Chairman, on behalf of the State with the biggest rural population of any in the Nation—the Commonwealth of Pennsylvania, I appreciate this opportunity to express my support of S. 1766, a bill to promote the rural water supply program.

We are known for great industries and cities, but no State has a deeper tradition of rural life. More than 3.2 million Pennsylvanians live outside the urban areas—about half a million more than in any other State.

The makeup of Pennsylvania's rural population shows how rural life today embraces not only farming, but all the facets of community activity and community needs. Of our 3.2 million rural people, about one-tenth live on the 85,000 farms of the State—some 356,000 farm people. Over 645,000 live in the rural towns. Over 2.2 million are neither farmers nor townspeople; but they have homes in the country and they are part of the rural community. All these groups need the broader opportunities to solve urgent personal and community problems which would open up through the Farmers Home Administration by enactment of S. 1766.

This is a bill to correct the insufficiency of some of our best conceived, best administered, and and soundest programs for rural progress.

I am proud to join the distinguished dean of the Senate Republicans, Senator Aiken of Vermont, and 91 other Senators in sponsoring this bill. As the Senate's majority leader has stated, " * * * this is one of the most important bills which will come before the Congress this year."

Probably the greatest problem still pervading rural Pennsylvania is the problem of water supply. Over most of the State, mineral deposits pollute much of the subterranean water. Good wells of any depth are hard to come by. Towns and farms in those valleys between the high mountains of Pennsylvania have always struggled with the necessity to store up rainwater in cisterns or ponds, or haul water from distant sources. Otherwise, many have had to risk the use for human consumption of water that is polluted with mineral acids or some other form of contamination, not up to health standards.

Back in 1958, when rural water projects financed by the Farmers Home Administration were still limited to serving farms, a project was organized in central Pennsylvania that pointed a way out of this dilemma. A rural water system was built in Walker Township of Centre County. The loan through Farmers Home was for \$246,000, to build a system serving 230 families around a 28-mile circuit. Later, when this Farmers Home service was extended to other rural people, about 100 taps were added to the Walker Township system, including the small communities of Hoopersburg and Zion.

This system, with a dependable source of unpolluted water, has brought the water supply within that district up to standards prescribed by the Pennsylvania Department of Health. People no longer become ill from the water they have to use in Walker Township. And not only is the loan being paid back from earnings of the system, but the reserve on hand for repayment is now \$10,000 ahead of schedule.

Other systems now have been developed at Spring Mills in Centre County, Weedville in Elk County and Glen Hope in Clearfield County, all under the expert guidance and with loans provided through the Farmers Home Adminis-

tration. Construction of another for Upper Half Moon in Centre County is about to begin; and some 15 or 20 more districts have applications pending or efforts underway to organize projects which could be formally applied for at an early date.

The State department of health has recognized in this program the best hope for a massive remaking, through local initiative, of the water supply in rural Pennsylvania. It has been estimated by experts on this question that through methods employed in the Farmers Home program, 1,000 towns and rural districts in my State could develop new systems all paying their own way, and 1,000 others could modernize existing water systems and make them all conform to health standards.

However, this cannot be done under present limitations on the Farmers Home Administration.

Many localities in the Pennsylvania mountain country have rock deposits to cut through in laying pipelines; so the cost of a system, although economically feasible, may be higher for that reason than in parts of the country where the subsoil presents no such problem. Also, sources of unpolluted water such as springs, streams, and deep wells are few and far apart in much of Pennsylvania, so that areas of considerable size must depend on the same water source. That means relatively large rural systems must be built.

Therefore many fine projects cannot be developed within the \$1 million limitation now in force on a single Farmers Home insured loan. For example, three townships in Franklin County of southern Pennsylvania are stymied in efforts to organize a common-source water system serving 1,200 families because the million-dollar limit is only about half enough.

Many other projects are held up by the 2,500 population limit on a rural community served through a Farmers Home insured loan.

In certain instances, grants would be well justified to help a rural community overcome the initial expense of developing a safe and reliable water supply. What single step could be more worthwhile to get a lagging rural community off dead center than to create a modern water system and liberate that area from the old, never-ending struggle for water?

Pennsylvania's problem is but typical of all rural America. This fiscal year, the \$200 million loan insurance authority of the Farmers Home Administration was not half enough. Water systems loans in the Nation totaled \$50 million for some 386 projects; but about 1,500 good and worthwhile applications are waiting. Next year, ever-increasing hundreds of new applications will be added to this carryover. This will be repeated to scale in rural recreation development, family farm ownership loans, and all the other invaluable purposes served through Farmers Home insured credit.

This agency's fine, forward-looking management has set a high example of service to the borrower, the private lender, and the taxpayer. These loan programs are in the black; collections exceed payments due. They are at the same time forestalling disaster and rebuilding prosperity in the great rural segment of our society. I doubt that any agency has exhibited more technical skill and ingenuity than the Farmers Home Administration in finding ways to extend water service into the rural countryside at feasible cost, giving rural people the same convenience and protection that urban people are accustomed to. The program should go forward in the hands of this agency so capable and widely experienced in the needs of rural people.

S. 1766 will bring these programs up from the level of "half enough" more nearly to the point of sufficiency, by raising the overall insured lending authority to a more realistic ceiling of \$450 million, the limit on a single loan to \$4 million, the population of a rural area served to 5,000, and authorizing grants aggregating \$25 million a year.

I wholeheartedly support and urge the passage of S. 1766 retaining these essential improvements.

STATEMENT OF HON. GEORGE S. MCGOVERN, A U.S. SENATOR FROM THE STATE OF SOUTH DAKOTA

Mr. Chairman, thank you for this opportunity to speak in behalf of S. 1766, Senator Aiken's much-sponsored bill.

As a Senator from the agricultural State of South Dakota—one that ranks fifth nationally in the high ratio of rural to urban people—I am indeed proud to be a sponsor of this legislation.

This is an important bill for all of the people of South Dakota and for the Nation as a whole. It will enable the Department of Agriculture's Farmers Home Administration to be far more effective in meeting the need of farmers and rural residents for additional credit sources. These sources are needed to strengthen farm family agriculture and to raise rural living standards.

Sufficient rural credit is a vital economic factor in a State like South Dakota where over 60 percent of the residents live in rural areas—many of which are undeveloped—and where there are close to 280 different rural communities of 2,500 people or less.

Those of us familiar with the critical economic conditions in most rural areas are particularly interested in this legislation. Farmers in South Dakota and all other States have been caught in the long-term cost-price squeeze. For many South Dakota farmers and ranchers there is no alternate source of income for lack of off-farm employment opportunities.

This is not only an important bill from the farmers' standpoint, but also from that of the consumer and the broad national interest.

We continue to receive reports from country banks that increased numbers of them are loaning up to their legal capacity. In fact, the demand for cash needed to continue normal business transactions is so great that an alarming number have been forced to discount their short-term paper for as low as 96 percent in order to get necessary capital.

An important part of S. 1766 is section 1, which is aimed at helping rural communities obtain dependable water supplies. In South Dakota, because of three Farmers Home Administration loans to the same number of nonprofit community associations, hundreds of farm and other rural residents are now enjoying an adequate supply of safe water for the first time.

Although eight more Farmers Home Administration loans are in various stages of development throughout South Dakota, there are still close to 100 rural communities that do not have an adequate fresh water supply and the residents are forced to depend upon shallow wells, cisterns, or even hauled water for this necessity of life. Throughout the United States there are more than 30,000 rural areas still without modern water systems.

The benefits of this Farmers Home Administration supervised credit program are well demonstrated by what happened after some \$576,000 in Farmers Home Administration credit was extended to the Rapid Valley Water Service Co., Pennington County, S. Dak.

This loan insured by Farmers Home Administration made possible the construction of a complete water distribution system in May 1964, consisting of a deep well, storage reservoir, and 16 miles of water mains.

Today, over 2,000 farmers and other rural residents are receiving a dependable water supply for the first time in the community's history. Also served by this system are a church, an elementary school, and some businesses. Before the water was turned on, the community was depending on shallow wells which caused State health officials much concern. Availability of running water has been reflected by the construction of several new homes in the community.

Farmers Home Administration during this fiscal year ending June 30 will make over 380 loans for some \$50 million in 34 States for the construction of much needed community water systems to serve an estimated 182,000 farm and other rural residents.

South Dakota rural community groups are not only making increased use of the water system loan program, but are financing much needed grazing associations and rural recreational centers through the agency's insured loan program to bring about the shift in land use.

During this fiscal year, the Farmers Home Administration has already extended \$1,962,860 in long-term credit to six South Dakota grazing associations for buying or assuming private leases on over 75,000 acres of land. The associations will make it possible for 83 farm and ranch families to graze some 3,800 head of livestock—mostly beef cattle.

Because of this credit, these 83 South Dakota families will be more secure, become more efficient, make more money and become better customers for businessmen in their hometowns.

Improvements that will be made on the 83 ranches, the increase of cattle and sheep numbers on the range, improvements that will be made in homes and facilities of the associations' members will add to the tax base of the five counties in which they are located.

Nonprofit associations in five South Dakota rural communities during this fiscal year were also loaned \$343,110 to finance construction of much needed recreational and community meeting facilities.

The expanded insured loan program contained in this legislation is seriously needed if we are to back the President's commitment to strengthen America's family farms and revitalize rural communities. The bill fills a critical credit gap in the Nation's rural areas.

STATEMENT OF HON. BERT BANDSTRA, REPRESENTATIVE IN CONGRESS FROM THE
FOURTH CONGRESSIONAL DISTRICT OF IOWA

Mr. Chairman, members of the committee, an adequate water supply is one of the greatest needs of rural communities in America today. Without a good and dependable water system, no community can expect to develop its full potential. If it lacks a modern water supply system, a community's chances of attracting new industry are slim indeed. This is a plight in which many rural communities now find themselves. The Farmers Home Administration estimated recently that more than 30,000 rural communities lack good water. People in these areas are forced to rely on shallow wells, rainwater cisterns, streams or ponds, and in some cases these water sources are frequently polluted.

Four years ago, when the Congress enacted the Consolidated Farmers Home Administration Act of 1961, it gave the Farmers Home Administration authority to provide loans to rural communities for the development. This program has proven highly successful. Between January 1, 1961, and December 31, 1964, the FHA made or insured more than \$72 million to finance work in 37 States. Last February, the Secretary of Agriculture stated that the FHA had on hand pending loan applications totaling about \$118 million. The success of this loan program, together with the large number of applications made in connection with it, clearly demonstrates the need for development of rural water systems.

But more needs to be done. S. 1766, in addition to expanding the existing loan program, would provide the FHA with the authority to make Federal grants for the development of water systems in rural areas to nonprofit corporations and public or quasi-public agencies. These grants would be an excellent investment. Water is a basic necessity for any community, but it is also essential for economic growth. Lacking a good water supply, many rural communities are without a sound financial base; and, lacking a sound financial base, they are without the economic resources to obtain a good water supply system. A program of Federal grants for rural water development is the most promising method of solving this dilemma.

With these considerations in mind, I respectfully urge this committee to give favorable consideration to S. 1766.

STATEMENT OF WILLIAM E. WELSH, EXECUTIVE DIRECTOR, NATIONAL RECLAMATION
ASSOCIATION

My name is William E. Welsh. I am executive director of the National Reclamation Association.

In many areas throughout the Nation, water is becoming the most serious and critical problem. There was a time when water shortage was thought of as being only the problem concerning the arid and semiarid or desert areas of the western half of the United States. Now, it is rapidly becoming a serious National problem.

The future growth and prosperity of our Nation, as well as the health and well-being of our citizens, will depend upon an adequate supply of good quality usable water available at all times.

The seriousness of our encroaching National water crisis is recognized by all who have studied the problem in all of its aspects. This is a problem of serious and far-reaching implications to all Americans. The rapidly increasing demands on our available water supplies will soon require every American, whether he resides in an urban or suburban, industrial or rural area, to make water his own personal concern.

Donald A. Williams, Administrator, Soil Conservation Service, and one of the Nation's foremost authorities on land and water, at the national water research symposium sponsored jointly by our association and the National Association of

Soil Conservation Districts, delivered a very significant address from which the following is quoted :

"Water, lifeblood of agriculture, of industry, of commerce, of life itself, cuts across every segment of our society, our economy, our daily lives * * *. The water business is serious business. It calls for our very best thinking, our best planning, action with a capital A and perhaps above all, the ultimate in coordination.

"The water supply problem is not one problem, but many. The solution is not one, but many. The people who must act are not few, but many. The people affected are not many, but everybody."

By the year 2000, our population will double and within another 35 to 40 years, it will double again, but the problems involved in maintaining an adequate supply of water for everyone is compounded by the fact that our demand for water per capita is constantly increasing.

An alarming trend in connection with our so-called population explosion is the tremendous migration of our citizens from the rural areas to the larger cities. To me it would seem highly desirable that we should provide for the rural areas the same conveniences of the home that the people in the larger cities enjoy. There are still too many rural areas and too many rural homes where modern conveniences are not yet available.

The bill, S. 1766, is most assuredly a step in the right direction and would materially aid in modernizing the water supply systems of the farmhomes of today.

The late Senator Robert S. Kerr, of Oklahoma, who served as chairman of the Senate Select Committee on National Water Resources, in an address delivered before the same national water research symposium in Washington, D.C., said :

* * * "Water is the economic bloodstream of our Nation's economy. As never before today's civilization requires more and more water to move its heavy cargoes, to cool its industrial plants and for disposal of its wastes. * * * Our national water supply situation is dynamic. The magic key to open tomorrow's doors is to solve its problems today. Action to avoid water difficulties, rather than efforts to correct them after they have occurred, must be taken if economic decline is to be avoided in many areas. Now is the time for a greater effort to find solutions to the problems that are already on the horizon."

One area of the Nation in which the water situation is already acute—in fact it has been acute for some time—is the Pacific Southwest. Adding to the seriousness of the situation in that area is the fact that the population is increasing at a tremendous rate. Citizens of the United States are not only moving westward, but they are really migrating to the Pacific Southwest at an almost unbelievable rate. The leaders of that area who are now uniting in an effort to find the solution and the answer to the critical water problem confronting them, are already looking forward to the possibility of importation of water—perhaps from a distance as far as 1,000 miles away.

The board of directors of the National Reclamation Association, in a letter addressed to the Members of the Congress from each of the 17 Western States a year ago, said :

"The western water crisis, plus the great western migration of our population, means that we must act today if we are to meet the problems of tomorrow."

Thus far I have been confining my remarks very largely to the western half of the United States for the reason that the National Reclamation Association, which I am representing, is authorized to represent that area in matters pertaining to water. But we are fully aware of the fact that the problem is now becoming increasingly important in other areas. We have had called to our attention, many times recently, the critical situation of the Northeastern States, a situation which has developed within the last few years.

It is interesting to note that the Senate select committee in its report of a few years ago, in which it mentioned the areas of water shortage and probable water shortage, failed to mention the Northeastern or New England States since the water problems of that area had not developed when the Senate select committee report was prepared.

The following is an excerpt from the report of the Senate select committee which was widely heralded throughout the United States at the time it was made public :

"* * * the Nation's water resources are not uniformly distributed in all the geographic regions. There are already substantial areas of water shortage in many of the river basins in the western half of the United States. On the basis of the water supply-demand studies prepared under the foregoing assumptions,

full development of all of the available water resources in 5 of the 22 water resource regions into which the contiguous part of the United States was divided for the purposes of the studies will be required by 1980 or earlier, if the projected increases in population and economic activity are to be achieved. The five regions are:

- "1. South Pacific¹
- "2. Colorado River
- "3. Great Basin
- "4. Upper Rio Grande-Pecos River
- "5. Upper Missouri River

"By the year 2000 the following regions will be added to the list of those in which full development of available water resources will be required if the projected demands are to be met:

- "6. Upper Arkansas-Red Rivers
- "7. Western Great Lakes²
- "8. Western Gulf."

It behooves us as a nation, in view of the critical situation confronting us, to employ and resort to all practical and legitimate means to augment our national water supply. We must strive to reduce losses through evaporation and transpiration. We must study means of controlling or eliminating water loving plants (phreatophytes); we must study the problem of evaporation losses on large reservoirs, the loss of water through seepage and deep percolation. We must continue our efforts to find an economical means of desalination of salt or brackish water. We must find better and more economical means of transporting water to areas where it is needed. All of these programs must be carried forward on a nationwide basis.

But in our efforts to meet the encroaching water problem, it is surely appropriate that we should take into consideration the urgent needs of improving the water supply for our rural areas. We believe such a program should be inaugurated immediately not only as a means of meeting the urgency of the encroaching problem, but also to encourage people to remain on the farms.

The late President John F. Kennedy, in his well-remembered natural resources message of 1962, said:

"The leadtime is long in the development of water resources. * * * Time should not be lost. * * * In the work of conservation, time should be made our friend, not our adversary. Actions deferred are frequently opportunities lost, and, in terms of financial outlay, dollars invested today will yield great benefits in the years to come."

I strongly support the legislation now under consideration before this committee, S. 1766, and wish to especially commend Senator Aiken and all the other members of the Senate who joined with him in sponsoring this very important legislation.

On behalf of the National Reclamation Association, I wish to express my appreciation to the members of the Committee on Agriculture and Forestry for the privilege of presenting this statement.

STATEMENT OF WARREN Y. KIMBALL, SECRETARY, RURAL FIRE PROTECTION AND PREVENTION COMMITTEE, NATIONAL FIRE PROTECTION ASSOCIATION, BOSTON, MASS.

The National Fire Protection Association's Committee on Rural Fire Protection is very much concerned over the problem of water supplies for rural fire protection. This committee works with the U.S. Department of Agriculture and various other organizations concerned with rural fire protection. It is estimated that 40 million Americans living in rural areas depend upon private water supplies for domestic service and for fire protection. In addition to agricultural operations, in recent years thousands of homes and businesses have moved into rural areas lacking public water supplies. Rural fires in the United States take a toll of several thousand lives annually. The rural fire loss approximates \$100 million each year exclusive of forest fire and transportation losses.

¹"It might be said that this region has already run out of water. President deficiencies are being met by importation of water from other regions and plans are being made for additional importation from the Central Pacific region.

²"This is a special case, assuming availability only of runoff from U.S. portion of watershed and not considering additional use of Great Lakes water for waste dilution."

A principal factor in many of these fires is a lack of water. Thousands of volunteer fire departments serving rural areas are chiefly dependent upon the limited amounts of water they can carry in their apparatus tanks plus any convenient bodies of water from which they can take suction. The NFPA Sectional Committee on Fire Departments Serving Rural Areas is very much concerned over the water supply problem. A special subcommittee is studying the problem of private water supplies for rural fire protection.

It is our view that legislation to encourage and facilitate properly designed water systems in rural areas could be a significant factor in the reduction of loss of life and property by fire. Most of these areas already have volunteer fire departments with good apparatus but which are seriously handicapped by lack of water for firefighting. We have been informed by persons technically qualified in the field of rural water supplies that relatively small expenditures would be involved in making rural water systems useful for fire protection. We urge that any program to encourage and provide rural water supplies include fire protection as a major objective.

AMERICAN WATER WORKS Co., Inc.,
Wilmington, Del., June 18, 1965.

Hon. ALLEN J. ELLENDER,
Chairman, Committee on Agriculture and Forestry,
Senate Office Building, Washington, D.C.

MY DEAR SENATOR ELLENDER: The water service industry and we who have labored in it for many years are gratified by the growing attention given by State and Federal Government to our ever-increasing mutual problems, including the extension of water distribution facilities.

The reason for the existence of our industry, and our common aim with Government, is to provide the best possible water service at the lowest possible cost to new and developing areas.

The taxpaying, investor-owned water service industry is proud of the part that it has played in the growth and development of our country. Large areas of our Nation, including urban, suburban, and rural populations, are served by our systems. Between 20 and 30 percent of the Nation's water service is provided by investor-owned systems, regulated as to user rates and charges, capital structure, method of operation, and rate of return by State regulatory commissions. American Water Works Co., Inc., is the parent of 84 operating companies which provide excellent and efficient service to 480 communities in 18 Midwestern, Southern, and Eastern States. In serving over 4 million people, the American system companies have invested over a half billion dollars in plant and equipment. In 1964 alone we paid over \$13 million State and Federal taxes on the property and revenue of our systems.

We have sought in the past and are now constantly seeking new methods to provide extension of our water service systems.

Frankly, measured in terms of performance, our capacity to expand and extend our distribution systems has not measured up to our desire. This has not been because of any limitation upon our ability, but has been a combination of problems arising from the well-ententioned desire of regulatory practices to protect the low rates of existing customers, which compounds the problem of providing higher capital investments per customer required in suburban and rural areas. Unfortunately, our industry, unlike some of our brother utilities, is not susceptible to technological advance to reduce costs.

Several examples of these impediments are as follows:

(1) In 1962 Congress provided a 7 percent investment tax credit to most industries. The public utilities field, in which we are engaged, received only 3 percent. Even then it was with the greatest difficulty that we persuaded some State regulatory agencies to permit us to retain this saving for the purpose of providing capital for system development, as opposed to their desire to appropriate the saving for the purpose of reducing existing customer rates.

(2) The same dilemma exists with regard to the treatment of tax savings attributable to accelerated depreciation granted under the Internal Revenue Code. For example, in 1964, of \$1,992,700 tax savings from accelerated depreciation, \$440,600, or 22 percent was compelled to be used to reduce operating expenses, with the benefit again going to existing customers.

Our business is to provide water service. We feel that, despite limitations, we have done an excellent job in the past and we expect to do a better job in the future.

Our concern with the bill upon which this hearing is conducted (S. 1766) lies in the definition of "rural areas" contained in paragraph 7.

Fayette County, Ky., where we are proud to be franchised to serve through our Lexington Water Co., contains only one city, village, or borough having a population in excess of 5,000 inhabitants—the city of Lexington itself. Our system extends in many places almost to the borders of the county, many miles away. However, under the terms of the definition contained in paragraph 7 almost any area of the county not presently served by us, but which we plan to serve as future reasonable foreseeable growth occurs, could presently be eligible for assistance under the act. This situation would be typical throughout our system.

We feel that such an application of this act would be unfair competition to our industry, would hamper our future growth, and would be an unwise application of nonrecoverable funds of the U.S. Government to areas which will undoubtedly in the future justify self-liquidating programs of water service and which, at the same time, if operated by tax-paying, investor-owned companies, will produce tax revenues.

There are many remotely rural areas, not susceptible to great population growth or development within the reasonably foreseeable future or not within the range of help from an existing system, which certainly require assistance of the type contemplated by this act. Refinement of the definition in paragraph 7 should be undertaken to insure that the act is applied to benefit those areas only.

The major difficulty in accomplishing remote extension of water service is not the rate required to be paid by the remote customer, but the difficulty of obtaining the amount of capital required for that service, which may be called "excessive investment" insofar as it greatly exceeds the investment per customer in the existing system, upon which the rates are based. Prospective remote customers frequently find the necessary capital is unavailable to them from ordinary sources, and the existing water companies are unable to supply it without seeking major increases in rates.

In areas within range of our existing companies, a happy solution could be found if the funds available under this act to groups or associations of remote customers could be used for "extension deposit agreements."

The extension deposit agreement is an old and tried method of providing remote extension of water by the industry. By such agreement, subject to State regulatory practices, the remote customer deposits the amount of excessive investment with the company to obtain the service. As the area develops with new customers, increasing the revenues to the company, refunds are made by the company to the customer in accordance with established rules. In applying this method to the funds under consideration by this act, the remote customer could obtain the amount of the deposit from the Farmers Home Administration apportioned by the guidelines therein established as to grants and loans, and in turn assign the repayment rights received by him from the company to the Farmers Home Administration. This would result in an eventual liquidation of part or all of the Government's investment and simultaneously increase tax revenue.

Therefore, with the greatest respect we submit that paragraph 7 should be amended to read in the following manner:

"(7) Rural areas, for the purpose of water systems, shall include any area not included within the boundaries of any incorporated or unincorporated city, village, or borough having a population in excess of 5,000 inhabitants; provided however, that no loan or grant shall be made to establish a water system within 10 miles of an existing distribution system of a public water service system or an investor-owned water service system subject to regulation by State regulatory authorities with respect to user rates and charges, capital structure, methods of operation or rate of return, except to agencies described in paragraph (1), under the conditions in paragraphs (2) and (3), for the purpose of financing extension deposits under agreements subject to State regulatory rules and practices between such agencies and existing public or investor-owned water service systems. In the event of any such loan or grant, the agency shall assign to the Farmers Home Administration its rights to reimbursements or repayments from the water company required by the extension deposit agreement."

Also we recommend that a new paragraph be added as follows:

"(8) For the purpose of effecting orderly community development consistent with a comprehensive community water development plan of the rural area and not inconsistent with any planned development under State, county, or municipal plans approved as official plans by competent authority for the area in which the rural community is located, a water system financed under this act may be sold to a public or investor-owned water system subject to regulation by State regulatory authorities with respect to user rates and charges, capital structure, methods of operation or rate of return, for a price equaling the amount of assistance granted hereunder less reasonable and appropriate depreciation to the physical assets of such system."

We respectfully request that this letter be treated as my testimony upon the hearing of this bill and thank you for your courtesy and attention.

Sincerely yours,

J. J. BARR, *President.*

Senator AIKEN. Here is a telegram from Howard Cowden, chairman of the Trimble (Mo.) Water District, and certain other telegrams and letters which, as I said, I will submit for the record. Included among them is a resolution adopted by the Legislature of the State of Vermont.

(The resolution, telegram, and letters referred to follow:)

KANSAS CITY, Mo., June 18, 1965.

COTYS M. MOUSER, *Chief Clerk,*
Senate Committee on Agriculture,
Washington, D.C.

Sorry, cannot come to Washington to testify today on S. 1766. I am 100 percent for it. There is great need for assistance to rural communities in obtaining supply of good water. We are just completing organization of district. We will have 84 users and costs will be \$131,000. Because small village is included district is feasible. Another group of farmers in purely rural area attempting to organize finds cost very high. This area soon will be mostly suburban. Instead of putting in small districts as we are doing S. 1766 would permit organizing larger districts with better sources of water and better treatment plants and therefore better serve area when it becomes suburban.

HOWARD A. COWDEN, *Chairman,*
Trimble (Mo.) Water District.

LEGISLATURE OF THE STATE OF VERMONT, 1965

NO. R-29. JOINT RESOLUTION RELATING TO RURAL WATER SUPPLY (J.R.H. 27)

Whereas it has been declared to be the policy of Vermont that the water resources of the State shall be protected, regulated, and where necessary, controlled under authority of the State in the public interest and to promote the general welfare; and

Whereas the increasing use of water fit for human consumption by Vermonters for residential, recreational, and agricultural purposes is a matter of great public interest; and

Whereas extreme shortages of such water have been experienced in many rural areas of Vermont; and

Whereas such water shortages are not restricted to Vermont but are a national problem well meriting Federal recognition and assistance; and

Whereas it is the primary responsibility of the State and local communities to plan, develop, and distribute water in rural areas; and

Whereas the Congress of the United States is now considering specific proposals such as Senate bill No. 493, introduced by Vermont's Senator George D. Aiken, to meet the critical water needs of rural America; such proposals designed to provide Federal assistance to the improvement and expansion of existing facilities and the development of new water systems and distribution methods: Now, therefore, be it

Resolved by the senate and house of representatives, That the General Assembly of the State of Vermont endorses the aims and purposes of Senate bill No. 493 and urges the 89th Congress to give favorable consideration to legislation embodying the principles set forth therein; and be it further

Resolved, That this assembly believes that section 302 of Senate bill No. 493 should be amended to permit grants to be made to State political subdivisions, as well as cooperative or mutual associations; and be it further

Resolved, That the secretary of state is hereby directed to send a copy of this resolution to our congressional delegation.

Approved: April 21, 1965.

PHILIP H. HOFF,
Governor.
FRANKLIN S. BILLINGS, Jr.,
Speaker of the House of Representatives.
JOHN J. DALEY,
President of the Senate.

BURLINGTON, VT., April 13, 1965.

Senator GEORGE D. AIKEN,
Senate Office Building, Washington, D.C.

DEAR GEORGE: I am enclosing a resolution passed by our Vermont State RAD Committee on April 8 which I believe is self-explanatory. We are facing up to a real critical water situation here in the State, and we feel that anything that can be done to help communities get an adequate supply of water is a must, both as far as agriculture is concerned and also as far as the total population in many of the towns is concerned.

Sincerely,

R. P. DAVIDSON, *Director.*

THE EXTENSION SERVICE—UNIVERSITY OF VERMONT

VERMONT STATE RAD COMMITTEE MEETING, APRIL 8, 1965

* * * * *

Passed the following motion:

Recognizing the critical water situation facing farmers, nonfarmers, and communities, we recommend that Congress seriously consider use of Federal funds to provide meaningful assistance in the form of grants and low-interest loans for water systems to communities and area associations, and that the State of Vermont be encouraged to immediately make available necessary and matching funds.

Copies of this motion to be sent to:

- The Vermont congressional delegation.
- Gov. Philip H. Hoff.
- The Interagency Committee on Natural Resources.

BRIDPORT, VT., May 20, 1965.

Hon. GEORGE AIKEN,
U.S. Senate, Washington, D.C.

MY DEAR SENATOR AIKEN: I am taking the liberty of writing you concerning a very acute "water shortage" which exists in our township, namely, Bridport, Vt. Our water problem has been especially critical during the past 3 years and it is very evident that this year will be even worse as many cattle ponds and wells are at present 50 to 60 percent below their levels at this time last year.

Enclosed are a number of newspaper clippings from the Addison Independent of Middlebury, Vt., which I am sure you will find to bear out our very critical problem.

We are in dire need of Federal aid to assist us in obtaining a public water supply system in the towns of Bridport, Shoreham, and Addison. A survey and engineering plan has already been prepared by Camp, Dresser & McKee, of Boston, Mass., and has been approved by the majority of the water commissioners in the above-named towns.

Since our population is almost 90 percent in dairy farming, we are compelled to have "bacteria free" water which must conform to the uniform milk sanitation code, and we are severely handicapped. Our livelihood and future growth is being jeopardized by the lack of both Federal and State funds to aid us in our critical problem.

We urgently request your support of any Federal agency action which will assist us in obtaining immediate assistance and relief.

May I say "thank you" for your kind and prompt attention to the above matter, and wish you continued success.

Very truly yours,

STEPHEN C. COOKE, *Selectman.*

BRIDPORT, VT., May 27, 1965.

HON. GEORGE D. AIKEN,
U.S. Senate, Washington, D.C.

DEAR SENATOR AIKEN: We wish to thank you for your continued efforts to obtain Federal assistance for the construction and improvement of rural water systems. We are convinced that there is no better way to maintain and improve the economy in rural areas where obtaining water is a problem.

In our own great Champlain Valley, a large percentage of the dairymen are limited in the number of cattle they can keep due to the shortage of water. Most of the water they do have is unfit, from the standpoint of quality, to meet modern standards. These limitations will force many dairymen out of business.

Rural water systems are very expensive to build due to the length of pipe that must be laid. Therefore, they cannot possibly be constructed without State and Federal financial assistance. Because of the importance of agriculture to the economy of the Nation, we feel that this assistance should be made available.

We are sorry that the Senate bill 1766 would make only 40-percent grants available instead of the 50 percent provided for in Senate bill 493.

If you have the time, please let us know of the progress made toward passage of the bill.

Sincerely yours,

ARNE V. HILTUNEN,

Chairman, Water Commission, Tri-Town Water District No. 1.

EAST MONTPELIER, VT., March 3, 1965.

HON. GEORGE D. AIKEN,
Senate Office Building,
Washington, D.C.

MY DEAR SENATOR AIKEN: After reading S. 493, Rural Water Act of 1965, I wish to compliment you on your forward thinking and interest in rural America. I believe it is time for action such as this to be taken. I also am of the opinion that your bill S. 493 will get the job done most efficiently and in the shortest possible time. We, at Washington Electric Cooperative wholeheartedly support your approach.

Hoping to be able to see you the next time I am in Washington, I remain,
Very truly yours,

SAILEY ENNIS,

Manager, Washington Electric Cooperative, Inc.

JOHNSON, VT., February 19, 1965.

Senator GEORGE D. AIKEN,
U.S. Senate,
Washington, D.C.

DEAR GOVERNOR: Concerning S. 493, Rural Water Act of 1965, it seems to me that you have come upon a wonderful solution to this rural problem. Your approach will certainly get the job done most efficiently and in the shortest possible time. I have found that both the HHFA and the CFA can bog projects down through their redtape.

We wholeheartedly support your approach and I am sure the other electric cooperatives in our State would also agree with me.

Respectfully,

W. N. COOK, Manager,

Vermont Electric Cooperative, Inc.

MIDDLEBURY, VT., February 1, 1965.

Re Tri-Town Water District No. 1.
Senator GEORGE D. AIKEN,
Senate Building, Washington, D.C.

DEAR SENATOR: Thank you for forwarding to me a copy of Senate bill 493 to put rural water supplies under the Rural Electrification Act. I think this is a very intelligent outlook on the entire situation and may be the answer to many rural community problems.

The real crux of the matter seems to be that in any rural water system, the number of users is out of proportion to the amount of pipeline that must be run to connect them and that the individual towns never could raise enough money by themselves to finance such a system. The bill which you introduced jointly with Senator Mansfield might very well answer this problem.

I will be following its progress with interest.

Sincerely yours,

UNDERWOOD & LYNCH,
By WYNN UNDERWOOD.

VILLAGE OF ALBURG, VT.

Senator GEORGE D. AIKEN,
U.S. Senate Offices,
Washington, D.C.

DEAR SENATOR: We, the trustees of Alburg village, are watching with great interest the progress of your bill for relief of drought-stricken areas in Vermont.

As we ourselves have a water problem, we realize how very much such action is needed. Therefore, we are 100 percent in favor of the bill.

Very truly yours,

EUGENIE C. MARTIN, *Clerk.*

For the trustees:

PHILLIP DULUDE.
HUBERT POQUETTE.
STANLEY MITCHELL.
FRANCIS WAITE.
JAMES CLELAND.

NORTH HERO, VT., *May 3, 1965.*

Senator GEORGE D. AIKEN,
Washington, D.C.

DEAR SENATOR AIKEN: Some time ago I read the in press that you had introduced a bill in Congress whereby communities in the State could take advantage of Federal and State aid to establish water systems in rural communities that needed such systems. As I understood the bill, the Federal Government would pay 50 percent, the State 25 percent, and the community 25 percent of the cost of installation. Am I correct in these statements? If that is true, will you please inform me as to the status of that particular bill at this time?

We, in the community of North Hero village have decided that we would establish a water system in this part of the town. It has become a necessity, inasmuch as we feel that our drinking water is no longer pure, and with a system we could purify the water in some manner. This is right in the center of town, and about 20 families would be affected. We have several other reasons, too, for establishing a central water system.

I do not think it necessary for me to go into details now, as you are far too busy to listen to us at the present moment. However, our first step is to acquaint ourselves with the status of your bill which I have mentioned, and if it will be possible for use to get any help financially along this line.

Therefore, will you please write me any information that you may have to give me at your earliest possible moment?

Thank you, in advance, for any information that you may have. You do not know just how anxious we are to get this underway soon. Again I thank you.

Yours truly,

Mrs. GENIA M. WAY.

COLCHESTER, VT., *May 20, 1965.*

Hon. GEORGE D. AIKEN,
U.S. Senate,
Washington, D.C.

DEAR SENATOR AIKEN: I am writing you in my capacity as chairman of the Prudential Committee of Colchester Fire District No. 2 which encompasses the so-called Malletts Bay area.

Our district has a desperate water situation and we have been working for upward of 5 years to find a solution. Last September we obtained a \$21,000 advance for planning from the Housing and Home Finance Agency. With these funds we retained the Boston engineering firm of Whitman & Howard, Inc., to design a 9-mile water distribution system for us. This work was completed in January 1965. The estimated contracting cost is \$360,000.

It had been our hope to obtain a grant under the accelerated public works program with which to finance this construction project. The appropriate form was filed during the period that the Burlington area qualified because of its high rate of unemployment. However no APW funds were available during this period and we understand that we are no longer eligible because the area has since been declassified.

We understand that you have submitted a bill to the Senate which would provide relief to municipal corporations of less than 5,000 persons which are in the predicament with which we are confronted. We are writing this letter to add our unqualified support to this bill.

Our district is desperately short of potable water. The inhabitants have had to resort to all sorts of measures to alleviate this situation. This includes drinking cistern water and hauling water. The elementary schools in the district are similarly handicapped. The normal type shallow well is of little value because the resulting water is generally not potable.

Our district is adjacent to the city of Burlington. Our great amount of undeveloped land is the logical area for growth from the city where residential land is almost entirely gone. However the water shortage has prevented this expansion. So bad is our problem that the FHA no longer will approve new home construction in the district. The effect of this ruling on an area of modest means is obvious. Several developers are interested in the area but only if the water problem can be solved.

Our backs are against the wall. With water our district will enjoy an unprecedented growth. Without water it will languish. We plan to vote on a \$360,000 bond issue but this is done in desperation. We have been advised that with the present number of guaranteed takers, our chances of being able to market this much in bonds are practically nonexistent. We are confident that we could guarantee enough immediate takers to finance approximately one-half of the \$360,000 project. We are proceeding with the vote on the project in hope that somehow matching or nearly matching funds will become available.

I am sure that our predicament is not unique. We know that our district will grow and prosper with water but we lack the resources to construct a water distribution system without governmental assistance.

Whatever you can do to help our district and other similarly situated small municipal corporations would certainly be of inestimable assistance.

Sincerely yours,

C. J. QUINN,
Chairman, Prudential Committee,
Colchester Fire District, No. 2.

NORTHFIELD, VT., May 17, 1965.

HON. GEORGE D. AIKEN,
U.S. Senate,
Washington, D.C.

DEAR SIR: Enclosed you will find copies of a petition, letters and a map of the community of South Northfield, Vt.

The spring-fed water supply of South Northfield has been inadequate or nil for many years. After a petition was signed by 100 percent of the residents a study was made. The enclosed letters show the results.

Listed below and on enclosed map are facts which may give you some idea of our problem.

South Northfield is an unincorporated village within the town of Northfield, located on route 12 approximately 2 miles south of the incorporated village of Northfield. Northfield, Inc., village owns the water system. The town of Northfield has a population of 4,511.

Problems concerning water situation:

1. No dependable water supply.
2. No fire protection.
3. No sewerage system (septic tanks).
4. A definite health hazard.
5. Septic tanks and individual drilled wells on small pieces of property are too near each other.
6. Children attending school where well and septic tanks are near each other had three cases of hepatitis in 1963.
7. Old folks home had to carry water. (A very efficient operator is severely handicapped with this condition.)

8. A drilled well at the Goodrich Dairy Farm did not produce an adequate water supply.

9. Thus a drilled well as suggested probably would not give needed supply. We do not have qualified people to build and maintain such a system in the South Northfield area.

10. A high percentage are retired people. They would find this initial cost prohibitive.

11. Due to Norwich University and its expansion program, it seems certain that the trend now taking place in building will continue in this direction. It is possible for 50 or more homes to be built in this area.

We hope your rural water program proposal will be met with favor by the Congress because it will greatly assist communities such as ours. Without the help, as included in your proposal, we cannot look forward to any solution to our problem.

We will appreciate any information concerning the progress of this bill.

Very truly yours,

Mrs. JAMES G. KEMPTON.

To the Town Manager and Selectmen of Northfield, Vt.:

We, the undersigned are interested in such information as feasibility and approximate cost concerning the extension of village water to South Northfield.

Signatures: Twenty people signed this in August 1964.

STATE OF VERMONT,
DEPARTMENT OF WATER RESOURCES,
Montpelier, May 10, 1965.

Re water supply, South Northfield area.

Mrs. JAMES G. KEMPTON,
Northfield, Vt.

DEAR Mrs. KEMPTON: This will confirm your recent telephone call regarding water supply and sewage treatment in South Northfield village.

Be advised that H. 175, a State bill suggesting 25 percent aid to communities for water supply improvement, has been introduced in the house of representatives. If this bill is passed and signed by the Governor, grants may become available to communities such as yours.

Senator Aiken has introduced legislation in Congress which, if passed, might provide for grants on water supply construction amounting to 50 percent of the cost. This bill is certainly worthy of attention, and Northfield would be advised by this office should any money become available from this source.

Enclosed for your information is a final classification order regarding the Winooski River which includes the Dog River drainage area. Please observe note No. 3 on page 3 of the schedule which is attached to the main document. South Northfield presently falls in the category of rural pollution.

If the aforementioned legislation or any portion thereof is enacted, Northfield might find it economical to construct an extension of the village water supply system to serve the south village area by a modern water system.

Sincerely,

A. WILLIAM ALBERT,
Director, Water Supply and Pollution Control.
By REGINALD A. LAROSA,
Sanitary Engineer.

South Northfield contains:

20 residences
91 people
1 restaurant
1 school
1 church
1 grocery store

1 mill (cider and wood products)
2 dairy farms
1 old folks home
7 families retired
10 employed
3 self-employed (net salary \$3,000)
3 artesian wells

FIFIELD, Wis., February 4, 1965.

DEAR SENATOR AIKEN: I have just finished reading about your bill to bring water systems to the hundreds of small rural towns in our great United States, through expansion of the Rural Electrification Act of which I heartily approve and wish you luck.

This is a subject of great interest to me as Fifield is a small town of about 300 people, where water has long been a problem. Most of the wells here are shallow, from 40 to 45 feet deep, which is about the limit for most well drillers here as the town lays on bedrock and they do not have the costly diamond drilling equipment that is necessary to go through; so, as a result, last year being a dry year for us, there were 25 dry wells here in town.

In 1963 our town board had a preliminary survey made in the hopes of applying for a Federal grant, but it proved to be too costly for the families involved as it would mean mortgaging homes and the like; our incomes here are low—in the \$2,000- to \$2,500-a-year bracket—and they just could not see their way through, so the project was dropped for the present time.

I want to express my appreciation to you for your concern and interest you have shown in rural America in the past, and for the many bills you have brought about to make rural America a much better and healthier place to live.

I would appreciate hearing from you on the final outcome of the bill and will urge our Senators from Wisconsin to support you in your efforts.

Sincerely yours,

REIDAR ANDERSEN.

WAGONER, OKLA., *May 10, 1965.*

Senator GEORGE D. AIKEN,
*U.S. Senate,
Washington, D.C.*

DEAR SENATOR AIKEN: Would you please send me a copy of S. 1766. There is no doubt that this will be a revolutionary program for the rural area of these United States.

Very truly yours,

BOB JEFFREY.
BOB JEFFREY Co., INC.

HANOVER, N.H., *January 18, 1965.*

Senator GEORGE AIKEN,
*Senate Office Building,
Washington, D.C.*

DEAR SENATOR AIKEN: It was with great interest that I read in my hometown newspaper, the Bennington (Vt.) Banner, your proposed program of Federal grants and loans to develop water supply and distribution systems in 15,000 rural communities in the United States.

I, too, am very interested in the water needs throughout the United States. As a matter of fact, some friends and I are planning to study this very problem. I am writing to ask if you could send me a copy of your study upon which you based your proposal. This would be a great help to us in our endeavors.

Thank you very much for your consideration of this request. I am looking forward to hearing from you in the near future.

Sincerely yours,

C. DIXON KUNZELMANN.

CHATHAM, MICH., *January 19, 1965.*

Senator GEORGE D. AIKEN,
*U.S. Senate,
Washington, D.C.*

DEAR SENATOR AIKEN: Our village council is very interested in your proposed program for Federal grants and loans to develop water supply and distribution in rural communities.

We are a newly incorporated village with a very serious water problem. We have a population of 275 people. At the present time most of the families are using water from their own or their neighbors' well. A little over 2 years ago our water in the village became contaminated in most all the wells. Many families are now drawing water from the same wells and many have to carry water for drinking and cooking purposes.

The health department is concerned about the present water situation as it contributes to an unhealthy condition. In our State it is not permissible for more than two families to get water from the same well but at present this is impossible to enforce as most people would be completely without water. The

wells from which the people are receiving water are very unstable as at times the water is bacteriologically unsafe and then within a few days it will test safe again as reported by the laboratories of the Michigan Department of Health.

The engineers report indicated the project for community water will cost \$69,000. Our village consists of many elderly people of which about 20 are retired and living on social security payments of the lowest amount. Some of the people of the village who are better off financially are intending to drill their own wells this coming summer if something is not done about a community water supply. This would not solve the problem for the lower income group of which the village is mainly comprised.

There has been the possibility of some industry coming into the village but without water available this is impossible. The few business places, including an old folks home, which we have will be unable to continue unless water is obtained.

We have applied to the Federal Government, through the Housing and Home Finance Agency, for an advance planning loan to test for water which was denied us and also for an APW grant, which was given a number with very little prospect of receiving any financial aid as there seems to be no more money appropriated to this Agency and none in sight. Without some Federal help we are unable to proceed any further than we have, plans on paper.

Could you possibly give us any further information on this subject such as when such moneys would be available if the proposal passes and whether we would be eligible to receive such funds?

We hope this letter will help you in presenting your proposal and help us solve our problem. Thank you for your attention.

Sincerely,

(Mrs.) SHIRLEY LAMMI,
Village Clerk, the Village of Chatham.

BLOOMINGTON, IND.,
January 19, 1965.

Senator GEORGE D. AIKEN,
*Senate Office Building,
Washington, D.C.*

DEAR SENATOR AIKEN: We are not from the same State but both are U.S. citizens. This is to encourage you in your water proposal bill to aid our citizens that stand in urgent need of financial aid to develop water supply and the distribution system in cities, suburban, and rural areas.

Due to the importance and tragic scarcity of a large water supply in many areas of our States our citizens need financial aid to create water supplies to live and prosper.

We all realize without water we perish, or just fade away. With an ample supply of water we have health, sanitation, fire protection, and create prosperity for all citizens.

In this section of Indiana we need money to build filtering plants and build water systems to be able to extend waterlines to our citizens that they may have a good supply of necessary water in their homes, factories, and college here around Bloomington, Ind. Indiana University has 21,000 students.

We sincerely hope that you will have large majority of Congressmen backing you and the bill will be passed in the very near future. Increasing populations take a large supply of water.

Sincerely,

FRED REFFE.

P.S.—We may not get grants, but help through the REMC or some source to be able to get loans for city, suburbs, and rural areas. It's serious today. Water is important.

BOZEMAN, MONT., *February 1, 1965.*

Hon. GEORGE D. AIKEN,
*U.S. Senator,
Senate Office Building,
Washington, D.C.*

DEAR SENATOR AIKEN: I read with great interest your remarks made in introduction to the "Rural Water Act of 1965." I commend you highly for your views and also for the courage to advance them.

Agriculture is not nearly the burden on public funds which most people imagine it to be. As you so accurately pointed out, many of the costs attributed to agriculture should, in fact, be attributed to other offices of the Government.

On behalf of myself and many fellow ranchers from the State of Montana I wish to thank you for your stand on the position of agriculture in our economy.

Very truly yours,

JAMES C. TAYLOR.

AUSTIN, TEX., *February 2, 1965.*

HON. GEORGE AIKEN,
Senator,
Washington, D.C.

DEAR SENATOR AIKEN: I have just read an article in the National Farmers-Union Washington newsletter which tells of your efforts on behalf of rural communities who lack adequate water supply. I wish to compliment you on your keen perception of rural water needs. I live in an area that has only surface rainwater for both domestic and livestock needs and nothing you could do for us would help us more to achieve an American living standard than a dependable supply of fresh water. We have an adequate supply of water stored behind a series of dams on the Colorado River above Austin, but we lack the finances to pipe it over the area. If the Federal Government would pay say half of the cost as you propose we could probably pay for a distribution system. Our source of water is not to healthy and our wives can't have automatic washers and proper bath facilities. I know our property would certainly go up in value if our families could enjoy the same privileges as are enjoyed by others in more fortunate areas. Thank you a million for your interest and efforts.

This feeling is shared by hundreds of farmers in this area and I could get a petition signed if it would help. A greater degree of economic justice would also help us so we could meet our expenses. With all the help going to so many foreign countries we are glad to have your concern. The fact that you are a Republican makes your concern all the more impressive to us. Keep up the good work and your name will be hailed by many of my neighbors. Thanks and may God bless you even more in the future than he has in the past.

Sincerely,

JOE WISCHKAEMPER.

BOSTON, MASS., *February 24, 1965.*

Congressman ROBERT T. STAFFORD,
House of Representatives,
Washington, D.C.

DEAR CONGRESSMAN STAFFORD: We were pleased to observe the bill recently introduced to the Senate by Senators Aiken and Mansfield, S. 493, which would assist in the development of water systems for rural areas. In our opinion, the recognition by the Federal Government of the need for adequate rural water supplies is long overdue.

The enactment of this bill and a subsequent grant of funds would permit the construction of a water supply and distribution system for the towns of Addison, Bridport, and Shoreham, Vt. From your extensive personal knowledge of the plight of the people there, you can appreciate the extreme need they have for a water system.

The three towns have formed the Tri-Town Water District No. 1 for the purpose of supplying water to homes and farms in the district. The district has submitted recently an application to the Housing and Home Finance Agency for an advance of funds for preparation of the final construction plans and specifications.

The project which we have recommended and which is contemplated in the application involves construction of a water intake works and pumping facility on the shore of Lake Champlain, in Addison, and a network of water mains to many parts of the three-town area. The initial program would include construction of about 80 miles of 4-inch, 6-inch, 8-inch, and 10-inch water mains and would cost about \$2.3 million. This cost, amortized over 40 years, ordinarily would be proportioned among the users. It is obvious that the cost to the area

farmers in water rates would be excessively high if they had to bear the entire cost. Our estimate of the cost to a farmer with 50 head of cattle would be \$486 per year.

In formulating the preliminary design of the system, we decided to recommend a network of minimum-sized pipes to assure adequate quantities of water to the entire district now and in the immediate future. Reducing the sizes still further, say one pipe size for the 6-inch, 8-inch, and 10-inch pipes, would result in a saving of less than 15 percent of the entire project cost, but would increase yearly operating cost, would require excessively high pressures, and would not guarantee adequate service to many users at times of high demand. The slight saving involved in reducing pipe sizes can be visualized by considering that regardless of the pipe size within the range of our recommendation, the largest portion of the cost represented by excavation, place of pipe, and backfill remains the same. We therefore feel that assistance cannot come in the form of reduced construction costs.

Senate bill 493, if passed, and if matched by supporting legislation by the State of Vermont, will have the effect of preventing economic depressions in many rural areas. A water system constructed with the aid of a grant under the bill will help farmers in the Tri-Town District meet the requirements of the milk ordinance and code of the U.S. Public Health Service, which is to be enforced in Vermont beginning January 1, 1966. If there is no water system available, the dairying industry may be lost to this area.

We will be glad to furnish any additional information you may desire.

Very truly yours,

CAMP, DRESSER & MCKEE,
By FRANK L. HEANEY.

Senator AIKEN. There are, I think, four or five other Members of the Senate who wish to submit statements for the record, and they will be given until next week to submit those statements. Governor Rockefeller of New York also plans to submit a statement.

Senator HOLLAND. Without objection that will be done, and the exhibits will be included in the record.

(The statements referred to follow :)

STATEMENT OF HON. CLINTON P. ANDERSON, A U.S. SENATOR FROM THE STATE OF
NEW MEXICO

Mr. Chairman, I appreciate your granting me this opportunity to make a few brief remarks in support of S. 1766, to amend the Farmers Home Administration Act of 1961 to give the Secretary of Agriculture additional insured loan authority and to make grants with respect to water supply and water systems, and community planning in rural areas. This legislation has long been needed by rural communities and farm families. Increasing the insured loan authority for the Farmers Home Administration from \$200 million to \$450 million means we are at last matching a program to fit the need—and the need is great.

The provisions for permitting loans up to \$4 million and of grants up to 40 percent of the cost of development of community water systems when necessary are sound and realistic in terms of the problems facing many rural communities.

This is particularly true in my own State of New Mexico. We not only share the same problem of all other States in having many rural communities in need of water systems, but are also constantly faced with the problem of finding adequate water supplies.

Finding and developing these water supplies is often a very costly operation. This cost alone is often beyond the ability of a small community to finance. Then after supplies are found and developed, these supplies may be far away from the area to be served. The cost of distribution lines is, therefore, very high. The only possible way, then, for many small rural communities to get a water system is to get a grant in addition to the loan.

Raising the loan limit to \$4 million and increasing the size of a community or town eligible to get a loan up to a population of 5,000 is also necessary if this program is to achieve the objectives we demand of it.

I think the \$450 million annual insured loan authorization is the absolute minimum we should set. This increase will not add to the Federal budget because funds will come from private investors and be insured by the Farmers Home Administration.

Years of experience have tested the soundness of the insured loan program in financing the needs of rural America and have clearly proven that rural people are good credit risks.

A recent check by my office revealed that the Farmers Home Administration has insured some \$940 million in loans. Funds for these loans were advanced by some 3,500 banks and other private investors. I am pleased to tell you that losses on this nearly \$1 billion in loans funds are only five one-hundredths of 1 percent. The small loss is more than covered by the insurance fees collected by the agency. The insured loan fund, in fact, shows a surplus of \$15 million.

For this very reason I hope the Bureau of the Budget does not interfere with the allocation of this insured loan authority as it has in some of the other programs. If private and public lenders want to participate in the development and betterment of rural America, then they should be permitted to do so.

STATEMENT OF HON. VANCE HARTKE, A U.S. SENATOR FROM THE STATE OF INDIANA

Mr. Chairman, when Senator Aiken introduced this bill last April I was one of the seven original cosponsors and I am happy to have this opportunity to go on record before this committee in support of S. 1766.

Two years ago, the then Senator Hubert Humphrey and I cosponsored a similar bill because even then it was evident to many of us that tens of thousands of rural communities were in desperate need of community facilities, particularly water systems, if they were to survive and prosper. It seems to us then, as now, that the best possible way to extend needed assistance to these communities was to increase the insured loan authority of the Farmers Home Administration from \$200 to \$450 million.

In many respects, this is a far superior bill. In addition to raising the insured loan authority, it provides for grants when needed by those communities who cannot bear the full cost of a water system; it increases the loan limit from \$1 to \$4 million; and it extends the benefits of this great program to more communities by increasing the unrealistic and arbitrary population qualifications from 2,500 to 5,000.

Mr. Chairman, I speak from personal, firsthand knowledge when I say this program can mean the difference between the life or death of many rural communities.

In Indiana, since 1962, 20 small rural communities have installed community water systems as a result of loan assistance under this program. Within a few more months, 15 more small towns in Indiana will have fresh running water in their homes. In all, more than 45,000 rural people in my State are or will soon be receiving the benefits from this program.

When Farmers Home Administration funds for this program were exhausted a few months ago, it had a backlog of 40 applications for association loans from Indiana communities, totaling around \$7.5 million. How many more applications would have been filed had not the FHA been forced to stop accepting new applications, one can only guess. But from my mail, I should judge that it would be many times that number.

I have personally surveyed most of these Indiana communities which have recently installed water systems and it is absolutely amazing to see the transformation that has taken place. New homes are being built. Small industries have come to these towns. People working in nearby larger cities are coming back to live in their home communities. The towns have a new look and the people have a new spirit.

Mr. Chairman, I can think of no program that is more sorely needed or can do more to revitalize rural areas than this one.

Indiana: Amount insured loans made during 1965 fiscal year through May 31 and estimated value of initial applications on hand as of May 31, 1965

Farmownership and soil and water conservation loans made during the period July 1964-May 31, 1965-----	Amount \$2, 672, 772
Farmownership and soil and water conservation loan applications on hand May 31 which could not be processed because of lack of funds-----	5, 504, 000
Loans to rural groups for water systems and other facilities made during the period July 1964-May 31, 1965-----	892, 000
Applications from loans to rural groups on hand May 31 which could not be processed because of lack of funds-----	7, 500, 000

STATEMENT OF HON. ROBERT F. KENNEDY, A U.S. SENATOR FROM THE STATE OF NEW YORK

Mr. Chairman, I would like to address a few remarks to the committee concerning S. 1766, a bill to amend the Consolidated Farmers Home Administration Act to aid rural communities in the establishment of water systems.

I have joined my colleague, Senator Aiken, and the many others who are sponsoring this bill to support legislative action to provide relief to rural communities suffering from water problems.

Although the problem of providing adequate water to each home and farm in New York State and the rest of the country is constantly with us, it is even more severe at present. New York State has been suffering from the worst drought in over 30 years. Communities in upstate New York and along the Hudson River and Mohawk River Valleys have seen that existing water systems will not meet their water needs. They have seen individual pumps and wells dry up.

As a result they have had to purchase water, to construct lines to draw water from new sources. Many of these arrangements are temporary by nature and will not meet the needs of these communities over a long period of time. These communities will have to construct permanent water facilities and need assistance in order to do so.

S. 1766 will authorize additional funds to the Farmers Home Administration to assist rural areas build water systems. It increases the funding limitations on particular loans for water systems. The increase of \$250 million will provide funds to begin to meet the backlog of applications for water systems now awaiting action at the Farmers Home Administration.

New York State needs this additional assistance. The rural communities and farmers of New York State cannot meet the demands for water without constructing new water systems. The agricultural revolution by which we have managed to feed our population better with fewer workers depends on our ability to provide capital for activities of this nature. The Farmers Home Administration program will meet this need and provide the water that we require.

I ask that the committee have printed as a part of the record of these hearings a release from the Geological Survey commenting on the drought in the Northeast. It provides information of the extent of the problem that communities in the Northeast are now facing.

I urge that the committee report favorably on S. 1766 so that prompt action may be taken by the Congress to enact this bill as law.

[Geological Survey release, June 8, 1965]

PERSISTENT DROUGHT CONTINUES IN NORTHEAST, GEOLOGICAL SURVEY SAYS

Reports of river runoff and reservoir and ground-water levels for the month of May from Geological Survey's Water Resources Division specialists continue to show record low or below-normal conditions in southern New England, eastern New York State and Pennsylvania, and northern New Jersey, the Department of the Interior reported today.

"Unless summer rainfall is considerably and consistently above normal," said Elwood R. Leeson, the Survey's Assistant Chief, Water Resources Division, Washington, D.C., "levels in wells and streams are likely to drop to alltime lows by October, and many northeastern communities face water rationing, parched lawns, dirty automobiles, bans on swimming, increased water-treatment costs, and perhaps some unusually stagnant streams."

Leeson said that the scattered showers and thundershowers of the first week of June did little more than "wet the dust" as far as their effects on the overall drought situation.

The Geological Survey's May Water Resources Review—a monthly tabulation of the water situation around the Nation—showed that at the end of May New York City's Pepacton and Neversink Reservoirs located in the Catskills in the Delaware River Basin were only 39 percent full, the lowest level reported for this time of the season since the reservoirs began operation in 1955. Normally, they are nearly full or overflowing by June 1.

Reports from the Survey's Water Resources Division specialists in Trenton, N.J., show that the Delaware River at Trenton had an average flow in May of only 5,218 cubic feet per second (3,400 million gallons per day), the lowest May flow since records began there in 1913.

Leeson pointed out that, at Trenton, the deficiency below normal flow in the 7 months since November was 1,200 billion gallons, whereas the accumulated deficiency for the previous 3 years of drought was only 2,200 billion gallons.

"This accumulated deficiency in flow," said Leeson, "is the equivalent of 1¼ years of normal flow in the Delaware River."

Leeson noted that Wanaque Reservoir, the largest in New Jersey, is at record-low level; this in spite of almost continuous pumping this past winter from the nearby Ramapo River, and the shifting of part of Wanaque's customers to another water system.

Newark's Pequannock reservoirs, and those in the Hackensack River Basin are also far below seasonal normal levels. Only Jersey City's Boonton Reservoir, and the new Spruce Run Reservoir, recently completed by the State in the Raritan River Basin, are nearly full.

Another aspect of the water resources situation—ground water (water stored in subsurface rocks)—was noted by Leeson.

"Ground-water levels at the end of May," Leeson said, "were generally below normal in the five-State area from Massachusetts to Pennsylvania. In New York about one-fourth of the wells were at the lowest levels since records began. In Connecticut, of seven wells observed regularly each month by Survey hydrologists, three were at record low levels, and three at second lowest levels. In Pennsylvania, 72 percent of the wells observed monthly were below average levels, including most of the observed wells in the southeastern part of the State."

Scores of communities in the Northeast drought area, including New York City, have begun to limit the use of water. This rationing now is a prudent measure to help avoid serious water shortages during the coming autumn and winter months.

"Stringent rationing can be very effective for cities depending on marginal reservoir supplies such as New York City and many smaller cities in New England," said Leeson, adding that, "for example, New York City reduced the consumption of water in 1950 during a dry period by 20 percent."

The Geological Survey hydrologist terms the outlook for water supplies in the Northeast as "bleak."

"From May to October," Leeson pointed out, "streamflows and ground-water levels normally decline, even with average rainfall and temperatures. Normally, at the end of the growing season—when the water requirements of vegetation drop—ground-water levels begin to rise. However, if the ground freezes before rain-water soaks below the root zone, the ground-water levels and streamflows may remain low until spring. This happened last winter. It could happen again next winter."

"There are some exceptions," Leeson pointed out. "For example, some cities with large reservoir supplies, such as Boston's Quabbin Reservoir, are in good shape. So are the cities that use large rivers for water supply, like Trenton and Philadelphia."

"However," said Leeson, "all in all, taking into consideration the more rapid dropping off of streamflow in recent months, and the fact that neither surface nor ground-water reservoirs recharged to anything near normal levels this winter and spring, we would have to term the current Northeast drought, especially in southeastern New York and northern New Jersey, as definitely greater in both severity and duration than the previous record drought in these areas during 1929-32."

"Perhaps the most widespread problem from the drought," said Leeson, "will be dried-up supplies for farms and country homes that depend on shallow wells. On areas where present ground-water levels are 2 to 4 feet below normal for this time of year, a relatively large part of the normal supply to a shallow well is not available."

STATEMENT OF HON. WINSTON L. PROUTY, A U.S. SENATOR FROM THE STATE OF VERMONT

Mr. Chairman, it is a privilege to be heard today by this distinguished committee on S. 1766 introduced by Senator Aiken. I am glad to have been a cosponsor of it and to add whatever assistance I can to urge this committee to act favorably on it.

There are thousands of rural people in the State I represent and millions throughout rural America whose needs would be overlooked, except for the

initiative taken by my friend and senior colleague from Vermont, Senator Aiken, who has introduced S. 1766.

In this country, none of us would trade the American way of life for any other; but I think it is fair to say that from the standpoint of modern advantages and living conditions, those of us here today are where we can enjoy the best of it.

Some Americans are not.

The larger towns and cities and metropolitan suburbs have clean, fresh water from a dependable community source piped into every house as a matter of course, whatever the season and whatever the weather.

But 30,000 smaller rural communities do not; 6½ million farms and other rural homes do not. It comes as a shocking surprise to many people that some 30 million citizens of the United States are not yet served by modern, 20th-century water system.

For 2 years before coming to Congress it was my privilege to serve as chairman of the Water Conservation Board of the State of Vermont. In that work I became well acquainted with the problems of providing water to the farms and towns of Vermont, which is two-thirds rural in its population. I was impressed with the necessity that in time this must be done, in all parts of the country, for the preservation of a thriving rural economy and society in America.

A very large part of what could be done to provide needed water in rural communities centers in the insured loan program of the Farmers Home Administration.

In Vermont, our dairy and other agricultural industries, and our rural towns are more and more under pressure to find adequate sources of clean, fresh water. Our problems include the difficulty in striking an enduring strain of water in the limestone formations which underlie the State; also, getting cost of construction down within range of feasibility in places where pipe must be laid deep down in rocky terrain, or where the homes and other points served are widely scattered.

New engineering techniques developed and employed by the Farmers Home Administration in rural water development have resulted in cost levels only half as high as those produced by old-fashioned engineering methods.

Grants to assist in unusually difficult situations, as provided in S. 1766, would be well justified; but the Farmers Home program which this bill would strengthen is essentially not a program of huge outlays of public money.

On the contrary, three striking facts about the programs concerned in this hearing are, first, they are based on local initiative in rural areas; second, they employ loans of private money—not Government money—loans which are insured by Farmers Home but which have not incurred any loss to the taxpayer; and third, they result in family and community projects which earn their own way and pay for themselves.

This is the history of Farmers Home Administration-insured loans for farm-ownership, rural water systems, soil conservation associations, recreation areas, grazing ranges, and the other rural family and community enterprises generated by Farmers Home insured credit.

In considering the legislation before us today, we are concerned with the need to accelerate this program because, fine as it is, its volume does not yet come close to keeping pace with the initiative of rural people and the need to encourage and support their self-improvement efforts.

In the past fiscal year, \$200 million worth of insured lending authority was available to the Farmers Home Administration whereas more like \$500 million worth could have been put to good use. There were that many meritorious insured loan applications submitted through the county offices of the Farmers Home Administration throughout the Nation.

The enormous backlog must be carried over into next fiscal year; and at the same time, the development of new worthy applications in the next 12 months is expected to be substantially greater than during the past 12 months.

What reason is there to fulfill only 40 or 50 percent of the need, especially in the face of clear evidence that Farmers Home insured loans are not a hazardous use of public resources; not a drain on the taxpayer's Treasury?

I thank the committee for this opportunity to present to you my hope that S. 1766, raising the insured loan authority of Farmers Home Administration to \$450 million a year, will be favorably reported as introduced. I am happy to support my senior colleague, Senator Aiken, in this effort, just as I was to co-sponsor the bill with him.

STATEMENT OF HON. MILTON R. YOUNG, A U.S. SENATOR FROM THE STATE OF NORTH DAKOTA

Mr. Chairman, I would like to take this opportunity to express my wholehearted support for S. 1766, a bill to provide a loan and grant program for the development of central water systems in rural areas and to increase the authority of the Farmers Home Administration to make insured farmownership loans.

As a cosponsor of this legislation and in light of the needs of my State, North Dakota, I am gratified to see action taken on this bill. It will give the Farmers Home Administration the badly needed authority to provide credit assistance to more eligible farmers and will extend one of the most valuable community services—central water service—to more of our rural communities.

North Dakota has the largest percentage of rural population of any State in the Union—64.8 percent by the last census. But, as in all rural areas, North Dakota has experienced a great loss of farmers during the last 30 years. During this period, the number of farms in the State has declined from 85,000 to 49,000.

The declining number of farmers is the result of many forces and pressures, but one of the most common problems facing the young man looking for a start in farming has been the lack of adequate credit with which to purchase a good farming unit. In an effort to fill this need, the farmownership loan program of the Farmers Home Administration has done an outstanding job.

Over 4,600 farmownership loans totaling \$84.5 million have been made in North Dakota alone since the inception of the program in 1938. The assistance extended to these 4,600 farm families has enabled them to remain in agriculture and to build a good life for themselves and their families.

In 1947, a new facet was added to the farmownership loan program of FHA. This is the insured farmownership loan under which private lenders advance funds for the loan and the Government provides insurance of principal and interest payments. Of the \$84.5 million advanced for farmownership loans in North Dakota, \$64.5 have been made under this program.

As good as this program has been, it is not meeting the needs of our State. This failure, Mr. Chairman, is due to the lack of adequate lending authority for the insured loan program. During the fiscal year just ending, there has been a demand for \$28 million in farmownership loans through the Farmers Home Administration in North Dakota. Present limitations have permitted the agency to meet only about one-third of this demand. About 900 applications for loans totaling more than \$19 million could not be processed because of the restrictions of the present lending authority. This situation not only hinders or cripples the operation of the individual farmer, but curtails business activity for a large segment of the rural business community.

The provision of S. 1766 to adjust the Farmers Home Administration's insured lending authority upward from \$200 to \$450 million is a reasonable response to the pressing credit needs of our rural areas. The present curtailment of the program is inexcusable. A factor which cannot be emphasized too strongly is that this program pays its own way and does not represent a cost to the Government.

Another feature of this bill which I would like to discuss has to do with the establishment of rural water systems under Farmers Home Administration programs. Four of these projects have developed in North Dakota and the benefits of extending such developments on a statewide basis can hardly be overstated. The location of adequate water supplies has always been a very pressing problem for North Dakotans and it is a challenge which must be met in connection with the future well-being of the economy and health of the people of our State.

There are a number of problems in establishing these systems in North Dakota which don't appear in many areas of the country. In the first place, good sources of underground water are hard to locate and the cost of bringing in a well adequate to meet a community's need may run very high. Second, the installation of distribution systems in North Dakota requires that pipes be put down below the frost level to avoid freezing—some 7 or more feet. In warmer areas of the country lines can be laid at a depth of 30 inches. This means that it takes longer and costs more to install a water system in North Dakota than in many areas.

These and other special problems of installing community water systems could be overcome if grants and supplemental loans were available where justified in the public interest. Provision is made for this in S. 1766 and I commend this feature of the bill as one which would benefit the country far beyond the cost of the program.

Mr. Chairman, the Farmers Home Administration has clearly demonstrated its capability to do a job. This agency is presently filling a most valuable role in our agricultural economy. With the new authority provided under this bill, I have every confidence that this role can be handled even more effectively.

I want to take this opportunity to join my colleague, the senior Senator from Vermont, in urging prompt and favorable action on S. 1766.

ALBANY, N.Y., June 21, 1965.

HON. ALLEN J. ELLENDER,

Chairman, Senate Committee on Agriculture and Forestry, Senate Office Building, Washington, D.C.:

This is in reference to S. 1766, which recognizes an important rural need by authorizing loans and grants for rural water supply planning and development and which is before your committee. Adequate supplies of good water are indispensable to growth and development, and water resources have high priority in New York. Recently our legislature unanimously adopted our pure waters program, including a billion dollar State bond issue to help build local sewage treatment facilities, to end water pollution in New York. We have called upon the Federal Government for action to encourage such State programs in the field of water pollution.

The current severe drought in the Northeast emphasizes the need for action such as S. 1766 and New York's pure waters program.

NELSON A. ROCKEFELLER.

* * * * *

(Proceedings at 11:30 a.m. follow:)

Senator AIKEN. Mr. Chairman, let me say that Governor Hoff knows the water situation in Vermont. The situation that prevails there prevails over most of the United States today and, therefore, what he says, I feel, will be equally applicable to most of the country. I would ask that his testimony relative to S. 1766 be printed separately from the testimony on the price support program.

The CHAIRMAN. I was about to order the reporter to do just that, and say that we will now proceed with Gov. Philip Hoff as the witness.

Senator AIKEN. I would like to have appear at this point the statement by Mr. Patton of the Farmers Union this morning.

The CHAIRMAN. All right.

STATEMENT OF JAMES G. PATTON, PRESIDENT, NATIONAL FARMERS UNION

Mr. PATTON. Farmers Union supports S. 1766 introduced by Senator Aiken and 92 cosponsors which amends the Farmers Home Administration Act of 1961 to authorize the Secretary of Agriculture to make or insure loans to public and quasi-public agencies and corporations not operated for profit with respect to water supply and water systems serving rural areas and to make grants to aid in rural community development planning and in connection with the construction of such community facilities, to increase the annual aggregate of insured loans thereunder, and for other purposes.

**STATEMENT OF HON. PHILIP H. HOFF, GOVERNOR OF THE STATE
OF VERMONT**

Governor HOFF. Mr. Chairman, I have before you a statement which I will not bother you in terms of reading. It is about six or seven pages worth and then supporting data in addition.

I would like to make a few remarks with respect to what I think is the importance of this bill, and it is tremendously important to Vermont and I sincerely believe tremendously important to rural America.

I would like to compare it, if I could, to REA. It seems to me that when REA came in it was the basic factor in the rejuvenation and the salvation really of rural America; it certainly was for the State of Vermont, and without it all sorts of farms would have gone out of business, and rural Vermont would have virtually or literally disappeared from the face of America.

We have a rather curious situation in Vermont at the present time. But I don't think it really goes to the core of this particular problem. Our rainfall has been off about 20 percent for each of the past 2 years and it is off substantially more than that in this given year and it has created great problems for us.

I hope they are cyclical. Certainly history would seem to indicate it is cyclical. But by the same token it has tended to aggravate a situation which was a problem even before that although people had ignored it either through inability to do anything about it and this is the basic problem—just failing to have recognized it.

I think perhaps I could give you an example of this in terms of what happened in a county called Addison. Addison County is our second biggest milk producing county. It shows signs of perhaps outproducing the one county before it.

But 2 years ago, at the time of the late President Kennedy's death, as a matter of fact, so that we are talking about action on the part of two Presidents, the situation became so critical down there that I called President Kennedy to ask for some emergency relief, and he sent up Mr. McDermott whom you perhaps recall who was head of ODP and he came to Vermont and he recognized the problem in this county and it touched adjoining counties as well.

We finally ended up by hauling water to farmers and communities in that area and it was the greatest "jerry" built operation you ever saw but I was extremely proud of the people involved because we literally saved hundreds of farmers from going out of business and there is not any question but what they would have gone out of business without it.

Three communities in that area from that point forward began to give some thought to a central water system, and they received a grant from the Federal Government. The cost, however, was just almost out of sight, as it is for almost any rural area in America. For them it is just out of the question in terms of their ability to support this kind of a program on the basis of local revenues. We have looked at it very carefully in the State. We have managed to get through

a couple of programs which would support technical people to help various communities study these programs. I have listed those number of communities which have been giving detailed attention to this problem.

In their particular case the cost, let me see if I can find it here, is about \$21½ million for some 3,000 people and I think you can see just on the surface of it you just couldn't begin to handle the job. It is for this reason that I shall strongly support the bill and I don't want you to think for a minute that at the State level we are not willing to help either because we are, and I have presently before the legislature which is really an adjunct of what I hopefully feel will be the ultimate passage of this bill under which the State would contribute to the total costs, too, and we can then get it down to a level where the local taxpayers can actually afford a central water system.

In my judgment, with the lowering of the water tables and with the increased consumption which has just grown by leaps and bounds just as it has in the fields of electricity, but in adding the two together it seems to me this is going to be an aggravated problem; it must be an aggravated problem throughout the rest of the United States.

In Vermont we have always been very proud of being able to do for ourselves but there comes a point where it is just impossible, and our local people and farmers, I am not a farmer myself, but I am just such a great believer in these people because they have done almost impossible things and in the face of real adversity and most of our farmers are just on the razor-thin edge today. We just cannot call upon them, our rural communities, to do any more than they are presently doing, and this program would be of immense help.

Too, if we look ahead into the future, it offers great opportunity. Vermont as you probably know lives on the edge of a megalopolis, but we are beginning to see the signs that Vermont is gradually becoming one large suburbia. I think this is good. I think it has been very good economically for Vermont. We for the most part are doing very good economically at the moment but by the same token we find we cannot attract people where they can commute, a college professor or what have you, unless we can provide them with the normal convenience that we can get in our urban areas as well.

But they will come, we know they will come, if we can supply these conveniences and, of course, this is a matter of philosophy. I suppose there are some who probably feel the huge growth of our urban areas with people being piled on top of people is a good thing. I personally don't and I would like to see us spread out more. I think we should, and here is an opportunity for people to spread out in Vermont.

But again here in the area of water we just have a critical shortage, and a critical situation particularly in terms of central water supply which would be of immense help.

The CHAIRMAN. How do the farmers in your area get water, wells, depending entirely—

Governor HOFF. Well, it varies depending on the area, springs, wells, but in Addison County they use ponds.

What has happened in the past prior to the advent of winter, the water level has come up, the ponds have been filled and they have been able to get through the winter, coupled with a thaw. But in the

past few years the water table has lowered so much that this just has not come into being.

The CHAIRMAN. When Senator Aiken introduced this bill I told him that in my parish, county to you, we have a central water system that we ourselves established, and water comes from Houma, the city, and it is sent all over the parish through a system of pipes constructed with funds provided by the local people themselves.

Governor HOFF. Well, of course, I don't know your particular situation, Senator, but the cost for our people, and I remind you that 55 percent of the people who live in the areas where this is so badly needed have incomes ranging from nothing to \$4,000, and the cost in our area of the country, I know it is a little difficult to compare Vermont with some other areas of the country, don't forget we have very severe winters, too, and this must be protected against, is just out of sight in terms of their doing it themselves. They are willing to do what they can; we always have in Vermont. But I think this program would give them the—

The CHAIRMAN. As I understand the proposal, it would be a cooperative effort.

Senator AIKEN. Among the three towns.

Governor HOFF. That is correct.

The CHAIRMAN. Among the towns, the Federal Government and the State.

Governor HOFF. This is correct. This is 75 miles of piping with 3,000 people.

Senator AIKEN. I am very familiar with the three towns; they are three of the best agricultural towns in the Northeast. They are also a few miles from a college town, and a town where a new industry employing 400 or 500 people is being installed to start business this fall.

These towns are not only fine agricultural towns but the villages are splendid residential areas and people would be moving in there immediately if they had water. The Federal Government, as you recall, contributed \$128,000 a year for hauling water, paid the National Guard for hauling water so these dairymen could keep in business. Now about 50 dairymen have been threatened with the loss of the market. There is a little too much sulfur in what water they do have, and they are very short all around.

I have got letters from all over the United States setting out similar conditions where rural towns and communities would expand very much provided they could get water. But in this particular case, I think it would cost them about \$20 a month for water and there are not enough of them who could pay that price.

Governor HOFF. I have been over this area myself intimately, too. I can well recall during that period of time I talked to a farmer who had drilled 400 feet and got a cupful of water.

Senator AIKEN. It is a heavy clay soil there and it doesn't make any difference how far down they go they don't get any water and if they get the water they are not permitted to use it. It is not recommended that they use it for livestock. They can use it for the people, and they live to be anywhere from 90 to 110 years in that county and have been drinking that water all the time.

But the Surgeon General and the Boston health authorities frown on its use for cows.

Governor HOFF. In short, what we are doing is treating our cows better than we do our people.

Senator AIKEN. Much stricter.

The CHAIRMAN. I guess you get it anyhow through the milk you drink.

All right.

Governor HOFF. Thank you very much. I would like to add one other remark if I could. I know under the omnibus bill there has been some talk of extending that to rural areas, too. We don't think it is applicable to rural America. I am sure it is fine for suburban areas and urban areas but it is not particularly applicable to rural areas particularly that part that calls for extensive planning and so forth and I might add we would like to have such program administered by an administration geared to a rural economy.

The CHAIRMAN. All right.

Thank you very much, Governor, we are glad to have your statement.

(Governor Hoff's prepared statement follows:)

Mr. Chairman, it is a distinct honor for me to join with the primary sponsor of this bill, the Honorable George D. Aiken, senior U.S. Senator of Vermont, in presenting to you the reasons we in rural America urgently need Senate bill 1766.

The urgent need of all Americans for pure water cannot be overemphasized. Within the past few years, per capita daily consumption has increased from 50 to 145 gallons. This increased demand is by no means limited to urban America.

New Yorker magazine cartoons to the contrary, our rural Americans, including or perhaps especially Vermonters, enjoy the privileges of interior plumbing, the stimulus of a daily shower, the release from drudgery via automatic home laundries, the increase in beautification of our homes through careful watering of our lawns and gardens. The demand is not based on created desire for greater convenience; it is based upon the necessity for adequate health, safety, and sanitary requirements.

I need not remind this Senate of the farm to city movement. Nor do I need dwell on the facts of population movement within our farm areas; we have seen the family farm diminish; the remote farmer move to the village; the village dweller move to the town; the farm laborer no longer resident in the "tenant house" but residing now in the nearest large community. The abandoned farm well which slaked the thirst of many now serves no one.

A few decades ago, these population movements created justifiable concern for the problems of our cities and larger communities. Nor have the urban problems been fully overcome. Parenthetically, I note with interest and I applaud the efforts for adequate water supply being made for urban and suburban America in the omnibus Housing and Urban Development Act (H.R. 7984). I trust that this Congress will pass that bill and provide for adequate appropriations to bring its fine intentions to early success. I know that amendments to that bill have been offered which if approved will permit more of rural America to benefit. I do not believe, however, that the genuine needs of our sparsely settled areas will be met as well through that mechanism as through the Rural Water Supply Act.

That movement, I spoke of, to the rural community from the farms, has gained less attention. Also unnoticed is the movement of just the past few years when more retired persons sought the refuge of our peaceful villages; when the college professors discovered that they could continue to teach at the now enlarged institutions of higher education and they could also have the benefits of living outside the urban sprawl. Top management and middle management industry leaders have rediscovered the charm of the countryside. Percentage increase in demand for needed services in the small communities stagger the imagination. Unlike urban America, the tax base did not increase proportionately. Yet these demands must be met—for small in numbers though they be, these are people in need.

Today, according to a report of the U.S. Department of Agriculture, entitled "Needs for Rural Living," dated June 12, 1964, over 15,000 communities in our rural areas do not have an adequate community water system. In some of our States less than half of the rural homes have running water. In many of our States there is a total lack of a suitable source of water to meet minimum health, fire protection, and other requirements. This need is equally well documented in the 1963 Inventory of Municipal Water Facilities, a cooperative State-Federal report, issued by the U.S. Department of Health, Education, and Welfare. Although restricted to the New England States, I am sure that the need of rural America exemplified in that report can be repeated time and time again.

Over 30 years ago, Mr. Chairman, a spirited battle came to successful culmination with the emergence of the Rural Electrification Administration. In the intervening years, rural America has been served with that wonderful addition to the working farm and the rural home, electric power. No one can doubt the vast benefits electricity brought to agriculture and to human welfare.

The problems of electricity and water are not so isolated as might appear. The cost problems are very similar. Once the source has been determined, the major cost items are in the installation of conduit lines and continuing transmission costs. In the case of water, when population density is low, the unit cost to serve an individual rural consumer is estimated to be 300 or 400 percent the cost to serve that same consumer in an urban or suburban complex.

Permit me to cite with some detail a case in point. In 1963, shortly before the tragic death of President Kennedy, I discussed with him the drought disaster which had afflicted Addison County in Vermont. The President immediately dispatched Edward A. McDermott, his Director of Emergency Planning. We toured the area by plane and by foot. The severe drought, which continues to this day, had dried up farm ponds; made unusable the few streams which meander through the countryside; caused once productive wells to be mere empty holes in the ground. Over 2,000 people were reduced to collecting drinking water by the ancient system of cisterns—which is nothing more or less than capturing rain water from the rooftops, permitting it to flow down roof gutters to a large hole in the ground—where with dirt, bird droppings, leaves, and miscellaneous litter it is stored for human consumption. Over 12,000 dairy cattle were becoming unproductive and the entire farm economy, the mainstay of the area, was on the verge of collapse. A plan of action was agreed upon. Some sources tell me that one of the first official actions of President Johnson was his approval of the project.

Operation Waterwagon, which we called the project, brought emergency effort from all State and Federal agencies. We used State police, National Guardsmen, prison inmates, county extension agents, and all available personnel. We brought in water by means of miles-long temporary piping, tank trucks, and in some cases, maple sap gathering tanks. We saved the cows; freshened the water supplies of the communities; and spent over \$118,000 in the process. That was in 1963.

In 1964 we met a similar problem with a modified project and between October 23 and December 14, finishing in subzero weather, we pumped more than 20 million gallons of water.

In 1965, with a continuing lack of rainfall, we face the reality that drought conditions must again be met.

During this time, the people of Addison County and particularly the towns of Addison, Bridport, and Shoreham, have not taken Horace Greeley's advice to go west. But there has been some human attrition. As Father Wysolmerski, of St. Bernadette's Rectory, told me, of 15 weddings he performed, only 1 couple remained in the community—the other young people moving to nearby larger towns which had water.

Most of the residents stood firm and joined forces to seek a permanent solution. On October 22, 1963, they applied for engineering assistance from the Community Facilities Administration; in November 1963 they received approval; by January 1964 they asked for approval under the Accelerated Public Works Act. I believe we all know that programs under that act have been curtailed—and I will not comment now on the seriously adverse effect the untimely demise of assistance under that act has been to Vermont.

Parenthetically, over 111 towns, villages, and fire-problem districts have indicated interest in receiving assistance on their water to our very active and efficient Federal community development officer, James Wood. A summary of his recent work is attached hereto (exhibit A).

Returning to my case history, Mr. Chairman, having the Addison case well in mind, in early 1964 I caused introduction of a bill calling for State engineering and consultation on water problems. Within a 12-month period 28 communities participated (Addison, Bridport, Shoreham being among the first). As of now, 20 communities are prepared to move when and if adequate financing is available. I attach a summary of these efforts for review by this committee (exhibit B).

By now the permanent remedy for drought-stricken and perennially water-shy Addison-Bridport-Shoreham was well known. To serve the minimum needs of today and tomorrow, we would need to run about 75 miles of water mains to serve only 3,000 individuals. The costs are phenomenal: \$2,600,000—and this with no increased tax base to rely upon. The community leaders are convinced they can fund 50 percent of the costs—although the user costs even then will be high. It is impossible for them to do more. Recent statistics show there are 20,000 people in Addison County, 2,000 now live in the tritown area, 55.7 percent are within an income range of \$0 to \$3,999. Need I say more?

Mr. Chairman, this case history is not unique. The General Assembly of the State of Vermont by joint resolution has asked the Congress to recognize this (exhibit C). We recently surveyed our communities on their water needs. Almost two-thirds have no central water supply system; over half of those which do, have systems which are now inadequate (exhibit D).

The case history is not yet over. The Vermont General Assembly is still considering a bill I introduced this year calling for the State to participate in funding community water systems on a pilot program basis. I sincerely hope that bill will pass; and I trust that the pending U.S. Senate bill will pass.

We ask for passage of this bill not only for the people affected by our agricultural economy. We in Vermont are now experiencing the first pinches of the population squeeze as the sprawling megapolis edges northward from the eastern seaboard of the United States and southward from the Canadian complex of Montreal, Quebec. We in Vermont are enjoying industrial expansion to an extent undreamed of 3 years ago. We are welcoming more and more city folk to our recreational complexes; and we look forward to continuing growth of our fine colleges and universities. For many, Vermont is the preferred home of the two-home family where New York or Washington is home for the short work-week, Vermont is home for weekends.

We are sure that the "back forty" of our hill farms may yet be used for something other than forest—and with water equitably provided for, all rural America can, as Senator Aiken has well said, "maintain a healthy national growth and prevent the undesirable features of congested human existence from getting worse."

I respectfully submit that the loan-grant program envisioned by this bill will do the job. I understand that the Farmers Home Administration has a general increased insured loan authority already passed by the House but still in committee in the Senate. While this development would be of some assistance, the cry of thirst must be met now, with the resources at hand. The growth rural America has every right to expect cannot be funded—even with a generous loan program—with today's or even tomorrow's tax base. A grant program such as set forth in this bill is a must.

Mr. Chairman, I sincerely suggest that the needs of America will be met by Senator Aiken's bill, S. 1766. Thank you.

(The exhibits attached to Governor Hoff's statement are as follows:)

(NOTE.—Exhibit A, listing 109 towns, villages, and fire problem districts expressing interest in receiving assistance on water from the Federal Community Facilities Administration, is on file with the committee.)

EXHIBIT B

MONTPELIER, VT., DEPARTMENT OF WATER RESOURCES

Following is a list of communities which have been assisted by this Department in matters of water supply.

(a) Communities which have had discussion or correspondence with this office regarding water supply.

1. Barre City
2. Charlotte
3. Chester Village
4. Huntington Center

- 5. Middletown Springs
- 6. Putney
- 7. Randolph Center
- 8. Sharon
- 9. Stowe Village
- 10. Thetford Hill
- 11. Williamstown
- 12. Washington

(b) Communities for which preliminary engineering reports have been completed and approved.

- 13. Addison, Bridport and Shoreham (Tri-Town District)
- 14. Bennington Village
- 15. Castleton
- 16. Derby Center
- 17. Essex Town
- 18. Irasburg
- 19. Manchester Town
- 20. Northfield (distribution extension)
- 21. North Hartland
- 22. Springfield
- 23. Rutland
- 24. Vergennes

(c) Communities for which construction plans and specifications have been completed and approved.

- 25. Alburg (distribution)
- 26. Colchester (F.D. No. 2) (distribution)
- 27. Essex Junction
- 28. Rutland Town (F.D. No. 1)

(NOTE.—See page 15 for Exhibit C, a joint resolution adopted by the Legislature of the State of Vermont.)

EXHIBIT D

RURAL COMMUNITY DEVELOPMENT SURVEY

1. Communities contacted.....	306
2. Communities responding.....	284
3. Communities with water systems.....	92
4. Communities in (3) with adequate systems.....	56
5. Communities in (3) with inadequate systems.....	36
6. Communities without water systems.....	192
7. Communities in (6) large enough to warrant new systems.....	55

(NOTE.—The listing of the communities mentioned above is on file with the committee.)

(Whereupon, at 12 noon, the committee recessed to proceed to other business.)

* * * * *

(Proceedings at 4:25 p.m. continue as follows:)

Senator HOLLAND. The comments that I would make have to do solely with the restated provisions of the earlier bill which I think was H.R. 5075 on which the hearings are already completed by one of the subcommittees of this committee. The raising of the limit of insurance loans in any one year from \$200 million to \$450 million it seemed to some members of that subcommittee was a very large and precipitate increase of the limitation on insured loans even for this worthy purpose.

Do you have any comment to make on that?

Senator AIKEN. As I understand it, application is pending now with the Farmers Home Administration so that if a reasonable proportion of them were granted, that that additional amount would be pretty well used up. I would say that they would probably need all of that. I am sure Mr. Bertsch can answer that question with greater

accuracy than I can. But when I think of the billions of dollars that we are asked to appropriate for other purposes, it seems to me that it is not too large.

Further than that, it is insurance. It gives them the authority to insure loans made by banks and other lending agencies, and they get a substantial income from these insurance charges, enough so that they are asking now for authority to lend up to \$50 million from the insurance moneys which have been accumulated on this guarantee of loans.

Senator HOLLAND. I notice that this legislation also includes the provision that would raise the present limit under existing law of \$500,000 on direct loans and \$1 million limit on insured loans to any association up to a \$4 million limit on loans and grants to any association.

Senator AIKEN. That is true. If we inquire of Senator Anderson of New Mexico, we will find that in his State there is one critical situation which could not be met with a \$500,000 loan. I know there is one in my State which probably could not be met with a \$500,000 loan, and I am satisfied there are other areas.

You see, we are raising the size of the community which can be serviced in this way from 2,500 to 5,000, and I have already had some complaints that 5,000 is not high enough.

For instance, one of our New York friends said he has a community of 5,500 people and he thought that the 5,000 should be used as a guideline rather than a hard and fixed number. That is something which the committee will undoubtedly consider.

Senator HOLLAND. What is the limit, the lower limit applicable to the Community Facilities Administration on its loans and grants?

Senator AIKEN. I do not know. I am not sure whether there is any limit or not, because they deal largely with the cities and the larger towns.

Senator HOLLAND. I wonder if counsel for the committee would have that.

Senator AIKEN. Would Mr. Bertsch and his associates come up here? They could answer these questions better than I can.

Senator HOLLAND. Mr. Bertsch has already appeared before our subcommittee. I do not care to have him appear at this time because this is a duplication of the hearing that we have already had in the subcommittee. If we can find from counsel what the limit is, the minimum limit.

Mr. STANTON. On community facilities, Senator, I do not know. I will have to take a look at that.

Senator HOLLAND. Will you supply that for the record?

(The information referred to follows:)

Title II of the Housing Amendments of 1955 (42 U.S.C. 1491 et seq.) authorizes the Housing and Home Finance Administrator to make loans to municipalities and other local public agencies to finance needed public works. There is no statutory limit on the amount which may be loaned to a single borrower. Section 202(b) (2) authorizes postponement of the payment of interest on not more than 50 percent of the loan where such assistance does not exceed 50 percent of the development cost of the project and certain other conditions exist.

Section 202(e) as added in 1962 by sections 5(b) of the Public Works Acceleration Act authorizes the Administrator to make grants to such public agencies to finance up to 50 percent of the construction cost. Such grants could only be made from funds allocated under section 9 of the Public Works Acceleration Act (apparently as incorrect reference to sec. 3 of that act, 42 U.S.C. 2642). Section 3 provided for the allocation of appropriated funds to provide for acceleration

of public works in certain eligible areas. Section 3 provided that notwithstanding the 50 percent limitation, grants of up to 75 percent of the project cost could be made, if the State or local government did not have economic and financial capacity to assume all of the additional financial obligations required. No funds are now available for grants.

There is no lower limit on the size of the public body to which title II loans can be made, but those loans can be made only to public bodies, including unincorporated towns. Preference is given to political bodies having a population of less than 10,000. No loans can be made to any political subdivision having a population of 50,000 or more (150,000 in a community in a redevelopment area or near a research or development installation of the National Aeronautics and Space Administration). The maximum amount of loans outstanding at any time for projects is limited to \$600 million. The last three sentences do not apply to mass transit projects.

Senator HOLLAND. The next point I want to raise is this. There was a feeling on the part of some members of the subcommittee that heard this part of the proposed legislation before—and there was not in that at that time the grant portion which is new in this legislation—that there should be some distribution of the new total amount to be insured annually as among those communities that were really farm communities and where the aid was to farmers, and the very sizable number of such communities, which in no sense are farm communities—as for instance applications in my State are largely from new subdivision communities.

Does the Senator have any views on that?

Senator AIKEN. No; I have not. I know that in my own area that your farming community and your residential village merge, and usually when one prospers, the other does, and they all need water. I think one of these statements which I submitted for the record recommended that no assistance should be given to any community which was within 10 miles of any established private or public water system.

Senator HOLLAND. I do not think that is reasonable.

Senator AIKEN. I do not think that would be reasonable either.

Senator HOLLAND. But I do think that the committee should consider the fact that it would not want this agricultural agency—and that is what FHA is—to be placed in a position where it would be overwhelmed by a disproportionate obligation to insure loans to communities that by no means were farm communities but instead were new subdivisions and retirement communities and the like, rather than farm communities in any sense of the word.

Senator AIKEN. I think that that matter could be handled in the bill itself or in the report on the bill. Of course, it is intended to serve rural areas, and it is a fact that when a rural farming area has lights, water, and other facilities that people do move into it for residential purposes and small industries also move in. I think that is good for the country as a whole.

Senator HOLLAND. I would agree with that, but I would not want the Farmers Home Administration to be placed in the position of becoming primarily, as it would in some areas, the agent for financing the development of water systems for areas that were really retirement areas or new subdivision areas and the like, of which there are very many in our part of the country and I am sure in other parts of the country.

Senator AIKEN. I agree with the Senator on that, but I also would say that I would not want Housing and Home Finance or the Commu-

nity Facilities going out into the strictly rural areas and dealing with problems for which they are not presently equipped anyway.

Senator HOLLAND. I would not either.

Senator AIKEN. I think we have got to realize that we have two problems. We have the urban problem and the rural problem, and I am strongly in favor of handling the rural problems in the way that we think they should be handled, and then the urban problems should be handled in the way best adapted to suit their needs and requirements within our means, of course.

There is a bill in the House, I think, providing for assistance for urban areas which does cover many different types of services and facilities. But I do not believe the word "agriculture" is mentioned in it.

Senator HOLLAND. I think we have two objectives that might be important here.

Senator AIKEN. Yes.

Senator HOLLAND. One is to make sure that there is no overlapping of the agencies.

Senator AIKEN. Yes.

Senator HOLLAND. And second that there is no provision in this law which would permit the Farmers Home Administration to become a major organization for financing public utility facilities for small retirement subdivisions and the new areas that are being settled, particularly in the fast-growing States, because there are literally hundreds of those areas.

Senator AIKEN. Yes.

Senator HOLLAND. I would want to keep this agency primarily for the service of the really rural areas and the really farming population.

Senator AIKEN. I think we can agree on that. But I think we should also realize that when the facilities come into a rural area, that the population does increase, and they will not all be farm people.

Senator HOLLAND. Certainly.

Senator AIKEN. I think that is good, too.

Senator HOLLAND. Certainly. That makes the truly rural area much more attractive to obtain settlers who are not directly related to the farm production.

Senator AIKEN. That is right. I think it is up to us to decide where to draw the line between the rural and urban areas. Maybe Senator Monroney can give us some assistance.

Senator HOLLAND. Senator Monroney wishes to be heard on this. We will be very glad to hear him.

STATEMENT OF HON. A. S. MIKE MONRONEY, A U.S. SENATOR FROM THE STATE OF OKLAHOMA

Senator MONRONEY. Mr. Chairman, first I would like to ask consent of the committee to be listed as cosponsor of this legislation. I thought I had asked my office to notify you.

Senator AIKEN. You are a cosponsor.

Senator MONRONEY. Good. It was not in the printed one I saw.

Senator AIKEN. In fact, you are one of the early ones.

Senator MONRONEY. I think I was left off the printed copy.

Senator HOLLAND. No; your name is on here.

Senator MONRONEY. I must have a different copy. Good.

Senator AIKEN. I want it understood that of the seven Members of the Senate who are not cosponsors, most of them stated they were perfectly in accord with the objectives.

Senator MONRONEY. I wanted to be in there very early because I think you have a very important bill.

Mr. Chairman, the measure which you are considering this afternoon can do much to bring better water supplies to many millions of Americans who now live beyond the reach of city mains. It will be of great benefit to the rural areas of Oklahoma. Every piece of legislation relating to water is of interest to Oklahoma, because Oklahoma is without a doubt one of the most water-conscious and water-rich States in the Nation.

This was not always so. In the past, Oklahoma has had its water problems. Droughts and duststorms have plagued vast sections of the Great Plains, from Texas to Kansas, Colorado, and Nebraska and beyond to the Dakotas, in decades past, but over the years the people of the Plains have learned much about husbandry of water. The disasters of the past need not occur again. The progress of this particular bill proves that they are now on the road to overcoming many of the natural causes of adversity—those resulting from drought and scarcity of water.

In Oklahoma, the tremendous accomplishments we have made in preserving and harnessing our water have laid the basis for continued stability of our agricultural economy.

Agriculture must be saved in this State which has over 860,000 rural people, nearly 100,000 farms and ranches, and accounts for an important quantity of the Nation's food production. Oklahoma ranks 4th in wheat, 10th in cattle.

As we look around the State today we see that a great effort has begun to remake the face of rural Oklahoma, to change the predominating landscape of large areas from brown to green.

Two dozen larger multipurpose lakes have been built, and literally thousands of smaller reservoirs down to the size of ponds, in an effort to catch and conserve water. Over 44 million acres are in soil conservation districts—almost every rural acre in the State. Nowhere could public investment in such projects show a higher justification or richer returns.

But some of the most significant gains have been realized or planned on the basis of Farmers Home Administration-insured loans, using funds put up by private leaders for developments which are organized through local initiative and will pay back the loans from what they earn. These projects draw decisive support but actually absorb no funds from the Government.

As others have told you, the only shortcoming of this insured loan program in Oklahoma is that it no longer can move half as fast as our local people are moving in the development of these sound and urgently needed projects.

Therefore, I thank you for this opportunity to state my whole-hearted support of Senate bill 1766 to enlarge the loan insurance authority of the Farmers Home Administration, and otherwise improve the capacity and effectiveness of that agency's insured loan services.

Passage of this bill would be one of the most valuable services we could render in this session of the Congress.

In its struggle against the problem of water supply, Oklahoma's challenge now is to move the water from those reservoirs wherever feasible, and get it to the farms, ranches, and rural towns; or to create rural water distribution systems from other sources wherever necessary.

Thirty-four such community projects have now been developed, put under construction, or approved for financing through the Farmers Home Administration. Twenty-one other projects have been tentatively approved, and some of these would be underway now if it were not for present limitations on the insured lending authority of Farmers Home. Forty-six additional project applications are now being considered; and hundreds of other small towns and nontown rural areas of Oklahoma have shown their interest in mobilizing local forces to duplicate what has been done in the projects already completed.

In other instances, rural water system development in Oklahoma is held back because systems serving several communities from a single source of water available in the area cannot be built, so long as the Farmers Home Administration cannot make a rural water system loan in excess of \$1 million. This obstacle would be removed under S. 1766 by raising the limit to \$4 million.

Fundamental, of course, is family ownership of farms and ranches. Less than half of the \$57 million loaned for farmownership by Farmers Home and its predecessor agencies in Oklahoma during the past 30 years has been direct loan money. Some \$28.7 million of these loans have been made with funds provided by private lenders on an insured basis.

Here again, demand for insured credit through which independent farm and ranch families may better secure their position on the land substantially exceeds the authorization available to the Farmers Home agency.

The development of local recreation centers is another opportunity which goes hand in hand with the development of water reservoirs and water distribution systems throughout our State. Under the provisions contained in S. 1766, progress in developing needed recreation facilities can be speeded up to help meet public demand.

The adjustment upward to \$450 million in Farmers Home Administration's insured lending authority, far from excessive, will help bring the program up to a level of adequacy at this time.

Senator HOLLAND. That limit is an annual limit, is it not?

Senator MONRONEY. Is it an annual limit?

Senator HOLLAND. That is my understanding.

Senator AIKEN. The amounts?

Senator HOLLAND. Yes.

Senator AIKEN. \$25 million?

Senator HOLLAND. No, \$450 million.

Senator MONRONEY. \$450 million.

Senator AIKEN. I understand that it is.

Senator HOLLAND. Let us see the 1961 bill; section 308. It is an annual limit.

Senator MONRONEY. Yes, I should change my statement to read adjustments upward to \$450 million annually in Farmers Home Ad-

ministration's insured lending authority, far from excessive, will help bring the program up to a level of adequacy at this time. The people of Oklahoma will be grateful for the opportunity you can put before them by your favorable action on this bill.

I thank the committee for your courtesy in permitting me to make this statement.

Senator HOLLAND. We are very glad to hear you.

STATEMENT OF EDWARD D. KILEY, RURAL AREAS DEVELOPMENT SPECIALIST, NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION

Senator HOLLAND. Let us hear Mr. Edward D. Kiley, rural areas development.

Mr. Kiley, we will be glad to hear you.

Mr. KILEY. Thank you.

Mr. Chairman and gentlemen of the subcommittee, I am Edward W. Kiley, rural areas development specialist of the National Rural Electric Cooperative Association. With me today is Mr. Robert B. Smith, the legislative representative of the organization.

Senator HOLLAND. We are glad to have him.

Mr. KILEY. This is a national service organization for almost 1,000 rural electric systems operating in 46 States, and serving nearly 10 percent of the population of the United States with electric power.

Rural electric systems have consistently supported legislation which would provide adequate water systems throughout rural America. We urged changes in the existing law to remove the present \$1 million ceiling on loans to any one organization, and limit loans only by feasibility with the provisions to allow additions as they become feasible. At this point, I would like to submit for the record resolutions passed at the 1964 and 1965 annual meetings of our association dealing with this subject. At this time I would also like to submit for the record an article which Senator Aiken wrote for our news service release in our statewide paper around the country.

Senator HOLLAND. Without objection it will all be admitted for the record.

(The documents referred to follow:)

RESOLUTION PASSED AT NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION, 23D ANNUAL MEETING, JANUARY 25-28, 1965

RURAL WATER SYSTEMS

Whereas the Department of Agriculture through the Farmers Home Administration has in the past 3 years made construction loans to over 300 communities to build public water systems supplying over 100,000 residences with good water; and

Whereas there are still many communities and areas that need and want a public water supply and will make applications for loans to construct same; and

Whereas these loans are now limited to a maximum of \$1 million to any one organization, thus limiting the size of a project so that in many instances it cannot be most economically operated; and

Whereas there is a need to build larger systems in many locations and to expand some already constructed and on which the present maximum loan has been made: Now, therefore, be it

Resolved, That we petition the Congress, the Department of Agriculture, and the Farmers Home Administration to revise the laws and rules as necessary to

remove the limitations on the amount that may be loaned any one organization, and limit loans only by feasibility, with provisions for additional sections when feasible as determined by the Administrator in a manner similar to that now used by REA in making electric and telephone loans.

RESOLUTION PASSED AT NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION, 22D ANNUAL MEETING, MARCH 9-12, 1964

RURAL COMMUNITY SERVICES, WATER, SEWERS, FIRE PROTECTION

Whereas there are now many rural areas contributing to the economic soundness of our rural electric systems, where the water table is falling fast because of increased concentration of homes and business establishments along paved roads as the exploding population seeks satisfactory living sites, and which concentration using septic disposal fields is also causing contamination of wells and individual water supplies making it impossible for many to secure adequate and potable water, satisfactory sewage disposal, fire protection and other community services; and

Whereas none of the Government programs and agencies have a program that adequately serves these rural areas; and

Whereas the Farmers Home Administration has made a good start on central water systems and is best set up to administer the rural community area needs if their program is expanded and remodeled to meet these needs for loans and guidance in community facilities: Now, therefore, be it

Resolved, That Congress be asked and urged to authorize the Department of Agriculture through the Farmers Home Administration to provide a program and financing for rural central water systems, sewage disposal facilities, fire-fighting and protection units, and other community facilities as the needs develop similar to those now provided incorporated urban groups through other agencies of Government.

WATER: RURAL AMERICA'S GREATEST NEED

(By Senator George D. Aiken)

The greatest domestic problem facing our Nation today is the conservation, purification, and distribution of water.

The great cities of America are apprehensive over their water supplies and are looking anxiously for new sources.

The drought which is now entering its third year in some areas has intensified this anxiety.

While the water situation in the cities is undoubtedly cause for concern, it is in the rural areas that the situation is rapidly approaching a crisis.

It is not that America has a dire shortage of water that is causing alarm.

It is because so much of the water is polluted or is unavailable to those whose means of living and whose destiny depends upon it.

Water usage is showing each year a high per capita increase in consumption and the old sources of supply are unable to meet the increased need.

Adding to our problem is the estimated increase of 100 million in our population over the next 35 years.

Some of this increase will be absorbed by the cities; more will be added to the suburbs where water systems already exist although many are in short supply.

The real opportunity to absorb this huge increase, however, lies in the rural communities and the agricultural areas of the United States.

Thanks to the splendid work of the Rural Electrification Administration most of these communities now have electricity.

They are ready to take on their share of our population except for one damaging handicap.

Over 30,000 of our rural communities lack adequate water systems.

And without water they not only cannot grow and prosper, but most of them are likely to remain dormant or moribund.

Until they can have adequate supplies of pure water they not only cannot absorb people on a residential basis; they cannot even produce the food products necessary to meet the increasing needs of the urban population.

It is already becoming difficult for dairymen in many areas to meet the increased sanitary requirements for milk production because of lack of water.

This situation is forcing thousands of small and medium sized dairy farmers to give up the ghost.

Besides needing water for livestock many rural communities need clean water for food processing, for preparing vegetables for market, for fire protection, for maintaining local industries, and for domestic purposes.

Until this need is met they cannot grow and make their proper contribution to the growth of our country.

Yet it is to this direction we must look if the future requirements of the Nation are to be met.

The disturbing phase of the rural water problem is that in so many communities having great potential for growth the local people are unable by themselves to bear the cost of installing an adequate water system.

They are presently not eligible for Federal grants such as our larger towns and small cities now enjoy.

Because of this handicap, Senator Mansfield and I last January introduced a bill to amend the REA Act to provide for a program for rural water systems with Federal grants under the REA.

This bill encountered trouble not only in Congress but in Administration circles, so on April 13 we reintroduced a modified version of the bill as an amendment to the Consolidated Farmers Home Administration Act of 1961.

The modified bill has proved more acceptable and has now been sponsored by 93 Members of the Senate while several Congressmen have also introduced it in the House.

The national benefits which would result from a rural water system program are difficult to estimate but would certainly be enormous.

There would, of course, be the broadened residential base for our increasing population.

This would result in increased construction of homes, building a new market for appliances and supplies.

It is estimated that the REA program has resulted in adding \$6 billion a year to our national economy.

A rural water program should do as well.

With water available more people would remain on the land, contributing to the Nation's growing food requirements or finding employment in local industries.

Small businesses would find it possible to locate in communities which cannot be considered unless a water supply is available.

This new bill, S. 1766, provides for grants up to \$5 million a year for planning and up to \$25 million a year to aid construction under certain conditions.

The FHA already has authority to make or guarantee loans for rural water systems but cannot presently make any grants for this purpose.

The authority given by S. 1766 would apply only to communities of not over 5,000 population.

No grants could amount to more than 40 percent of the cost of the project, and no grants could be provided unless it appears that the installation of a water system would probably result in an increased growth of the community.

There are no fixed rules relating to the type of the facility.

Water might be obtained from existing natural lakes or streams.

It might come from newly constructed reservoirs which capture the spring rains.

It could come from wells or in some instance from the purification or desalinating of existing sources.

I would not have one believe that the installation of water systems alone would meet the requirements of our rural communities.

Many of them are also in need of waste disposal, fuel lines, recreation facilities and many other items which go to make up a well-rounded community.

However, without electricity and water, further growth is out of the question. Thanks to the REA we now have the electricity; our next step is to get the water.

Senate bill 1766 and its companion bills in the House will be a long step in this direction.

Mr. KILEY. Statistics show that some 30,000 communities in rural America—towns of 5,000 and under—do not have an adequate water supply. One out of four rural farm homes and one out of five rural

nonfarm homes are without running water; 8.5 million rural families are not connected to central water systems; 6.5 million families have wells as their source of water. The Public Health Service has estimated that 65 percent of these wells show bacteria contamination during various times of the year.

In the annual loan fund survey of our membership this year, we included questions regarding area development needs. Over one-third of the systems reported that water and sewer facilities in their service areas are inadequate; and about 1 out of 10 of these systems reported no water and sewer facilities available whatsoever.

As rural areas development specialist at NRECA, I receive many requests for assistance with varied development projects. By far the most frequent requests I receive are for help in developing water systems.

President Johnson, in his farm message, called for a "parity of opportunity" for rural America. Without adequate water and sewage facilities, rural America will continue to be handicapped as compared with urban America. Rural electric systems, recognizing this, fully support all efforts to close this gap.

Our systems have consistently worked for the development of their communities. Through their efforts in the last 4 years, 135,000 jobs have been created by 1,500 various projects, which represent an investment of over one-half billion dollars, most of which was locally raised funds.

We believe that just as the Rural Electrification Administration, through its assistance and with the efforts of rural people in the past 30 years, electrified rural America, so too in 1965 a similar coordinated all-out effort is required to obtain much needed rural water systems. Enactment of S. 1766 can help attain this goal.

In reviewing the provisions of this bill, we believe that the \$25 million limitation per year for grants is far too low to begin to accomplish the job that must be done. If this program is to move forward and achieve worthwhile results, I am confident larger annual grant authorizations will be required in the years ahead.

Section 2 of the bill, increasing the lending authority of the Farmers Home Administration for water systems from \$200 to \$450 million, is excellent because it demonstrates awareness by Congress that greater efforts in this area are essential. But we believe this amount will not be adequate to do the job.

It is my understanding that while 800 water sytem loans have been made by the Farmers Home Administration, there is now a backlog of 736 applications not yet processed, and 364 applications tentatively approved. These alone total over \$170 million.

It has been our experience that legislation affecting rural areas and particularly legislation for rural water systems programs, have been continually tacked on to urban area bills. This has resulted in various agenices of the Federal Government being assigned bits and pieces of the job of aiding the rural sections of the country. In our opinion, such efforts cannot be successful. We recognize in this legislation an opportunity for the comprehensive effort we seek and are pleased that it will be under the leadership of a rural-oriented agency.

Farmers Home Administration has demonstrated that it can provide the service to do this job, through its 1,600 field offices. The his-

tory of their water system loan program is unexcelled. To date, Farmers Home Administration has loaned over \$100 million and only one loan of \$60,000 is in default. This is less than one-tenth of 1 percent.

Rural America is being electrified as a result of a Federal-local partnership that began in 1935. The achievements of this program, in terms of human dignity, productivity, buying power, and opportunity have been of enormous benefit to this Nation.

The success of a comprehensive effort to bring water to rural America can, in my opinion, make the same kind of impact on our Nation's economy and can succeed in achieving these same results.

Senator HOLLAND. Thank you, sir.

I notice that you have some attachments appended to your statement. Are those the ones mentioned a while ago?

Mr. KILEY. Yes, sir.

Senator HOLLAND. They are already included in the record.

Mr. KILEY. And also Senator Aiken's article.

Senator HOLLAND. Do you have any questions, Senator Aiken?

Senator AIKEN. No; no questions because the time is limited, but since the hearing started, the committee has received seven telegrams, two in opposition and five in support of the bill. The five in support of the bill are all from Iowa. The ones in opposition—one from Champaign, Ill., and the other one is from Gary, Ind., manufacturers of supplies, I think.

Senator HOLLAND. Let them all be filed in the record, not as part of anybody's statement but just as having come to the committee from various sources.

Senator AIKEN. There is, I suppose, quite a lot of support for privately owned water systems. These telegrams speak for themselves.

Senator HOLLAND. It seems to me they ought to all appear in the record.

Senator AIKEN. Yes. These seven have been received in the last few minutes.

(The telegrams referred to follow :)

CHAMPAIGN, ILL., June 16, 1965.

HON. ALLEN J. ELLENDER,
U.S. Senate,
Senate Office Building,
Washington, D.C.:

Of the approximately 1,500 public water supply systems in Illinois almost 800 are over 50 percent serving rural area populations of less than 5,000 and new ones are being constructed each year utilizing private investment capital. I wish to express my opposition to the loan and grant provisions of Senate bill 1766 as they relate to the construction of public water supply systems. These provisions are not necessary and would serve only to further extend and encourage the dependence of our citizens upon the Federal Government.

E. R. HEALEY,
Vice President, Northern Illinois Water Corp.

GARY, IND., June 17, 1965.

HON. ALLEN J. ELLENDER,
Senate Office Building,
Washington, D.C.:

I wish to express my opposition to the grant provisions of S. 1766 for the construction of public water supply systems. Ordinarily where a public water supply is feasible the users can well afford to finance the system. Water rates have

traditionally been too low but the public will accept relatively high rates when a water supply project is important to them. The majority of the Indiana public water supply systems are in communities of less than 5,000 and all are operated within the limits of their own revenues. To illustrate my point I am forwarding an article describing the financing by private enterprise of a water system in Portage, Ind.

LEO LOUIS,
President, Gary Hobart Water Corp.

CLEARFIELD, IOWA, June 17, 1965.

Senator ALLEN ELLENDER,
Chairman, Agriculture and Forestry Committee,
Washington, D.C.:

We ask your support for Senate bill 1766. This bill helping to provide systems would be a great boost to smaller communities.

HUBERT DAVENPORT,
President, Clearfield Lions Club.

CLEARFIELD, IOWA, June 17, 1965.

Senator ALLEN ELLENDER,
Chairman, Agricultural and Forestry Committee,
Washington, D.C.:

The mayor and city council of Clearfield, Iowa, ask for your help and support for Senate bill 1766. This bill is absolutely essential if smaller communities are to obtain municipal water systems.

HOWARD WOOD,
City Clerk, Clearfield, Iowa.

CLEARFIELD, IOWA, June 17, 1965.

Senator ALLEN ELLENDER,
Chairman, Agricultural and Forestry Committee,
Washington, D.C.:

I strongly urge your support of Senate bill 1766. This bill will help insure smaller communities to enjoy growth and prosperity.

DALE E. JUERGENS,
State Savings Bank.

CLEARFIELD, IOWA, June 17, 1965.

Senator ALLEN ELLENDER,
Chairman, Agricultural and Forestry Committee,
Washington, D.C.:

Due to the fact that municipal water system is necessary for the health of our people, I urge your support of Senate bill 1766. This bill would help the residents of smaller communities to enjoy good water as well as residents of larger communities.

Dr. T. GORDON,
County Coroner.

CLEARFIELD, IOWA, June 17, 1965.

Senator ALLEN ELLENDER,
Chairman of Agriculture Committee,
Washington, D.C.:

We of Cincinnati, Iowa, a small town, are very much in favor of Senate bill 1766.

JOHN N. ATKINSON,
Mayor, Cincinnati, Iowa.

Mr. KILEY. Thank you, Mr. Chairman.

Senator HOLLAND. Mr. Sam Thompson, Mississippi Board of Water Commissioners.

(No response.)

The CHAIRMAN. Mr. Bertsch is next.

Will you identify yourself for the record, sir.

STATEMENT OF HOWARD BERTSCH, ADMINISTRATOR, FARMERS HOME ADMINISTRATION, U.S. DEPARTMENT OF AGRICULTURE

Mr. BERTSCH. I am Howard Bertsch, Administrator of the Farmers Home Administration.

I have Mr. Bernard Polk, Assistant Administrator, Community Service Loans; Mr. Larry Brock, Assistant Administrator, responsible for relations with private investors; and Mr. Howard V. Campbell, who is Director of the Farmers Home Division of the Office of the General Counsel.

I know that the committee is pressed for time, and I am prepared, Mr. Chairman, to handle this statement in any way that you choose.

The CHAIRMAN. I would suggest that you file the statement for the record and highlight it for us.

Mr. BERTSCH. I appreciate this opportunity to discuss S. 1766, a bill which would increase the annual authorization for insured loans made by the Farmers Home Administration from \$200 million to \$450 million and amend the present authorization of the Farmers Home Administration with respect to its program for financing rural water systems. May I first discuss section 2 of the proposed legislation?

The CHAIRMAN. How much of that would be required to finance these water systems?

Mr. BERTSCH. This year, Mr. Chairman, with the \$200 million authorization we used \$70 million for association loans with water systems and minor parts of that for other associations. That program is accelerating at a very rapid rate, and it is our judgment that \$250 million of the \$450 million would be used for association loans. The other \$200 million, with which the chairman of the committee is most familiar, will be used for individual real estate loans.

As you gentlemen know, in the insured loan program we take funds that have been made available by private investors and use these funds to make certain types of loans. We insure the repayment of the loans and carry on all of the loan making and loan servicing functions.

We started making loans in this manner in 1947. Through the years, and especially since 1961, various steps have been taken to improve this type of financing until today we believe it is one of the smoothest running operations in the entire Federal credit system.

The response from the banking community and from other investors has been excellent.

The losses have been minimal. The demand is steadily increasing.

The type of loans that can be financed in this manner have expanded through the years. Section 2 of S. 1766 affects three major loan types: farmownership loans, rural community water system loans, and loans to bring about shifts in the use of land.

For the sake of clarity I will discuss each of the three types separately.

FARMOWNERSHIP LOANS

Farmownership loans are used to improve and develop family-type farms, to buy land and to refinance debts. These loans were first authorized in the thirties. They were the first type to be made on an insured basis.

The demand for this type of credit is greater today than it has ever been before.

There are several reasons:

The Consolidated Farmers Home Administration Act of 1961 broadened this program. Previously it has been limited to financing a narrow band of family-size farms. The 1961 act expanded this type of credit to the full range of family farms. The 1961 act also substantially increased the amount that could be loaned on any one farm.

Young farmers need this sort of credit to take over the farms that are being placed on the market by their retiring elders.

Established farmers need this sort of credit to enlarge and update their operations in the endless drive to overcome today's narrow-profit margins by continually increasing efficiency.

Many farmers need our credit to work their way out of financial difficulties. Sometimes their troubles stem from purchase contracts that contain terms and conditions they cannot meet.

In many cases they need to use some of their equity in real estate to restructure on manageable terms short-term debts incurred for long-term improvements.

The demand for this type of credit is reflected in the overall figures on farm debt. Since 1960 the real estate debt of farmers has climbed from \$12.1 to \$18.8 billion—a 50-percent increase in a 5-year span.

The pressure for this form of credit also shows up in the applications that are accumulating in our county offices.

We have every reason to believe that the demand for farm ownership loans will be greater a year from today than it is today. We believe that the future security of the family farm depends to a considerable degree on the expansion of the insured farmownership loan program proposed under section 2 of S. 1766.

The need for many farmers to enlarge their holdings continues. The average age of farm operators is rising, increasing the requirements for establishing young farmers. The cost-price squeeze continues.

In addition to farmownership loans we finance soil conservation, drainage, irrigation, and farmstead water development with individual insured loans. This phase of insured loan activity is relatively small in the total picture though exceedingly important to the farmers who use this credit service. In an effort to limit my comments to the main issues, I will not elaborate on this credit need.

RURAL COMMUNITY WATER SYSTEM

Rural community water system loans are used to develop and improve water systems in rural areas including small towns with less than 2,500 population. We avoid with great diligence financing new developments close to urban areas which are satellite to urban areas. We have avoided financing any associations which are not truly rural in character.

The demand for this type of credit is also increasing.

Part of the increased demand stems from the fact that the Consolidated Farmers Home Administration Act of 1961 broadened the program by permitting loans to groups of rural people in open country or in towns of less than 2,500 for the development of water systems without regard to the number of farm families that shared the water supply.

Part of the demand rises from the fact that the engineers of the Farmers Home Administration have found a way to build dependable rural water systems at a cost so low that systems can be financed today which heretofore were not economically feasible.

But the main demand comes from the cumulative effect of a long unfulfilled and widespread need for this type of community facility.

More than 30,000 rural areas are today without a modern water system. As more and more of the people in these areas hear about what their neighbors have accomplished in the way of bringing water into their homes the demand for this credit assistance will continue to increase.

In all of our years of ministering to the credit needs of family farmers and rural communities we have never seen a service that was as greatly appreciated as the rural community water system program.

Country people who all their lives have taken for granted that they would have to haul water a good part of the year now have water on tap in their kitchens and bathrooms 24 hours a day.

Land values go up when a water system is built. Homes are remodeled. New, small but vital industries spring up. Young people take a second look at their home community. The availability of pure water delivered to farms and homes under pressure is a powerful force in rural community development and revitalization.

In addition to rural water system loans we finance soil conservation, drainage, and irrigation facilities on a group basis.

SHIFTS IN LAND USE

Insured loans are also made to groups of rural people to shift land into better uses, including recreation and grazing. This is a relatively new credit service.

Loans to shift land use were first authorized in the Food and Agriculture Act of 1962.

The demand for credit to shift land into rural recreation centers stems from rural leaders who know if their community is to prosper it must have recreation facilities that will (1) make the community more attractive as a place in which to live and work and raise families, (2) attract outsiders who have money to spend and are in search of recreation facilities, and (3) encourage those who have left to return.

The demand for credit to shift land into grazing areas comes from farmers whose incomes are shrinking, and who to stay on the farm must have some way to expand their agricultural activities. They see large ranches being placed on the auction block and see the advantage of banding together in an association to acquire the needed land resources.

MEASURING THE NEED

A question has been raised about the amount of this increase in insurance authority.

There are several ways of measuring the need for insured loans. One is past experience.

We have had a \$200 million ceiling in the insured loan program for 3 fiscal years.

Senator AIKEN. That is annual.

Mr. BERTSCH. That is annual insurance authority, yes, sir.

In fiscal 1963 our insured authority was committed, and clearly so, during the month of May.

Senator AIKEN. When were your first loans made?

Mr. BERTSCH. Our first direct loans were made as long ago, Senator Aiken, as 1937, but the program was vastly expanded and modernized in 1961.

Senator AIKEN. What is the record of repayment on your loans, or defaults?

Mr. BERTSCH. May I give you that accurately? I have a note here. As of January 1, 1965, the most recent date for which we have figures, there were 883 association loans outstanding in the amount of \$77,825,180, and 97 percent of the maturities due on that date had been met. Of the \$85,588,010 loaned to 993 associations—the reason for the difference being that some have paid in full—since the inception of this program in 1938, only \$5,769 has been charged off as a loss. At the same time, associations have repaid more than \$7 million in interest.

Senator AIKEN. That is out of \$77 million in loans.

Mr. BERTSCH. Out of \$85.5 million, \$5,769 has been lost.

Senator AIKEN. Has been charged off as a loss.

Mr. BERTSCH. Right.

Senator AIKEN. This \$200 million ceiling which you have had, that did not apply just to water systems; did it?

Mr. BERTSCH. No, Senator Aiken; that applied to farmownership loans as well.

Senator AIKEN. Everything.

Mr. BERTSCH. Right.

Senator AIKEN. And this \$450 million?

Mr. BERTSCH. Would apply to everything as well.

Senator AIKEN. Which you would apply to everything and not just water systems.

Mr. BERTSCH. That is correct.

Senator AIKEN. Thank you.

Mr. BERTSCH. In fiscal 1964 we reached a similar position during April.

This fiscal year, early in December, we could see that we had enough loans in advanced stages of processing to utilize our annual insured loan authorization.

While we are still processing loans that were approved earlier in the year, the program, so far as serving new applicants, came to a halt 4 months ago.

The applications currently on hand, after the insured authority has been exhausted, form another indication of the need.

As of March 31, we had on hand 17,500 applications for farmownership loans and 1,400 for water systems and shifts in land use.

The dockets we have on hand, the applications that are on file, and the general trend of the insured loan programs indicate a demand well in excess of \$450 million a year.

While the major change that section 2 of S. 1766 would make in existing legislation would be to increase the annual insurance authority from \$200 to \$450 million, there are three other important amendments included in the bill.

For example, it would increase from \$25 to \$50 million the amount of loans that can be made out of the agricultural credit insurance fund.

This fund is used to make loans and group them for sale on an insured basis to private investors.

Under the present \$200 million annual insurance authority approximately \$15 million in notes are being processed through the fund at all times.

This encumbrance is the result of a time lapse between the date the insurance fund issues loan checks and the date the notes for such loans are received by the fund and become available for sale.

The balance of the present \$25 million authority is used to accumulate blocks for sale to national lenders.

The proposed increase in the annual loan insurance authority from \$200 to \$450 million would bring about a corresponding increase in the amount of loans being processed through the fund at any one time.

Unless the limitation is increased, loan making activities would be temporarily halted whenever the amount of loans being processed reached the \$25 million level.

Increasing the ceiling on the amount of loans that could be in the fund to \$50 million would avoid this type of delay.

In addition raising the fund ceiling to \$50 million would make it easier to fill large orders from investors.

The change to \$50 million would in no way change the total amount that could be insured annually.

Section 2 of S. 1766 would also enable the Farmers Home Administration to sell insured notes at interest rates up to 5 percent and to establish redemption periods consistent with market demands.

These changes would greatly increase the ability of the Farmers Home Administration to meet fluctuations in the investment market.

The proposed changes would not increase the interest charges paid by borrowers.

FARM MESSAGE

We were of course very pleased with the President's comments in his farm message regarding the insured loan program.

He pointed in several instances to the need for strengthening family farms and recommended an increase in the annual authority to insure loans.

In general what the President had to say about strengthening rural America is what we have been saying, or at least inferring today.

Rural America to be strong must be composed of the maximum number of family farms and rural communities.

The insured loan program builds this type of rural economy.

And the insured loan program, in our judgment, has other merits too.

This type of financing substitutes private capital for capital provided by the U.S. Treasury.

This type of financing creates customers for local credit institutions.

This type of financing uses private funds to serve a public purpose and does so in a manner that guarantees the return of the invested funds. Currently approximately 3,500 banks and other lenders are investing in these loans.

We have and are engaged in a wide variety of credit measures to strengthen the rural segment of our national economy.

In our opinion no measure is more vital to the welfare of rural America than the additional financial assistance that would be provided if the principles contained in section 2 of S. 1766 were adopted.

This section proposes no new programs; it extends tried and tested measures.

Years of experience, we started making insured loans in 1947, have tested the soundness of this approach to financing rural credit needs. To date we have insured \$936 million of funds advanced by private lenders and our losses are five one-hundredths of 1 percent of the principal advanced. These losses of course are more than covered by the insurance fees we have collected. In fact the insured loan fund now holds reserves of some \$15 million.

Section 1 of S. 1766 would amend in three respects the present authority of the Farmers Home Administration in the field of financing domestic water installations. It would—

(1) Permit grants up to 40 percent of the construction cost of a water system where necessary;

(2) Define a rural community as one not more than 5,000 population, whereas at present we are operating under an administrative limitation of 2,500, and

(3) Would permit loans, either direct or insured, to a maximum of \$4 million instead of the present limitation of \$1 million for insured loans and \$500,000 for direct loans.

The provision permitting grants meets a definite need posed by many rural communities. In the administration of its present program the Farmers Home Administration has had applications from numerous communities which could not afford to pay the entire cost of a needed water supply. This might be due to the low incomes of many of the prospective users, to the high cost of locating a good water supply or to providing a distribution system in an area where the population is not concentrated.

It is a simple fact of life that either the construction of such systems must be subsidized or many rural people never will have running water.

Increasing to 5,000 population the definition of a rural community also seems to us to be sound and proper. Many small towns with populations below this figure, but above the present 2,500 limitation, need financing to install water systems or to improve or modernize their existing systems. These towns are essentially rural in character and credit from other sources is unavailable to them.

The CHAIRMAN. How much do you contemplate would be expended by way of grants to these communities?

Mr. BERTSCH. We contemplate using the entire authorization contained in the proposed legislation, which is \$25 million per year for construction grants and \$5 million a year for planning grants.

The CHAIRMAN. And the rest by loans?

Mr. BERTSCH. The rest by loans; yes, sir.

The CHAIRMAN. What would be the basis for these grants—a percentage basis in proportion to what the community can raise on its own?

Mr. BERTSCH. No; we would propose to prepare an economic feasibility study of the debt paying capacity of the community, which we do at the present time. We would then see the design prepared by a private designing engineer employed by the association, and if the cost of a reasonable design exceeded the debt-paying ability of the community, the difference between those two items, if it did not exceed 40 percent, would be provided by a grant. An individual judgment determination based upon these facts would be arrived at in each instance.

The CHAIRMAN. In other words, you could pay as much as 40 percent of the cost.

Mr. BERTSCH. We could under this proposal pay as much as 40 percent.

The CHAIRMAN. Is that stipulated in the act?

Mr. BERTSCH. That is stipulated in the act; yes, sir.

Senator AIKEN. I think the percentage for grants in the bill which the House has before it now is 50 percent, is it not, that they are permitted to contribute for the cities?

Mr. BERTSCH. That is correct, Senator Aiken. Under title 6 of H.R. 7984, which has been reported by the committee to the whole House, section 602 provides that:

The Housing and Home Finance Administrator is authorized to make grants to local public bodies and agencies to finance specific projects for basic public water and sewer facilities including works for the storage, treatment, purification, and distribution of water. The amount of any grant made under the authority of this section shall not exceed 50 percent of the development costs of the project.

Senator AIKEN. But without any ceiling on the total amount, is that true?

Mr. BERTSCH. I believe that is true.

Senator AIKEN. I do not understand why they went that far, Senator Ellender, to say for the urban areas that the Federal Government would pay up to 50 percent of the cost and no ceiling on the total amount as is included in this bill. Maybe we are too modest, but certainly I think the percentages should be the same.

The CHAIRMAN. Well, city systems have more users.

Senator AIKEN. I suppose the city water system might be considered more profitable at this time. I do not know. It may be necessary. I was just pointing out we were not asking for anything that other people do not have and do not ask for at any rate.

The CHAIRMAN. Point out for us what is in this bill that is not in other legislation that will assist in furnishing water to various communities.

Mr. BERTSCH. The two provisions to which I have referred. The 40-percent grant, we do not have that authority at the present time. The statutory definition of a rural community at 5,000 we do not have at the present time.

The third new provision, which we do not have at this time, is an authority to make loans up to \$4 million, insure loans up to \$4 million—I am sorry—to make or insure loans up to \$4 million to any one association. At the present time we may insure loans only to \$1 million, and we may make direct loans only to \$500,000.

We think they are valid reasons for increasing the limitations on the size of the loan authorized for any single applicant association to \$4 million. It has been our experience since 1961 that because of the \$1 million limitation many applications could not be approved and many of the loans we did make could have financed even better systems had the \$1 million limitation not been in effect. Frequently, it is more efficient from an engineering standpoint and more practical from a management standpoint to build a water system that will service a maximum number of users. Many rural communities lie close enough together to be served by one system which would be more economical and more efficient. The \$1 million limitation prevents this economy and this efficiency.

We are then in agreement with the objectives of both sections 2 and 1 of the proposed legislation. It is hoped, however, that the most critical needs for community facilities will be met to a significant extent under the authorities of the President's proposed Housing and Urban Development Act of 1965 and the Public Works and Economic Development Act now under consideration by the Congress.

It should also be pointed out that the President in his message on agriculture requested that the Department of Agriculture and the Bureau of the Budget work with other agencies in reviewing their programs to assure an equitable distribution of benefits between urban and rural areas and propose such administrative and legislative steps as may be appropriate.

Pending completion of such review, we believe that action on section 1 of this proposed legislation should be deferred. We do, however, recommend immediate favorable action on section 2 of the proposed legislation.

The CHAIRMAN. I will place in the record at this point the views of the Department of Agriculture in a letter addressed to me dated today, the 18th. It includes the language that you have just read.

(The letter referred to follows:)

DEPARTMENT OF AGRICULTURE,
Washington, D.C., June 18, 1965.

HON. ALLEN J. ELLENDER,
Chairman, Committee on Agriculture and Forestry,
U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: This is in reply to your request of April 28, 1965, for a report on S. 1766, a bill to amend the Consolidated Farmers Home Administration Act of 1961 to authorize the Secretary of Agriculture to make or insure loans to public and quasi-public agencies and corporations not operated for profit with respect to water supply and water systems serving rural areas and to make grants to aid in rural community development planning and in connection with the construction of such community facilities, to increase the annual aggregate of insured loans thereunder, and for other purposes.

The Department of Agriculture agrees with the objectives of these proposed additional authorizations. Recent experience in working with rural groups throughout the country has indicated a predominant need for certain specific types of community facilities and community planning.

In fiscal year 1962, the Farmers Home Administration was, for the first time, permitted to make and insure loans to associations serving primarily rural residents as well as farmers and ranchers. The increase in applications from rural communities for water system loans has emphasized the wisdom of the Congress in modernizing this program. In many parts of the country the only solution to the rural water problem is a large central system producing clean treated water and distributing it to as many people as possible. These systems can support efficient management and can supply water of the best quality at the most reasonable per capita cost.

Many rural communities applying for water system loans also seek assistance in the planning and construction of community waste disposal facilities. In fact, in many localities a satisfactory waste disposal system is a prerequisite to a safe water supply.

In administering the present loan program for rural water systems, the Farmers Home Administration has found that many rural communities cannot afford the entire cost of needed water supply and distribution facilities due to either low income of many of the prospective users or the high cost of providing distribution systems, including, where necessary, such installations as water treatment plants, in sparsely settled areas. For the same reasons, it is anticipated that many rural communities could not afford the entire cost of needed waste disposal systems.

Another great need in rural communities is effective firefighting facilities, including reservoirs and other sources of water, fire towers, other structures and equipment for firefighting.

The Farmers Home Administration was authorized in 1962 to make loans to rural communities and other associations of farmers and rural residents for shifts in land use, including the development of recreational facilities. Applications for loans to develop recreational facilities have been received in nearly every State of the Union. In some instances, facilities are needed to assist the economy of the rural communities but do not involve substantial shifts in land use. Such facilities and structures for use as general community centers would meet an urgent need in many rural areas.

It is hoped that the most critical needs outlined above will be met, to a significant extent, under the authorities of the President's proposed Housing and Urban Development Act of 1965 and the Public Works and Economic Development Act now under consideration by the Congress. In addition, in order to assist in more effectively extending the benefits from various existing and newly proposed Federal programs to rural people, the President's 1966 budget request for this Department now pending before the Congress provides for strengthening the capacity of the Cooperative State Extension Service and the Rural Community Development Service.

The President, in his message on agriculture, also requested that this Department and the Bureau of the Budget work with other agencies in reviewing their programs to assure an equitable distribution of benefits between urban and rural areas and propose such administrative and legislative steps as may be appropriate. Pending completion of such review, we believe that action on section 1 of S. 1766 should be deferred.

Section 2 (1) would increase from \$200 million to \$450 million the aggregate amount of loans that may be insured annually under this act. This increase will permit the Department to assist an additional number of eligible applicants for loans authorized under subtitle A of the Consolidated Farmers Home Administration Act of 1961, Public Law 87-128, as amended. Farmownership loans are made to assist family farmers to buy, enlarge, or develop farms and to refinance debts. Soil and water conservation loans are made to individual farmowners or tenants to assist them to improve, protect, and properly use their farmland. Soil and water conservation loans are also made to public and quasi-public bodies and nonprofit associations for the development and use of water and to carry out soil conservation practices and shifts in land use that serve farmers, ranchers, and rural residents. Additional loan purposes for farmownership and soil and water loans were authorized in 1962 by Public Law 87-703. Farmownership loans were authorized for recreational enterprises on family farms and for fish farming. Important new authorizations were also provided to enable the Farmers Home Administration to make or insure loans to associations for shifts in land use, including the development of recreational facilities. Greater emphasis has been placed on making loans for forestry purposes since that time.

Applications for insured farmownership and soil and water conservation loans to individuals were received during fiscal 1964 at the rate of 3,198 per month, and loans were made at the rate of 1,235 per month. Initial farmownership loans averaged about \$16,965. The demand for insured loans for all purposes in fiscal 1964 resulted in a total commitment of the \$200 million authorization by early May in 1964. In fact, the insurance authorization only permitted the making of loans to approximately 50 percent of the applicants qualifying for loans.

There were 14,837 applications for farmownership and individual soil and water loans on hand June 30, 1964, and this number increased to 16,324 by December 31, 1964. During that period loans were made at over 1,200 per month.

Under Public Law 87-128, a source of credit has been made available to small rural communities in the United States which do not have an adequate and safe water supply. In closely settled rural communities, it is difficult and costly to obtain and develop sources of water supply free from contamination or pollution. In addition to the 15,000 rural towns which do not now have domestic water systems, there are many thousands of fairly heavily settled rural areas in which the use of individual family shallow wells creates the hazard of contaminated domestic water supply which can be remedied either by obtaining water from deep wells or the development of a group domestic water system.

The Farmers Home Administration has found that the new water development legislation has created tremendous demands for loans throughout the entire Nation as reflected by 1,429 applications now on hand. In 1960, soil and water conservation loans to associations were made in only 10 States; in fiscal 1963, they were made in 34 States; and in fiscal 1964, such loans were made in 39 States. These loans have averaged about \$120,000 each. During the first half of this fiscal year, 167 loans have been made for \$19 million.

These loans are available only to individuals and organizations which cannot secure the necessary financing from other credit sources. Credit is usually not available for establishing a new water distribution system by a nonpublic agency. Even where a new system is undertaken by such public bodies as small rural towns and rural water districts, they are unable to provide the needed revenue required by commercial-type investors. Hence, if rural areas are to be served with satisfactory water supplies and distribution systems which are essential factors in maintaining our rural health and economy, it will be largely through the credit available under Federal programs.

Of significant importance in addition to the new authorizations to serve small towns and rural communities is the authorization to make or insure loans to associations for shifts in land use. Generally, such shifts in land use will result in a reduction in the production of crops that are in surplus supply. This will enable small towns and nonprofit organizations to obtain loans through the Farmers Home Administration for the purpose of developing recreational facilities, such as community swimming pools, little league baseball fields, fishing lakes, and many other facilities for healthful outdoor recreation which can be enjoyed by families living in the community and surrounding urban areas. The demand for shifts in land use appears to be increasing rapidly as rural communities which have long been in need of revitalization seek to provide important public improvements. A lack of credit for such improvements has plagued rural areas for many decades.

An increase in the authorized amount of insured loans will reduce the need for direct Government loan funds for farmownership and soil and water loans. During fiscal 1964, the obligation of direct funds was discontinued for several months while the \$200 million of insured loan authority was available. Under current money market conditions, an increase in the insured loan authorizations would permit meeting the credit needs of more of the applicants for farmownership and soil and water loans with insured funds and would thus effect a savings in sums authorized to be obligated for direct loans. However, to effectively operate the proposed increased program of insured loans, the present limit of \$25 million of loans made from the fund and not disposed of at any one time should be increased to \$50 million. Section 2(c) of the bill would accomplish this by changing section 309(f)(1) of the act by increasing the figure from "25,000,000" to "50,000,000".

The proposed increase from \$25 to \$50 million in the limitation on the amount of loans that may be made out of the insurance fund, but not sold and insured at any one time, is necessary to prevent undue delays in closing loans for eligible applicants. Under the present \$200 million annual authority to insure loans approximately \$15 million of the \$25 million limitation is encumbered at all times. This encumbrance is the result of a time elapse between the date the insurance fund issues loan checks and the date the notes for such loans are received by the insurance fund. This time elapse is required for closing of loans in the field offices. After the notes are received by the insurance fund they are sold to investors as soon as possible, thereby keeping the loans in the fund at any one time below the present \$25 million limitation. The proposed increase in the annual loan insurance authority from \$200 to \$450 million, if enacted, would cause the amount of loans that would normally be in the insurance fund to exceed the \$25 million limitation because of the time required between issuance of checks and receipt of notes for sale. Therefore, unless the limitation is

increased, loan making activities will be delayed. It would also be desirable to be able to accumulate some notes in the insurance fund so that large orders from investors could be filled more expeditiously. The change to \$50 million would not permit additional loans to be made above the annual legislative ceilings and it would not add any additional cost to the Government.

Section 2 (2) and (3) would change the act as follows: (1) section 308 would be amended in clause (a) by striking out "except that no agreement shall provide for purchase by the Secretary at a date sooner than three years from the date of the note"; (2) by striking clause (b), section 308, and inserting in lieu thereof "(b) may retain out of payments by the borrower a charge at a rate specified in the insurance agreement applicable to the loan."; and (3) section 309(e) of such act would be amended by striking out "such portion of the charge collected in connection with the insurance of loans at least equal to a rate of one-half of 1 per centum per annum on the outstanding principal obligations and the remainder of such charge" and inserting in lieu thereof "all or a portion, not to exceed one-half of 1 per centum of the unpaid principal balance of the loan, of any charge collected in connection with the insurance of loans; and any remainder of any such charge."

These changes are necessary to assure a continuing availability of private funds for the making of insured loans or the purchase of loans made out of the fund to be sold and insured because of fluctuations in the investment market. Under these changes the yield to the investor could be made comparable to the yield of other obligations on the market. By varying the amount retained by the Secretary out of payments by the borrower, the amount payable to the investor could be increased without sale of the loan at less than the balance due on the obligation at the time of the sale. The amount to be retained would be determined by the Secretary at the time of loan closing or original sale out of the fund and could be varied upon resale of the loan after repurchase by the Secretary pursuant to the repurchase agreement in the insurance endorsement. The period of nonredemption by the Secretary would be left to the discretion of the Secretary as a further aid in the sale and insurance of loans.

The flexibility proposed in the foregoing changes is essential in order to enable the Secretary to adjust the rate of return to the lender and the period of nonredemption in accordance with the changing conditions of the money market and thus attract the investment of private funds in these insured loans.

The need for funds for salaries and other administrative expenses for the broadened insured loan program will be increased for fiscal year 1966. In order to provide for processing loan applications and servicing the increased number of insured loans which would be authorized under the proposed increase of \$250 million, additional personnel will be needed throughout the United States.

The Bureau of the Budget advises that there is no objection to the presentation of this report from the standpoint of the administration's program.

Sincerely yours,

ORVILLE L. FREEMAN.

Senator AIKEN. I have some questions to ask. How is it that we received no report on this legislation until 6 months after the first bill was introduced?

Mr. BERTSCH. Senator Aiken, I do not know whether I can answer that question with any authoritative fashion. There have been negotiations going on; as I pointed out, a study, a review of our program and other programs available to the people of this country in the area of community facilities has been carried on, and pending the completion of that review, it was determined by the administration that the report on this bill should be held pending. The review has not yet been completed. Hence the recommendation of the administration that action on section 1 of the bill be deferred.

Senator AIKEN. When did you get this decision of, shall we say, the Budget Bureau, that being the arm of the administration which would make its report? How long have you had the decision?

Mr. BERTSCH. The decision to ask for a determination?

Senator AIKEN. To oppose enactment of this legislation at this time.

Mr. BERTSCH. Since 5:30 last evening.

Senator AIKEN. Since 5:30 last evening. That is very thoughtful of them. Did you prepare this report since 5:30 last evening?

Mr. BERTSCH. Yes, sir, beginning at 2:30 this morning.

Senator AIKEN. Have you prepared any statement previous to 5:30 last evening?

Mr. BERTSCH. Yes, Senator, anticipating a different position from the Bureau of the Budget, we had prepared a different statement.

Senator AIKEN. And your conclusions were different than the ones you have just given to us.

Mr. BERTSCH. Our conclusions were different.

Senator AIKEN. You have pointed out in your testimony that a review is being conducted of existing programs to assure there will be more equitable distribution of the grant program between urban and rural areas. If an existing agency oriented largely toward the serving of urban areas were as a result of this review to be given the responsibility for the financing of community facilities in rural areas, would it not be necessary for such an agency to amend its organizational structure and establish hundreds of offices across the country available to rural people in rural areas?

As I understand it these urban agencies do not presently have offices through all the rural areas of the United States.

Mr. BERTSCH. It has certainly been our experience, Senator Aiken, having 1,600 county offices located in rural communities and staffed by men oriented toward serving rural needs—it has been one of the most important factors contributing toward our ability and success in serving rural areas. I would assume this same requirement would accrue to any agency having this responsibility.

Senator AIKEN. It would appear the Budget Bureau may have in mind the placing of agricultural rural programs under urban management. Has any review been made regarding the water facilities program, and if there has been such a review, do you know who carried it out? Has the Housing and Home Finance, for instance, carried out any review of this rural water program or other rural programs?

Mr. BERTSCH. I know of one field examination made by the committee established under the President's order which was made of our program in central Tennessee. This was carried on under the leadership of Mr. Capron, the Assistant Director of the Bureau of the Budget. He was joined by Mr. Sundquist, who was then Deputy Under Secretary of Agriculture and who is now with the Brookings Institute, and by Mr. Shushim, who is on the staff of—I am not sure of his title—on the staff of the Administrator of the Housing and Home Finance Agency.

Senator AIKEN. And they have been undertaking to review your work.

Mr. BERTSCH. That is correct.

Senator AIKEN. You have a pretty good knowledge of your own work, have you not?

Mr. BERTSCH. I think that the record of our work fairly well speaks for itself.

Senator AIKEN. Do you see any duplication in your agency's services and those provided by other agencies in the financing of rural water systems presently?

Mr. BERTSCH. No, I see no problem in the duplication of services. Community Facilities Administration is also in the business to aid communities who cannot obtain credit elsewhere. However, the Community Facilities Administration differs from our agency in that they do not have authority to make loans to other than public bodies, and we make loans to nonprofit associations. There are thousands of rural towns and rural water companies who need counseling and guidance in the development and operation of good community water systems. We are staffed to provide this supervision and guidance. Occasionally we receive an application which might qualify for service from the Community Facilities Administration. In such an instance our State director contacts the CFA representative in his State and together they make a determination as to whether Community Facilities Administration or the Farmers Home Administration should aid the applicant. We work very closely together. We accede to the Community Facilities Administration in any instance in which they feel qualified and willing to service the application to completion. We make loans then only to association applicants who cannot qualify for any other credit including credit from the Community Facilities Administration.

Senator AIKEN. In the making of loans for rural water systems, assuming this bill should be enacted into law, what percentage of those loans do you anticipate would be direct and what would be insured? Just estimate; I know you cannot tell for sure.

Mr. BERTSCH. I suppose 25 percent might be direct because we have an agreement with the Treasury Department that we will not insure tax-exempt bonds. Public bodies ordinarily have bonds to dispose of representing their indebtedness which are tax exempt. The Treasury Department asks us to make those loans direct rather than insured, and for that reason the percentage might be as high as 25 percent.

Senator AIKEN. Then your insured loans would be—

Mr. BERTSCH. Seventy-five percent, I would judge, of our loans would be insured.

Senator AIKEN. I notice here that the Budget apparently says they think the urban agencies could take care of, using your words, "The most critical needs for community facilities." What about those needs that are not most critical but are almost critical? Do they not have any interest in those? I will not ask you. They are the ones who should answer that question. It is very obvious they do not, and it is very obvious, too, that the urban agencies or the administration or the Budget Bureau or somebody is particularly concerned in having the urban agencies take over the rural programs. This is not the only case. It is apparently part of a pattern.

I think that covers all my questions. I already pointed out that in the House bill I do not believe there is any reference to agricultural needs such as washing vegetables and milk cans and things like that. And if the Budget has suddenly become interested in the rural areas, well, it is since half past 5 last night according to Mr. Bertsch. It is since this bill was introduced. They had no idea of taking this on before apparently.

I think that is all the questions I have.

The CHAIRMAN. Thank you, Mr. Bertsch.

Mr. BERTSCH. Thank you, Mr. Chairman, and thank you, Senator.

Senator AIKEN. Just a minute. I have here a series of questions sent in by Senator Miller who could not be here this afternoon. I will not ask these questions; there are 12 of them. They relate to the kind of pipe used and cost feasibility.

The CHAIRMAN. Suppose you give them to Mr. Bertsch.

Senator AIKEN. And let him submit the answers for the record.

Mr. BERTSCH. We will do the best we can with this, Mr. Chairman.

Senator AIKEN. It might take a long time to answer all of them, but probably you can answer most of them.

Mr. BERTSCH. So that you will understand our submission, I should point out that we operate as decentralized an organization as is possible.

The CHAIRMAN. Do the best you can with the answers, and send them as soon as you can.

(The information referred to follows:)

PROPOSED QUESTIONS OF SENATOR MILLER AND ANSWERS BY THE FARMERS HOME ADMINISTRATION

Question. 1. In approving loans or insuring loans under section 306 of the Consolidated Farmers Home Administration Act of 1961, as amended, does the Farmers Home Administration have any construction standards which water district installations must meet?

(Elaboration if necessary:)

Does it have any technical standards of any kind which such installations must meet?

Does it have any engineering standards?

(a) Would you furnish the committee details on such standards?

Answer. 1. The Farmers Home Administration requires water systems to meet all established standards relating to safety, structural adequacy, and acceptability from the standpoint of health. Each system is individually designed by a qualified engineer registered to practice in his State. He is required to prepare designs and specifications which meet with the approval of the appropriate health departments. They must also incorporate established commercial standards for all materials and the specifications for installation of materials and equipment must comply with manufacturers' recommendations. There is no compromise with established requirements for health and safety. The only variations permitted are in the refinements which may be desirable in large urban systems to streamline operational costs or to minimize the need for future new construction in highly developed areas but which may not be necessary, advisable, or economically feasible for rural systems.

Question. 2. In administering the act, does the FHA have any standards for determining the economic feasibility of the system?

(If this question is not understood by the witness then this can be elaborated as follows:)

(a) In other words, does the administration have any standards or criteria of an economic nature for determining whether it should grant a loan to a rural water district for the construction of facilities?

(b) For instance, does the FHA take into consideration the overall cost of the system per connection, the ability of the system to provide adequate supplies of water at a reasonable cost to meet the total water demands of the users, the adequacy of existing facilities, the availability of alternative types of facilities, or other similar factors directly related to the financial structures of water districts?

(c) What other factors of an economic nature do you consider in deciding whether to insure a loan or to make a loan to a water district under section 306 of the 1961 act?

Answer. 2. (a) In determining the economic feasibility, the Farmers Home Administration goes one step further than other private and public credit sources. It first determines the ability of the proposed water users to pay for water at rates which will provide the revenue to meet operation and maintenance costs, maintain reasonable reserves, and repay the loan. This determination is made by the local Farmers Home Administration county supervisor

who is familiar with the area and the local people and is working every day with those people and with other groups in the community on other rural credit programs.

After plans have been prepared, a typical budget is developed to demonstrate conclusively that the income to be received will meet all estimated costs.

(b) The Farmers Home Administration does take into consideration the overall costs of the system per connection. We also carefully analyze the ability of the system to provide adequate supplies of water at a reasonable cost that will meet the total demands of the users. We carefully check alternate water supply sources to determine which of several sources, in some cases, would be most feasible. The necessary design economies which make these rural systems feasible are made possible by another procedure peculiar to Farmers Home Administration operations. Each water system design is carefully calculated to provide the water supply needed by each user along the line using a maximum simultaneous demand of 3 gallons per minute per tap. Maximum and minimum pressures are carefully calculated for each control point on the system to make sure that the systems are so balanced and designed as to provide the needed services for each user in the most economical manner possible. Complete hydraulic calculations of this nature are rarely made for large urban systems.

(c) Other factors taken into consideration include assured uses of water by local industries, special uses by such agricultural enterprises as dairies and greenhouses, and evident increases in the average income from livestock where farmers are concerned.

Question. 3. In administering section 306 of the 1961 act, does the administration require that associations be unable to obtain sufficient credit elsewhere to finance their plans at reasonable rates and terms, similar to the requirements of section 302 of the act?

Answer. 3. The Farmers Home Administration requires that associations be unable to obtain credit elsewhere. This determination is required for all loans under title III of the Consolidated Farmers Home Administration Act of 1961, as amended, by the provisions of section 333 of the same act.

Question. 4. Does the administration require that the association, if it has bonding authority, actually attempt to issue bonds?

Answer. 4. Farmers Home Administration personnel reviewing applications from associations make careful investigations of the availability of other credit to each applicant. If it appears that it may be possible for the applicant to market its bonds on the open market, it will be required to issue the bonds and make a public offer.

Question. 5. What criteria does the administration have relating to the projected annual earnings from a water system to the cost of repayment of principal and interest? Does the administration require that the projected annual earnings be $1\frac{1}{2}$ times the annual cost of repayment of principal and interest, which I understand is common in municipal financing?

Answer. 5. The Farmers Home Administration does not provide financing in competition with established sources of credit or with private lenders. Securities offered by applicants must be unsalable at reasonable rates and terms in the financial markets and therefore there is no requirement that a certain "bond coverage" be provided. The only requirement is that the projected annual earnings be at least equal to the amount required for operation, maintenance, debt service, and maintenance of a reasonable reserve.

Question. 6. What is the average development cost per connection of rural water districts receiving loans or insuring loans under section 306 of the 1961 act?

Answer. 6. The average development cost per connection of rural water districts receiving loans under section 306 of the 1961 act is approximately \$1,140 per tap.

Question. 7. Do you have any figures as to the cost per 1,000 gallons of water to users of rural water district water?

Answer. 7. The average cost per 1,000 gallons of water used by rural water district residents is approximately \$1.50 per thousand gallons. For a large water user this will go down to about 50 cents per thousand gallons based on the usual graduated water rate schedules.

Question. 8. Do you have any figures as to the monthly minimum charges per connection?

Could you supply the committee with such figures for the years 1963 and 1964 for each district, together with the number of gallons of water available for

this minimum charge and the average number of gallons actually purchased per connection?

Answer. 8. Detailed figures are not available for years 1963 and 1964; however, during the period of January to April 1965, the monthly minimum charge per connection averaged approximately \$6 per month. The average monthly charge was \$7.50. During the same period, the projects approved provided for an average of 3,000 gallons per month for the minimum charge. The average number of gallons actually purchased per connection on these systems is not available and could only be obtained by a careful analysis of the records of each operating association.

Question. 9. Do you have any figures with you as to the source of water for water districts receiving loans or insuring loans during 1963 and 1964, as between surface water and well water?

Could you supply the committee with such information indicating the source of the water, that is whether a well or surface water, and if a well whether it was a new well or whether an existing well was used, and the depth of the well.

Answer. 9. Statistics are not available for loans made during 1963 and 1964; however, an analysis of the loans made during fiscal year 1965 indicates that approximately 63 percent of the borrowing associations developed water from deep wells; 29 percent purchased water from other rural water districts, municipalities, and water authorities; and 8 percent developed surface water supplies. Practically all of the wells were new wells. Figures are not available on the average depth of such wells, but most of them were deep wells with pumping depths in excess of 200 feet.

Question. 10. Could you supply the committee with the number of miles of distribution piping in rural water districts insuring or receiving loans during the years 1963 and 1964, and any in 1965 that are available?

Answer. 10. Detailed figures are not available on the pipe used in Farmers Home Administration financed water systems during 1963 and 1964. However, a careful sampling of reports on water systems approved during the past fiscal year indicates that the average length of pipe is 16.6 miles per system. This totals about 6,400 miles for this fiscal year.

Question. 11. Do you have any figures as to the type, size and total footage of each type and size of pipe that was used in systems in 1963-64?

Could you supply the committee with such information for each installation in these years?

Answer. 11. Detailed figures are not available on the pipe used in Farmers Home Administration financed water systems during 1963 and 1964. However, a careful sampling of reports on water systems approved during the past fiscal year indicates that approximately 18.9 percent of the total linear feet is cast iron, 22.5 percent is asbestos-cement, and 56.4 percent is plastic pipe. Most of the plastic pipe, however, is 3 inches or smaller in diameter whereas most of the asbestos-cement and cast iron pipe is 6 inches or larger in diameter.

Question. 12. Do you have any figures with respect to the type of service lines installed on systems during 1963-64?

Could you supply the committee with information as to the type of pipe used and the size of the pipe and the total footage of each size and type?

Answer. 12. Complete information is not available on service lines installed to connect individual water users' homes to the mains. However, these service lines are generally $\frac{3}{4}$ -inch copper or plastic pipe with an average length of 40 feet per customer.

Senator AIKEN. If you insure what would seem to be a perfectly safe loan, you probably would not know the size of pipe used in it and where it was used.

Mr. BERTSCH. That is true.

The CHAIRMAN. All right, Mr. Richard, Mr. Hout, Mr. Snell, and Mr. Humes.

STATEMENT OF THADDEUS S. SNELL, LEGAL COUNSEL, WATER SYSTEMS COUNCIL, CHICAGO, ILL.

Mr. SNELL. Mr. Chairman and members of the committee, my name is Thaddeus S. Snell. I am an attorney practicing at 134 S. La Salle Street, Chicago, Ill. I am here today on behalf of the

water systems council, a national trade association of manufacturers of farm and domestic pumps and water systems and their suppliers. The council has about 50 members and associate members. With me today are: James Richard, president of Red Jacket Manufacturing Co., Davenport, Iowa, and president of the council; Fred Hout, president of Barnes Manufacturing Co., Mansfield, Ohio, a director and chairman of the council's legislative committee; and Mr. Durwood Humes, executive secretary of the Water Systems Council of Chicago, Ill.

Mr. Chairman, I should first like to express, on behalf of the Water Systems Council, our appreciation for the committee's generosity in permitting us to appear today. We believe that the rural water district legislation introduced by Senator Aiken, and cosponsored by many members of this committee, is of fundamental importance to the rural areas of this country, and we deem it a privilege indeed to present our views to this distinguished committee.

We have provided the committee with a list of members and a brochure, which describes our activities, for reference purposes.

You will note familiar names among members of the Water Systems Council. These names include some of the larger companies in American industry. It also includes among its members many smaller companies whose sole business is the manufacture of pumps, pumping equipment, and other components of water systems. In common parlance, many of the members of the Water Systems Council are indeed "small business."

Our industry has devoted its resources and efforts for over 30 years toward bringing people living in rural areas of this country ample, reliable quantities of pure and wholesome water to supply both agricultural and domestic needs.

We have also provided the committee with a few copies of a handbook which is one of our projects and which is now in its fourth edition, which describes and is typical of some of the work which this council has done in attempting to bring to America complete information on the design, installation, and operation of water systems.

We are keenly aware that rural water use, excluding irrigation, has more than doubled in the past 25 years. Steadily increasing demands can be anticipated as more and more rural families begin using automatic washers, dishwashers, and garbage disposals, and as more farmers begin taking advantage of automated water services for liquid manure handling, liquid feeding, environmental control, and similar modern farming techniques.

It is apparent that there must be a coordinated and well-planned approach among governmental and private agencies if means are to be devised for solving economically and effectively the myriad of problems posed by steeply rising water demands. Such cooperation must exist at National, State, and local levels. The Water Systems Council is firmly committed to applying its energies, abilities, and personnel in the years ahead toward this goal.

It is for this reason that we appear today.

Our interest is limited to that part of S. 1766 which relates to water facilities.

At the outset we would like to make it clear that the Water Systems Council endorses the basic concept of S. 1766, that Federal assistance is

appropriate to bring improvements in water supplies at a reasonable cost to rural residents who are unable to, or to the extent that they are unable to, themselves finance such improvements. The Consolidated Farmers Home Administration Act of 1961, as amended, has established the framework for carrying out this basic concept. Sections 302, 303, and 304 of this act authorize loans or the insurance of loans to individuals who own and operate farms, live on farms or are farm tenants for purposes of development and improvement of water facilities where no other credit is available to them. Section 306 of this act as it presently reads also authorizes loans or the insurance of loans to associations, not-for-profit corporations and public or quasi-public agencies operating as a water district to develop and improve the facilities supplying water to farmers and rural residents where credit is not otherwise available and financial assistance is needed.

S. 1766 proposes to fill a gap in this existing legislation. It proposes to authorize grants to such water districts where, as we understand it, the development costs are so high that they cannot be financed on a sound basis through loans, and grants are necessary in order to supply water through water districts on an economically feasible basis.

We recognize the need for filling this gap and support this concept. However, we suggest that the problem is still not solved and that the bill does not go far enough to accomplish its objectives in three particulars.

First, it does not solve the problem of the individual whose water supply is inadequate and who is not part of a water district and who is unable to improve his water supply through a loan or insured loan as authorized under sections 302, 303, and 304 of the act.

Second, the bill does not establish or require the establishment of guidelines or standards of economic feasibility which will assure the most economical use of the Federal funds available to accomplish the objective we all endorse.

Third, the bill does not establish or require the establishment of technical and engineering standards to assure proper construction of the facilities being financed.

Senator AIKEN. It seems to me they have made fairly reasonable loans in some of the areas which have potential for growth. But it is the cost in the areas where it would be \$15 to \$20 a month that I am most concerned with. Some of these run \$1,000 per family with the interest coming to \$5 a month.

Mr. SNELL. Mr. Chairman, this is a matter of great importance to the private water systems industry. We think we have some important recommendations to make to implement this legislation to accomplish the objectives that I understand 93 Senators have endorsed.

The CHAIRMAN. You will have to amend the bill considerably to perform what you are proposing.

Mr. SNELL. That is right.

(Discussion off the record.)

Senator AIKEN. Will you proceed, Mr. Snell?

THE ROLE OF THE PRIVATE WATER SYSTEM

Mr. SNELL. S. 1766 reflects a misunderstanding or lack of information of which our industry is becoming painfully aware. The misunderstanding is that a public or community water system supplying water

to a number of users from a single source is preferable to a source of supply which is private and supplies only one user.

I would like to refer to the letter the chairman introduced in the record from the Department of Agriculture and the comment on page 1 to the effect that "in many parts of the country the only solution to the rural water problem is a large central system." We believe this is inaccurate. We believe that there are few, if any, areas in the country where the only solution to the rural water problem is a large central system. It may be a solution, and in some instances it may be the best solution, but we do not believe it is the only solution.

One page 11 of the statement of the Administrator, the statement appears that "many rural people never will have running water" if they do not receive this Federal assistance. Now, this overlooks the possibility of a private system which can supply that running water to rural residents. This concept undoubtedly reflects the image of the windmill and hand pump. The water systems industry is frank to accept responsibility for allowing this misconception to exist. Our public relations have been inadequate. We have not done an effective job in making people aware of the modern private water system. What we say is not in criticism of those who support this concept, but a confession of our own failure to tell our story.

Senator AIKEN. You are referring to a community or individual water system?

Mr. SNELL. The concept that the community system is the only answer to the problem. We admit that we have somehow allowed this concept to develop and we do not criticize those who support this concept that the only answer is a central system. The fact is that the water systems industry has not gone to seed. When electricity was brought into farms and rural areas a water systems revolution occurred as significant in rural America as replacement of the horse-drawn plow with the tractor.

For the committee to fully understand the suggestions and recommendations which we would like to make, I would like to, at this point, ask Mr. Fred Hout to say a few words to the committee about the modern private water system.

Senator AIKEN. Mr. Hout?

STATEMENT OF FRED B. HOUT, CHAIRMAN, LEGISLATIVE COMMITTEE, WATER SYSTEMS COUNCIL, MANSFIELD, OHIO

Mr. HOUT. Thank you. I will make this very brief. I have a prepared statement which I would like to present and would just like to thumbnail it very quickly here, not imposing on your time any longer than necessary.

I am president of Barnes Manufacturing Co. We have about 500 employees in plants scattered around. We have been building pumps since 1895.

I think if I could try to put this in perspective very quickly, it is this. That there is misunderstanding regarding the merits of central supply versus individual supply. I would like to make this positive statement. That individual supply is equal to and in many cases better than central supply.

We made a lot of progress over the last 25 years. Back in the thirties when we had the rural electrification about 50 percent, a third of these places had a power water system, electric water system. Then up came REA with its fine job, and you will find that pump installers and dealers followed them right down the country roads for connections and sold water systems so that today approximately 80 percent of the electrified farms have individual water systems, some 10 million throughout the country.

After World War II there were about 600,000 systems sold a year, individual. Today we are in the range of 900,000, and there has been tremendous progress over this period of time.

I would like to point this out to you. That it is reasonable to say that an individual water system affords unlimited quantities of water and pressure provided an adequate well has been drilled. This is the key to it, a correct well, and the proper and appropriate selection of the individual system.

This progress and design of pumps for domestic water systems over the past quarter century equals that of the most sophisticated electro-mechanical products available in our present day economy. We have come a long way since the early days of the hand pump.

This red unit you are looking at is a hand pump. It happens to be produced by my good friend over here currently. However, I think the market is primarily export for the developing countries.

Now, I would like to show you very briefly the present concept in water systems with its full flexibility. This is the pump that goes in the well. Attached to it is a motor. It goes in a 4-inch well. These are stagers, impellers that move the water up in pressure progressively so that the depth is adjustable, so that you can have 60, 80 pounds pressure or whatever, and the capacities that you might require.

This is really a marvel of modern engineering, and a top piece of efficiency, and it has some very distinct advantages over the other method of central supply.

Now, we happen to be building booster pumps, and we find repeatedly a demand for booster pumps to step up the pressure of someone's central supply. This idea of central supply being perfection is highly overrated. The proper selection of an individual system will do the job better.

Now, I would like to point out just a few advantages very briefly.

No. 1, unlimited quantities, flexibility, the capacity and pressure you want as an individual is yours with the proper selection.

No. 2, installation flexibility anywhere. You can go from the center of the community as far out as you like and you have that flexibility of your own individual well. You have the electric available, and this had to be conducted by the small wire. But the point is this. That water is a bulk commodity, and it might better be produced at its point of use, and it happens to be available generally throughout America.

Senator AIKEN. What would be the cost of an 800-foot well?

Mr. HOUT. An 800-foot well would be a thousand dollars or so.

Senator AIKEN. A thousand dollars? Do you mean \$1 a foot?

Mr. HOUT. I have some figures here.

Senator AIKEN. They charge \$8 up in my neck of the woods.

Mr. HOUT. I have two figures here. Incidentally, 800 feet is a very unusually deep residential well.

Senator AIKEN. But in the community I am thinking of they have to go down 800 feet and hit water that does not qualify, too much sulfur in it.

Mr. HOUT. You have got to keep this thing in some of these relationships. If it is good for central, it is good for individual and conversely.

Senator AIKEN. Supposing they can construct a reservoir up on the hill to supply the community. Do you still recommend pumps?

Mr. HOUT. Let us look at the drop situation as of today in New York State. You know the problem. But with the individual system and this unit, once it is installed, it can be lowered with lowering water table if that is the problem. It is the flexibility.

Senator AIKEN. You do not have to sell me. There is a wonderful market for a pump of that type and drilling wells, but there is also a great need for other types of water supplies.

Mr. HOUT. Agreed. All we are asking for today is equal consideration.

Senator AIKEN. And I have in mind a community in my own State where in the private water system the pipes got rusty. Everything had to be replaced. The owner did not want to do it. They were not paying them anything. So the townspeople got together and brought them out, and I would say in the last 3 or 4 years there have been 80 to 100 residential sites that have been bought on the hills around that town which are not covered by the village water system, and where you might find a good market for those purposes.

Mr. HOUT. Yes. Now there are some horrible examples both ways today. But let me just quickly hit a couple of points.

The dispersion of individual wells conserves our ground water resources, and this is an invaluable resource for reserves. Now, it has been stated authoritatively that individual deep wells is the only safeguard against radiation fallout in the case of atomic attack because surface piping from central systems, the network throughout the area, is subject, of course, to this contamination. Independent water systems are the best protection.

Senator AIKEN. You mean that would eliminate the outdoor water supply then.

Mr. HOUT. The outdoor.

Senator AIKEN. I have been on the Atomic Energy Committee for about 8 years. I have heard that.

Mr. HOUT. That problem.

Senator AIKEN. Oh, yes; I have heard of that problem.

Mr. HOUT. Whereas if you are going right straight down, from your point of view there is a better chance of avoiding that contamination.

Senator AIKEN. There is a better chance of avoiding fallout.

Mr. HOUT. Are you not right. You are so right.

Now, regarding the sporadic drops that occur, I have mentioned this, the flexibility, that individually you can adjust. And water tables seem to vary from farm to farm et cetera. We have this flexibility to handle that whereas the reservoir for New York State—you cannot have a glass of water in a restaurant today, and so on.

Now, the economic feasibility. Generally the individual water system is lower in first costs, and there are variables here, but to give you two examples very quickly, a shallow well system—and by this we mean 25 feet or less, a small unit—installs complete for \$168.

Senator AIKEN. How much?

Mr. HOUT. \$168. I took an example of 150 feet of depth with a submersible type unit, and that complete unit is \$941.

Senator AIKEN. How deep is that?

Mr. HOUT. 150 feet, \$941.

Senator AIKEN. The interest on that is a little under \$5 a month. What about the electricity costs?

Mr. HOUT. We took this and worked it out in cost of operation. We are talking first cost originally. Now, let us talk cost of operation. We took maintenance of 5 percent per year. We took depreciation of one-twelfth per year, depreciating it over a 12-year period which is very generous because 15 to 18 years is not at all uncommon. We took the cost per kilowatt-hour of 3 cents from this one study, and the operating cost ranged between 26 and \$1.02 per thousand gallons. Now this mind you is delivered at the tap, no additional distribution costs.

Senator AIKEN. \$1.26 per thousand gallons?

Mr. HOUT. 26 cents to \$1.02.

Senator AIKEN. To \$1.02.

Mr. HOUT. That was the range from the smaller to the larger unit.

Senator AIKEN. They can desalinate for that.

Mr. HOUT. Yes, but not distribute it. This is right at the tap, right in the house. This, I think, is a major point. And I think actually you had experience and we have had much of it that there is a self-proprietary interest of satisfaction in saying, "I have got this. I own it. This is my water supply. I can use it when I want to. No one tells me when I must turn it off," et cetera. This is worth something.

Well, now, very quickly, then finally, there are 50 or 60 manufacturers of pumps and another 50 or 60 of related equipment, accessories, et cetera. We have got throughout the country 44,000 plumbing contractors, 12,500 well drillers, 500 wholesalers. All of it amounts to about a half billion dollars annual payroll. In other words, it is a sizable and a progressive industry. My point is this in summary.

This progressive industry comprised of taxpaying citizens should not be penalized for the lack of individual responsibility and enterprise on the part of a limited number of people who apparently do not take advantage of the opportunity for having an economically sound, reasonably priced individual water supply system. If they are financially incapable of purchasing an individual pumping supply, then the Government grants and loans for individual systems should be offered.

Senator AIKEN. Do you think it would be reducing opportunity and income in the field of labor and manufacturing if you went in strong for public systems?

Mr. HOUT. Definitely.

Senator AIKEN. And they would get ruined just like the REA ruined all of the electricians, Westinghouse, and General Electric, and all those people? Did they get ruined when they put the rural electric lines into the rural communities where the utility companies said it would not pay?

Mr. HOUT. Look at the analogy though. You are talking about the Westinghouse equipment that uses the electric.

Senator AIKEN. They make pumps, too.

Mr. HOUT. No.

Senator AIKEN. Do they not?

Mr. HOUT. No.

Senator AIKEN. They used to.

Mr. HOUT. Well, many years ago; right, many years ago. But no, it helped their program. My point is this.

Senator AIKEN. Of course it did.

Mr. HOUT. You have got the basic electric that you need.

Senator AIKEN. I will guarantee this will give you five times as much business as you lose by it.

Mr. HOUT. I think that would be hard to see.

Senator AIKEN. You are doing darn well now or you would not be opposing change.

Mr. HOUT. We are not opposing change.

Senator AIKEN. People who are doing very well are likely to be very satisfied with present conditions. But there are a lot of people that are not doing very well, and they are not satisfied, and they live out in the rural communities, and if I did not know so many of them, I probably would not be so interested in this.

Mr. HOUT. You know, Senator Aiken, we are equally interested in those people. This is selfishly as good if we can get more of these systems installed by them and if it takes Federal grant, let us do it. Let us take care of these people, but do it the most economical way and a sprawling network of pipes over sparsely settled areas is not the economical approach to this problem.

Senator AIKEN. I guess you have made yourself clear.

Hr. HOUT. Thank you.

(Mr. Hout's statement in full follows:)

Mr. Chairman and members of the committee, my name is Fred B. Hout. I am president of Barnes Manufacturing Co., Mansfield, Ohio. Barnes manufactures and sells domestic and farm pumps and water systems. We have been in business since 1895 and employ 500 persons in our plants and sales offices. I am a past president and director of the water systems council, and chairman of the legislative committee of the council.

We appreciate the opportunity to present our thinking before this committee, and to discuss the role of private water systems in conserving and making the best use of our water resources for the good of our entire society.

The individual water system is equal and many times better than central water supply, and therefore deserves at least equal consideration—for a number of very valid reasons.

First, a quick look at the progress of individual water supply systems over the past 25 years indicates the rapid growth synonymous with the expansion of rural electrification. It might be said that "waterification" has followed right on the heels of rural electrification.

Prior to World War II, in the thirties, only some 50 percent of farms were electrified and approximately one-third of them were equipped with pressure systems. The rapid expansion of electrified farms during the late thirties brought electricity to approximately 90 percent by the beginning of the war. During the postwar period, the number of individual water systems installed moved up from an average of 600,000 per year to the current level of about 900,000 per year, and currently some 80 percent of all electrified farms now have individual water supply under pressure.

As to the adequacy of this water supply, it is reasonable to say that an individual water system affords unlimited quantities of water (providing an adequate well has been drilled) to meet the individual farm family's requirements.

Further, with proper well construction and correct selection of the pump, the individual system generally is better than central water supply—better in both capacity and pressures available for individual use. Generally, our ground water supplies throughout the Nation are adequate. If the depth and the construction of the well are proper, and the pump is appropriately selected, the result is a sound pressure system with capacities and pressures that exceed central supply. In fact, we at Barnes Manufacturing Co. have found that we sell many booster pumps for private use in central supply systems because the pressure on such system is not adequate.

The progress of product design and development of pumps for domestic water systems over the past quarter century equals that of the most sophisticated electromechanical products available in our present-day economy. We have come a long way from the early days of hand pumps for rural America.

I speak with experience, since my company produced some 3 million hand pumps in the earlier part of this century. After World War II, the ejector-type pump gained rapidly in acceptance and popularity because of its adequacy in capacity and pressures, and its economical cost to the consumer. In the early fifties, we found the introduction of the deep well submersible pump with its advantages—top efficiency (because it was submerged in the water), quiet operation, elimination of pump houses and pump pits, and many benefits. Then came the modern submersible pump. American manufacturers, through heavy development expense and ingenuity, developed submersible units that were lower in cost than the European imported products, better products in terms of durability and capability to sustain performance levels throughout the life of the product. Our American-made submersibles literally ran the imported pumps out of the country with one or two exceptions of European companies who set up manufacturing facilities in the States.

Today, the submersible water system produced for residential 4-inch wells is the most efficient (in terms of horsepower conversion into capacity—the flow of water—at desired pressures) of any residential mechanical device available for home or farm use, and it is available at very reasonable cost.

There are other reasons why the individual water system fills the individual farm water requirements better than central supply :

1. Individual water systems afford unlimited quantities of water to meet the increasing demands of water usage. Per capita per day use was 134 gallons in 1940, 150 gallons per day in 1960, and is estimated to be 168 gallons in 1970. Individual systems offer complete flexibility in terms of capacities and pressures to meet the varied demands of different families and farms.

2. It provides flexibility for installation everywhere, making housing available to more people because of lower cost land as they reach out from the center of population. Orderly expansion occurs because of this flexibility of water supply. All this can be accomplished without a network of costly piping, which is extremely impractical in sparsely settled areas.

3. The dispersion of a wide number of individual wells better conserves our ground water resources than the drilling of extremely large wells to serve a central system.

4. It has been stated authoritatively that individual deep wells would provide the only safe water supply to the American public in case of atomic attack, first, because of the multiplicity of water sources, and, second, because it eliminates the widespread network of surface piping required by central systems, which are susceptible to contamination from radiation fallout.

5. Independent water systems provide extra protection against fire hazards because of the assured availability of water at adequate pressures which can be applied immediately. Speed is the essential requirement for firefighting.

6. We recognize that sporadic droughts do occur. A modern water system can be readily adjusted to lowering water tables on an individual basis—far simpler than many central water systems, merely by lowering the pump in the well or by deepening the well.

7. Economic feasibility is a major consideration. Generally the individual water system is lower in original cost and cost of operation. Naturally, this varies with depth to water and other factors.

In original cost, one study made indicated installed cost of \$168 for a one-third horsepower shallow well system, and \$941 for a large system pumping water from a 150-foot depth. The average cost for a pump over the past 10 years has been reduced a minimum of 20 percent, indicating that an individual water system is one of the best "buys" in America today.

In the cost of operation evaluation on the basis of cost per 1,000 gallons of water, we found a variable of from 26 cents up to \$1.02. This was based on inclusion of 5 percent per year for maintenance cost of the pump, amortization, or replacement per year equal to one-twelfth the cost of the pump, and interest on investment of 6 percent per year. With all of these fixed charges, plus the power cost at 3 cents per kilowatt-hour, the total cost of 1,000 gallons ranged from 26 cents up to \$1.02. On a comparable basis, the cost of water from a central system is nearly \$2 per 1,000 gallons.

There is also an individual proprietary satisfaction in possessing one's individual water system, with never the concern for restriction on usage—no limitation on one's individual freedom of use.

The individual water system business is substantial. In addition to manufacturers producing pumps, there are many well supply manufacturers producing casings, drop pipe, fittings, pneumatic pressure tanks, etc. Beyond this, there is a vast number of component and material suppliers where hundreds of thousands of people gain their livelihood from the production of sheet steel, plastic pipe, electric motors, control devices, and many other ferrous and nonferrous metal materials and products.

Beyond the manufacture of the products are those engaged in marketing distribution and installation of these individual water systems. There are some 44,000 plumbing contractors in America, nearly 5,000 wholesalers, and 12,500 well drillers. These people totaling some 82,300 are engaged in a business that produces \$493,800,000 in annual payroll. Altogether, this constitutes a fine effort of American enterprise in bringing quality water at reasonable prices through efficiently designed and manufactured pumping units to citizens throughout the country.

Certainly, this progressive industry comprised of taxpaying citizens should not be penalized for the lack of individual responsibility and enterprise on the part of a limited number of people who apparently do not take advantage of the opportunity for having an economically sound, reasonably priced individual water supply system. If they are financially incapable of purchasing an individual pump and well, then government grants and loans for individual systems should be offered—but without penalizing the vast majority of farmers who have and enjoy the advantages of their own water systems.

Mr. SNELL. Senator, may I complete the balance of my statement?

Senator AIKEN. I think the costs are very interesting there. The community in my State which has lost its dairy markets because of the quality of the water—and it is largely from wells—would have to pay, I suppose, \$18 a month, and they cannot do it. But if they once had water, they would grow. Maybe some of them would buy some wells or some of the other equipment you make. You make something else, too. Nobody makes just one article any more. You make sinks, do you not?

Mr. HOUT. No; only pumps. We are pump specialists.

Senator AIKEN. Why do you not go into the porcelain business?

Mr. HOUT. We make good engineered products.

Mr. SNELL. The problem toward which S. 1766 is aimed is how to bring adequate supplies of pure water to those in rural America who do not have it today. This problem should not be solved either haphazardly or in piecemeal fashion. It should be solved by finding ways to bring adequate supplies of pure water to those in rural America who need it in whatever way or whatever combination of ways prove to be most reliable, most economical, and most consistent with the particular community and particular geology and other particular circumstances existing in each community.

In seeking such a solution we urge the committee at the outset to discard any notion that the problem must be solved in one particular way. We urge the committee to seek a total solution to the total problem.

Now, to be specific, we suggest that a water supply system based upon a central source of water with distribution therefrom to the various users, may be an answer under some circumstances, and may not be the proper answer at all in still other circumstances. In a particular locality, depending perhaps upon in what geological formation and at what depth a reliable source of water may be available, and how many present and potential future users of water there are, and within what geographical area they are located, and other factors, the best solution to the problem may be a centrally located source of water with a distribution system supplying users who are located within a limited distance from the central source with improved, modern individual water systems supplying those in more sparsely located peripheral areas. We suggest that one water district can handle such a combined solution to the problem. The water district need not be committed solely to a central system. A water district can arrange for the installation of private systems or the improvement of private systems, handle the contracts, arrange for the financing, and charge to the individuals their share of the cost prorated over a period of time and financed collectively through the Farmers Home Administration by loans, insured loans, or partial grants.

In another locality the problem may not lend itself economically to a central water system at all. We have heard of one district where nearly 100 miles of distribution pipe was necessary to supply something over 100 customers. We have not been able to ascertain the details and therefore cannot comment on the technical feasibility of solving this particular problem by individual wells or improved individual wells. Obviously the situation is unusual, but perhaps the solution was not the best one.

In any event, circumstances certainly do exist where rural residents do not want a central system, where some or perhaps most have adequate individual water supplies and only a minority of the residents in the area have inadequate water facilities. Under such circumstances we suggest that the rural water district could solve the problem entirely by a collective or cooperative effort directed solely toward the installation of individual systems. The water district could then make the arrangements for drilling of the wells and for requiring compliance with proper construction standards. The participants would amortize this total investment over a period of years with financing through loans, insured loans, or partial grants by the Farmers Home Administration.

The final role that the individual water system can and should play in this total solution to the total problem is through individual action rather than through water districts. The law at present provides for loans and the insurance of loans to individuals for such purposes. However, from FHA publicity releases it appears that in some areas at least there is a lack of motivation among such individuals to seek such loans or a lack of financial ability to repay such loans even on the rather liberal FHA terms. Individuals in some areas of rural America are still tolerating inadequate water supplies for some reason. We doubt that this need is as widespread as has been suggested but recognize that it certainly does exist to some extent. Moreover, in some areas peculiar problems arise through no fault of the individual but because of major climatic conditions. New England and other

areas along the eastern coast have been suffering from a prolonged lack of rainfall which has lowered the water table. Undoubtedly this has caused hardship among many individuals whose wells and water systems were perfectly adequate but now are dry because the water table has dropped too far.

Provision should be made in the law to assist such individuals to solve these problems which are not of their own making by providing for grants for a portion of the cost of restoring wells to a satisfactory condition. Certainly in many instances the deepening of an existing well is the most economical and most satisfactory solution to the problem. Creation of a water district through organization of an association or corporation or quasi-public body of some description is in effect bringing in a bulldozer where a hand trowel is all that is needed.

In order to reduce the foregoing general principles to something concrete with which the committee can more readily deal, we have prepared some suggested amendments to the bill which are attached to my statement as appendix C. We have also included as appendix D a revision of the bill showing the portions which we suggest be deleted and the suggested inserts so that members of the committee may readily see our suggestions.

We offer the following suggested changes to bring the individual water system into the total solution of the total problem.

We suggest a definition of water facility, which appears as section 7 on page 86 of appendix D, and then we have substituted the words "water facilities" for the detail specified in subparagraph 2 on page 85. We also suggest the addition of a provision expressly including the authority to make grants to those individuals who are eligible for loans under sections 302 and 304 of the act. The credit limitations on such loans to individuals would be substantially the same as loans to associations. This would be accomplished by the addition of a sentence at the end of subsection (2) which appears on page 85 of appendix D.

FEASIBILITY STANDARDS

The Consolidated Farmers Home Administration Act of 1961 does not contain guidelines or standards of economic feasibility, nor are such standards spelled out in any regulations of which we are aware. Whether the Administration has specific guidelines or standards by which it determines whether a system is economically feasible we have not been able to determine.

We suggest that such standards should be developed. There are various aspects of economic feasibility. For instance, there is the total cost of development of a central facility, as against the cost of developing a central facility supplemented by individual facilities, and as compared with the cost of using individual facilities entirely. Then there are questions of the ability of the users to obtain other financing, ability of the users to repay the development cost together with the cost of operation without lowering their standard of living, the proportion of the total development cost which should be covered by a grant as distinguished from a loan, and whether the balance remaining to be covered by a loan is or is not within the economic capabilities of the users to repay.

From the statistics which we have been able to obtain, which are certainly by no means complete, it would appear that the Farmers Home Administration does not have any specific guidelines or standards for determining economic feasibility. We have included as appendix A such information as we have received showing the costs per connection of water district loans approved this year. It will be noted that these loans vary from \$270 per connection to more than \$2,000 per connection.

To give the committee an idea of the cost of private systems, we have included as appendix B some representative figures showing costs for a total water system together with amortization, maintenance, and operating costs over a 40-year period, which is comparable to the life of a section 306 water district loan. It will be noted that the total development cost varies from \$564 to \$941. It can readily be seen that the per connection development cost of many of the loans approved this year are not only in excess of this amount but are substantially in excess of this amount. We have been unable to obtain details as to these loans from which we can make a more specific analysis but if such information were available we would be glad to supplement our statement today with further comments and statistics.

It should also be noted that the total annual cost of the individual well may be a third or less of the cost of obtaining water from a water district. Again more detail is necessary for a comprehensive analysis which we would be glad to undertake if we were supplied the figures.

We doubt that this committee need concern itself with the details of economic feasibility. It is the committee's responsibility, however, to establish basic principles, of which we suggest there are two of an economic nature. First, the FHA approvals, be they loans, insured loans, or grants, should be limited to those which will accomplish the objective the most economically. Secondly, guidelines or standards of economic feasibility should be developed and uniformly applied.

We have suggested amendments to the bill which require that the Secretary determine with respect to every loan, insured loan, or grant that it is economically feasible and that standards for economic feasibility be developed taking into consideration various fundamental criteria. The requirement of economic feasibility appears as subsection (3) (iv), page 4 of appendix D. The requirement that standards be established appears in section 4 and certain basic criteria to be considered are set out in section 4(b) of appendix D respectively.

MINIMUM CONSTRUCTION STANDARDS

The third suggestion of water systems council is that all facilities installed with Farmers Home Administration financing should meet certain minimum construction standards. It is unwise from every viewpoint to construct substandard water facilities.

We are concerned that some of the water district systems which have been constructed to date with FHA financing have failed to meet commonly accepted construction standards and have been inadequately designed to meet contemplated demands.

The rural water district program is administered with a view to providing service to the maximum possible number of residents within the area encompassed by a proposed system. While this objective

is laudable, the sparseness of the population along the periphery of these systems, and sometimes throughout the system, makes it difficult to design a system which is economically practical. The result we understand in some instances has been a compromise of the engineering principles in favor of economic requirements. For example, in one instance 8,300 linear feet constituting 41 percent of an entire distribution system was constructed with $2\frac{1}{4}$ -inch pipe. The State board of health's requirement considered the capacity of a $2\frac{1}{4}$ -inch pipe so limited that it permits the use of such pipe to a maximum extent of 3,000 feet in one system (or 6,000 feet where a branch line connects with a larger main). Such a system as installed is not only substandard at the outset but has no flexibility to respond to an increase in demand for additional connections.

This same engineering plan proposes to use 4,000 linear feet of galvanized service lines and 4,550 linear feet of copper service lines connecting the water main to the meter box on the property line. The State board of health has found that soil conditions similar to that in the area involved will deteriorate the galvanized pipe within a period of 15 years on the average. Thus despite a 40-year term loan, a substantial part of the service lines will have to be replaced every 15 years, or approximately three times during the life of the loan. Moreover, the use by the system of $1\frac{1}{2}$ -inch galvanized pipe for service lines will encourage the homeowners to use the same size and type of pipe to run lines from the meter box into the home. Periodic replacement of this pipe will be the responsibility of the property owner who may or may not be aware of his problem.

We suggest that maximum standards should be prescribed to eliminate such conditions or the peripheral areas which cause the problem should be provided with modern individual systems. In all probability if this had been done the heart of the central system could be constructed with adequate size mains to permit future expansion and the property owner would be cognizant of his responsibility with respect to his individual well.

We do not limit the suggestion of compliance with adequate construction standards to central systems but believe that there should also be construction standards required for individual systems. It was in recognition of this fact that the water systems council during the past year has actively participated as a member of the Surgeon General's Ad Hoc Advisory Committee to draft model legislation providing for adequate planning for water systems and proper water well construction and pump installation standards.

We also understand that in some instances financial projections for the water district contemplate, increases in the number of connections several times the initial number but do not incorporate such anticipated growth in the system's design characteristics. Therefore even though the system is adequately designed to meet minimum construction standards with the number of initial connections anticipated, the system as designed is totally incapable of fulfilling the demand which will be imposed by contemplated growth.

A number of groups concerned with community planning have expressed grave concern at the inadequacy of rural water districts generally to supply the increased water demands which many of them will face over the next several decades.

At its 1964 annual meeting, the Tennessee Municipal League took a strong stand in opposition to the rural water district program because of its failure to coordinate the construction of water systems with the development of other community facilities in a manner insuring orderly future growth. A policy statement released by the Tennessee organization reads as follows:

The requirements of farmers and others in rural areas for pure water through public utility systems should be supplied by municipal and county governments. It is imperative that all governments involved—whether Federal, State, or local—apply the same standards to new commercial, residential subdivision, and house-and-lot development along rural water lines as those applied in and around urban communities. This must be done in order to prevent sprawling, substandard development eventually reaching urban densities, which has proven so costly to tens of thousands of Tennessee property owners and scores of Tennessee towns and cities in the past.

At its 1965 meeting completed just a week ago, the organization renewed its opposition to rural water districts, which it described as "cancerous shadow governments." The league pledged to fight creation of new districts by obtaining legislation preventing the formation of such districts without proper safeguards (the Nashville Tennessean, June 9, 1965, at p. 5).

Similar opposition has been voiced by the American Municipal Association (now known as the National League of Cities). In 1964, the annual American Municipal Congress adopted a policy statement criticizing "certain Federal programs" which "encourage undesirable sprawl" because they "(1) do not take into account population trends; (2) are not required to meet adequate standards; (3) require or permit the creation of special districts that bypass general governments; or (4) are not part of a plan that takes into account how the particular program will affect the overall growth of the area. Among Federal agencies involved in these practices in the fields of public facilities and urban housing are: Farmers Home Administration * * *"

To implement these general suggestions we have submitted specific amendments to the bill which would require a finding by the Secretary that facilities constructed with FHA financing be constructed in accordance with minimum standards. This appears as subsection (3) (v) on page 4 of appendix D. We have also included a provision that the Secretary prepare regulations setting forth minimum construction standards and setting out certain criteria to be considered by the Secretary in the development of such standards. These provisions appear in paragraphs 4 and 4(a) on page 4 of appendix D.

ADVISORY COMMITTEES

As with matters of economic feasibility, the details of construction standards are matters with which this committee need not concern itself. However, we suggest that this committee should authorize the establishment of an advisory committee or advisory committees to assist the Secretary in developing proper standards of both economic feasibility and construction. We therefore have suggested an amendment to include such a specific authorization which appears in subsection (5) (a) on page 5 of appendix D.

We believe that recommendations as to appropriate standards can best be formulated by representatives of industries concerned, governmental bodies, professional groups, educational institutions, and other organizations sitting down together and exchanging their views.

CONCLUSION

The Water Systems Council endorses the basic concept that Federal funds be made available to assist farms and rural residents in obtaining adequate supplies of potable water where credit is not otherwise available. We believe that a total solution to the total problem should be formulated which will make possible development of the most economical means of providing said water facilities. Central systems should be used where they are economically feasible, individual systems should be used where they offer the best solution, and a combination of the two is a possibility which also should be considered under appropriate circumstances.

The construction of such facilities should not only be based on determinations as to economic feasibility but construction in accordance with minimum standards consistent with sound engineering principles and future needs of the community should in all cases be required. We believe that the Secretary should be specifically directed to formulate both standards of economic feasibility and construction standards and authorized to establish advisory committees to assist in their formulation.

Suggested amendments to carry out these basic suggestions are attached to our statement.

Our position is not naked. What we are saying is not opposing your idea. We have four suggestions to make, and they are this.

We believe that where it is most economical to bring a community system into existence with the assistance of Federal financing, be it loans, insured loans or grants, then that system should be created, a central system, but where on the peripheries of concentration of population it is not economically feasible to extend the community system to that extent, then we believe that the private system should be the answer where this is the best answer, and that if people cannot afford to put it in themselves, they should have the assistance of the Federal money be it through loans or insured loans which they now have, or by grants in part which we suggest be included in this bill.

Now, there are circumstances where a private well is a better answer than a central system.

Senator AIKEN. There is no question about it.

Mr. SNELL. For example, we heard of one example where there was over a hundred miles of pipe and it was run to serve something over 100 families. This may be a very unusual situation, but that is a lot of pipe.

Senator AIKEN. Or they are very well-to-do families.

Mr. SNELL. For that few families. And so we believe that provision should be made, not to counteract the suggestion you have made but to go beyond that, to make it possible for those who should have individual systems to get them.

Our second suggestion is that we believe that there should be—that the Administrator should be required to develop standards of

economic feasibility which are uniformly provided to make the determination of where the money should go and where it can best be used. We suggest to this committee that the Administration does not now have such standards. They are more or less playing this as circumstances develop.

Senator AIKEN. Do you think Community Facilities could handle it better?

Mr. SNELL. Well, I do not think that is the question, and I do not think I am prepared to answer that, Mr. Chairman. I do not know.

I am not criticizing the way the Farmers Home Administration is handling this. This is a new program. When they suggested earlier today that they have had only a fraction of default on their loans, I think the thing that was overlooked in that statement is that of the 883, I believe they said loans, which had been made to associations so far, 783 of them, I believe is the figure, of those loans had been made in the last 30 months. Only 116 I know were made in 1961 and 1962. Most of them have been made in the last 30 months. And as I understand the way these districts are built, those who subscribe to it have to make payments for 30 months, whether they want to go ahead with it or not.

The real critical question is what is going to happen after the 30 months are up. We have not reached that stage for most of the loans that are now outstanding to associations, and I think that that point will be developed a little bit further, and it may be very interesting.

So we think there should be standards of economic feasibility developed by the Administrator to make these determinations that the Congress is asking them to make in making these loan standards.

Our third point is we think that there should be standards of construction established by the Administrator as to how these systems are put in, because it is our information that substandard construction is being put in that may be all right today, it may be all right tomorrow, but it is not going to be all right the day after tomorrow, and if this is what Federal money is being used for, we think it is being misused—if it is being used, to the extent that it is being used, to put in substandard construction.

Our final point, Mr. Chairman, is that we recommend that the Administrator be authorized to establish advisory committees to advise him on the formulation of these standards.

Those are our suggestions. We have reduced them to specific recommendations as amendments to the bill, and we have attached as an appendix D to our statement a rewriting of the bill so it clearly shows what additions we suggest and what deletions we suggest in the bill to accomplish these objectives. We would urge that if the Administration's suggestion that section 1 of the bill not be passed at this time, we suggest that the amendments which we offer be included in whatever is passed because we feel very strongly that it is high time that standards be established before the money is spent that the Administration is requesting and which would be approved in the other sections of this bill.

(The attachments to Mr. Snell's statement follow:)

APPENDIX A

In news releases dated March 15 and April 29, 1965, the Department of Agriculture announced that during the first 3 months of 1965, 104 loans totaling \$18,759,100 were made in 21 States for the construction of community water systems (USDA 809-65, 1342-65). The releases list the districts for which loans were approved, the amount of the loans, and in most cases, the number of families to be served by the systems. This appendix sets forth the information contained in the releases and also sets forth the average cost per family of the systems to be constructed:

	<i>Average cost per family</i>
Alabama:	
Greenpond Community, Bibb County, \$78,000, 115 families.....	\$678
Huguley Water System, Chambers County, \$485,000, 700 families..	693
Isbell Water System, Franklin County, \$44,000, 48 families.....	917
Town of Webb, Houston County, \$54,000, 65 families.....	831
Town of Excel, Monroe County, \$130,000, 130 families.....	1,000
Plantersville Water Authority, Dallas County, \$132,000, 140 families..	943
Arkansas:	
Town of Viola, Fulton County, \$5,500.....	(1)
Town of Omaha, Boone County, \$60,000, 78 families.....	769
Sunset Water Association, Crittenden County, \$41,000, 90 families..	455
Town of Fouke, Miller County, \$77,000, 85 families.....	906
Town of Sherrill, Jefferson County, \$82,000, 100 families.....	820
California: LeGrand Mutual Services, Merced County, \$112,500, 160 families.....	703
Colorado:	
4-Mile Domestic Water System, Chaffee County, \$30,000, 111 families..	270
Briggsdale Water Co., Weld County, \$34,000, 25 families.....	1,360
Florida:	
Lake Harney Water Association, Inc., Seminole County, \$1,800.....	(1)
The Island Water Association, Inc., Lee County, \$795,600, 500 families.....	1,591
Okeechobee Water Association, Inc., Okeechobee County, \$325,000, 320 families.....	1,015
Horseshoe Beach Water Association, Dixie County, \$80,000, 120 families.....	667
Georgia:	
Town of Surrency, Appling County, \$45,000, 67 families.....	672
Town of Cecil, Cook County, \$30,000, 52 families.....	577
Town of Mineral Bluff, Fannin County, \$46,200, 47 families.....	983
Town of Tyrone, Fayette County, \$65,000, 75 families.....	867
Illinois: Union-York Water District, Clark County, \$205,000, 250 families..	820
Indiana: Vienna Water Company, Inc., Scott County, \$77,000, 80 families..	962
Kansas:	
Rural Water District No. 3, Doniphan County, \$126,000, 92 families... 1,370	1,370
Rural Water District No. 1, Franklin County, \$150,000, 110 families... 1,363	1,363
Rural Water District No. 3 (Monticello) Johnson County, \$374,000, 182 families.....	2,055
Rural Water District No. 1, Miami County, \$180,000, 143 families....	1,259
Louisiana: Village of Hornbeck, Vernon County, \$118,000, 144 families..	813
Mississippi:	
Black Jack Water System, Oktibbeha County, \$59,000, 55 families....	1,073
Falkner Development Association, Tippah County, \$73,000.....	(1)
Metcalfe Water Association, Washington County, \$50,000, 100 families.....	500
Shady Grove Water Works Association, Jones County, \$180,000, 200 families.....	900

Footnote at end of table.

APPENDIX A—Continued

	<i>Average cost per family</i>
Mississippi—Continued	
College Hill Water Association, LaFayette County, \$2,500-----	(1)
Sessume Community Water Association, Oktibbeha County, \$75,000, 60 families-----	1, 250
Bovina Water Club, Warren County, \$172,000, 160 families-----	1, 075
Buckatunna Water Association, Inc., Wayne County, \$65,000, 44 families-----	1, 477
Pleasant Hill Water Association, Desota County, \$144,000, 100 families-----	1, 440
Belen Water Association, Quitman County, \$45,000, 40 families-----	1, 125
Craig Springs Water Association, Oktibbeha County, \$73,000, 62 families-----	1, 177
Dancy Water Association, Webster County, \$35,000, 29 families-----	1, 206
East Lowndes Water Association, Lowndes County, \$1,000,000, 830 families-----	1, 205
Glade Water Works Association, Jones County, \$252,000, 260 families--	969
Nesbit Water Association, DeSoto County, \$136,000, 96 families-----	1, 417
Powers Community Waterworks Association, Jones County, \$197,000, 170 families-----	1, 159
Renova Water Corp., Bolivar County, \$45,000, 50 families-----	900
Stewart Water Association, Montgomery County, \$66,000, 78 families--	846
Stringer Water Association, Jasper County, \$174,000, 130 families---	1, 338
Hermanville Community Water Association, Inc., Claiborne County, \$77,000, 60 families-----	1, 283
Soso Community Water System, Inc., Jones County, \$105,000, 115 families-----	913
Missouri:	
Public Water District No. 1, Greene County, \$131,000, 110 families--	1, 191
City of Bertrand, Mississippi County, \$125,000, 150 families-----	833
Public Water District No. 3, Platte County, \$199,000, 115 families--	1, 730
New Mexico:	
Valley Water Users Corp., De Baca County, \$180,000, 89 families----	2, 022
Cuba Water Users Association, Sandoval County, \$120,000-----	(1)
New York:	
New York: Yorkshire Water Association, Cattaraugus County, \$55,000, 135 families-----	407
North Carolina:	
Cricket-Millers Creek Water Association, Inc., Wilkes County, \$850,000, 800 families-----	1, 063
Moravin Falls Water Association, Inc., Wilkes County, \$30,000-----	(1)
Oak Hill Water System Corp., Burke County, \$465,000, 500 families---	930
Triple Community Water Corp., Burke County, \$644,000, 574 families	1, 122
Etowah Water Association, Inc., Henderson County, \$250,000, 200 families-----	1, 250
Dan River Water, Inc., Rockingham County, \$922,750, 910 families--	1, 014
Oklahoma:	
Rural Water District No. 3, Washington County, \$674,750, 490 families-----	1, 377
Lone Grove Water and Sewage Trust Authority, Carter County, \$158,500, 156 families-----	1, 016
Big Cabin Public Works Authority, Craig County, \$110,000, 104 families-----	1, 057
Rural Water District No. 1, Cherokee County, \$110,000, 81 families--	1, 358
Rural Water District No. 3, Creek County, \$190,000, 188 families----	1, 011
Rural Water District No. 1, McCurtain County, \$313,030, 275 families-----	1, 138
Rural Water District No. 2, Mayes County, \$400,000, 300 families----	1, 333
Rural Water District No. 1, Nobel County, \$49,200, 37 families-----	1, 330

Footnote at end of table.

APPENDIX A—Continued

	<i>Average cost per family</i>
Oklahoma—Continued	
Rural Water District No. 2, Pontotoc County, \$146,000, 80 families--	1, 825
Rural Water District No. 2, Rogers County, \$140,000, 110 families--	1, 273
Rural Water District No. 1, Tulsa County, \$82,000, 90 families----	911
Rural Water District No. 1, Wagner County, \$60,000, 52 families----	1, 154
Rural Water District No. 1, Washington County, \$168,000, 138 families-----	1, 217
South Dakota: City of Oldham, Kingsbury County, \$164,000, 150 families-----	1, 093
Tennessee:	
Highland Rim Utility District, Lincoln County, \$502,800, 450 families-----	1, 117
Hornbeck Utility District, Obion County, \$152,910, 135 families--	1, 133
Stone's River Utility District, Rutherford County, \$680,000, 680 families-----	1, 000
Iron City Utility District, Lawrence County, \$150,000, 145 families--	1, 034
West Point Utility District, Lawrence County, \$82,500, 80 families--	1, 031
Northwest Dyersburg Utility District, Dyer County, \$291,000, 277 families-----	1, 050
Tuckaleechee Utility District, Blount County, \$716,000, 700 families--	1, 023
Texas:	
Ben Wheeler Water Supply Corp., Van Zandt County, \$60,050, 57 families-----	1, 053
Ebenezer Water Supply Corp., Rusk County, \$60,000, 47 families----	1, 276
Tryon Road, Gregg County, \$120,000, 115 families-----	1, 043
Edom Water Supply Corp., Van Zandt County, \$108,000, 95 families	1, 136
Sammerwood Water Supply Corp., Collingsworth County, \$225,000, 121 families-----	1, 859
Prairie Hill Water Supply Corp., Limestone County, \$1,800-----	(1)
BBS Water Supply Corp., Anderson County, \$115,000, 88 families----	1, 306
Slocum Water Supply Corp., Anderson County, \$68,760, 50 families--	1, 375
Flat Water Supply Corp., Coryell County, \$83,000, 82 families-----	1, 012
Crystall Clear Water Supply Corp., Guadalupe County, \$775,000, 595 families-----	1, 297
Green Valley Water Supply Corp., Guadalupe County, \$250,000-----	(1)
Crescent Heights Water Supply Corp., Henderson County, \$94,000, 82 families-----	1, 146
Parker Water Supply Corp., Johnson County, \$135,000, 107 families--	1, 261
EOL Water Supply Corp., McLennan County, \$78,000-----	(1)
Sacul Water Supply Corp., Nacogdoches County, \$62,200, 54 families--	1, 151
Bagwell Water Supply Corp., Red River County, \$45,500, 40 families	1, 137
View Cape Water Supply Corp., Taylor County, \$44,650-----	(1)
Martins Mill Water Supply Corp., Van Zandt County, \$35,000, 30 families-----	1, 166
Utah: Eden Water Works Co., Weber County, \$17,000, 16 families-----	1, 062
Washington:	
Marshland Water Association, Snohomish County, \$2,100-----	(1)
West Mesa Domestic Water System, Franklin County, \$57,000, 25 families-----	2, 280

¹ These associations had borrowed funds previously.

APPENDIX B

Private water system cost analysis

	Depth of water level and type of pump		
	50 foot (jet)	100 foot (jet)	150 foot (submersible)
Equipment costs:			
Pump.....	\$154.00	\$180.00	\$331.00
Well.....	300.00	400.00	450.00
Installation.....	110.00	160.00	160.00
Total.....	564.00	740.00	941.00
Annual costs:			
Maintenance (5 percent).....	7.770	9.00	16.55
Replacement (1/12).....	12.83	15.00	27.58
Power (at \$0.03/per kilowatt-hour).....	9.67	25.90	9.67
Total.....	30.20	49.90	53.80
Total cost over 40 years:			
Equipment costs.....	564.00	740.00	941.00
40 X annual costs.....	1,208.00	1,996.00	2,152.00
Total.....	1,772.00	2,736.00	3,093.00
Average yearly cost.....	44.30	68.40	77.32

APPENDIX C

S. 1766: SUGGESTED AMENDMENTS BY WATER SYSTEMS COUNCIL

The Water Systems Council respectfully suggests that S. 1766 be amended as follows:

1. Page 2, line 15, after the word "associations", insert the phrase "and to individuals eligible for loans under section 302 or 304 of the Act".

2. Page 2, lines 15, 16, and 17, strike the words "specific projects for works for storage, treatment, purification or distribution of water in rural areas", and insert in lieu thereof "water facilities".

3. Page 2, line 18, after the word "paragraph", insert the words "to any such association".

4. Page 2, line 23, strike out the words "costs which are" inserting in lieu thereof the words "cost which is".

5. Page 3, line 6, after the word "law", insert the word "and".

6. Page 3, line 7, insert a new sentence to read as follows: "The amount of any grant made under authority of this paragraph to any eligible individual shall not exceed the lesser of (i) 40 per centum of the development cost of that portion of the facility reasonably necessary to enable the facility adequately to serve the reasonable needs of such individual; or (ii) that portion of the development cost which is above the probable ability of such individual to repay a loan for such purposes and maintain a reasonable standard of living".

7. Page 3, line 8, strike out all of line 8, inserting in lieu thereof "No loan or grant shall be made to or loan insured for an association under paragraph 1 or 2 of this".

8. Page 3, line 16, strike out the word "or".

9. Page 3, lines 16-18, strike out the words "necessary for orderly community development consistent with a comprehensive community water development plan of the rural area and".

10. Page 3, line 22, insert before the period a comma and "(iv) is economically feasible, and (v) will be constructed in accordance with minimum standards".

11. Page 3, lines 22-25, strike the sentence "Until October 1, 1968, the Secretary may make grants prior to the completion of the comprehensive plan, if the preparation of such plan has been undertaken for the area."

12. Page 4, before line 1, insert new subsections (4) and (5) to read as follows:

"(4) In order to carry out the purposes of subsections (1), (2), and (3) of this section, the Secretary, after reasonable notice and public hearing, and consultation with an appropriate advisory committee established pursuant to subsection (5) of this section, with other Federal agencies, with State and interstate public health agencies and planning bodies and with municipalities and in-

dustries involved, shall prepare regulations setting forth minimum construction standards and standards of economic feasibility applicable to any water facility with respect to which a grant, loan or insurance of a loan is authorized by this Act. Such standards shall be designed reasonably to protect the public health or welfare and to serve the purposes of this Act.

"(a) In establishing such minimum construction standards the Secretary shall take into consideration the length of time use of such water facilities is contemplated, the possibility of their integration into other community facilities, their adequacy to provide for future water needs of the area and of the persons residing therein, and other factors relevant to the purposes of this Act.

"(b) In establishing such standards of economic feasibility, the Secretary shall take into consideration the overall cost of such water facilities, their capability to provide an adequate supply of water at reasonable cost, the adequacy of existing facilities, the possibility and cost of improving existing facilities, the cost of alternative types and combinations of types of facilities, and other factors relevant to the purposes of this Act.

"(5) (a) The Secretary is authorized to establish an advisory committee or committees to assist him in the development of minimum construction standards and standards of economic feasibility applicable to water distribution facilities, and to advise him on other matters relating to such facilities, and each such advisory committee shall include among its members persons from industries, organizations and governmental bodies directly interested in, affected by or otherwise qualified to advise on the subject matter to be considered.

"(b) Each member appointed to such a committee from private life may be paid travel expenses and per diem in lieu of subsistence at the rates authorized by section 5 of the Administrative Expenses Act of 1946 (5 U.S.C. 73b-2)."

13. Page 4, line 1. Renumber subsection (4) to subsection (6).

14. Page 4, line 5. Insert a new subsection (7) to read as follows:

"(7) The term 'facility' shall include any public or private water supply system, or any combination of such systems, together with any storage, treatment, purification, or distribution system in connection therewith."

15. Page 4, lines 5, 11, and 18. Renumber subsections (5), (6), and (7) to (8), (9), and (10).

APPENDIX D

S. 1766: INCLUDING REVISIONS SUGGESTED BY WATER SYSTEMS COUNCIL AT HEARING ON JUNE 18, 1965

A BILL To amend the Consolidated Farmers Home Administration Act of 1961 to authorize the Secretary of Agriculture to make or insure loans to public and quasi-public agencies and corporations not operated for profit with respect to water supply and water systems serving rural areas and to make grants to aid in rural community development planning and in connection with the construction of such community facilities, to increase the annual aggregate of insured loans thereunder, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That Section 306(a) of the Consolidated Farmers Home Administration Act is amended to read as follows:

"(1) The Secretary is also authorized to make or insure loans to associations, including corporations not operated for profit, and public and quasi-public agencies to provide for the application or establishment of soil conservation practices, shifts in land use, the conservation, development, use, and control of water, and the installation or improvement of drainage facilities, and recreational developments, all primarily serving farmers, ranchers, farm tenants, farm laborers, and other rural residents, and to furnish financial assistance or other aid in planning projects for such purposes.

"(2) The Secretary is authorized to make grants aggregating not to exceed \$25,000,000 in any fiscal year to such associations and to individuals eligible for loans under Sections 302 or 304 of the Act to finance specific projects for works for the storage, treatment, purification, or distribution of water in rural areas water facilities. The amount of any grant made under the authority of this paragraph to any such association shall not exceed the lesser of (i) 40 per centum of the development cost of that portion of the facility necessary to enable the project to serve the area which can be feasibly served by the facility and to adequately serve the reasonable foreseeable growth needs of the area, (ii) that portion of the development cost which is costs which are above the probable ability of the association to repay a loan for such purposes from income or assessments levied at a rate or charge for service within the ability of a majority of the users to accept and pay for such service and maintain a reasonable standard of living, or (iii) that

part of the development cost of a facility constructed by a public body which is in excess of the costs which can be financed within the amount of obligations or levies permitted by law and for which alternate revenue financing is not available. The amount of any grant made under authority of this paragraph to any eligible individual shall not exceed the lesser of (i) 40 per centum of the development cost of that portion of the facility reasonably necessary to enable the facility adequately to serve the reasonable needs of such individual; or (ii) that portion of the development cost which is above the probable ability of such individual to repay a loan for such purposes and maintain a reasonable standard of living.

~~“(3) No grant shall be made under paragraph 2 of this No loan or grant shall be made to or loan insured for an association under paragraphs 1 or 2 of this subsection in connection with any facility unless the Secretary determines that the project (i) will serve a rural area which is not likely to decline in population below that for which the facility was designed, (ii) is designed and constructed so that adequate capacity will be or can be made available to serve the present population of the area to the extent feasible and to serve the reasonable foreseeable growth needs of the area, or (iii) is necessary for orderly community development consistent with a comprehensive community water development plan of the rural area and not inconsistent with any planned development under State, county, or municipal plans approved as official plans by competent authority for the area in which the rural community is located, (iv) is economically feasible, and (v) will be constructed in accordance with minimum standards. Until October 1, 1968, the Secretary may make grants prior to the completion of the comprehensive plan, if the preparation of such plan has been undertaken for the area.~~

“(4) In order to carry out the purposes of subsections (1), (2) and (3) of this section, the Secretary, after reasonable notice and public hearings, and consultation with an appropriate advisory committee established pursuant to subsection (5) of this section, with other Federal agencies, with State and interstate public health agencies and planning bodies and with municipalities and industries involved, shall prepare regulations setting forth minimum construction standards and standards of economic feasibility applicable to any water facility with respect to which a grant, loan or insurance of a loan is authorized by this Act. Such standards shall be designed reasonably to protect the public health or welfare and to serve the purposes of this Act.

“(a) In establishing such minimum construction standards the Secretary shall take into consideration the length of time use of such water facilities is contemplated, the possibility of their integration into other community facilities, their adequacy to provide for future water needs of the area and of the persons residing therein, and other factors relevant to the purposes of this Act.

“(b) In establishing such standards of economic feasibility, the Secretary shall take into consideration the overall cost of such water facilities, their capability to provide an adequate supply of water at reasonable cost, the adequacy of existing facilities, the possibility and cost of improving existing facilities, the cost of alternative types and combinations of types of facilities, and other factors relevant to the purposes of this Act.

“(5) (a) The Secretary is authorized to establish an advisory committee or committees to assist him in the development of minimum construction standards and standards of economic feasibility applicable to water distribution facilities, and to advise him on other matters relating to such facilities, and each such advisory committee shall include among its members persons from industries, organizations, and governmental bodies directly interested in, affected by, or otherwise qualified to advise on the subject matter to be considered.

“(b) Each member appointed to such a committee from private life may be paid travel expenses and per diem in lieu of subsistence at the rates authorized by section 5 of the Administrative Expenses Act of 1946 (5 U.S.C. 73b-2).

“(4) (6) The term ‘development cost’ means the cost of construction of a facility and the land, easements, and rights-of-way, and water rights necessary to the construction and operation of the facility.

“(7) The term ‘facility’ shall include any public or private water supply system, or any combination of such systems, together with any storage, treatment, purification, or distribution system in connection therewith.

~~“(5) (8) No loan shall be made under this subsection which would cause the unpaid principal indebtedness of any association under this Act and under the Act of August 28, 1937, as amended, together with the amount of any assistance in the form of a grant to exceed \$4,000,000 at any one time.~~

"(6) (9) The Secretary may make grants aggregating not to exceed \$5,000,000 in any fiscal year to any public body or such other agency as the Secretary may determine having authority to prepare official comprehensive plans for the development of water systems in rural areas which does not have funds available for immediate undertaking of the preparation of such plan.

"(7) (10) Rural areas, for the purpose of water systems, shall include any area not included within the boundaries of any incorporated or unincorporated city, village, or borough having a population in excess of five thousand inhabitants."

SEC. 2. Section 308 of the Consolidated Farmers Home Administration Act of 1961 is amended by—

(1) striking out "\$200,000,000" and inserting in lieu thereof "\$450,000,000";

(2) in clause (a) striking out "except that no agreement shall provide for purchase by the Secretary at a date sooner than three years from the date of the note"; and

(3) striking out clause (b) and inserting in lieu thereof "(b) may retain out of payments by the borrower a charge at a rate specified in the insurance agreement applicable to the loan".

(b) Section 309 (e) of such Act is amended by striking out "such portion of the charge collected in connection with the insurance of loans at least equal to a rate of one-half of 1 per centum per annum on the outstanding principal obligations and the remainder of such charge" and inserting in lieu thereof "all or a portion, not to exceed one-half of 1 per centum of the unpaid principal balance of the loan, of any charge collected in connection with the insurance of loans; and any remainder of any such charge".

(c) Section 309 (f) (1) of such Act is amended by striking out "\$25,000,000" and inserting in lieu thereof "\$50,000,000".

Senator AIKEN. You understand that the bill prohibits the Farmers Home from making a loan to a rural area which is likely to decline in population for which the facility was designed, and there are certain other criteria written into this, and as far as your apprehensions go, I heard the same apprehensions when the Rural Electrification Act was passed. I talked to some of the utility companies. They said they just cannot make it go in that area. "We would do it ourselves if we could get our money back." They said it could not succeed. But it has done pretty well, and it has created a tremendous market estimated at about \$6 billion a year including a good market for pumps, I expect.

Mr. SNELL. Mr. Chairman, it has contributed to ours, that is correct.

Senator AIKEN. Water is as essential for the growth of a community as is electricity.

Mr. SNELL. It is as essential, and it is as important that it be obtained in as economical a way as possible to insure the reliability of the source of supply at a minimum cost to the people, and we believe that there are circumstances in this country, and that there will continue to be, where a private system is the best answer. If it is not the best answer, then there should be a community system, and actually our people manufacture pumps that are used in community systems, too. But it is a question simply of providing a choice and not being committed to the single-mindedness that in all circumstances under all conditions a central system is the best.

Senator AIKEN. I do not know of anything in this bill which would prohibit a community from getting their water from the most feasible source. It might be from existing reservoirs, it might be from new reservoirs constructed, or it might be from wells. I am sure there is no intention to restrict the source of the water so long as it is clean water and economically feasible.

I think you will find that your business would increase very, very rapidly. You would have a whole new market opened up because you cannot build a community with the facilities, with water sewage

disposal, recreation grounds, schools and so forth, without the surrounding territory growing, too, like the little place I mentioned in Vermont where there have been 80 to 100 new homes and homesites purchased within the last 3 or 4 years.

I do not think you can improve a community center without tremendously increasing the development for several miles around it. I am quite sure that there would be more pumps used.

But, however, that is, your business, and you are looking after it, and you are looking after it very well.

Mr. SNELL. We think, Mr. Chairman, that we are offering something which will also help to look after the people of America, which we are just as interested in as are the other members of the committee.

Senator AIKEN. Why certainly, but if you do not let the people do their work cooperatively and in the way they want, they are going to ask government to do it, and government is controlling a good share of the big business of this country today.

They like to say it is private industry, but they could not last 3 weeks without government.

Mr. HOUT. And government could not last 3 weeks without private industry.

Senator AIKEN. Some kind of government could not.

Mr. HOUT. Not our kind.

Senator AIKEN. Not the kind you want.

Mr. HOUT. Right.

Mr. SNELL. Thank you, Mr. Chairman. You have been extremely patient considering the time.

Senator AIKEN. I am sorry we did not have more of the committee here today, but they are busy elsewhere.

Mr. SNELL. We would like to commend to your further consideration and study our full statement.

Senator AIKEN. Is Sam Thompson here? He is a member of the Mississippi Board of Water Commissioners.

STATEMENT OF SAM THOMPSON, MISSISSIPPI BOARD OF WATER COMMISSIONERS

Mr. THOMPSON. Senator Aiken, thank you for permitting me to come over and give the views of the Mississippi Board of Water Commissioners on this very important bill from our viewpoint.

I would like to review just a minute Mississippi's participation in the present program that is available to us. Since July of 1962 when we recodified the Farmers Home Administration's legislation, we have had 59 Mississippi communities that have obtained loans from the FHA in the amount of \$6,974,000 to serve 4,500 families. This is about \$1,425 per family or \$355 per person. In addition to this, we have 131 other communities that have made applications, and they are pending now, in the amount of \$15,500,000. This indicates a tremendous need in our State for this type of program.

This entire operation in Mississippi has been under the loan program of the Farmers Home Administration.

I served for 6 years as chairman of the Southern Water Resource Conference comprising 15 Southern States, and also for 1 year as chairman of the Interstate Conference on Water Problems of the

Council of State Governments, and I believe that the situation outlined above for Mississippi is comparable for most of the other States.

Mississippi is an agricultural State of small rural communities. In my home county of Leflore, we have two incorporated communities, Greenwood with over 21,000 people, and Itta Bena, with about 1,900.

We have six unincorporated communities that operate off of artesian wells that serve anywhere from one to five or six families without a system of an adequate water supply to fight fire or to carry on any other type of community needs.

So there is the need in these 131 communities that have already applied which indicates the interest of the some 500 communities in the State that need this type of service.

We are tremendously interested in the passage of this bill in order to meet the needs of rural areas where people have congregated 100 to 200 to a small community to meet their water supply needs. We are in favor of the bill as drawn. We recognize some of the problems as the previous witnesses did. I believe they indicate in the number of States here that Mississippi has already under their records more community loans than any other State in the Nation, even more than Texas which is considerably larger.

We would like to see the bill passed as is, without the limitations that are suggested in the Department's report. We do not think these would add anything to it. We think the bill is necessary.

We oppose the recommendations of the U.S. Department of Agriculture for the administration of the act as recommended to be amended by it, to be administered through the Home and Housing Finance Agency. First, this is a rural matter involving rural communities and has no place in an urban agency. Second, the elevation of the HHFA to Cabinet status as proposed by the administration and under consideration by the Congress would further involve rural water supply problems in urban affairs. We think that rural problems can best be administered by the Department of Agriculture since it is cognizant of limitations of rural people to meet financial commitments over a long period, and of their need for water supply not only for domestic purposes, but also for livestock, irrigation, and waste disposal.

We have one community of East Lowndes County, Miss., that used the maximum of \$1 million limit on insured loans. We have a lot of these small communities that would serve a large rural area, but because of the lack of population and the sparseness of the economy, where the banks could not take care of insured loans on this basis, we need the increase in the amount of direct loans that are provided for in this bill. We need the flexibility that would be provided in increasing the limit from \$25 to \$50 million in the insured loan pool that is operating, because with the program expanded to this size, with the additional communities that would come in under the grant program to get assistance, the FHA insured loan applications are going to double, and the \$25 million limit has already been restrictive under our experience with it.

We think that we ought to increase the authorization for insured loans from the \$200 million to the \$450 million that you have applied for in the bill because as I have indicated, we only serviced about one-third of the loans in Mississippi that we have had applications for.

We support the provision defining the rural community of up to 5,000 people for the purposes of this bill. We do not find this increase in the size of a rural community necessary in our State, however, our knowledge of the problems of the communities of Western States in the more arid regions of the Nation indicates that a broader basis for repayment of the loan and a larger base for grants will be necessary in order to meet the water supply problems of those areas.

I know in the housing program administered by FHA we have about \$1.5 million worth of applications for housing loans that are restricted because there is not the authorizing ability in the insuring authority in the Farmers Home Administration. So this certainly should be increased to the \$450 million that you have applied for in this bill for the overall authorization for insured loans in the Farmers Home Administration.

I am being as brief as possible, because I know what the time element is.

Senator AIKEN. You have made your point clear anyway.

Mr. THOMPSON. Thank you, Senator.

Senator AIKEN. Next we will hear from Lloyd Brown and James Geraghty, National Water Well Association of Glenview, Ill., now.

STATEMENT OF LLOYD BROWN, NATIONAL WATER WELL ASSOCIATION, KANSAS CITY, MO.

Mr. BROWN. My name is Lloyd Brown, a resident of Kansas City, Mo., and I have been in the water well drilling business for the past 25 years as president of Cullum & Brown Drilling Co., which presently operates six drilling rigs in the three-State area of Kansas, Missouri, and Iowa.

I am here today on behalf of the National Water Well Association, a trade association representing the water well contracting industry. There are more than 12,000 individuals and companies in the United States engaged in the business of water well drilling and 350 companies manufacturing and supplying water well drilling equipment. Our technical division includes more than 400 geologists, hydrologists, and other experts in ground water technology located both in this country and abroad.

Appearing with me today are Gorman C. McCall, from Charlotte, N.C.; Mr. Talmadge Stewart and Mr. Jerome Martin, from Athens, Ga., representing the Martin Drilling Co. I might point out for the benefit of Senator Talmadge that Mr. Stewart was named for his father, Gov. Eugene Talmadge. Also here is Mr. Richard E. Sullivan, Jr., of Boylston, Mass., who is engaged in the well drilling business in Massachusetts and Vermont, and Mr. Harold Worall, who operates the A. & W. Artesian Well Co. of Manchester, Vt. Mr. Stanley Lundin of South Londonderry, Vt., who has been engaged in the well drilling business for many years, had planned to be with us today, but was suddenly taken ill and was forced to cancel his appearance. Mr. Lundin asked that I convey his respects to the committee and particularly to you, Senator Aiken. Also appearing with me are Mr. William N. Walker, of Chicago, legal counsel to the association, and Mr. James J. Geraghty, a widely respected ground water consultant and partner in the consulting firm of Geraghty &

Miller in Port Washington, N.Y. Mr. Geraghty is also a director of the association's technical division.

We are here today on behalf of NWWA for two basic purposes. First, I wish to indicate to the committee the support of our members for the basic concept embraced by Senate bill 1766. In addition, we wish to emphasize, for the benefit of the committee, the importance of the role played by ground water in the overall water picture in the United States and the necessity of safeguarding this vital resource.

The National Water Well Association endorses without reservation the principle that residents of rural America should be better enabled to obtain ample quantities of pure and wholesome water to meet the dramatically increasing water demands produced by an advancing technology. For this reason we support the proposals of S. 1766 to increase the participation of the Federal Government in seeking to achieve this broad objective.

However, we also subscribe to the position so ably presented by the Water Systems Council. We firmly believe that if rural water problems are to be alleviated, solutions must be devised which utilize not only the advantages which community systems are able to provide, but also the contributions which private systems can make. Community systems should not be relied upon to assist individuals in sparsely populated areas to obtain a more adequate water supply where private water systems can tap readily available ground water sources to provide the same service at vastly reduced costs. To do so would be to perpetuate an uneconomic allocation of water, one of our most precious natural resources.

As the committee may be aware, nearly 97 percent of the fresh water reserve of the United States is ground water. More and more of our surface waters are becoming polluted, and as water demands rise, there will be a steadily increasing dependence upon utilization of ground water as a source of supply. We therefore urge this committee to consider carefully the capability of this natural reservoir to meet the needs of persons in the rural areas, and to cast the solutions it proposes to this problem in a manner utilizing the benefits of private systems drawing from our ground water resources.

In order for the committee to understand the full importance of ground water and the necessity for protecting it, with your permission I would like to have Jim Geraghty say a few words on this subject.

Senator AIKEN. Go ahead, Mr. Geraghty.

STATEMENT OF JAMES J. GERAGHTY, NATIONAL WATER WELL ASSOCIATION, PORT WASHINGTON, N.Y.

Mr. GERAGHTY. Members of the committee, I earlier this week submitted a written letter to the committee on the understanding that I would not be able to come down here, and this is already in the record or available to you.

I am a consultant in this field working in most parts of the United States and in a great many foreign countries for industries, governmental units, United Nations, and others. My entire background has been in the field of ground water development. It is partly in connection with that that I would like to add just a few brief remarks to what has been said in the statement which you now have.

Basically I agree with the remarks made previously that the concept of central water supply systems pipeline networks being distributed over broad areas is not at all analogous to the distribution of electric, natural gas, or petroleum. The latter cases, these other commodities, are produced only in central places. Electric is generated at one place. It is collected and distributed from a central point whereas the United States by and large for the most part is blessed with a big abundance of underground water which is available underneath most tracts of land in populated places.

There are exceptions in desert regions and elsewhere. But where the people live historically there has always been local development of water by means of water wells.

As a statistic which sometimes is staggering, I would like to say something on the order of more than 95 percent of this country's fresh water at any given moment is in the ground. Only 5 percent or less is in rivers and lakes in the United States. Unfortunately it is hidden from view, and consequently it has not received perhaps the level of attention it should have in the past. This is rapidly changing in the United States. Almost half of the total water used in America, with the exception of water for hydropower, now comes from the ground, and the ratio is still increasing.

The use of ground water is growing more rapidly than the use of surface water resources. Consequently when one considers taking water from a central point and distributing it widely, I think it should be recognized that all the properties to be served very often already have water available beneath the land surface which could have been extracted I am sure in many instances far more economically than carting it in by pipeline.

The only real point I am making here is again to stress the fact that underground water is a widely available resource in America and that this committee, this bill should make some allowance for assessing the economic feasibility of what sources are to be tapped for these rural water districts.

Senator AIKEN. Do you find anything in the bill which would prohibit any particular source of water in a rural community?

Mr. GERAGHTY. It appears to have a clear implication that centralized water systems are to be constructed under the terms of this bill.

Senator AIKEN. You are not advocating a separate well for each house, are you?

Mr. GERAGHTY. Only in the instances where the economics and the availability of water would favor it.

Senator AIKEN. We have a few favored places where a community is presently served by underground water wells.

Mr. GERAGHTY. No; I am thinking more in terms of the scattered rural users on individual farms who would have to be supplied by long pipelines.

Senator AIKEN. They would still have to largely depend on wells under this bill, because it seems to me that it is communities and users which are feasibly close together that we are trying to serve. This would not apply to the isolated fellow who lives several miles out of town or who lives at an elevation well above that at which the system could make delivery. He could borrow from the Farmers Home himself if he could not get the money anywhere else. If he could, why he

could not get it from Farmers Home anyway. I am sure there is no intention of excluding driven wells as a source of water for communities, and we have had plenty of complaints and I have had plenty of complaints of a well here and there and someplace else, and then somebody runs dry and they do not have any water. The water table has dropped.

I have a report that in one of the Western States it has dropped so that they are wondering if they have got to give up their irrigation and the cultivation of their rich land which was responsible for their coming there in the first place. They have driven too many wells.

Mr. GERAGHTY. This is true.

Senator AIKEN. You come from Port Washington where there is water. You get a lot of water running even on the surface there.

Mr. GERAGHTY. During the present drought conditions in New England it is usually the communities that are having the water supply problems and not the individual well owners, although there are some of those having their problems, too. They both are, but there are a great many private well systems which deliver adequate supplies to their owners in a great many communities which are in trouble including New York City and others, so I am simply saying there is no particular merit necessarily.

Senator AIKEN. That would be because New York City is not in private ownership, wouldn't it?

STATEMENT OF WILLIAM N. WALKER, COUNSEL, NATIONAL WELL WATER ASSOCIATION, GLENVIEW, ILL.

Mr. WALKER. Senator, if I might add just a word at this point, I think what you say is perhaps true—that the actual language of the bill itself would not necessarily exclude the use of private water wells in private water systems. However, it has become a matter of concern to this industry from the published statements of the Farmers Home Administration and the Secretary of Agriculture that community systems are being viewed as some kind of panacea for the ills that have befallen some of our rural areas, and it is our intent not to oppose the construction of these systems where they make sense but rather to draw the committee's attention to the fact that there is a problem which we all recognize, and to suggest to the committee that it use two legs in seeking to obtain a solution to that problem, not to restrict itself to the use of one leg, the community system.

A private system or a series of private systems constitutes the other leg, and both of these legs should be used to provide an economic allocation of both our natural water resources and an economic allocation of Federal funds.

I believe the use of individual systems in connection with—in combination with central systems will provide a more viable solution to the problem.

You mentioned a moment ago the situation of the farmer or rural resident who lives a mile or two away from the district.

Senator AIKEN. Three or four miles.

Mr. WALKER. Four miles from the district.

Senator AIKEN. That is right.

Mr. WALKER. Now it is economically unfeasible to provide a pipeline shooting out to that individual. But yet that fellow may have a water problem. He should be provided with a water system, a modern private water system using the submersible pump.

Senator AIKEN. Well, why not?

Mr. WALKER. Your bill as written presently, Senator, does not provide for—

Senator AIKEN. A grant.

Mr. WALKER. A 40-percent grant.

Senator AIKEN. It does not, no.

Mr. WALKER. Secondly the language of sections 302 and 304 of the 1961 act do not embrace loans for individual water systems to rural residents. Rather it is restricted to farmowners and farm tenants. And there is an added factor here. There is a factor of motivation. Many of the persons who live out in the rural areas either through lack of information or plain lack of motivation have not seen to it that they have been able to obtain good ground water. They are still using dug wells. And we would be the first one to admit that a dug well, when someone gets out with a pick and shovel and digs a hole down in the ground until he reaches some water is subject to contamination, and it is not an adequate water supply in most instances. But that individual can be supplied with an adequate, an ample supply of pure, wholesome water through a modern drilled system.

Senator AIKEN. I guess you think I am hopeless. My well is about 3 feet deep. I should have been dead long ago.

Mr. WALKER. Senator, I said that you are a very happy example of the exception to the rule that I just quoted.

Senator AIKEN. There is business enough for everybody, and there are 100 million more people going to occupy this country of ours within the next 30 years unless we do something foolish. There is going to be business enough for all of you, and you do not have to take it away from somebody else to get it. Just prepare for the increase, and you will get it.

Certainly for every community that has a water system, there will be many times as many people settle on the outskirts of that community who will need their own water supply, I am sure you will do more business than you are doing now, especially when the people who have several wells within say 200 yards of each other find their water table drops out of sight, or somebody has got a sewer that seeps into all of them as we hear about occasionally.

I think you have got a job on hand. I am for desalinizing, too. That will probably interfere with your business.

Mr. WALKER. Not at its present costs I do not think.

Mr. BROWN. They are getting it down to where it is more feasible.

Senator AIKEN. It is down to about 50 cents a thousand gallons now.

Mr. BROWN. That is right.

Senator AIKEN. And then they will have to buy some pumps to pump it where it is going.

Mr. WALKER. Senator, this completes our presentation. We thank you for your attention.

Senator AIKEN. Thank you. I understand you are looking out for your own business. You are apprehensive of what may happen, but I do not think it could possibly happen to you.

Mr. WALKER. We would like to think also, Senator, that our own selfish interests are consistent with the public interest, and we believe that they are.

Senator AIKEN. If people did not have self-interest, there would not be much progress made in the world.

Mr. WALKER. Thank you, sir.

(Mr. Geraghty's statement in full follows:)

Mr. Chairman and members of the committee, my name is James J. Geraghty. I am a partner in Geraghty & Miller, consulting ground water geologists, Port Washington, N.Y. I am a qualified geologist, with many years of experience with the U.S. Geological Survey and in private consulting work. Our clients include many companies, governmental units in the United States and in foreign countries, and even the agencies of the United Nations.

I would like to be permitted to offer a few comments in connection with Senator Aiken's bill S. 1766 pertaining to rural water districts. My remarks are directed especially toward some of the economic implications of the bill, and are prompted by what I feel is a somewhat lamentable tendency in certain public agencies to think that centralized water systems are always preferable to the decentralized systems that now serve this Nation so well.

It is perhaps only natural for the layman to assume that water distribution pipelines should provide the same benefits to the consumer as do electrical transmission systems or natural gas pipelines. Unfortunately, the analogy is a poor one, because water is a resource widely available in most parts of this country, whereas electricity and heating fuels must of necessity come from central sources or production facilities. Moreover, water is a very cheap commodity, still sold at an average price of about a nickel a ton, and in many instances could never be delivered by pipeline without a disproportionate increase in price to the consumer.

Almost no one today in this country is without an adequate water supply for his private household use, and the main reason for this happy circumstance, especially in rural parts of the country, is that well water supplies are usually fairly easy to locate. The record will show that a shortage of rural water is seldom advanced as principal justification for construction of a centralized system. The usual argument is that the well water may be unsafe for drinking, but this is a situation calling only for closer supervision and protection of well supplies—not for abandonment of the resource itself. Thus, in assessing the desirability of connecting rural consumers to a central water source, it would seem essential to determine first, whether the existing well supplies are adequate, and second, whether tighter controls to guarantee the purity of privately owned systems might be a more effective and less costly answer to the problem.

Economics must play a major role in making any decision to build a distribution network, for in many instances it is clear that scattered individual household wells are a far more sensible way of providing dependable water than any type of centralized arrangement. Moreover, large investments have already been made in individual water systems, and since any changeover will be expensive, groups sponsoring their abandonment should be required to submit excellent technical or sanitary justifications to support their recommendations.

A second point that deserves consideration is that many proposed centralized systems will simply be pumping ground water from the very same aquifers now tapped by all the existing private wells in a given locality. These water wells are replenished naturally by rainfall, and there may be no particular justification, especially when costs are considered, for extracting the water through one centralized well field as opposed to many separate wells right on the consumers' properties. Since the centralized well field requires an expensive piping network to bring the water to all the consumers in the region, it may be totally unsound from the viewpoint of water management to construct such a network.

There are undoubtedly many rural areas where centralized water distribution systems could be of clear-cut value, and where it would be highly desirable to provide Federal help for their construction. My only purpose in submitting the foregoing comments is to point out that no program of this type should be set up on the assumption that it is inherently better than existing arrangements. The availability of water is entirely dependent on local conditions and on the natural geologic framework of each particular locality, and proposed new central water schemes can make good sense only when they are integrated into sound regional water management plans.

Therefore, I feel that future requests for financial assistance under this program must be supported by adequate background data on local water resource conditions, so that a determination can be made on how to best develop the water at the least expense to the user. Water is still a commodity which by and large is obtained on a local basis throughout the world, and one must be cautious in applying standardized methods to a resource which it is so easy to tap in so many parts of the Nation.

STATEMENT OF GIFFORD E. MILLER, LAWRENCEBURG, TENN.

Senator AIKEN. Mr. Miller of Lawrenceburg, Tenn.

Mr. MILLER. Mr. Chairman, my name is Gifford E. Miller. I am a resident of Lawrenceburg, Tenn., and have lived there since 1928. I am a partner in the Miller Drilling Co., and have engaged in the business of water well drilling since 1947, during which time my company has constructed more than 2,400 wells, are satisfactorily supplying safe water for domestic, agricultural, and industrial needs in the predominantly rural areas of south-central Tennessee. In addition, I have served as a member of the Tennessee General Assembly during the last two sessions.

I am here today as a private individual and represent only myself. I sought this opportunity to appear, not because I have any special ax to grind or any special interest to be served, but because Lawrence County, Tenn., appears to have become the rural water district capital of the country, and I believe that I am qualified by my profession and my experience with the Lawrence County water districts to give the committee some insight into the operations of the rural water district program at the local level.

Moreover, I do not appear as an opponent either to rural water districts or to S. 1766; in fact, I confess to have drilled the well for one in Lawrence County and to have entered into contract to drill another. But I do wish to point out some flaws in the program as it has been administered in Lawrence County and feel that some constructive criticism may be appropriate.

Lawrence County is located on the Highland Rim, in south-central Tennessee, about 80 miles southwest of Nashville, and has a population of 28,000 people, according to the 1960 census. It is primarily an agricultural county, the principal crops being cotton, dairy products, beef cattle, and small grain. The farms are of the small family type with the income subsidized by some member of the family working at another occupation, either full or part time.

Many of our people engaged in industrial employment live in rural areas and manage small farms which they work in their spare time.

These farms require large quantities of water, and are generally supplied from underground sources, such as wells and springs.

Two types of water wells are in use today in this area, and it is very important that this committee understand the difference between the two. One is the hand-dug or open-type well which is constructed with a pick and shovel, usually about 3 feet in diameter and excavated only to a depth necessary to encounter a source of water. This well is subject to contamination from the surface, and from below the surface with seepage from nearby sources. This well is also subject to seasonal variations in capacity and often is dry during the fall months.

The other type well is the properly constructed, modern drilled well, which is 4 to 6 inches in diameter for home use, and drilled to a depth

necessary to penetrate an aquifer which will supply an abundance of pure, clear water. This well is sealed watertight from the surface to the top of the aquifer with a durable, strong material such as steel or malleable iron pipe.

A 1962 report, published by the State of Tennessee, Department of Conservation and Commerce, Division of Water Resources, entitled "Water Resources Series Number Three," states the average depth of drilled wells in Lawrence County is 93 feet, yielding an average of 21,600 gallons per day. The cost of this type well, complete with pumping equipment, averages between \$700 to \$850. Operation and maintenance costs average about \$25 per year.

Unfortunately, approximately 50 percent of the well owners in Lawrence County are still using the old open-type wells, as did their forefathers. These are the wells the health department are most often called to investigate, due to a bad taste or odor developing in the water from surface contamination, and the findings of the health department make up the basis of the reports that you hear and receive, which states that a large percentage of our wells are inadequate and have water of poor quality. Very seldom is the health department called upon to investigate or run a bacteriological analysis on the water from a drilled well—and rare indeed is the time when they prove to be contaminated.

Underground water is in abundance in our county, and is one of our most valuable natural resources. It is only in rare and isolated cases where any difficulty is encountered in securing an adequate source of underground water for a rural home.

Lawrence County now has a total of five water districts in operation, with four more either under construction or in the process of being approved. Five of the districts are supply water for small, unincorporated communities of 100 to 250 houses each, all located in a small area, where a large number of houses can be supplied with a minimum of pipeline. I believe that these water districts will prove to be an asset to the community, and I commend the FHA and the Congress for making them possible.

The other 4 districts, however, are merely an extension of the city water mains along the main highways, which are sparsely populated, averaging only about 10 houses per mile. The motivating factor behind these rural waterlines is not a desperate need for a water supply but, rather, a desire to increase the value of the property which fronts the highways and can be sold as building lots. The fact is that these areas are not faced with a water problem and the water districts constitute nothing more than a land development device.

In numerous instances, a homeowner in these areas attaches a faucet to the watermeter and uses the water only for washing his car, or watering flowers and shrubs until he has used an amount of water equal to his minimum monthly water charge. He still uses his well water as his home water supply. His only reason for signing up with the utility district was to increase the value of his property. In other cases, the customer uses the minimum amount of pipeline water in his house, but continues to depend on his private system to supply the bulk of his water needs.

In order to point up the question of whether the operation of these districts is consistent with the intent of Congress in enacting the

Consolidated Farmers Home Administration Act of 1961, I conducted a survey of the New Prospect Utility District, within which I live, and I believe the information developed by this survey will prove very interesting to the committee. The New Prospect District contains about 8 miles of pipeline of which 29,300 feet—or nearly 70 percent—is 4-inch pipe. The small size and extreme length of this pipeline immediately restricts it from any further expansion, if it were ever deemed necessary or desirable by those in the fringe areas not presently being served.

This waterline cost \$118,500, of which \$3,000 was paid by subscription fees, and \$115,000 was borrowed from FHA.

Senator AIKEN. If I might interrupt you there, this bill would not let them make guaranteed loans for systems where the size of the pipe is too small to block future development and increase in use.

Mr. MILLER. This district has a total of 93 customers, and 115 watermeters, or taps. Several customers, as you can see, bought more than one tap. The average cost of this system on a per tap basis, then, is about \$1,030.

Our survey, however, indicated that the figure of \$1,000 per tap is not a true reflection of the actual circumstances. In the first place, we found that out of the 115 taps on this system, 41—or 35 percent—are dry taps. In other words, only 74 of the 115 taps are actually being used today to obtain water. The remainder represent investments by property owners for the purpose of increasing their land value. Even more significant, however, is the fact that of these 74 so-called wet taps, only 56 have been connected into the customers home for domestic use; 18 of the 74 taps—or 24 percent—are not being used to supply domestic water needs.

Thus, if the average per tap cost of the system is figured on the basis of those taps which are actually being used for the purposes for which the system was designed, each tap cost an average of \$2,116—or more than double the \$1,030 average which is obtained from a view of all taps on the system.

Mr. Chairman, I believe that the conclusion to be drawn from this survey is obvious: The investment of \$118,500 in the New Prospect District was a misallocation of resources because no need existed for a central water supply in the locality now served by the district. This conclusion is further borne out by the fact that only 13 customers stated that the source of water they had used previously had been inadequate, and only 2 of these persons had drilled well systems, the remaining 11 having previously used hand-dug wells, cisterns, and the like.

It appears clear that the primary motivation of persons who hooked on to the water district was to increase their property value. This, of course, explains the large number of dry taps. Moreover, as a part of the survey, these people were asked why they had signed up for the district. The three most common answers were as follows: (1) to increase the value of their property; (2) to insure against a possible failure of their private system at some future date; and (3) to help their neighbors get the waterline.

This utility district was conceived, planned, and sold to the public by FHA and a few of the 13 people who did not have a satisfactory private system, and others who wished to subdivide a piece of prop-

erty, at the taxpayers' expense. Many of the customers signed up reluctantly, with serious doubt about the feasibility of the project and only after repeated calls from those doing the promoting. Pressure was exerted on some hesitant individuals by telling them that they would be held responsible for defeating the water district if they did not go along and sign up. Several were misled as to the exact charges and costs, are unhappy with the size of the monthly bills, and have stated that they plan to discontinue using the services when the time limit expires.

I submit to you that this type of water utility district was not intended by Congress, and that it does not meet the basic objectives of section 306 of the act which is:

To encourage and promote the development, conservation, and best use of water and land resources in rural areas.

Moreover, the water supplied by the district is purchased from the city of Lawrenceburg public water system, which draws its water from Shoal Creek. The added burden of serving the New Prospect district—and several other of the new districts—is liable to seriously overtax this water source. Assuming that all of the customers on these rural lines used the water district as their only source of water, then a tremendous amount of nature's own good water would be lying dormant underground, while a small stream running above ground, and subject to every source of contamination, would be overloaded. It is not inconceivable that in some extremely dry and drought-stricken year, this stream could become so low that only emergency water would be available. It should be noted here, too, that our underground water is the only source we have that is safe from radioactive fallout. The numerous private water systems throughout the country could easily supply the drinking water in this event, provided they are encouraged and kept intact.

The areas in my county, and the surrounding counties with which I am familiar, that need help in securing a safe and adequate supply of water, are not the prosperous suburban areas which can well afford a private water system, or can be served by a municipal system whenever it is economically feasible and necessary. The areas that need help are the remote backwoods sections where the land is cheap and the incomes low. These people cannot be reached with a pipeline, even with a 40-percent grant from the Federal Government. Nor is it necessary even to consider this expensive and impractical method of water distribution, when we have only to take advantage of the water resources furnished by mother nature. Underneath the surface of the ground in these areas flows an abundance of pure, clear water is more than adequately recharged annually with over 50 inches of rainfall. These underground aquifers can transport and store more water—more efficiently—than any manmade pipeline.

If it is the intent of this committee to pass some legislation that will help to provide a pure, safe, and adequate supply of water to all of our people, then certainly we should not overlook those who are past the practical limits of a utility district and who are sitting on top of the best pipeline and the best water supply in the country. If a Federal grant is practical in supplying water for the more prosperous and thickly populated areas, then it should be practical in supplying water for the more remote areas, which can be done with private water

systems at less expense to the Government and at less expense to the individual, and at the same time give people considerably more water.

Some standards should be established by this committee whereby it could be determined which type of water supply system is the most practical for any given area. Then the necessary aid could be channeled along those lines. Even we in the water-well industry will admit that some sections of our country are not blessed with an ever-present supply of ground water, but we do maintain that pipelines should not be constructed over an abundant supply of pure water lying unused underground.

Senator AIKEN. Thank you, Mr. Miller.

I think that concludes all the witnesses this afternoon. I will say though that since we have started this hearing I have been handed several more communications. I think four of them are from your community, Mr. Miller, in support of the bill S. 1766, one by William Gresham, president of the New Prospect Utility District. You referred to that. And from William Newton, county judge, Lawrence County; John Roberts—I do not know what his business is though you probably do—and Dr. Lumpkins, the mayor of the city of Lawrenceburg.

(The telegrams are as follows:)

LAWRENCEBURG, TENN., *June 18, 1965.*

Senator GEORGE AIKEN,
Senate Office Building, Washington, D.C.:

We solicit your support on Senate bill 1766.

WILLIAM E. GRESHAM,
President, New Prospect Utility District, Lawrenceburg, Tenn.

LAWRENCEBURG, TENN., *June 18, 1965.*

Senator GEORGE AIKEN,
Senate Office Building, Washington, D.C.:

Through the Farmers Home Administration, Lawrence County has been greatly benefited and Senate bill 1766 would in my opinion strengthen this program. Your support would be appreciated.

WILLIAM T. NEWTON,
County Judge, Lawrence County, Tenn.

LAWRENCEBURG, TENN., *June 18, 1965.*

Senator GEORGE AIKEN,
*Senate Office Building,
Washington, D.C.:*

As an interested citizen of Lawrence County, Tenn., I would like to express my wholehearted support of Senate bill 1766. We can see the advantages of this bill here in Lawrence County. Your support will be greatly appreciated.

JOHN ROBERTS.

LAWRENCEBURG, TENN., *June 18, 1965.*

Senator GEORGE AIKEN,
*Senate Office Building,
Washington, D.C.:*

I would like to solicit your support of Senate bill 1766. We in Lawrenceburg have seen the benefits to our rural communities through the efforts of the Farmers Home Administration in rural water developments.

Dr. M. L. LUMPKINS,
Mayor, City of Lawrenceburg.

Senator AIKEN. Also, I have just been handed a statement by Senator Ross Bass, of Tennessee, in support of S. 1766 and a letter to Senator Ellender from Senator Bass asking him to insert in the record a statement by the Tennessee Municipal League in which Senator Bass says he does not necessarily endorse all the views set out but he would like to have it made part of the record.

And finally I have a statement giving very strong support to S. 1766 from a Senator that lives in the largest village in this country, Senator Javits, of New York, in which he states among other things that there are 800 rural communities in New York that are in need of this legislation. I would also like to include in the record the remarks of Senator Javits to the Senate, June 15, in which he invites attention to articles in the New York Herald Tribune and New York Times.

(The documents referred to are as follows:)

STATEMENT OF HON. ROSS BASS, A U.S. SENATOR FROM THE STATE OF TENNESSEE

Mr. Chairman, as a cosponsor of the bill and as a member of this committee, I would like to take this opportunity to give this statement in support of S. 1766. It is my belief that passage of this bill is essential to the survival of the rural areas of our country for it will help many farm and rural families obtain all the good water they need for the first time.

The profound importance of this bill must be considered. There remain vast rural areas of our country where families continue to haul and pump contaminated water. Sporadic outbreaks of hepatitis and other water-borne diseases handicap otherwise dynamic rural areas and industrial sites remain unoccupied. The lack of good water may well account for much of the sickness, poverty, and bleakness that characterizes our rural areas.

Mr. Chairman, in our country today there are some 30,000 rural communities with inadequate water systems. To carry the burden of the entire cost of water systems without loans and other assistance is often impossible for rural communities. The building of modern water systems, including the costs of locating and developing acceptable water supplies, and the inevitable problems arising from great distances between rural families, has proven to be tremendously expensive.

S. 1766 is designed to alleviate these problems. It provides for a more adequately funded insured loan to partially satisfy this ever-increasing demand for good water. Such loan funds will provide capital to buy sites, drill wells, erect storage tanks, buy pumps, lay pipelines, and pay for legal and engineering services. More water systems will become available to homes, churches, small businesses, schools, and community buildings.

S. 1766 increases the maximum size of loans to \$4 million so that communities may jointly build larger, more efficient water systems. Many communities have been unable to design and install a satisfactory system because of the \$1 million maximum loan limitation now in effect.

S. 1766 will reach communities with a population up to 5,000. Heretofore, rural water loans could only be made in communities smaller than 2,500. The need to extend water loans to these larger rural communities has been shown in the past few years since many communities have had nowhere to turn for credit.

By the provisions of S. 1766, the Secretary of Agriculture, through the Farmers Home Administration, will continue to administer these loans. The outstanding success of this agency, along with its willingness to accept new and added responsibilities, convinces the sponsors of S. 1766 that high standards will be maintained. The success of the FHA water program is shown on the record. This continued success is assured by the diligence and diversity of FHA supervisors connected with the some 1,600 FHA county offices throughout the country. I have no doubt that rural America will profit handsomely from the enactment of this bill.

Mr. Chairman, my State of Tennessee provides a shining example of progress and prosperity which can be derived from these loans. In the past 3 years, Tennessee has received over \$9 million in FHA loans to develop and distribute water. These loans bring water to communities formerly supplied by ponds, creeks,

cisterns, and contaminated shallow wells. With the new, sanitary water systems has come economic growth, new homes, new businesses, and renewed confidence.

Recently, Lawrence County, Tenn., held a water festival to dedicate nine community water systems in one area. These are all financed by FHA and will serve 9,000 rural Lawrence County people with central water systems approved by the State health department, which constitutes more than 80 percent of all the county population. Also recently, we received a \$900,000 water development loan in Rutherford County, which will serve the largest number of families financed to date by FHA. When in operation, this area will provide piped-in water for 900 farm and rural families, 54 businesses, 11 churches, 3 schools, and an orphanage. Water development in Tennessee has long been the hallmark of progress. With the passage of S. 1766, water development will continue and so will our march toward the Great Society. We have seen in 3 short years the value of new water systems and the economic enrichment each system brings.

Mr. Chairman, S. 1766 is a vital bill. Its passage spells new opportunity and hope for rural Americans. It offers rural America a new dimension for expansion. I join with my colleagues in asking your approval and endorsement of this bill.

STATEMENT FILED BY HERBERT J. BINGHAM, EXECUTIVE SECRETARY, TENNESSEE MUNICIPAL LEAGUE, NASHVILLE, TENN.

The Tennessee Municipal League, a voluntary cooperative association representing the municipal governments which serve some 99 percent of the incorporated population of Tennessee, considers orderly urban growth and provision of adequate urban services as the principal governmental problem in this Nation today.

This concern about the actions we take now to prepare for the projected 100-percent increase in urban population by the end of this century is evident also in the policy positions of the National League of Cities and the National Association of Counties, which together speak for the preponderant majority of local general-purpose governments in America. As a member of the Joint Task Force on Substandard Urban Expansion of NLC and NACO, I respectfully ask that the attached report of this task force be included in the record at the end of my testimony.

We respectfully commend to the attention and examination of this committee policy statements adopted unanimously by the delegates to the 25th Anniversary Conference of the Tennessee Municipal League held at Nashville, June 6-8, 1965.

Part I of this policy addresses itself to the objective of defining substandard urban growth, and recommending ways to lessen and finally to halt it. It identifies federally supported water utility systems in suburban and presently rural areas as a major cause of substandard urbanization, and specifically recommends, as does the joint task force report referred to previously, that Federal contracts with local agencies constructing water utilities intended and designed to serve rural areas prohibit the servicing of new urban development "where utility systems and public facilities and services are rural in character unless those utilities, services, and facilities are upgraded to urban standards."

I respectfully ask permission to have the attached "Part I: Tennessee Municipal Policy on Preventing Substandard Urban Growth" included in the record of this hearing at the end of my testimony.

"Part II: Tennessee Municipal Policy—Federal program," includes a general statement of philosophy on Federal-municipal relationships, and some specific recommendations for action by the Congress.

As this committee deliberates on S. 1766, we invite your thoughtful consideration of:

1. The statement in this policy under the heading "Duplicating Programs Opposed," which declares:

"We oppose that portion of S. 1766 which would give the U.S. Department of Agriculture jurisdiction to aid in financing water systems in incorporated municipalities up to 5,000 population. This would constitute an unnecessary, wasteful, and confusing duplication of the completely adequate programs for municipal water systems now administered by the Housing and Home Finance Agency, or proposed in the 1965 housing bill, including interest-free loans for employment of engineers to design water utilities and other public facilities;

low-interest loans with up to 40 years' maturity for construction of such systems; and the 50-percent grant program proposed in the 1965 Housing and Community Development Act.

"We support, however, Federal assistance for water systems to serve rural residents, provided such systems do not serve and foster unplanned and ill-served urban development."

2. I submit for your consideration the following statement on Federal-city relations contained in the TML Federal program:

"FEDERAL CITY-RELATIONS

"We strongly support enactment by the Congress of legislation to carry out the urgent recommendations of the U.S. Advisory Commission on Intergovernmental Relations, which was created by the Congress to develop guidelines for governmental operations affecting joint responsibilities of Federal, State, and local governments.

"We particularly support congressional enactment of the intergovernmental cooperation bill (S. 561) to reduce the welter of confusion and inconsistencies of numerous Federal grant-in-aid and other programs affecting State and local government operations. This bill contains two provisions of utmost importance to local governments:

"A. Authority for the President to establish procedures for coordinating and reconciling conflicting objectives of Federal programs affecting the development of urban communities. The damaging and disastrous results of these bureaucratic conflicts are most obvious in Tennessee in the Federal financial encouragement offered to substandard urban development in unincorporated areas, while federally aided urban renewal and development inside corporate boundaries must—very properly—meet strict compliance standards.

"B. Congressional direction that Federal agencies wherever possible channel projects through town, city, and county governments of general responsibility, rather than through special-purpose units. This is a matter of greatest urgency. In recent years several programs enacted by the Congress have been converted by ambitious Federal bureaucracies into purely Federal, centralized operations, completely bypassing State and local governments which are responsible to the people under the democratic process. The Federal bureaucrats have used special-purpose units of government which are not subject to control by, and are not responsive to the wishes of, the people in the State, county, or community; and they have even used informal committees, welfare corporations, and other nongovernmental instrumentalities having no responsibility whatever under the democratic process to the people affected.

"By contrast, until recent years virtually all Federal programs involving endeavors with other levels of government were required by specific congressional enactments to utilize the State and local government agencies of general responsibility, which had been established to serve the people under customary and essential democratic controls.

"Unless the intergovernmental cooperation bill is promptly enacted, present trends will produce a genuine constitutional crisis in the American system of Federal, State, and local governments, with established and democratically controlled State and local governments being bypassed and subverted by Federal bureaucracies.

"We most sincerely believe that the President, the Congress, and the national associations of State, county, and city officers should promptly and firmly join hands in heeding the warnings and advice of the Advisory Commission on Intergovernmental Relations.

"This Commission, created by the Congress in 1959 and composed of Members of Congress, Federal Cabinet officers, Governors and State legislators, county and city officials, and citizen representatives, should be supported strongly in its findings and recommendations in order to preserve the Federal system of fully responsible and democratic government, and to avoid the inefficiencies and dangers of unduly centralizing the government of this Nation in Federal bureaucracies and the democratically irresponsible instrumentalities these bureaucracies are encouraging at State and local levels."

3. The members of the Tennessee Municipal League believe firmly that the Federal role in orderly urban development should remain concentrated in the Housing and Home Finance Agency (or a successor Department of Housing and

Urban Development), and that a further dispersal of Federal programs and funds, through agencies or departments whose primary responsibilities and functions are in other fields of endeavor, is extremely unwise and inefficient and should be resisted vigorously.

This view is expressed in the following statement endorsing a Department of Housing and Urban Development contained in the TML Federal program :

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

"We reaffirm our longstanding policy in urging the Congress to enact legislation now before it (S. 1599 and H.R. 6654) creating a Department of Housing and Urban Development through elevation of the present Housing and Home Finance Agency to Cabinet-level status. While this bill would not alter any other housing and urban aid functions performed by other agencies or departments, it would authorize the new Secretary to provide leadership, at the request of the President, in all Federal aid programs affecting municipal governments. The elevation of this Agency to the status of an executive department is long overdue. Its establishment will insure that the problems of urban communities of all sizes are considered in the highest councils of our National Government, and will achieve an urgently needed coordination of numerous Federal programs affecting municipal governments which are administered by other departments.

"In this regard, we urge that one of the first measures after creation of such a department be the establishment of an Office of Small City and Village Affairs, to insure full information and assistance to officials of smaller municipalities in the use of the great variety of Federal assistance programs enacted for the benefit of small communities.

"The Cabinet-level position for HHFA is justified by the changing and expanding scope of its responsibilities in the 17 years of its existence. Originally an agency dealing solely with housing programs, it subsequently has been directed to take over administration of a broad variety of new Federal community development programs including grants or loans for public works facilities, urban renewal, urban planning, park and recreation facilities, mass transit, etc.

"The most urgent justification for such a department is to halt the scatteration among various Federal agencies of Federal assistance programs affecting municipal governments and urban communities.

"For example, at least four Federal departments are engaged now in grant or loan programs to provide municipal water and sewer facilities, principally because of bureaucratic rivalries and ambitions which are victimizing our urban communities and their municipal governments. This constitutes an open invitation to waste and inefficiency, and to duplication and conflicting objectives having a seriously damaging impact upon our urban communities. It should be halted by the President and the Congress.

"Economy and efficiency demand that in addition to the Cabinet position referred to above, there should be established as a part of the Executive Office of the President an office for the purpose of coordinating Federal programs affecting local governments.

"This office should be adequately staffed so that it can work with the various Federal departments on programs affecting local governments. The director should be versed in local government affairs and sympathetic to the problems of local government."

I appreciate this opportunity of presenting the views of Tennessee municipal officers, and of the municipal and county officials of the Nation.

POLICY STATEMENT—TASK FORCE ON SUBSTANDARD URBAN EXPANSION OF THE NATIONAL LEAGUE OF CITIES AND THE NATIONAL ASSOCIATION OF COUNTIES, ADOPTED MARCH 30, 1965

MISSION

This task force, a joint enterprise of the National League of Cities (NLC) and of the National Association of Counties (NACO), was created to develop an action program to combat the substandard urban expansion which both organizations formally recognize as a top priority problem in this country today. This report is in response to that injunction.

SUMMARY STATEMENT

In general, this task force has concluded that several of the Federal Government's grant and loan programs are contributors to the type of urban sprawl which is ill planned, ill served, and uneconomic in that the facilities and services provided to the homes involved are so minimal that they suffice only until the developer has sold the subdivision—if that long. Thereafter, the full range of urban services and facilities is required by this substandard development; and some local government of general responsibility, more often than not, is left with the physical and financial problems of correcting deficiencies and upgrading services. This task force has decided that one step forward in the solution of these problems is to stop creating them. We propose that the Federal Government discourage substandard urban development. Federal grant and loan programs should be made available only to those projects which stimulate sound urban development and which meet minimal development standards. These standards give priority to adequate water and sewer systems, and require sanitary sewer systems in developing areas classified as "urban." They define a simplified "workable program" of standards required to qualify for Federal participation in urban development programs.

A "workable program" plan is likewise recommended to govern Federal participation in service programs for rural areas, permitting assistance for utilities to serve such areas without abetting substandard urbanization.

This task force has endorsed recommendations of the Advisory Commission on Intergovernmental Relations (ACIR) that, as a matter of policy, all governmental programs should be channeled through general purpose local governments (cities, towns, counties) or through existing special districts. Laws controlling these programs should not encourage the creation of new districts and agencies under grant-in-aid legislation.

The ACIR, the Housing and Home Finance Agency (HHFA), and other Federal agencies involved are asked to undertake further development and implementation of these recommendations by legislative and administrative actions.

The task force recommends that Congress investigate the extent of substandard urbanization and develop legislative remedies.

Parallel recommendations are made for State government. The States should empower counties (as against special districts) to adopt and enforce building construction codes and to establish and implement planning and zoning procedures outside municipal jurisdictions.

The task force recommends finally, that NLC-NACO cultivate the broadest possible support for these proposals.

RECOMMENDATIONS

We, therefore, recommend:

A. Action at the Federal level

The first priority of this task force should be directed to the Federal level of government. Certain Federal grant and loan programs are contributing factors to the incidence of substandard urban expansion and all Federal agencies, and the Congress, should:

1. Define "urban" development as development which, within 15 years, will achieve a population density of 1 house per acre or 2,500 people per square mile;
2. Define "rural" development as that development which, within 15 years, will achieve a lesser population density than 1 house per acre or 2,500 people per square mile.
3. Require the following minimum standards for all urban development: The provision of water service to specifications approved by the National Board of Fire Underwriters (NBFU); the provision of sanitary sewer system service to generally accepted design standards; the provision of water and sewer services in a manner in accord with any comprehensive planning of utilities development in effect in the urban area of which the territory to be developed is part; the adoption and enforcement of codes governing building construction (building, electrical, plumbing, and gas codes especially); and the adoption and enforcement of comprehensive general planning for the territory in accord with any general plan in effect in the urban area to be developed, together with implementing codes and ordinances necessary to the enforcement of that general planning;
4. Condition Federal aid programs affecting any of these services and activities in urban areas upon a reasonable and progressive continuing program to meet

minimum standards by the local government unit just as Federal assistance in urban renewal activities now requires the municipality to adopt and implement a "workable program" as a condition of Federal assistance;

5. Require in rural areas that water service be provided at all times in quantities and at pressures sufficient to meet maximum domestic demand (General Order No. 103, as amended (see below), of the Public Utilities Commission of California is a sound approach to this type of standard), and that this be made a requirement of any Federal financial assistance to rural systems;

6. Require that Federal aid contracts with rural water systems shall state that no rural system shall be permitted to serve development at densities defined as urban unless at least that part of the rural system shall meet urban standards;

7. Modify all existing legislation which tends to create special or unfunctional districts or entities for the discharge of single or limited responsibilities, or for the implementation of particular programs, and, instead, adopt a general policy which affords priority to local governments of general responsibility—cities, towns, and counties—in assigning such responsibilities and implementing roles;

8. Modify all existing legislation of the type discussed immediately above to provide secondary (to local governments of general responsibility) priority in assigning such responsibilities and implementing roles to existing special districts and entities, wherever possible, to minimize the number of such limited-purpose district to be created in the future;

9. Require the participating States to vest officially designated agencies with authority to determine the "urban" or "rural" character of development and to establish variance, special exception, and appeal procedures—comparable to those now used in zoning administration—for the mitigation of hardships and the review of classifications, except that in no case would an area determined to be "rural" be permitted to develop "urban" densities until it complies with urban service standards;

10. Require, as a regular part of its grant and loan programs, comprehensive continuing planning of areawide urban water and sewer facilities wherever applicable and make 701 planning assistance money available for this purpose;

11. Provide sufficient aid to facilitate sewer as well as water facilities in urban areas; provide, as regular parts of its public facility loan program, and similar programs; for the deferred amortization of such loans where additional growth capacity makes such deferment necessary and for the waiver of existing population limits in programs where "growth capacity" loans are involved;

12. Require, as a regular part of its grant and loan programs, the approval of all proposed water and sewer system installations by both the State health department concerned and by the local government of general responsibility (town, city, or county);

13. Make staff assistance available for the further development of these policies and for the framing of necessary legislation.

B. Action at the State level

That the several States:

1. Define "urban" development, wherever applicable, as that which, within 15 years, will achieve a population density of 1 house per acre or 2,500 people per square mile;

2. Define "rural" development, wherever applicable, as that which, within 15 years, will achieve a lesser population density than that defined as urban;

3. Require all urban development, subject to a classification and appeal procedure detailed below, and, as minimal standards: to provide water service to specifications approved by the NBFU; to provide sanitary sewer system service to generally accepted design standards; to provide both the foregoing services in a manner which is in accord with any comprehensive planning of utilities development which may be in effect in the urban area of which the territory to be developed is a part; to adopt and enforce codes governing building construction (building, electrical, plumbing, and gas codes especially); and to adopt and enforce a comprehensive general plan for the territory which is in accord with any general plan which may be in effect in the urban area of which the territory to be developed is a part, together with implementing codes and ordinances necessary to the enforcement of that general planning;

4. Require that, in rural areas, water service be provided at all times in quantities and at pressures sufficient to meet maximum domestic demand (General Order No. 103, as amended, of the Public Utilities Commission of California is specifically cited as a sound approach to this type of standard);

5. Modify all existing legislation which tends to create special or unfunctional districts or entities for the discharge of single or limited responsibilities, or for the implementation of particular programs, and, instead, adopt a general policy which affords priority to local governments of general responsibility—cities, towns, and counties—in assigning such responsibilities and implementing roles;

6. Modify all existing legislation of the type discussed immediately above so as to provide secondary (to local governments of general responsibility) priority in assigning such responsibilities and implementing roles to existing special districts and entities, wherever possible, to minimize the number of such limited-purpose districts to be created in the future;

7. Vest counties with planning and zoning powers and with powers to adopt and enforce building construction codes outside municipal jurisdictions;

8. Vest local general governments or their planning commissioners with authority to determine whether an area of development is "urban" and establish variance, special exception, and appeal procedures—comparable to those now used in zoning administration—to mitigate hardships and review classifications, provided, however that any area determined to be rural shall remain rural until the area complies with "urban" services standards;

9. Require the approval of all proposed water and sewer system installations by the State health department and the local government of general responsibility (town, city, or county).

C. Cooperative efforts

That NLC-NACO actively seek the support and cooperation of all other organizations interested in the problem of controlling substandard urban expansion.

TENNESSEE MUNICIPAL LEAGUE 25TH ANNIVERSARY CONFERENCE, JUNE 6-8, 1965, NASHVILLE

PART I. TENNESSEE MUNICIPAL POLICY: 1965 PREVENTING SUBSTANDARD URBAN GROWTH

Purpose

This policy statement proposes to unite the towns and cities of Tennessee in a vigorous frontal attack on a whole range of problems which constitute no less than a life-and-death threat to the continued orderly development of this State's urban areas, problems which may be grouped under the heading of preventing substandard urban growth.

Statement of the problem

Hard and costly experience has taught us that large numbers of people living close together—the condition we call urban—absolutely require certain essential services, certain standard public facilities, and a structure of government responsive to the people. Our cities and towns are devoting vast amounts of energy and treasure to try to meet these needs—to try to give Tennessee the very finest municipalities possible.

Outside our towns and cities, however, urban, or close-to-urban, areas are being developed as though none of these requirements were valid. Urban growth in suburban and rural areas is characterized by the absence of essential services, by a lack of public facilities, and by substructures of government which are neither democratic nor responsible to the general public welfare. Square mile upon square mile of raw land, most often in the fringe areas of our towns and cities, is being "developed" to urban densities with "country roads" instead of city streets; with undersized water service lines precluding even maximum domestic consumption and affording no fire protection; with septic tanks, where every health authority recommends sanitary sewers as an absolute requirement; with four or five more houses where a neighborhood park ought to be; with little or no regard for those municipal functions—police and fire service, planning and zoning, sewage disposal, building inspection and so on—which are geared to the protection and preservation of life and property. This often is being done with only the narrowest and shortest term of interests in mind—a quick profit for the developers and their associates—to which are subordinated the long-term best interests, both in the economic and civic sense, of the citizens, the taxpayers, and the ratepayers. Worst of all, these things are being done through shadow governments whose officials may not be brought to account

either for their failure to do a good job or for their fault in having done a bad one. Moreover, these shadow governments, busily wreaking this developmental havoc, are actually being encouraged both by favorable State and Federal laws and by elements of the Federal bureaucracy which would rather not be bothered with the democratic process.

Unchecked, these cancerous shadow governments will surround and strangle every town and city in the State with a spreading web of inferior, cutthroat competitive urban development which can only draw whole urban areas down to its own ill-improved, ill-served, wasteful, and irresponsible level. Central towns and cities, denied an expanding tax base in people and property, will be doomed to a dismal future. They will be called upon to do more and more, as the urban area—and its public needs—expands, but they will have a smaller and smaller share of the fiscal resources of the whole urban area with which to do that expanding job. This will leave these towns and cities no choice but to default on their central city responsibilities. Investors and people will flee the high tax rates and low service levels into which towns and cities will be forced. They will migrate to the suburbs where, even if services are no better, at least taxes are lower. The entire process will accelerate, feeding upon itself. And, ultimately, the whole urban area will culminate not in the modern and efficient, economic, and equitable city that might have been, but in a hodgepodge of short-term and minimal improvements. These are both uneconomic and unsatisfactory and, much too soon, must be removed and replaced at tremendously high costs, in sky-high rates for low-level services, in civic disorder—once the guiding ethic becomes that of evading civic responsibility rather than meeting it head on—and, in general, in a total breakdown of the orderly process embracing all that which men have come to know as the only good way fine cities may be built.

Nor will annexation alone cure the problem or make these shortcomings right—or as right as it is possible to make them after the fact of development. Some 170 cities in Tennessee have brought some 600,000 suburbanites under their jurisdiction, using our annexation and metropolitan government laws to monumental effect in one of the most heroic efforts this country has seen made to meet the urban growth problem. Small Tennessee cities have spent millions to correct service and facility deficiencies in suburban areas. Large cities have spent hundreds of millions to the same ends. Yet, faster than the central city can ever hope to correct past mistakes, new and bigger and more costly mistakes in still further substandard development are going on apace in the fringes beyond the fringe.

This whole process amounts to a total subversion of the orderly processes of sound urban growth. If it is to be resolved in the public interest, all governmental levels involved and their associated interests must see to it that all growth to urban densities, wherever and when it occurs, is developed to acceptable urban service and facility standards. In this way, the present backlog of deficiencies in underimprovements and service shortcomings in urban areas can constitute the whole substandard urban growth problem; and, once our local governments of general responsibility have corrected these existing errors in development, the battle against substandard urban growth will have been won.

The policy which follows is designed to achieve these ends.

TENNESSEE MUNICIPAL POLICY ON PREVENTING SUBSTANDARD URBAN GROWTH

1. Distinguish "rural" from "urban"

Criteria must be developed which distinguish "rural" from "urban" growth. Urban growth, thereafter, must not be permitted where utility systems and public facilities and services are rural in character unless those utilities, services, and facilities are upgraded to urban standards.

Situation report.—Tennessee already has several such criteria. Areas within 3 miles of cities of less than 5,000 population, or within 5 miles of cities of more than 5,000 population, may be preempted by towns and cities as their own natural utility service areas in any jurisdictional contest with a utility district, for example. One suggestion, made nationally, is that a density of one house per acre is "urban" beyond argument.

This policy plank, it should be noted, eliminates the argument that the purpose of the policy is "to deny the farmer pure drinking water." Any rural system could be permitted, even encouraged, so long as it stays rural. The objection is not to the farmer's pure water. It is to the new subdivisions in his cornfields

once "city" water is available in even minimal quantities and pressures. The farmer's alleged thirst often is a subterfuge for those who would profit from urban sprawl.

2. Favor general governments

Public policy, at every level of government, must favor local governments of general responsibility—towns, cities, counties—in the implementation of programs affecting urban growth.

Situation report.—Such a policy plank already has been urged by the Federal Advisory Commission on Intergovernmental Relations. The Tennessee Municipal League and the National League of Cities, each at its own level, is actively cooperating with counterpart county organizations to achieve this goal. However many Federal programs (notably those of the Department of Agriculture), implemented through State legislation, work through or even create for the purpose special districts, "betterment" associations, etc., whose narrow interests are such that they give no thought to a balanced and comprehensive urban development program. Their political structures are such that they are not answerable either to the local electorate or to their own ratepayers for the programs they sponsor. The "Federal policy" on Federal-city relations adopted by this conference urges enactment of S. 561 by the Congress as a first step. The State should likewise adopt legislation to clarify the present unsound allocation of local utility service area jurisdiction. The predictable results have been:

A. Property owners have been misled and abused as to what constitutes real economy in urban growth. One urban Tennessee community is in the process of spending some \$750 million to correct generations of urban developmental mistakes—a sum which figures out to about \$7,000 per home. The ironic part of it all is that the homeowner-taxpayer, instead of saving money, pays dearly for substandard development. He pays first for inferior services, then again at higher rates to do the job right. It is far more expensive to insert urban service facilities into built-up areas than to install them adequately as development occurs.

B. A convenient vehicle has been furnished those who would evade any general responsibility in the development of urban areas, giving them a free hand to "develop" unlimited land to minimal standards and even subverting the efforts of other Federal agencies, such as the Housing and Home Finance Agency, to improve the quality of our urban areas.

C. Comprehensive and coordinated planning of the development of entire urban areas has been unduly complicated by the balkanization of jurisdictions and by the creation of stubborn or even hostile civic subidentities within given urban areas.

D. The burden of correcting developmental mistakes has fallen not on the agencies which made them, but upon the towns and cities, because they, with counties, are the only local governments of general responsibility. As such, they are the only governments answerable to the people about fringe deficiencies, and capable of handling the problems involved.

Correction of this situation will involve changes in Federal and State laws so that all urban growth facilities and services are channeled through cities and towns, or counties where necessary, and through established special districts, or through new special districts only when no other existing entity will suffice.

3. Favor general governments

All governments concerned should encourage and require that all services and facilities serving a single urban area be geared to comprehensive planning requirements for that area. Cities and counties should cooperate in securing enabling legislation permitting adequate building codes in unincorporated areas either by counties or by cities in their planning regions, to afford adequate protection to both public and private property interests.

Situation report.—Duplication of facilities sometimes occurs where jurisdictional contests are involved, resulting in actual excess and wasteful capacity. More commonly, facilities such as streets, disposal plants, water plants, etc., are underdesigned or uncoordinated because only a part of the overall problem is considered and the particular jurisdiction simply ignores the full dimensions of the need.

This policy plank may be implemented in both a positive and a negative fashion: by increasing grants and making loan terms more favorable where comprehensive planning is practiced, and by the opposite where it is not. Such

features already are parts of some Federal grant and loan programs. They should be a part of all. And they should be part of any complementary State programs.

4. *Annex and preempt*

Tennessee towns and cities must vigorously annex and improve all that suburban territory which is urban now, and they must jealously guard and protect their preemptive service rights and developmental interests in all that area which will be the "other half" of urban Tennessee by the turn of the century—when our urban population literally will have doubled.

Situation report.—Tennessee municipalities now have a considerable stockpile of tools to effect the first of these goals. They may prevent separate fringe incorporations. They may annex urban or urbanizing territory at their own volition. Additional State-shared funds are apportioned for annexed populations. They may invoke authorized regional planning powers and thereby achieve a balanced land use, regulate subdivision development, etc., within 5 miles of the city. They are protected by law against the establishment of utility districts within their urban areas and against the extension of utility district services into their urban areas.

Federal grants ranging from 50 to 90 percent of the cost of water and sewer systems are available under various programs. The Housing Act of 1965 will make grants available for fully improved suburbs, including "growth factor" capacities of facilities. Technical assistance is available from a host of Federal and State agencies, and particularly in an "urban growth analysis service" soon to be offered jointly by the municipal technical advisory service and the Tennessee State Planning Commission.

The net of it is: No city need stand idly by and see its natural growth area degraded. Every kind of help which is needed to prevent this happening is at hand.

Cities now know how to prevent the growth mistakes made in the past—mistakes which have required all the urban renewal projects, the slum clearance projects, the emergency public works projects, the street widening and improvement programs, and so on, which almost no city has been spared. If cities fail once again to avoid these growth errors during the next 35 years, when Tennessee's urban population will increase from the present 2 million to more than 4 million, the corrective cost will be absolutely intolerable. The inevitable result will be the degradation and decay of our urban way of life.

Cities, therefore, must oppose with vigor and dedication any move toward substandard urban development within their urban orbits.

5. *Public understanding*

Cities, towns, and counties, their State and National organizations, and all affiliated interests with a vital concern for the cause of sound urban growth must diligently pursue every avenue of approach to a general public understanding of the urban growth problem and to the reflection of this understanding in public policy at every level of government. We thoroughly endorse and commend the objectives of the Joint Task Force on Substandard Urban Development of the National League of Cities and the National Association of Counties. These two organizations representing the local governments of general responsibility have adopted policy defining and condemning urban growth to less than adequate urban service standards.

Joint action at the local national levels is needed to implement this policy.

Situation report.—Substandard urban growth is the biggest threat facing our towns and cities. Sound urban growth represents our greatest opportunity to achieve decent cities—cities which are built right, right from the start.

Which of these results will actually obtain—fine Tennessee cities in the year 2000 or a State full of "slurbs," a term already coined to designate suburban slums? The answer depends entirely on how well the public at large, as well as local, State, and National governing bodies and administrative officials, is brought to a level of understanding of the problem which will assure development in the public interest. Primary responsibility for the cultivation of that understanding rests with the officials directly concerned—the democratically chosen, democratically responsible leaders of our towns and cities.

STATEMENT OF HON. JACOB K. JAVITS, A U.S. SENATOR FROM THE STATE OF
NEW YORK

Mr. Chairman, it is indeed a pleasure to present my views before this committee as a cosponsor of S. 1766. I also speak as a Senator from a State that truly has a critical and immediate need for assistance in the financing of rural community water systems.

Nearly 800 rural New York communities with populations of 100 people or over are without water systems. They can be found by traveling only a few miles off the superhighways into the back country.

The shortage of rural water systems is tragic enough, but the suffering of many New York State farmers and rural residents is further compounded by the continued critical severe drought which began 3 years ago in the eastern section of the Nation.

The public press daily cites examples of New York farmers and rural residents who have difficulty obtaining water and are still obtaining it from shallow wells—many of which are contaminated—or are forced to carry water great distances for their use.

New York State residents have shown so much interest in the need for adequate rural water facilities that there is now special legislation being considered by the 1965 State legislature to streamline State water laws. This legislation, for example, will make it possible for the Farmers Home Administration to make loans to rural water districts as well as small villages for financing community water systems.

I am especially pleased to note that S. 1766 would increase the size of the communities eligible for loans to include those up to 5,000 population.

I am also delighted that the bill provides for grants, when needed, and that the amount of loans and grants available to any one community is being set at the realistic figure of \$4 million. The bill will substantially increase the loan program which is now faced with a backlog of applications.

Because desirable water sources and good reservoir sites are becoming more difficult to find, it is necessary for two to three towns and villages or in some cases for several water districts to join forces to fully and most efficiently develop good water sources and properly distribute this water.

Increasing the financing ceiling to \$4 million will be vital to New York's rural water development program since, in many cases, larger, more adequately funded groups can develop water supplies most efficiently.

The provision for grants in S. 1766 will make water systems possible in some financially pressed communities which otherwise could not afford this improvement.

This Nation has begun efforts on all-out war on poverty, on crime, and on removing social injustices. Many unsolved problems, however, still remain. For the urban and rural areas throughout the Northeast and in other sections of the country, one such problem is the growing crisis over curtailed water supplies which is now reaching emergency dimensions. The danger area ranges from southwestern Maine into Virginia.

New York's rural areas have for the past 3 years suffered from parched crops and destroyed pasturage. As Federal officials have recently stated, the most widespread problem from the drought will be dried up supplies for farms and country residents who depend on shallow wells. For the past 2 years New York, as the second largest producer of fluid milk, has felt the squeeze of blighted pasturage and resulting increased production costs of milk. Dairymen from New York, New Jersey, and Pennsylvania last year sought drought relief on a number of occasions from the Department of Agriculture. In New York, four counties were designated eligible by the Department of Agriculture for Farmers Home Administration emergency loans. Twenty-two counties were authorized eligible for livestock grazing and hay harvesting on lands diverted from production and farmers in 27 New York counties were declared eligible by the Department for purchases of surplus feed at below the market price.

A powerful and prosperous Nation such as ours should not allow the enemy of drought to win even limited battles. It is up to the Federal Government in conjunction with State and local authorities to wage an all-out war on drought and to win it.

It is my sincere belief that S. 1766 will prove an important and necessary expansion of vital programs throughout the State of New York and across the Nation in building a stronger and more viable rural economy.

[[Excerpt from the Congressional Record, Senate, June 15, 1965]]

WAR ON DROUGHT—ADDED FEDERAL HELP NEEDED

Mr. JAVITS. Madam President, this Nation has begun efforts on all-out war on poverty, on crime, and on removing social injustices. Many unsolved problems, however, still remain. For the urban and rural areas throughout the northeast and in other sections of the country, one such problem is the growing crisis over curtailed water supplies which is now reaching emergency dimensions. The danger area ranges from southwestern Maine into Virginia. Three days ago, Governor Hughes, of New Jersey, declared a state of emergency in four northern counties in that State whose water supplies had reached new lows. Six days ago, an Interior Department official declared that the current northeast drought, especially in southeastern New York and northern New Jersey, had surpassed both in severity and duration the previous drought record in these areas during 1929 to 1932.

New York State, as has many other areas, has suffered substantially from drought conditions. New York City's reservoirs, which hold approximately 476.5 billion gallons, are at substantially lower levels than at the same time last year. They are 54.9 percent full, down to 261.7 billion gallons. Tighter regulations to restrict the use of water are being put into effect and city dwellers have been urged by Water Commissioner D'Angelo to reduce their water use by one-third.

New York's rural areas have for the past 3 years suffered from parched crops and destroyed pasturage. As Federal officials have recently stated, the most widespread problem from the drought will be dried up supplies for farms and country residents who depend on shallow wells. For the past 2 years New York, as the second largest producer of fluid milk, has felt the squeeze of blighted pasturage and resulting increased production costs of milk. Dairymen from New York, New Jersey, and Pennsylvania last year sought drought relief on a number of occasions from the Department of Agriculture. In New York, four counties were designated eligible by the Department of Agriculture for Farmers Home Administration emergency loans. Twenty-two counties were authorized eligible for livestock grazing and hay harvesting on lands diverted from production, and farmers in 27 New York counties were declared eligible by the Department for purchases of surplus feed at below-the-market price.

A powerful and prosperous nation such as ours should not allow the enemy of drought to win even limited battles. It is up to the Federal Government, in conjunction with State and local authorities, to wage an all-out war on drought and to win it. Some improved weapons for Federal use against drought in rural areas have been provided under the rural water project loan program of the Farmers Home Administration Act of 1961. Under this program, between January 1, 1961, and December 1964, the FHA made or insured more than \$72 million in loans to finance work in 37 States.

On February 4, when the President's farm message was submitted to the Senate, I stated on the floor that I believed expanded authority for Federal aid for drought relief was urgently needed and that it was regrettable that the message did not include reference to improved programs in this area. This view was also contained in the minority views of the recent report of the Joint Economic Committee of the Congress.

Vital new weapons have recently been proposed by legislation introduced on April 13 by the distinguished senior Senator from Vermont [Mr. Aiken], together with 93 Senators, of whom I am happy to be one, to expand the direct and insured loan program by the Secretary of Agriculture to public and nonprofit agencies for development of rural water systems and to make grants for facilities for distribution of water in these areas. The bill expands the eligibility of rural communities to cities and towns having a population in excess of 5,000 inhabitants. The increase from \$200 to \$450 million for the insured loan program for rural water systems is vitally necessary in view of the present \$80 million backlog under this program. This legislation (S. 1766) is directed at overcoming one of the greatest handicaps to rural development—the shortage of water for thousands of communities for industrial and residential growth. It is important legislation and its prompt passage would contribute substantially to solving critical problems of drought in many rural areas. So is S. 24, now pending on the Senate Calendar, legislation to expand and accelerate the saline water conversion program of the Department of the Interior.

Additional vigorous efforts are needed to solve problems of drought in both urban and rural areas by providing development of new supplies of water and

converting previously unusable supplies of water for human consumption and industrial uses. This includes development of our existing water resources, rivers, and lakes, accelerated antiwater pollution resources and expanded efforts to uncover new sources such as by desalinization of salt water and use of artificial rain. I urge the Department of Agriculture and the Weather Bureau in the Department of Commerce, responsible for the latter program, to double its efforts in finding new ways to win the war on drought.

I ask unanimous consent to have printed in the Record recent statements in the New York Times and Herald Tribune of June 13 and 14.

There being no objection, the statements were ordered to be printed in the Record, as follows:

[From the New York Herald Tribune, June 14, 1965]

"A PERMANENT WATER EMERGENCY?"

"New York City's water supply system, so the planners said when they reached out to the distant Delaware River branches, would be adequate to the year 2000.

"Yet there is no emergency right now. We have an enormously enlarged storage capacity—perhaps doubled since the celebrated 1950 shortage. But the reservoirs are half empty. Again, the whole Northeast suffers another year of drought.

"Of course, the planners couldn't have foreseen Nature's failure to cooperate. Perhaps they didn't even calculate adequately on increased uses of water, what with industry's demands, air conditioning, swimming pools, and so on. And this only proves again that the best of plans can still fail in comprehension.

"The immediate necessity is to make do with the existing water supply. This means stern conservation. Governor Hughes' crackdown in northern New Jersey makes sense. New York City is no better off; Commissioner D'Angelo ought to be tightening our own restrictions even further.

"But is this enough? We believe not. For the whole business of rules, education, and exhortation rests on the assumption that sooner or later the rains will come again. The city and indeed the entire metropolitan region ought to be planning as though the present emergency were here to stay.

"What's to be done for the long pull? For one thing, New York City needs universal metering to enforce economical use of water. For another, repair those leaky mains that are forever bursting. And let's look to the Hudson River; surely this mighty resource pouring to the ocean is being wasted. It's a sad commentary on government and all of us that the Hudson has become an open sewer. Clean it up not only for beauty, but for service.

"The drought that's been with us 4 years is warning enough. The water supply has got to be assured, by efficient use and by imaginative planning from the Hudson to that Long Island desalting program. The safe course is to insure against nature."

[From the New York (N.Y.) Herald Tribune, June 13, 1965]

"DROUGHT AND PROPHECY: 'DAY NEW YORK WENT DRY'"

"(By William G. Wing, of the Herald Tribune staff)

"'This wasn't just a water shortage,' the blurb reads, 'it was a whole city turning into a desert. A city surrounded by rivers that it couldn't drink.

"'A handful of men were working like mules to head off the disaster. And every nut, fink, and faddist in town was working to foul them up.

"'But they weren't the dangerous ones. The dangerous ones were the people who were just doing the usual.

"'Sitting around waiting to drop dead of thirst. The way they had since 1964.'

"This is the preface to a novel, 'The Day New York Went Dry,' published in April. It was written in California, winter before last, by Charles Einstein, on the proposition that the drought that began in New York in 1961 continues to the point of disaster.

"'I'm a little bit ashamed at the way things have been going in New York,' Mr. Einstein said by phone from Marin County, just outside San Francisco.

"He was talking about New York's graceful compliment in trying to follow his script. He spoke from a region where surplus drinking water is bubbling

over the spillways. But Mr. Einstein, a native New Yorker, was in no mood to gloat.

"'Some of the things happening are right out of the book,' he said, 'the fountains being cut off, no water served in restaurants.'

"'Every 10 years,' Marlowe said to Bess, 'New York has a water shortage. It's a part of the rigid art form.'

"'I added two and two and it looks like I came up with a four.' I'm not startled at what's happening, but I'm not pleased.

"FICTION

"This was supposed to be science-fiction, written to be believable, but not true in the end. My thesis is that the better a water system is, the more dangerous it can be because it invites complacent use. In a place that's congenitally short of water, the people are accustomed to using only a little. It's just the opposite in New York. As soon as they finished the first big conduit in the 1890's, everyone sat back and said, "It ain't never going to be used up."

"I'm not trying to knock the heads of the New York water system for not predicting this drought. They couldn't possibly predict it—no one did. * * *

"Doomed by its own greatness was the New York City water supply. And so Mayor Wagner and Commissioner D'Angelo and other top officials stood accused, in the abstract of that autumn in New York, of, if anything, doing their jobs too well.

"There was water, and it was their job to make sure there would be more water, and they were doing their job, and the people knew it.

"OVERUSED

"(And the people used the water, overused the water, abused the water—that odorless, tasteless, transparent liquid that descends from the clouds in rain, and which, the Bible says, God can withhold by way of punishment.)

"Mr. Einstein said the idea for his book came from the editor of Gold Medal Books, Knox Berger. The theme agreed on by author and editor was that, while 'Fail Safe' and 'Seven Days in May' hinged on crises controllable by man, Mr. Einstein's book would hinge on a crisis over which man has no control: lack of rain.

"This is not only the theme of the book but the chief cause of anxiety in the municipal buildings' upper floors and in a skyscraper overlooking the East River at Wall Street. In these two sites are the offices of the department of water supply, gas, and electricity, which operates the city water system, and the State-created board of water supply, which plans and builds the city's system. Last week, as the drought continued, engineers in both bodies were undergoing a basic revision of thinking for this reason:

"New York is enduring the longest period of drought that has occurred in the three-and-a-half centuries since Henry Hudson went up the river.

"EVIDENCE

"This, at least, seems to be the evidence of records. New York's engineering records on rainfall, streamflow, and ground water go back only a century at the longest. Its social records, which might indicate unusual periods of weather, go back only a few centuries more. Apparently, there never has been a successful scientific effort at determining the recurrence of droughts over a good long time, like a millenium, by the study of such things as tree rings, pollen deposits, and geologic clues.

"All water systems are built on records. Curves—'mass curves' they are called—are drawn of such things as rainfall, water consumption, and growth of population. Lines are drawn from peak to peak on the curve, bridging the valleys of past droughts, to discover how big the supply would have to be to keep from running dry in the worst drought that has ever occurred.

"SAFE YIELD

"The final result is a statement of capacity called by water engineers the safe yield. It is the key to all systems and the figure over which all the technical controversy about the city's present water plight will rage.

"Members of the board of water supply freely concede events have proved that their safe yield figures was too high.

"The worst drought of the past was a 2-year period in the thirties; this was long ago exceeded by the present 4-year drought. The board also points out, though, that the public couldn't have been asked to spend millions for reservoirs that couldn't be justified on the basis of experience.

"New water systems are not only expensive but slow to develop. The average lapse from the time the idea is proposed until water runs through the mains is a quarter of a century.

"New York's planners are faced, moreover, with a demand whose scale is rarely appreciated. The volume of water used by the city is more than one-twentieth of all the water supplied by municipal systems in the United States.

"AWESOME

"The city consumes, day in and day out, a volume of water equal to more than half the mighty Hudson River as it flows now past the gaging station near Albany. Demand on such a scale precludes almost all of the hasty solutions to water shortages put forward in crises.

"For a quick solution, the best possibility is the one that occurs at the end of 'The Day New York Went Dry.' In the book, the city is in terrible straits when—aw, you might as well buy the book and find out."

[From the New York Times, June 13]

"REPORTS FROM THE NATION—DROUGHT

"PARCHED NORTHEAST

"An Atlanta restaurant, advertising to New Yorkers in big black letters 'all the water you can drink without request,' brings home to them that, thanks to the drought, they must order water even when they aren't drinking bourbon.

"New York fountains that use city water have been turned off. Watering lawn and gardens is restricted, use of private swimming pools banned. And city dwellers have been exhorted by Water Commissioner Armand D'Angelo to reduce their water use by a third.

"The drought extends far beyond New York, however. It stretches from southwestern Maine into Virginia. In severe or moderate form it covers two-thirds of New York, all of New Jersey, and half of Pennsylvania.

"It's at its worst over the New York watershed in the Catskills and the Hudson Valley. That area, normally humid, has been in drought for 4 years, since the fall of 1961, according to Wayne C. Palmer, climatologist of the U.S. Weather Bureau.

"The rain gages show that this drought, in intensity and duration, is the most severe in the region in 50 years. What caused it?

"Apparently the prevailing pattern of upper-air currents has shifted more to the northwest than normal, according to Mr. Palmer. That is, the air masses that move in the lower half of the troposphere—the lower 20,000 feet of the atmosphere—are coming from the Northwest rather than the West as they approach the east coast. As they approach the Appalachians traveling from west to east they tend to bulge into Canada.

"The direction affects the motion. Normally, the airflow is upward. As air rises in the lower atmosphere it cools, its relative humidity increases and when it is cool enough it forms rain clouds.

"But in the last 3 years the more northerly flow of the air currents has resulted in a phenomenon weathermen call subsidence, the air masses subsiding or sinking down toward earth.

"Because the flow comes from a more northerly area, its temperature is lower. This flow halts warmer air masses, particularly in the ridge of air over the Appalachians.

"What happens then is just the opposite of the direction of the churning motion needed to make rain. The cooler air masses sink down and are compressed by the ridge. The ridge warms them and dries the air, inhibiting precipitation. Normally, the upper air goes through a wringer that squeezes out moisture. Under subsidence they go through a process like a laundromat's drier.

"The last time New York City's reservoirs were full—storing 176.5 billion gallons of water—was in 1961. Now, with the depletion period starting, they are 54.9 percent full—down to only 261.7 billion gallons.

"Does this mean that New York could have a water famine in October? Yes, indeed, Water Commissioner D'Angelo holds. But they need not, he says. New Yorkers use about 75 gallons a person a day. If each New Yorker could cut his use to 25 to 50 gallons a day, Mr. D'Angelo estimates, the city will make out, without famine."

SENATOR AIKEN. Mr. Stanley E. Lundin, of South Londonderry, Vt., was scheduled to testify but I understand he was unable to come today. If Mr. Lundin wants to send in a statement and will send it promptly, we will see to it that it gets printed in the record.

We will hold the record open until next Wednesday for additional statements if anybody wants to send them. I understand Fred Heinkel, of Missouri, wants to file a statement and Harry Graham of the National Grange will comment on the bill during his testimony on the farm bill next Monday.

(The statement and testimony referred to above are as follows:)

COLUMBIA, Mo., June 22, 1965.

GEORGE D. AIKEN,
U.S. Senator,
Washington, D.C.:

The Missouri Farmers Association, with more than 150,000 members, wholeheartedly endorses S. 1766 and urges its enactment. I sincerely appreciated your giving me a copy of this bill when I appeared before the Senate Committee on Agriculture and Forestry last week.

FRED V. HEINKEL,
President, Missouri Farmers Association.

[Excerpt from statement of Harry L. Graham, Legislative Representative, National Grange, on farm programs, June 21, 1965]

MR. GRAHAM. As to rural water and sewerage, the most critical problem facing America in the not too distant future—and not confined to urban areas—is a problem of the supply of water in adequate amounts and of acceptable standards. A beginning must be made in controlling the pollution of our streams at their headwaters. The lack of sanitary facilities and water systems in rural areas is a matter of increasing urgency.

S. 1766 is an excellent proposal to make the same Government facilities available for rural areas as have long been available to our urban fellow Americans. It has our enthusiastic endorsement.

Because we see real opportunity to develop the pending legislation before this committee into a further sound and constructive advance toward the kind of food and agriculture policy in the United States that will serve American farmers and the Nation as a whole, and at the same time will improve the prospects of the United States being an even greater and more constructive influence on the food and nutritional problems, as well as on trade relations of the world, we pledge the best efforts of the Grange to work with the committee in any way that it may be helpful.

(Whereupon at 6:45 p.m., the committee was adjourned.)

(Additional statements filed for the record are as follow:)

STATEMENT OF PATRICK HEALY, EXECUTIVE DIRECTOR, NATIONAL LEAGUE OF CITIES

Mr. Chairman and members of the Senate Committee on Agriculture, I am Patrick Healy, executive director of the National League of Cities (formerly the American Municipal Association), an organization representing over 13,000 cities and towns of all sizes—some in densely populated urban areas and others

in sparsely populated rural areas—throughout the United States. I appear on behalf of the National League of Cities to comment on and suggest amendments to S. 1766, by Senator Aiken and 39 other distinguished Senators, which amends the Consolidated Farmers Home Administration Act of 1961, authorizing the Secretary of Agriculture to make grants and loans to public and quasi-public agencies, nonprofit corporations, and associations for the construction of water systems serving rural areas and to make grants-in-aid for rural community development planning.

The interest of the many large and small municipalities NLC represents in this legislation should be quite apparent, since their officials are charged with encouraging logical urban growth and providing local services, such as water and sanitation, to urban and urban fringe areas efficiently and at a minimum of cost to the public. It is the belief of the officials we represent that legislation such as S. 1766 has led and will continue to lead, if this bill is enacted, to what is called substandard urban expansion and the proliferation of ill-conceived and inefficient special units of local government and private associations which are not equipped to provide urban services to small but urbanizing concentrations of population.

Substandard urban development is well defined in NLC's National Municipal Policy, a copy of which is attached to this statement for inclusion in the record. Briefly, it is urban growth characterized by a lack of comprehensive planning and minimal public facilities. Such growth, typically, occurs in rural areas which are near but not adjacent to urban areas, and much of it is now occurring in the approximately 220 standard metropolitan statistical areas, as defined by the U.S. Bureau of the Census. It has occurred, however, and will continue to occur adjacent to many of our country's smaller cities and towns.

We recognize that the responsibility for substandard urban expansion does not rest solely upon the shoulders of the Federal Government or its Department of Agriculture. As a matter of fact, we are not opposed to the idea of extending the qualities of urban life, such as pure, inexpensive water supplies, to the farm. The Secretary of Agriculture should possess the power to assist individual farmers or small groups of farmers to obtain financing for strictly rural water systems. But it must be recognized that the existing Department of Agriculture loan and insured loan program for rural water systems has led to an alarming increase in substandard urban development adjacent to the municipalities of the Nation.

Perhaps the following factors can be blamed for this undesirable urban growth:

1. States have generally failed to provide for logical urban growth by allowing the formation of single purpose units of local government and private associations with power to provide municipal services, such as water and sanitation, without requiring the installation of facilities in conformity with areawide plans and uniform standards.
2. Similarly, the States have failed to allow municipalities to expand their boundaries to serve growth areas. Broad annexation powers would allow municipalities to prevent substandard urban expansion before it occurs by enabling them to install the facilities and provide the services to areas of new growth.
3. The Federal Government, in an effort to bring the qualities of city life to rural areas, has provided financing for water systems which are adequate to serve isolated farmhouses, but which, inevitably, end up serving more extensive residential developments inadequately. S. 1766 is an example of the legislation being considered by Congress during this session which would broaden this authority.
4. Finally, many municipalities and counties fail to recognize the necessity and logic of planning for sound and orderly urban growth, thereby allowing substandard urban development to arise at their doorsteps. Such municipalities and counties should plan for their growth by adopting a master plan, zoning resolutions, building codes, and the like, all of which would help insure the sound and orderly development of their entire community.

It appears, at first blush, that the language of S. 1766 has been drafted with sound planning and development requirements in mind. But we are alarmed by what a close reading and strict interpretation of its provisions reveals as the actual scope of the legislation.

I. PLANNING REQUIREMENT

What appears to be an excellent planning requirement has been included in part (iii) of subsection (3) of the amended section 306(a). This planning requirement, however, applies only to the grant program authorized by this legislation. It does not apply to the loan or insured loan programs, both of which have already encouraged and will, if this bill is enacted, stimulate further substandard urban expansion as much as the grant program. The Secretary of Agriculture is given, furthermore, over 3 years of leadtime to put the grant program into operation without requiring that grants made pursuant to this legislation conform to the planning requirement of section 306(a). As a result, this planning requirement is sharply limited in its scope.

Consequently, we strongly urge that S. 1766 be amended as follows:

1. Line 8, page 3, should read: "(3) No grant or loan shall be made and no loan shall be insured under paragraphs 1 or 2 of this".

2. Lines 22, 23, 24, and 25, page 3, should be deleted beginning after the period on line 22.

These amendments would, on the one hand, require that loan programs would come under the planning requirement and that, on the other, the leadtime before application of the planning requirement be eliminated.

Part (iii) of this subsection fails to indicate how the Secretary shall determine that a project is consistent with a comprehensive community water plan for the area. Since many States, counties, and municipalities have developed such plans, we suggest adding the following language to insure that consistency with the plans for water development will be achieved:

Following the period on line 22, page 3, add "In order to determine consistency or inconsistency with a community water development plan for the area where the proposed project will be located, the Secretary shall establish regulations requiring the submission of applications to appropriate State agencies and any political subdivisions operating or franchising the operation of a water or sewer utility within 25 miles of the proposed project, and such comments shall be attached to the application forwarded to the Secretary. The Secretary shall give full consideration to such comments when furnishing financial assistance to proposed projects."

These suggested amendments would make the planning requirement meaningful but still allow the Secretary of Agriculture to assist rural areas with the development of rural water systems. They would implement a general recommendation concerning planning requirements for Federal grant and loan programs made by the Advisory Commission on Intergovernmental Relations in its report entitled "Impact of Federal Urban Development Programs on Local Government Organization" and "Planning and Intergovernmental Responsibilities for Water Supply and Sewage Disposal in Metropolitan Areas." These recommendations have been endorsed and are supported by the National League of Cities, the National Association of Counties, and many other organizations of public officials.

The suggested amendments are also in keeping with the Public Health Service's Advisory Committee for State Legislation on Planning of Urban Water Supply and Sewerage Systems. This ad hoc committee has just completed drafting recommended State legislation (a copy of which is attached to this testimony for inclusion in the record on S. 1766) governing the planning and regulation of water supply and sewerage services. This suggested legislation is now under consideration for inclusion in the Council of State Government's suggested State legislation. We fully expect the council to adopt these suggested acts as a part of its legislative program for States, and, as a result, this legislation should be enacted by a number of States. The National League of Cities fully supports these suggested acts and encourages its membership to support their passage at the State level.

II. CONSTRUCTION OF RURAL SYSTEMS IN CONFORMITY WITH ADJACENT PUBLIC WATER SYSTEMS

Most of the grants, loans, or insured loans authorized by these amendments to the Consolidated Farmers Home Administration Act will be made in areas within reasonable proximity to existing public (municipally operated or franchised) water systems. We have no objection to the Department of Agriculture assisting with financing rural water systems as long as the systems will be used to supply territory which will remain sparsely populated and continue to have

rural characteristics, such as being devoted exclusively to the production of crops. There is a natural tendency, however, for some of those who receive grants, loans, or insured loans under this program to use the improved water supply system to promote the physical growth of the area served by the system. In other words, the existence of water which is distributed to a rural area can be used to attract buyers to a residential area close to an incorporated or unincorporated urban place. The reason for the attraction is simple—the residents will be offered the amenities of urban life based upon a water supply, without having to pay for other urban services, such as streets, police and fire protection, sanitation, schools, and the like. Should the water supply upon which this development is founded prove to be inadequate to serve the residential development which it precipitated, someone, probably the adjacent public water system, will be required to provide the necessary water supply in addition to the other local services the new development requires. In any event, the adjacent public authority will, in all probability, be required to improve the originally installed rural water system to conform with urban demands when the urban area grows to include the residential development spawned by the rural water system.

This artificial urbanization of remote areas has the further disadvantage of scattering existing public services. Schools must be constructed in these areas or schoolchildren must be transported greater distances to be educated, and both of these alternatives result in greater costs for the citizens of local areas. While the advantages and amenities of town are at hand, the residents of the newly urbanizing area bear relatively little of the cost of financing the extension of local governmental services to their homes.

The avoidance of this costly long-term problem of substandard urban expansion, requires the adoption of the following amendments to S. 1766:

Add a new subsection (4) to read, and renumber all succeeding subsections:

“(4) The Secretary shall establish regulations governing the making or insuring of grants or loans for projects located within 25 miles of any public water system which will require:

“(i) the proposed project, if it will be located within 5 miles of a public water system, shall be constructed as a part of said system, if the operator thereof possesses the power to operate said public water system without its corporate limits: *Provided, however*, That if the proposed project is located within 5 miles of two or more public water systems, the Secretary shall require it to be constructed as a part of that public water system which will permit the most economical and convenient construction of the proposed project.

“(ii) the proposed project, if it will be located within an area from 5 to 25 miles of a public water system, shall be constructed in such a manner that it will be capable of being connected to such public water system when the growth of said public system makes such connection economical.”

This amendment will allow Congress to enact S. 1766 with the knowledge that water will be supplied to rural areas which have the potential of becoming urban in character on a basis which will insure sound and orderly development. Congress will also be able to act with the knowledge that the potential residents of these areas will not be subjected to living in a substandard urban environment just because the original water system was planned, financed, and constructed without giving proper attention to the growth potentials of the area the system was supposed to serve. The residents of such areas would also be protected against the subsequent costs involved in reinstallation of adequate utility service. Such costs have, in some cases, been demonstrated to be a major factor in the decline of suburban areas and, where imposed upon homeowners, a serious hardship.

The language “public water system” used in the suggested amendment must be defined in the legislation. We suggest the following language, to be included as a new subsection (9):

“(9) Public water system, for the purposes of this Act, shall mean any water system operated by a political subdivision of any State or any water system whose operation is franchised by any such political subdivision of any State.”

III. LIMITATIONS ON AMOUNTS OF GRANTS AND LOANS

Part (iii) of subsection (2) of the amended section 306(a) has the practical effect of preventing local governments from qualifying for grants, loans, or insured loans under this legislation. This is due to the fact that this language limits public bodies to assistance equal to that which is in excess of the amount

which can be legally financed by the body and for which alternate financing is not available. Local governments are bound by debt limitations of varying kinds and types, but, almost universally, local governments are not limited in the amount of debt they can create to finance water system improvements. Thus the language of this section, since alternate methods of financing which are permitted by law are available, prevents local governments from participating in the grant, loan, and insured loan programs authorized by this bill. We strongly urge, therefore, that part (iii) of subsection (2) of the amended section 306 (a) be deleted from S. 1766 in its entirety.

IV. PREFERENCE FOR GENERAL UNITS OF LOCAL GOVERNMENT

S. 1766 would permit grants, loans, and insured loans to be made to associations, quasipublic and public agencies alike. A similar provision is found in the existing language of the Consolidated Farmers Home Administration Act of 1961, but few public agencies have been the recipient of loans or insured loans authorized by that act. In light of the primary responsibility of local government for providing or regulating the provision of water and sanitation services, in addition to other municipal services, the Department of Agriculture should encourage general units of local government, such as cities, towns, and counties, to participate in the programs authorized by this legislation. To that end, we suggest the addition of a subsection (10) to the amended section 306(a), to read as follows:

"(10) The Secretary shall, in the absence of substantial reasons to the contrary, make or insure grants and loans under the authority of this Act only to cities, towns, counties, and other units of general local government."

This suggested amendment also conforms to the recommended policy for Federal grant and loan programs which has been adopted by the Advisory Commission on Intergovernmental Relations in its publications entitled "Impact of Federal Urban Development Programs on Local Government Organization and Planning" and "The Problem of Special Districts in American Government." These recommendations are also endorsed and supported by the National League of Cities, the National Association of Counties, and other organizations of public officials.

The National League of Cities strongly supports progressive programs which will bring the full amenities of life to all citizens of the Nation, especially the citizens of rural areas which, traditionally, have lagged behind the standards of living enjoyed in urban areas. We must be ever mindful, however, that the Nation has an overwhelming investment in the established urban areas of the country, their facilities, and services. We cannot afford the luxury of the enactment of legislation which would undermine these services and facilities through poorly planned and powerfully influential utility development.

We urge, Mr. Chairman, the committee's careful attention to our suggested amendments as an essential step in the perfection of legislation which has a commendable goal and a worthwhile objective.

(The attachments to Mr. Healy's statement are as follows:)

RECOMMENDED STATE LEGISLATION FOR PLANNING AND REGULATING WATER SUPPLY AND SEWERAGE SERVICES

One of the growing public health problems today is achieving satisfactory water supply and sewerage services in urban areas. Another problem which seriously threatens sound urban and rural growth is the increasing incidence of urbanlike development in nonurban areas. Increasing concentration of population throughout the country creates problems with respect to adequate and safe water supply and disposal of sewage and other waste material. Widespread and uncontrolled use of individual wells and septic tanks in and near urban areas endangers the public health because of associated hazardous chemical and bacteriological contamination.

Orderly planning and installation of community and individual water and sewerage services in these areas are required to protect the public health. The Advisory Commission on Intergovernmental Relations has specifically recommended with regard to urban areas that "legislation be enacted endowing the appropriate State and local agencies with regulatory authority over individual wells and septic tank installations, with a view to minimizing and limiting their use to exceptional situations consistent with comprehensive land use goals."

A survey made by the U.S. Public Health Service in January 1963 showed that, although every State has broad authority to regulate sanitary practices, no State has legislation specifically establishing policies which would limit the use of individual water supply and sewage disposal facilities in urban areas on the basis of comprehensive plans for population distribution and for the provision of community sewer and water systems.

In June 1964, the Public Health Service established an ad hoc Advisory Committee for State Legislation on Planning of Urban Water Supply and Sewerage Systems. Representatives from Federal, State, local, and industry organizations were appointed to review proposed legislation dealing with these problems. In its deliberations, the Committee fully supported the concept of planning in urban areas and, together with adequate and safe criteria for water supply and for sanitary disposal of sewage, provided a comprehensive approach to planning and regulatory control for water supply and sewerage services on a statewide basis. This suggested three-part legislative package contains the Urban Water Supply and Sewerage Systems Act, the Water Well Construction and Pump Installation Act, and the Individual Sewage Disposal Systems Act, and the accompanying regulations.

The suggested legislation is consistent with the policy statement appearing in the Council of State Governments' program of suggested State legislation for 1957, which recommended a broad program for water resources planning, water supply, and water pollution control. It would also fill a need for specific provisions in State legislation concerning the individual well and septic tank problem.

The Urban Water Supply and Sewerage Systems Act provides for the development of an official community plan for water and sewerage systems consistent with the needs of the area and for the control of installations.

The Water Well Construction and Pump Installation Act regulates the development of ground water systems and the location, construction, repair, and abandonment of water wells, and the installation and repair of pumps and pumping equipment to assure protection against possible contamination and to maintain a safe and potable water supply.

The Individual Sewage Disposal Systems Act regulates the design, construction, installation, operation, and maintenance of individual disposal systems and the proper planning thereof.

POLICY STATEMENT OF NATIONAL LEAGUE OF CITIES ON SUBSTANDARD URBAN EXPANSION

Extensive substandard urban expansion in suburbs of cities of all sizes and otherwise rural areas is creating an unwholesome environment and is causing a deficit of billions of dollars of unmet public needs because adequate public facilities are not provided. We call on municipalities, counties, States, and the Federal Government to launch a coordinated attack on substandard urban growth to insure that present and future urban residential, commercial, and industrial development is properly planned and adequately supplied with community facilities and services.

This substandard urban expansion is characterized by a lack of comprehensive planning; minimal public facilities such as the dangerous use of private water sources and septic tanks even in metropolitan situations; minimal, if any, services in such fields as fire and police protection; marginal and overloaded schools; inadequate building regulation; insufficient zoning and land use control; lack of sufficient recreational or cultural facilities; street construction at minimal rural road standards where city street standards are needed, and with no provision for systematic drainage; and, in general, by an almost total disregard for all those requirements of public facilities and services essential to the urban way of life. The cost of providing adequate public facilities, in such areas is conservatively estimated to be up to \$5,000 per house. Experience proves that "insertion" of public facilities in such unplanned, spreadout, and inadequately served subdivision, house and lot, and commercial development will cost property owners three to five times as much in the long run as development properly planned and served from the beginning. Public sewers in planned subdivisions often cost less than septic tanks. Planned developments require less acreage and expense for individual residential and commercial lots, and insure ample parks, playgrounds, schools, streets, and other community facilities for the use of all. Spreadout, unplanned development requires excessive investments in more public

and private service facilities—more sewer, gas, and water pipes; more electric and telephone lines; more streets; etc. Further, such "inserted" facilities are usually inferior in comparison with those installed as initial development occurs in vacant land allowing use of the best planning and engineering principles.

Certain Federal programs encourage undesirable sprawl by financing partial public facilities and urban housing which (1) do not take into account population trends; (2) are not required to meet adequate standards; (3) require or permit the creation of special districts that bypass general governments; or (4) are not part of a plan that takes into account how the particular program will affect the overall growth of the area. Among Federal agencies involved in these practices in the fields of public facilities and urban housing are Farmers Home Administration, Community Facilities Administration, Federal Housing Administration, Veterans' Administration, Area Redevelopment Administration and its accelerated public works program, the rural areas development program of the Department of Agriculture, and the General Services Administration's surplus real property disposal program. Some States have neglected the needs of urban areas through failure to give adequate powers and financial resources to general governments to deal with urban growth problems and by encouraging the establishment of utility or other special districts which frequently are undemocratic and have no comprehensive responsibility for the whole welfare of the community.

Other Federal agencies—notably, the Advisory Commission on Intergovernmental Relations, the Public Health Service, and some segments of the Housing and Home Finance Agency—as well as a few non-Federal agencies such as this association, the Association of State and Territorial Health Officers, the National Association of Counties, U.S. Conference of Mayors, and the American Public Health Association have become increasingly aware of the extent and seriousness of this problem of substandard sprawl. They have concluded that the taxpayer is not getting balanced benefits in some of the 43 Federal aid programs affecting urban development and that States and local governments of general responsibility are not meeting these problems head on.

Corrective measures proposed thus far which we commend include: (1) Urging a strengthened Federal administrative organization to coordinate the many activities of the Federal Government which affect urban development; (2) urging the several States to assume greater responsibility for sound urban development by instituting programs which would substantially supplement Federal financial and technical assistance to local government faced with burgeoning sprawl problems; (3) urging the States and the Federal Government to foster and facilitate metropolitanwide planning for sewer and water service and to forbid the use of private water supply sources and septic tanks in any suburban area where public water and sewer systems are feasible including the adoption of policy governing Federal loan guarantees for urban housing which are consistent with these objectives; (4) revising Federal and State laws which tend to create or favor single-purpose and other special districts so as to assign the performance of a new public service or the extension of an old one to existing general governmental units; (5) providing adequate legal authority in State laws for central cities to annex and to exercise extraterritorial powers in urbanizing fringes to permit areawide planning and long-term investments in public facilities essential to serve a growing urban community; (6) requiring all special districts to report to and submit certified audits to designated State agencies so that the public accountability of these entities may be substantially upgraded; (7) promoting functional and comprehensive planning as an integral part of any and all Federal aid programs, and (8) encouraging economical and efficient development of public facilities by removing population limitations on public facility loans of the Community Facilities Administration, on planning assistance grants, and on sewage treatment grants.

The President paid special attention to the problem of substandard sprawl in his proposed Housing and Community Development Act of 1964 when he advocated generous loan and amortization schedules to insure that suburban development will be fully planned, fully developed, and fully served, including special provision for excess capacities in utilities and for land acquisition to serve future growth. We endorse these provisions and urge their enactment.

We believe, however, that all of these measures are not enough. We believe that the crushing need of this urban hour is first, that the full impact of substandard urban sprawl be fully understood, and second, that a comprehensive plan of action for the prevention and correction of urban sprawl problems be formulated. We recommend therefore, that the league and the National Asso-

ciation of Counties combine forces to produce a comprehensive plan for the abatement and prevention of substandard urban expansion embracing corrective measures suitable for application at all levels of government. Model State laws and ordinances, recommended procedures and organizational structures, and other information should be developed as guides to State and local governments. We strongly endorse the concept of standards to govern local use of Federal program funds contained in the "workable program for community improvement" of the Housing and Home Finance Agency. For 10 years, in order to qualify for Federal urban renewal and low-rent housing programs, municipalities have met the "workable program" standards for planning and regulatory codes designed to prevent spread of blight. Comparable standards are a prerequisite for State or local participation in other Federal aid programs, including assistance for planning, highways, airports, hospitals, open space, etc. It is urgent that a comparable "workable program for urban development in suburban and rural areas" be developed and adopted by the Congress as a prerequisite for use of Federal housing and public facility programs in new urban development. We recommend that this task force give high priority to efforts to accomplish this objective.

We authorize appropriate cooperation with public services foundations, the Advisory Commission on Intergovernmental Relations and other governmental agencies, and other private associations concerned with this problem.

(NOTE.—The drafts of model legislation and regulations submitted by Mr. Healy are on file with the committee.)

BALA-CYNWYD, PA.,

June 18, 1965.

Senator ALLEN J. ELLENDER,
Chairman, Senate Committee on Agriculture and Forestry,
Senate Office Building, Washington, D.C.

My name is John H. Murdoch, Jr., and I am president of National Water Company Conference, a nonprofit trade association of investor-owned water companies. My office is 309 Barclay Building, No. 1 Belmont Avenue, Bala-Cynwyyd, Pa. I am also a member of the legislative committee of the American Water Works Association. I ask that this telegram be presented to the members of Senate Committee on Agriculture and Forestry at its meeting at which the committee will consider S. 1766 and that this telegram be incorporated in the hearing record as my statement. I fully concur in the statements made by E. R. Healy in his telegram to you dated June 16, 1965, concerning S. 1766. It is my suggestion that your committee recognize the fact that most of the areas in which water facilities would be installed under the bill are fringe tracts adjacent to core communities within which core communities adequate water works systems owned by either municipally owned or by investor-owned public utilities are in existence and are operating. It is also a fact that when the fringe tracts develop after water becomes available under such programs as are contemplated in S. 1766 the fringe system becomes inadequate and a need develops to unite that system with the core system under common operation. I respectfully urge that S. 1766 be so amended as to require that fringe area water systems be so designed, constructed, and legally constituted as to facilitate combination with the water system in the core community. This is in the public interest.

Respectfully submitted,

JOHN H. MURDOCH, Jr.

