

OVERSIGHT HEARING ON RURAL WATER PROJECT FINANCING

OVERSIGHT HEARING BEFORE THE SUBCOMMITTEE ON WATER AND POWER OF THE COMMITTEE ON RESOURCES HOUSE OF REPRESENTATIVES ONE HUNDRED SIXTH CONGRESS FIRST SESSION

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JULY 29, 1999, WASHINGTON, DC
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OVERSIGHT HEARING ON RURAL WATER PROJECT FINANCING

THURSDAY, JULY 29, 1999

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON WATER AND POWER,
COMMITTEE ON RESOURCES,
Washington, DC.

The Subcommittee met, pursuant to call, at 2 p.m. in Room 1324, Longworth House Office Building, Hon. John Doolittle [chairman of the Subcommittee] presiding.

Mr. DOOLITTLE. The Subcommittee on Water and Power will come to order.

We're meeting today to hear testimony on rural water project financing. Two years ago we held a hearing regarding funding options for Bureau of Reclamation projects, and during that period we heard from several witnesses that provided innovative ways to fund or encourage the private sector to become partners with the Federal Government in operating and maintaining Bureau of Reclamation facilities.

As many of you are aware, before our Subcommittee we have requests to authorize more than \$1 billion for rural water projects in the States of Montana, North Dakota and South Dakota alone. This number excludes the identified need throughout the country to fund tens of billions of dollars worth of additional rural water projects.

We simply must identify the financial basis for proceeding with these projects if people are going to be able to live in these areas. Because what inevitably happens is that people are drinking sub-standard water, waiting for some promise to upgrade their system. The promises are made but, in reality, are rarely kept.

Conditions worsen while the population simply evaporates. Citizens need a more honest answer as to what they can expect. There is no doubt that there is a need for more and better water quality in many of these areas if their population base is going to survive.

A fundamental question is one of funding. We have heard from many local individuals and States who have looked into their bank accounts and feel they do not have the finances to pay for the water systems they need. When we look at the reality of the Federal budget, we have to realize that we do not have the money there to simply start another new grant program to fund the projects requested before this Subcommittee. For all you hear in the news about vast Federal surpluses, the reality is that we have enough money to maintain economic health and pay down a portion of our national debt. In effect, we have ransomed our grand-

children's future but may be able to get our great grandchildren out of hock.

Today we have invited several witnesses to provide testimony regarding the current mission of the administration to provide safe drinking water to rural areas, as well as several others to talk about the role the government should play in this area. We also want to examine the current and future need of the Federal Government to fund these programs, as well as what changes may be needed to assist our rural constituents in obtaining safe drinking water. Because there is a need to upgrade existing drinking water supply systems as well as to find ways to reduce costs, it has been necessary to identify additional ways to generate the revenue to pay for these projects.

In areas where the Federal Government is increasing standards and forcing change, the Federal Government must be prepared to help citizens pay for these changes. This conclusion is part of taking responsibility. Where the upgrade is driven by internal needs, there's a diminished Federal role, and that conclusion is also part of taking responsibility. Even in those cases, the Federal Government can provide expertise or improved financing options where it has a role. However, in many cases, the costs may simply remain a local and State expense.

How we go about designing and financing these rural water projects will be a test to the Federal Government's ability to transition to the more efficient, fiscally responsible mode of operation. To expand our operations, we have spent the last 2 years working to develop alternatives. While much of the answer lies in local and State interests turning to the private sector for less costly constructive and more expeditiously available financing, there may be options for Federal involvement.

To that end, several alternatives have been explored that involve Federal Government participation and funding rural drinking water systems. These include, one, the historic irrigation method of using Federal power revenues to fund projects beyond the water user's ability to pay it; two, providing long-term financing at Treasury rates; three, setting up a trust fund to pay for rural water projects based on surcharges on Federal water and power.

There are other options that we will discuss today. These choices do not represent the universe of alternatives.

I look forward to hearing from the witnesses; and I will recognize our Ranking Member, Mr. Dooley, for his statement.

Mr. DOOLEY. Thank you, Mr. Chairman.

I commend you for holding this hearing and concur with your sentiments that there is a need for us really to assess the various Federal programs that attempt to provide some assistance, financial assistance, for water supply, as well as water quality. I appreciate your interest, as I share those interests, in terms of trying to determine what is the appropriate role of the Federal Government in meeting some of the needs that have been presented to Congress in various authorization bills. So I look forward to the hearing and the testimony.

Mr. DOOLITTLE. Thank you.

We will invite our first panel of witnesses to come forward. Ask you to please remain standing and raise your right hands.[Witnesses sworn.]

Mr. DOOLITTLE. Thank you. Let the record reflect that each answered affirmatively.

We're very pleased to have you here today. I appreciate your arranging your schedules to participate in our hearing.

We will first begin with our Commissioner of Reclamation, Mr. Eluid Martinez.

Mr. Martinez.

**STATEMENT OF ELUID MARTINEZ, COMMISSIONER, U.S.
BUREAU OF RECLAMATION**

Mr. MARTINEZ. Mr. Chairman.

Mr. DOOLITTLE. May I—before you begin—remind everyone these statements, and everything we say, if the microphones are on, goes out over the Internet. So you do have a switch there to control that microphone when you aren't wishing to speaking to the world.

Mr. MARTINEZ. Mr. Chairman, I am pleased to provide the perspective of the Bureau of Reclamation and our involvement and experience with the development of rural water projects in the western United States. My written statement has been submitted for the hearing record, and I will summarize that statement.

Mr. Chairman, the accessibility of rural America to safe, reliable and adequate drinking water supplies is an important issue; and I compliment you and the Committee for scheduling this hearing to focus attention to this vital issue.

In the western United States where reclamation is involved, reclamation has identified two major categories of need: Indian reservations or Pueblos with nonexistent or substandard water supply systems and nonIndian rural communities with inadequate or declining water supplies.

Based on an initial and somewhat informal survey of reclamation offices, we have identified a need for as much as \$3 billion in rural water development and construction activities throughout the 17 western States. One point seven billion dollars of that is for potential Indian projects.

I'm advised that Congress, according to the 1995 General Accounting Office report, has authorized as many as 17 Federal programs and 8 Federal agencies to address rural water needs. Reclamation, however, has been authorized only by specific legislation to develop site-specific rural water projects.

It has been our experience that project sponsors seeking Reclamation's involvement do so because, for various reasons, their projects do not meet the criteria established by the existing 17 other programs.

The Department of Interior supports efforts to meet the water needs of rural communities. It is concerned, however, about contributing to the overlap in the many Federal programs now in existence. It is concerned with respect to the number of projects being authorized and the impacts on Reclamation's ability to efficiently complete projects already under construction.

While Reclamation has been directed in statutes to develop specific rural water systems, our policy is that we participate in rural water projects in two ways.

First, we should provide nonIndian rural water supply as a component of multipurpose projects, as long as the local sponsors reimbursed Reclamation for 100 percent of the costs incurred.

Second is our role to help the Federal Government meet its Trust obligations with respect to Indian issues. According to long-standing administrationwide policy, single-purpose municipal, rural and industrial water supply projects have not been considered Reclamation's responsibility.

At the present time, Reclamation has billions of dollars in authorized projects under way. In addition, Congress currently has before it proposals to authorize more than \$1 billion in new or expanded rural water projects for Reclamation to undertake, and I will provide a copy of a table breaking this out for the record.

[The information follows:]

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Bureau of Reclamation
Authorized Rural Water Projects
 (As of 7/99)

Project & Year authorized.	State & Cost Share ¹	Total Cost Ceiling	Balance to Complete
Mni Wiconi (1988-amended in 92 & 94)	SD (15%)	\$371m	\$214.6m
Mid-Dakota Rural Water Project (1992)	S.D (15%)	\$134.574m	\$73.957m
Fort Peck Rural Water System (1996)	MT (25%)	\$5.8m	\$4m
Fall River Rural Water System (1998)	SD (30%)	\$4m	\$4m
GDU- Indian MR&I (1986)	ND (25%)	\$27.6m	\$0 by end of FY99 ²
GDU-Statewide MR&I (1986)	ND (25%)	\$200m	\$46.5m
Total:		\$743m	\$343m

¹ Cost-share refers to minimum non-Federal contribution required.

² Likely that increase of ceiling will be included in FY 2000 Energy and Water Appropriations bill.

Mr. MARTINEZ. Reclamation's budget, as you know, is declining, while our project operation and maintenance costs, our dam safety concerns and other program obligations continue to grow.

Additionally, Mr. Chairman, we have a growing concern with the trend towards Reclamation being obligated for operation and maintenance costs associated with some of our Native American rural water systems that are now under construction. We are concerned about the impact this obligation has now and in the future to enable us to complete and adequately fund construction projects under way. We would like to open a dialogue with this Subcommittee on how we can and should address this issue. Given this context and experience, Reclamation believes that careful consideration should be given to the Federal interests in these rural water projects and the appropriate level of Reclamation's involvement.

Mr. Chairman, there is a need to focus attention to the drinking water needs of rural America. As such, there may be a need to review the coordination of existing Federal programs as well as the funding and skills and expertise available to the different Federal agencies and a need for greater coordination with State and local governments to bring their expertise and resources to the table.

Mr. Chairman, this concludes my testimony. I will be pleased to answer any questions.

Mr. DOOLITTLE. Thank you.

[The prepared statement of Mr. Martinez follows:]

STATEMENT OF ELUID L. MARTINEZ, COMMISSIONER, U.S. BUREAU OF RECLAMATION,
DEPARTMENT OF THE INTERIOR

My name is Eluid Martinez, I am Commissioner of the U.S. Bureau of Reclamation. I am pleased to provide the perspective of the Bureau of Reclamation on our involvement and experience with the development of rural water projects in the western United States.

MAGNITUDE OF THE NEED

According to a 1995 needs assessment conducted by the U.S. Department of Agriculture's Rural Development Office, more than 1 million people in the United States had no water piped into their home, and a total of 2.4 million people were considered as having critical drinking water needs. Many rural residents carry heavy containers of water from cisterns, purchase bottled water or pay a water for hauling service. Recently released Environmental Protection Agency (EPA) data indicates that to meet the need nationwide for small systems serving 3,300 people or less could cost more than \$37 billion.

In the Western United States, where Reclamation is involved, rural needs are identified in two major categories—Indian reservations with nonexistent or substandard water supply systems and non-Indian communities with inadequate or declining water supplies. Based on an initial survey of Reclamation offices conducted recently, we have identified a need for as much as \$3 billion in rural water development and construction activities throughout the 17 western states. Of that amount approximately \$1.7 billion were estimated for potential Indian projects and \$1.3 billion for non-Indian Projects.

In addition, the Indian Health Service (IHS), which publishes an annual report on Tribal water needs, found that more than 2,000 homes on Indian reservations are without potable water supplies. While many of those homes are on the Navajo Nation and in Alaska, the larger need is identified by the approximately 146,000 Indian homes which have substandard or inadequate potable water supplies or systems. IHS has estimated that it would cost approximately \$950 million to address their identified needs.

Existing Federal Programs

In response to the need and demand for assistance on this issue, Congress has, according to a 1995 General Accounting Office report, authorized as many as seventeen Federal programs in eight Federal agencies including the EPA, IHS, Department of Commerce and the USDA. The primary programs are the EPA Drinking

Water State Revolving Fund, USDA's Rural Utilities Service Program, and the Department of Housing and Urban Development's Block Grant Program. For the most part, these were authorized as "programs" to address the needs of communities that meet the specific criteria established by statute, regulation or policy within the constraints of available appropriations.

While Reclamation has been directed in statutes to develop specific rural water systems, our policy is that we participate in rural water projects in two ways. First, we should provide non-Indian rural water supply as one component of a multi-purpose project, as long as the local sponsor reimburses Reclamation for 100 percent of the costs. Second, to help the Federal Government meet its Trust responsibilities to Indian Tribes, our policy states that, in appropriate cases, we will provide Indian communities with rural water supply assistance. According to long-standing Administration-wide policy, single-purpose municipal, rural and industrial water supply projects have not been considered Reclamation's responsibility.

In the past several years, there have been numerous proposals to authorize Reclamation to develop single-purpose municipal rural and industrial (MR&I) water supply projects for rural communities throughout the western United States. While the Department supports efforts to meet the water needs of rural communities, we remain concerned both about contributing to overlap in the myriad of Federal programs and projects already authorized, the impacts of the projects on Reclamation's overall budget, and our ability to address current obligations and to work with rural communities in the future to identify and assist them in addressing their water management needs.

At the present time, the Bureau of Reclamation has billion of dollars in authorized projects that are underway. In addition, Congress currently has before it proposals to authorize more than \$1 billion in new or expanded single purpose rural projects for Reclamation to undertake—all at a time when Reclamation's budget is declining and the operation and maintenance, dam safety, and other Reclamation program obligations continue to grow.

Given this context and experience, we are concerned about a number of issues associated with the proposals and programs involving Reclamation's participation in these projects currently before Congress:

First, careful consideration should be given to the Federal interest in the projects and the appropriate level of Federal involvement—especially given the role that state and local governments can play.

Second, the level of non-Federal cost share for Reclamation rural water components in multi-purpose projects needs to be significantly greater than has been proposed in the past. Most of the proposals which we have provided testimony or comments on in recent years have included minimal non-Federal contributions—some with Federal cost shares as high as 85 percent. It is our long-standing policy that MR&I components, particularly those that are non-Indian components, should be fully reimbursable with interest.

Third, I would like to bring to your attention a growing concern within Reclamation for the trend toward Reclamation being obligated for operations, maintenance and replacement (OM&R) costs for MR&I projects. Paying the OM&R costs, as is proposed in some case and as has occurred in the case of the Mni Wiconi Project and others, could ultimately limit the ability of the Reclamation program to help Native American Tribes and others to address the water resources problems throughout the west. The Administration believes that as a general policy, Tribes where possible and other project beneficiaries should be responsible for the OM&R expenses of their projects. We would like to open a dialog with the Committee on how this can and should be addressed.

Mr. Chairman, this is an incredibly important issue, that I hope gets more attention in the future. The number of proposals before this Committee and the multiple demands for funding make it clear that there is a need for attention to the need to address the water supply needs of thousands of Americans in rural areas. As I stated earlier, a 1995 GAO study identified eight Federal agencies with seventeen programs designed specifically for use by rural areas to construct or improve water and wastewater facilities. Given that, there may need to be a review of the coordination of the programs, funding, and skills and expertises of the Federal agencies, as well as greater coordination with the state and local governments which have expertise and resources dedicated to this purpose.

That concludes my testimony. I would be pleased to answer any questions.

Mr. DOOLITTLE. Our next witness will be the Deputy Administrator of the Rural Utilities Service, RUS, the U.S. Department of Agriculture, Mr. John Romano. Mr. Romano.

**STATEMENT OF JOHN ROMANO, DEPUTY ADMINISTRATOR,
RURAL UTILITY SERVICE (RUS), DEPARTMENT OF AGRICULTURE**

Mr. ROMANO. Mr. Chairman, Mr. Ranking Member, we appreciate the opportunity—good afternoon, we appreciate the opportunity to be here to talk about a subject that is of great everyday importance to us and, obviously, is important to the Subcommittee, the financing of rural water systems.

I'm happy to be here on behalf of Secretary of Agriculture Dan Glickman to talk about USDA's water and waste disposal loan and grant program, which has been making loans and grants to the rural water and wastewater system since 1940. The goal of the program has been safer and cleaner water for rural communities, particularly distressed rural communities. In short, we finance the construction, expansion and improvement of rural water and wastewater systems, with a premium on modesty in size, design and construction.

We are proud of the results we and our customers have achieved over these almost 60 years through the water and waste disposal program. And we are very well aware of the continuing pressing needs, as we have documented in our own assessments and our colleagues at the EPA have particularly strongly documented, for improved water quality, quantity and dependability in the economically distressed parts of rural America that we work to serve.

By law, regulation and policy, it's our job to target our limited loan and grant resources to communities that need them most in terms of economic distress and serious public health challenges. We are a unique public bank. Sixty percent-plus of our total funds go out as loans. However, we target the remainder, almost 40 percent, as grants that effectively buy down the loan rates for the most financially strapped of our borrowers.

The result is reasonable, affordable water rates for the customers of the rural water systems we finance and debt service our borrowers can reasonably handle. The evidence of this is something we are very proud of, a 99.9 percent repayment rate on the more than \$16 billion of water and waste disposal loans that have been made over this period of almost 60 years.

Here's the capsule summary of our loan portfolio as of September 30th, 1998, the end of the last fiscal year: 7,557 borrowers, 15,915 loans, approximately 60 percent of the loans were made for drinking water projects, the rest were made for sanitary sewer and a relative small handful of solid waste disposal projects, outstanding principal of \$5.89 billion, 1/10 of 1 percent, as I noted earlier, of the total loan principal delinquent—I should say only 1/10 of 1 percent of the total loan principal is delinquent.

And here is the capsule summary of our fiscal year '98 investment activity: \$1.33 billion committed to 1,072 projects nationwide, just over 60 percent of them drinking water projects. Of the \$1.33 billion we committed, \$800 million went out as loans and \$530 million as grants. The average loan size was \$840,000; the average grant size was \$590,000. The average median household income for a family served by our water projects in FY '98 was just under \$20,000. By comparison, the national poverty rate for a family of four is \$16,500.

Our total FY '98 commitments will serve approximately 1.3 million people with new or expanded or improved drinking water or wastewater disposal facilities. Our total annual commitment leveraged, in FY '98, more than \$250 million, \$250 million in loans and grants from other sources.

The principal other sources included community development block grants, HUD funds that go through State agencies; State revolving loan funds, through the States, that's EPA dollars; Appalachian Regional Commission Grants administered directly by our people in the field under an agreement with the Appalachian Regional Commission and Indian Health Service Grants for tribal projects. And we are funding an increasing number of tribal projects, five times as many as we did 6 years ago. State-appropriated funds and economic development administration grants, once again under an agreement that's almost 30 years old, the cooperative agreement with the EDA where our staffs work together on this.

Here is a quick portrait of a high-priority customer, a hypothetical high-priority customer.

It's eligible for our program; it's a small town or city or it's a rural county or nonprofit water association or Indian tribe. The population is under 5,500, eligible population is under 10,000, but we're particularly looking for the very small, distressed communities with limited resources that have nowhere else to turn. They're unable to obtain credit for the improvements from private commercial sources. They have water-related health and safety concerns, as evidenced by a mandate or threat of a mandate from a State or Federal regulatory agency.

Mr. Chairman, I have about 2 more minutes. Should I wrap it up or—

Mr. DOOLITTLE. Go ahead and just finish your statement.

Mr. ROMANO. I appreciate it.

The median household income on this average project of ours for the service area is less than 80 percent of the Statewide nonmetropolitan median household income, which is typically almost always lower than the Statewide median household income overall.

This project would merge two or more small water systems to maximize operating and cost efficiencies. The project would not just improve water service to existing users but would also bring some new users, very important to us, new users in the system. The project financing would consist of at least 20 percent of the total development costs, and ideally more than 50 percent, to get the maximum score under our priority scoring system from financing sources, such as the ones I mentioned earlier, from sources other than the USDA.

We believe our track record is notable and our impact deep and broad throughout rural America.

I want to note, and I can make these summaries available, that over the past 5 years, talking about broad coverage in the districts of the 15 members of the Subcommittee over the last 5 years, and I have that information for the Committee, we funded 138 water and wastewater disposal projects.

Over the last 5 years, we've also made the following improvements in the way we operate: Done a major overhaul of our pro-

gram regulations. We've eliminated 40 percent of their volume. We've cut a major step out of our application process. We've created more incentives for small water systems to join together. We've created more incentives for our customers to use other funds to leverage funds from other sources, and our leveraging percentages are going up every year.

We've pushed more project responsibilities into the field, where we have about 350 employees on the ground in the States, compared with Washington, where we are down to 27 employees working on our water and waste disposal program. We have beefed up the delivery of technical assistance and training to our customers and potential customers through a network of hands-on nonprofit circuit riders, especially through the State rural water associations.

These circuit riders are proficient in fixing pumps, setting water rates, working out management problems, and they're particularly proficient in training water system operators to be independent and to run their systems better and more efficiently.

During that 5 years we have renewed an almost 20-year-old cooperative agreement—I have a copy for the Subcommittee—with the Appalachian Regional Commission, whereby, in 1998, our people directly administered almost 17 million of their project funds. Their staff does very little. They have given complete authority to our people to administer their funds.

We regularly consult with the IHS and EPA on the funding of water projects in Indian country; and, in fact, this year we have jointly funded several projects with the IHS, most notably, very recently, in the last month, the Shoshone-Bannock project in Idaho in the district of Mr. Simpson.

I have a copy for the Subcommittee of a memorandum between us and the IHS on specific project funding.

Finally, and perhaps most notably, in 28 States, 28 states, our staff and the staffs of other key water infrastructure agencies meet on a regular basis as part of formal or informal groups. In some places, they're called water assistance councils; in other places, they're called infrastructure financing councils in 28 States. Basically, our people get together on a regular basis with other public employees to broker projects, to discuss projects and the best way to fund them, either singly or jointly.

By our estimate, 5 years ago that was only happening in 13 States. So that's more than doubled. And I have a copy of an infrastructure survey done by the Council of State Community Development Agencies of what the status of those infrastructure councils in the States is right now.

There is still a great deal to do in the way of targeting investment in rural America to improve public health, fire protection and economic opportunity through improved drinking water. The Department of Agriculture is pleased to play a very active role in increasingly, with other public partners, State and Federal, to assist the many communities that turn to us as their primary investor.

One last pile of paper for the Subcommittee, 14 pages single-spaced, both sides of the page, of our present backlog of preapplications for water and waste disposal financing, \$2.28 billion in loan backlog, \$1 billion in grant backlog available to the Subcommittee.

Thank you for this opportunity.

Mr. DOOLITTLE. Thank you.

Mr. ROMANO. And for the extra time.

[The prepared statement of Mr. Romano follows:]

**Statement of
John Romano
Deputy Administrator
Rural Utilities Service
Rural Development
U.S. Department of Agriculture**

**For a Hearing on
July 29, 1999
before the
Water and Power Subcommittee
of the
Committee on Resources
U.S. House of Representatives**

July 29, 1999

Statement of John Romano, Deputy Administrator of the Rural Utilities Service, before the Subcommittee on Water and Power of the House Resources Committee.

Mr. Chairman, members of the subcommittee, thank you for the opportunity to submit testimony today for the U.S. Department of Agriculture's (USDA) Rural Utilities Service (RUS) for this hearing on rural water project financing. I want to thank you and the members of the Subcommittee for your interest and continued support for infrastructure programs and policies that help strengthen rural America, which the agency I represent today has a long history of serving.

A sound, affordable, accessible drinking water and waste water infrastructure is a key component of economic competitiveness. It is also a fundamental building block of good public health, fire protection and economic development. The small, rural cities and towns we serve with our water and waste disposal (WWD) programs work hard to build, maintain, and properly operate their water and sewer utilities to achieve these goals. They work hard to meet the public health and environmental protection requirements of the Safe Drinking Water Act, the Clean Water Act, and various state health and environmental laws. However, without technical and especially, financial assistance from RUS, many small rural communities would have a very difficult time financing their water utility investments, serving their communities, and carrying out public health and environmental protection measures.

The RUS' WWD loan portfolio of nearly \$6 billion includes investments in more than 7,600 small community and rural water and wastewater systems. The 60-plus year track record of water and wastewater investments at USDA – until 1995, the Farmers Home Administration ran the programs for the Department – is strong and notable. We serve some of the most economically distressed, remote communities in the nation, which have turned to us as the lender of last resort. At the same time, the Department's historical rate of writing off water and sewer loans is only one tenth of one percent – for every \$1,000 lent, only one dollar has been written off. We are proud of this kind of stewardship of limited public resources, and are on track to continue on the same highly responsible fiscal course into the new century.

Reform, Reinvention and Responsibilities

To ensure the success of the partnership between RUS and its public and private nonprofit water and sewer utility borrowers, the agency continues to streamline its operations, offering borrowers more flexibility in financing, while requiring modest engineering design and construction methods to deliver cleaner, safer, more dependable water and sewer services to more rural Americans every year.

Specifically, RUS continues to sharpen its water and waste disposal program focus by:

- **Targeting limited Federal loan and grant funds** to rural communities that do not have basic utility infrastructure with the highest poverty levels and emigration of human, financial, and economic resources, and to Native American tribes.
- **Simplifying the RUS loan and grant approval process**, allowing borrowers to respond more quickly to leveraging opportunities with other public and private funding sources.
- **Automating loan processing functions** to provide borrowers faster access to loan and grant funds while reducing the administrative costs incurred by the Federal government.
- **Improving our financing partnerships with other Federal, State, and local government agencies** in an advocacy role for rural citizens, to bring more and better resources to high priority projects and areas of need.
- **Promoting a paperless society** that makes the Federal government more responsive to its customers while decreasing the national paperwork burden; and
- **Continuing to achieve strong public and environmental health protection and economic development goals.**

Coordination with other Government Agencies

As the Committee is aware, a number of federal agencies provide financing and technical assistance for rural water projects, including EPA, HUD, HHS, and the Economic Development Administration in Commerce. Virtually every water or waste water project that the Rural Utilities Service (RUS) participates in involves coordination from several agencies and often joint funding. This year, FY 1999, RUS has jointly funded water and waste water projects with other agencies in 46 states.

Almost all of the states have regular coordination meetings among funding agencies to review the funding needs of water and waste water projects. The one or two that do not have regular meetings closely coordinate with the other agencies. Projects are jointly funded when applicants meet the requirements of the programs involved. Joint funding is not so much an objective as is making the most efficient use of resources. RUS signed in April of 1997 a Joint Memorandum of between HUD, EPA and RUS that formalized the process of achieving positive coordination and results between these agencies.

The most often participants in an individual project will include the local government applying for the loan, the state government agency that manages the State Revolving Fund, the state agency that administers the HUD Community Development Block Grant (CDBG) funds, the Bureau of Reclamation if a reclamation project is involved, EPA regional representatives, and representatives from the Indian Health Service (IHS) of the Department of Health and Human Services.

Examples of interagency and intergovernmental coordination and funding can be found in the USDA water projects announced this year.

Rattlesnake Ridge Water District, Carter County, Kentucky: With a total project cost of \$4,266,000, this water project includes a RUS loan of \$900,000 and a RUS grant of \$900,000. Additional funding is provided by the Appalachian Regional Commission for \$466,000 and a CDBG grant of \$2,000,000.

Shoshone-Bannock Tribes in Fort Hall, Idaho: The total project cost is \$3,150,000 with \$665,000 coming from a RUS loan, \$1,200,000 from a RUS grant, \$500,000 from IHS and EPA putting in \$785,000.

Amelia County Courthouse Area Water System: The total project cost is \$3,592,200. RUS is providing 920,000 in grant funds and \$900,000 in loan funds. The Virginia Department of Environmental Quality is putting in \$400,000 in grant funds and the Virginia Department of Health is making a low interest loan of \$1,372,200.

Spokane Tribe of Indians, Wellpinit, Washington: Total project cost is \$890,907. The IHS is providing \$308,400 in grant funds and "in-kind" engineering services totaling \$75,000. The total funding from RUS is \$507,500, split between a \$284,000 grant and a \$223,500 loan.

USDA-RUS' Water and Waste Disposal Programs – Fiscal Year 2000 Budget Request

The Administration's fiscal year 2000 budget seeks \$63.9 million in budget authority to support \$900 million in WWD direct loans, \$503 million grants, \$75 million in guaranteed loans, and \$2.746 million in budget authority for solid waste management grants.

The budget request includes \$20 million for Colonias, the severely economically distressed housing subdivisions along the U.S.– Mexico border that lack the most basic safe and clean water infrastructure; \$16.2 million for technical assistance and training grants which RUS awards competitively to public and private nonprofit organizations, like the National Rural Water Association, \$5.3 million for the "circuit rider" wastewater technical assistance program, \$20 million for grants to develop safe and clean water infrastructure in rural and native Alaskan villages, and \$34.7 million in budget authority for loans and grants in federally-designated Empowerment Zones and Enterprise Communities.

RUS investments in drinking water and wastewater projects serving tribal and rural Alaskan communities have increased by nearly 400 percent since FY 1993, and continue to grow. RUS is uniquely dedicated to helping unserved and under-served communities. We expect that in Fiscal Year 1999, the annual investment in tribes from our Water and Environmental Programs will exceed \$25 million. Additionally, we are intensifying coordination of funds with the Indian Health Service and the U.S. Environmental Protection Agency (EPA) at higher levels than ever

before.

The budget request will also enable third-party grantees, through the technical assistance and training and "circuit rider" programs, to make more than 28,000 water system and 29,000 wastewater system service calls to assist communities with a wide variety of technical operations and maintenance issues; and through an electronic clearinghouse, take 28,000 telephone calls and 11,000 electronic bulletin board and web site contacts from current and prospective rural water and sewer system managers.

The RUS' water and environmental programs improve the quality of life and health of approximately 1.3 million Americans each year by bringing safe drinking water and environmentally sound wastewater facilities to those rural communities in greatest need. The program is delivered by a field network of USDA-Rural Development employees who provide hands-on technical and financial assistance directly to local communities. In fact, RUS delivers its water programs through some 350 employees in all the states, supported by 28 employees at the USDA headquarters in Washington.

Based on the Administration's belief and policy that low income, high unemployment and high poverty areas with water-related public health problems have the greatest needs, RUS has increasingly targeted drinking water and sanitary wastewater disposal investments to those areas where improvements in drinking water quality, quantity and dependability are needed the most.

In a state-by-state safe drinking water assessment performed in 1995, RUS found that at least 2.5 million rural Americans had very critical needs for safe, dependable drinking water -- including almost one million people who had no water at all piped into their homes. Approximately 5.6 million more were found to have substantial needs under the Safe Drinking Water Act standards.

RUS is proud of our record of helping rural communities help themselves bring drinking water and wastewater facilities to thousands of Americans - with strong emphasis on those who truly need our services most. As the present \$3.3 billion backlog of water and waste disposal program applications illustrates, this is a huge job that directly affects the health, safety, and economic well-being of rural America.

Conclusion

RUS is a unique institution. We are unique in that almost 40 percent of our total funds are awarded as loan/grant combinations to economically distressed communities with nowhere else to turn for credit. We take on projects -- increasingly in partnership with other Federal and state agencies -- that the private sector could not, because of their high level of risk and low level of return. We believe this is a tribute to the character of our employees, who structure sound financial transactions that are realistic and workable for borrowers, and work closely with our

borrowers during any times of financial instability. And certainly, this repayment record is a tribute to the character of our customers -- rural and small towns and cities -- who honor their debts and realize that they have received the best financing possible from an agency that is working in the field to help them meet some of their most pressing challenges, and serve their customers well.

Thank you, Mr. Chairman and members of the committee.

APPENDIX

RURAL UTILITY SERVICE'S
WATER AND WASTE DISPOSAL PROGRAMS

Prior to the USDA's reorganization in 1995, the Water and Waste Disposal (WWD) programs were under the Rural Development Administration and prior to that, the Farmers Home Administration. The WWD programs are administered by USDA-Rural Development state and local offices throughout the country. The Rural Utility Service (RUS) has the authority to make both direct and guaranteed WWD loans. This program description is limited to the direct loan program, unless noted.

The purpose of the WWD program is to provide loan and grant funds for water and sewer projects serving the most financially needy rural communities. The financial assistance is intended to result in reasonable user costs for rural residents, rural businesses, and other users. Rural and rural areas include any area not in a city or town with a population in excess of 10,000 inhabitants, according to the latest decennial census of the United States. Facilities financed by WWD loans or grants must serve such rural areas.

Eligible applicants. An applicant must be: (1) A public body, such as a municipality, county, district, authority, or other political subdivision of a state, territory or commonwealth; (2) An organization operated on a not-for-profit basis, such as an association, cooperative, or private corporation. The organization must be an association controlled by a local public body or bodies, or have a broadly based ownership by or membership of people of the local community; or (3) Indian tribes on Federal and State reservations and other Federally recognized Indian tribes.

Eligible facilities. Facilities financed by RUS may be located in non-rural areas. However, loan and grant funds may be used to finance only that portion of the facility serving rural areas, regardless of facility location.

Eligible projects. (1) Projects must serve a rural area which, if the project is completed, it is not likely to decline in population below that for which the project was designed. (2) Projects must be designed and constructed so that adequate capacity will or can be made available to serve the present population of the area to the extent feasible and to serve the reasonably foreseeable growth needs of the area to the extent practicable. (3) Projects must be necessary for orderly community development and consistent with a current comprehensive community water, waste disposal, or other current development plan for the rural area.

Credit elsewhere. Applicants must certify, and the Agency must then determine and document that the applicant is unable to finance the proposed project from their own resources or through commercial credit at reasonable rates and terms.

Legal authority and responsibility. Each applicant must have or be able to obtain the legal authority necessary for owning, constructing, operating, and maintaining the proposed facility or

service and for obtaining, giving security for, and repaying the proposed loan. The applicant must be responsible for operating, maintaining, and managing the facility, and providing for its continued availability and use at reasonable user rates and charges. This responsibility must be exercised by the applicant even though the facility may be operated, maintained, or managed by a third party under contract or management agreement.

Economic feasibility. All projects financed must be based on taxes, assessments, income, fees, or other satisfactory sources of revenues in an amount sufficient to provide for facility operation and maintenance, reasonable reserves, and debt payment. If the primary user of the facility is by business and the success or failure of the facility is dependent on the business, then the economic viability of that business must also be assessed.

Eligible loan and grant purposes. Loan and grant funds may be used only for the following purposes:

- (a) To construct, enlarge, extend, or otherwise improve rural water, sanitary sewage, solid waste disposal, and storm wastewater disposal facilities.
- (b) To construct or relocate public buildings, roads, bridges, fences, or utilities, and to make other public improvements necessary for the successful operation or protection of facilities authorized to be financed.
- (c) To relocate private buildings, roads, bridges, fences or utilities, and other private improvements necessary for the successful operation or protection of facilities authorized to be financed.
- (d) For payment of other utility connection charges as provided in service contracts between utility systems.
- (e) When a necessary part of the project relates to those facilities authorized to be financed, the following may be considered: (1) Loan or grant funds may be used for: (i) Reasonable fees and costs such as legal, engineering, administrative services, fiscal advisory, recording, environmental analyses and surveys, possible salvage or other mitigation measures, planning, establishing or acquiring rights; (ii) Costs of acquiring interest in land; rights, such as water rights, leases, permits, rights-of-way; and other evidence of land or water control or protection necessary for development of the facility; (iii) Purchasing or renting equipment necessary to install, operate, maintain, extend, or protect facilities; (iv) Cost of additional applicant labor and other expenses necessary to install and extend service; and (v) In unusual cases, the cost for connecting the user to the main service line. (2) Only loan funds may be used for: (i) Interest incurred during construction in conjunction with multiple advances or interest on interim financing; (ii) Initial operating expenses, including interest, for a period ordinarily not exceeding one year when the applicant is unable to pay such expenses; (iii) The purchase of existing facilities when it is necessary either to improve service or prevent the loss of service; (iv) Refinancing debts incurred by, or on behalf of, an applicant when all of the following

service and for obtaining, giving security for, and repaying the proposed loan. The applicant must be responsible for operating, maintaining, and managing the facility, and providing for its continued availability and use at reasonable user rates and charges. This responsibility must be exercised by the applicant even though the facility may be operated, maintained, or managed by a third party under contract or management agreement.

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conditions exist: (A) The debts being refinanced are a secondary part of the total loan; (B) The debts were incurred for the facility or service being financed or any part thereof; and (C) Arrangements cannot be made with the creditors to extend or modify the terms of the debts so that a sound basis will exist for making a loan; and (v) Prepayment of costs for which RUS grant funds were obligated. (3) Grant funds may be used to restore loan funds used to prepay grant obligated costs.

- (f) Construction incurred before loan or grant approval. (1) Funds may be used to pay obligations for eligible project costs incurred before loan or grant approval if such requests are made in writing by the applicant and the Agency determines that: (i) Compelling reasons exist for incurring obligations before loan or grant approval; (ii) The obligations will be incurred for authorized loan or grant purposes; and (iii) The Agency's authorization to pay such obligations is on the condition that it is not committed to make the loan or grant; it assumes no responsibility for any obligations incurred by the applicant; and the applicant must subsequently meet all loan or grant approval requirements, including environmental and contracting requirements. (2) If construction is started without Agency approval, post-approval may be considered, provided the construction meets applicable requirements including those regarding approval and environmental matters.

Limitations.

- (a) Loan and grant funds may not be used to finance: (1) Facilities which are not modest in size, design, and cost; (2) Loan or grant finder's fees; (3) The construction of any new combined storm and sanitary sewer facilities; (4) Any portion of the cost of a facility which does not serve a rural area; (5) That portion of project costs normally provided by a business or industrial user, such as wastewater pretreatment, etc.; (6) Rental for the use of equipment or machinery owned by the applicant; (7) For other purposes not directly related to operating and maintenance of the facility being installed or improved; and (8) A judgment which would disqualify an applicant for a loan or grant.
- (b) Grant funds may not be used to: (1) Reduce user costs to a level less than similar system cost; (2) Pay any costs of a project when the median household income of the service area is more than 100 percent of the non-metropolitan median household income of the State; (3) Pay project costs when other loan funding for the project is not at reasonable rates and terms; and (4) Pay project costs when other funding is an RUS guaranteed loan.
- (c) Grants may not be made in excess of the following percentages of the RUS eligible project development costs. Facilities previously installed will not be considered in determining the development costs. (1) 75 percent when the median household income of the service area is below the higher of the poverty line or 80 percent of the state non-metropolitan median income and the project is necessary to alleviate a health or sanitary problem. (2) 45 percent when the median household income of the service area exceeds the 80 percent but is not more than 100 percent of the statewide non-metropolitan median household income.

Security.

Loans are secured by the best security position practicable in a manner which adequately protects the interest of RUS during the repayment period of the loan. Specific security requirements for each loan are included in a letter of conditions. Security may include: the full faith and credit of the borrower when the debt is evidenced by general obligation bonds; pledges of taxes or assessments; pledges of facility revenue and, when it is the customary financial practice in the State, liens will be taken on the interest of the applicant in all land, easements, rights-of-way, water rights, water purchase contracts, water sales contracts, sewage treatment contracts, and similar property rights, including leasehold interests, used or to be used in connection with the facility whether owned at the time the loan is approved or acquired with loan funds; assignments of borrower income; liens on the interest of the applicant in land, easements, rights-of-way, water rights, water purchase contracts, water sales contracts, sewage treatment contracts and similar property rights, including leasehold interest, used, or to be used in connection with the facility whether owned at the time the loan is approved or acquired with loan funds.

Rates and terms. Interest rates are set by the Agency for each quarter of the fiscal year. The rate is the lower of the rate in effect at the time of loan approval or the rate in effect at the time of loan closing unless the applicant otherwise chooses. Interest rates charged are one of three categories:

- (a) **Poverty rate.** The poverty interest rate will not exceed 5 percent. All poverty rate loans must comply with the following conditions: (1) The primary purpose of the loan is to upgrade existing facilities or construct new facilities required to meet applicable health or sanitary standards; and (2) The median household income of the service area is below the higher of the poverty line, or 80 percent of the Statewide non-metropolitan median household income.
- (b) **Intermediate rate.** The intermediate interest rate is set at the poverty rate plus one-half of the difference between the poverty rate and the market rate, not to exceed 7 percent per annum. It will apply to loans that do not meet the requirements for the poverty rate and for which the median household income of the service area is not more than 100 percent of the non-metropolitan median household income of the State.
- (c) **Market rate.** The market interest rate will be set using as guidance the average of the Bond Buyer (11-GO Bond) Index for the four weeks prior to the first Friday of the last month before the beginning of the quarter. The market rate will apply to all loans that do not qualify for a poverty or intermediate rate.

Repayment terms.

The loan repayment period will not exceed the useful life of the facility, State statute or 40 years from the date of the note or bond, whichever is less. When necessary, principal payments may be deferred in whole or in part for a period ordinarily not to exceed 36 months following the date the first interest installment is due.

Project selection, priorities.

When ranking eligible applications for consideration for limited funds, Agency officials consider the priority items met by each application and the degree to which those priorities are met. Points will be awarded for factors such as: low population, health factors, low income, the proposed project will merge ownership, management, and operation of smaller facilities providing for more efficient management and economical service, the proposed project will enlarge, extend, or otherwise modify existing facilities to provide service to additional rural areas, applicant is a public body or Indian tribe, amount of joint funding projects that will serve Agency-identified target areas, projects that primarily recycle solid waste products thereby limiting the need for solid waste disposal, the proposed project will serve an area that has an unreliable quality or supply of drinking water. In certain cases the State program official may assign up to 15 points to a project. The points may be awarded to projects in order to improve compatibility and coordination between the RUS's and other agencies' selection systems, to ensure effective RUS fund utilization, and to assist those projects that are the most cost effective.

Allocation of funds.

Loan and grant funds are allocated by State. After applying a base which has been the average size loan and grant and will in the future be 0.05 percent (one half of one percent) of the amounts available. The balance of the State allocations are based on a formula that includes rural population - 50 percent, State's percentage of national rural population with incomes below the poverty level - 25 percent, and the State's percentage of national nonmetropolitan unemployment - 25 percent. A National reserve of about 10 percent is also established to fund projects on a priority basis when the State Rural Development run out of funds. For fiscal year 1999, the Water and Waste Disposal budget authority was \$645 million, plus a supplemental appropriation of \$30 million. This budget authority will allow us to make loans totaling about \$730 million and grants of \$555 million.

Project Size.

Most projects financed with loan and grant funds are small. The average loan the last couple of years has been about \$830,000 and the average grant about \$630,000. On average the RUS funding is supplemented with about 20 percent of other funding, including applicant contributions. Last year the largest single loan was \$7.3 million and the largest grant about \$4.1 million. These amounts are about the same as in recent history.

Graduation.

All borrowers must to agree to refinance their loans with commercial credit when they are able to do so at reasonable rates and terms. We refer to this as "graduation."

Loan Servicing.

Loans and grants are serviced by the Rural Development State and local office staffs. Loan

delinquency has consistently been around 1 percent of the borrowers having an amount past due. Principal delinquency is about 0.011 percent. And, principal and interest write-offs have been about 0.01 percent of the principal loaned since 1940. RUS is very proud of this loan collection record. It is a reflection of a dedicated staff and the diligence of the rural people that manage and operate the facilities financed.

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Mr. DOOLITTLE. Our next witness is Cynthia C. Dougherty, the Director of the Office of Groundwater and Drinking Water within the U.S. Environmental Protection Agency. Ms. Dougherty.

STATEMENT OF CYNTHIA C. DOUGHERTY, DIRECTOR, OFFICE OF GROUND WATER AND DRINKING WATER, U.S. ENVIRONMENTAL PROTECTION AGENCY

Ms. DOUGHERTY. Thank you, Mr. Chairman, for the opportunity to testify before you today on Federal financing of rural drinking water projects. I'm from EPA's Office of Groundwater and Drinking Water, which oversees implementation of the Safe Drinking Water Act.

Through the Safe Drinking Water Act, the Environmental Protection Agency is charged to protect the health of people who drink water from public water supplies. Three years ago, President Clinton signed amendments to the Safe Drinking Water Act, which were passed by Congress, that made significant changes to the Act to focus it and our work on the greatest risk to human health so that America's drinking water will continue to be of high quality.

Those 1996 amendments provided a new source of financial assistance for all public water systems to help pay for the costs of the national standards that we would be setting in the future, as well as for other drinking water treatment needs.

Between fiscal years 1997 and 1999, Congress appropriated nearly \$2.8 billion for that program, the Drinking Water State Revolving Fund. States use these revolving funds with a 20 percent State match to provide financial assistance to systems to protect public health and ensure compliance with the Safe Drinking Water Act objectives.

The State revolving funds provide low-cost loans to publicly- and privately-owned water systems as well as nonprofit, noncommunity systems, with repayment terms of up to 20 years. The Nation's public water systems must make significant investments to continue to ensure delivery of safe drinking water to their customers over time.

In 1997, EPA's survey of drinking water infrastructure needs concluded that more than \$138 billion will be needed over the next 20 years to fund necessary drinking water treatment improvements, including \$37 billion for systems serving fewer than 3,300 people. This treatment need is large because of the size of the drinking water universe. There are 55,000 community water systems, serving 250 million Americans. The vast majority of these systems serve fewer than 3,300 people. These approximately 46,000 small community water systems provide water to 25 million people in both rural and suburban America.

The drinking water SRF was created to address drinking water quality needs. States determine which projects are funded within their State by using a priority system which ranks projects primarily based on three criteria—the risks to human health, the necessity of the project to ensure compliance with the Safe Drinking Water Act, and the economic needs of the system.

Eligible projects include expenditures to upgrade or replace drinking water treatment infrastructure, treated water distribution or storage facilities, and system consolidation. States are prohibited

from providing loans to finance growth, dams and most reservoirs and water rights.

EPA is committed to ensuring that all Americans served by regulated water systems receive the public health protection benefits envisioned in the Safe Drinking Water Act. EPA fully supports financing of drinking water treatment projects for smaller and rural systems to address public health concerns, since many of the systems in greatest needs are small water systems.

States have made funding small water systems projects a priority. As of the beginning of July, 1999, States have made 637 loans—we're actually a much younger program since we've only been in place 3 years—637 loans totalling \$1.3 billion to eligible water systems for drinking water projects. More than 3/4 or 497 of these loans went to small systems.

While the Safe Drinking Water Act requires that at least 15 percent of the funds be made available to small systems, States have provided almost 41 percent of the funds loaned to date to small systems. This is particularly notable because many States have found these loans can take a significant amount of administrative assistance to finance.

EPA also recognizes the need to coordinate with other agencies to better serve rural America. EPA has worked with other funding agencies, including the Rural Utility Service and HUD's community development block grant program, to coordinate activities to address small systems' needs. In 1997, the three agencies issued a joint memorandum to foster cooperation among our agencies as we administer our grant and loan programs and to encourage State administrators of our programs to do the same.

This coordination is taking place at the State level. In Washington State, nine projects from the first round of drinking water SRF applications were cofunded from various sources including RUS, CDBG and the State Public Works Trust Fund. Several States, including Oregon and Arizona, have developed one-stop meetings that bring funding agencies together in one place with applicants for funding. We will continue to work with rural funding organizations at the Federal and State level to provide coordinated assistance to rural water systems.

Separate from the drinking water SRF, some communities, small and large, have sought financial assistance for water and wastewater projects as line items in EPA's budget. EPA is responsible for managing grants to these projects which are administered as direct grants with a 45 percent cost share by the grant recipient.

EPA remains concerned that the funding of these projects undermines the authority of States, as established by Congress in creating both the drinking water and clean water SRF programs—to decide which projects will provide the greatest public health and water quality benefits, and to fund those projects that the State determines, under statutory criteria, represent the greatest public health, environmental and economic need priorities across the State as a whole.

Loans given out through the drinking water SRF address the highest priority public health needs of the water systems in each State, including those in rural areas. State priority lists are developed through a responsive public process which allows citizens

within the State to participate in deciding on public health priorities.

EPA and the States are coordinating their drinking water SRF funding activities with other agencies to ensure that these priority drinking water treatment needs of rural America can be met in the most efficient manner possible.

Thank you.

Mr. DOOLITTLE. Thank you.

[The prepared statement of Ms. Dougherty follows:]

STATEMENT OF CYNTHIA C. DOUGHERTY, DIRECTOR, OFFICE OF GROUND WATER AND DRINKING WATER, U.S. ENVIRONMENTAL PROTECTION AGENCY

Thank you, Mr. Chairman, for the opportunity to testify before you today on Federal financing of rural drinking water projects. I am Cynthia Dougherty, Director of the Environmental Protection Agency's (EPA's) Office of Ground Water and Drinking Water, which oversees implementation of the Safe Drinking Water Act.

The Safe Drinking Water Act (SDWA) is the principal Federal statute governing drinking water quality in the United States. Through the Act, the Environmental Protection Agency is charged with protecting the health of persons who drink water from public water supplies. EPA works with the States, drinking water suppliers, and the public to set health standards for drinking water, and to ensure that these standards are met by the public drinking water suppliers, so that the finished, treated water will be of high quality. Three years ago President Clinton signed into law amendments to the Safe Drinking Water Act, passed by Congress, that focus our efforts on the greatest risks to human health. Congress and the Administration agreed to make some significant changes in the Act to increase public health protection while controlling costs, and EPA and its partners in the drinking water community have spent the last 3 years making those changes a reality.

The drinking water universe is large—55,000 community water systems serve 250 million Americans—and the vast majority of these systems serve fewer than 3,300 persons. These approximately 46,000 small community water systems provide water to 25 million persons in both rural and suburban America. Rural water systems face significant challenges as they work to provide safe drinking water, as low population densities increase the fixed costs of drinking water distribution while offering a limited consumer base to spread out costs.

EPA is committed to ensuring that all Americans served by regulated water systems, regardless of the size of their water system or their location, receive the public health protection benefits envisioned in the SDWA. The nation's public water systems must make significant infrastructure investments to continue to ensure the delivery of safe drinking water to their consumers. A 1997 EPA survey of drinking water needs identified that more than \$138 billion will be needed over the next 20 years to fund necessary infrastructure improvements, including \$37 billion for systems serving fewer than 3,300 persons. Historically, many water systems, particularly small systems, found it difficult to obtain affordable financing for those infrastructure improvements.

The Administration and Congress worked to address the needs of rural drinking water systems in the 1996 Amendments to the SDWA through technical assistance, flexibility in Federal requirements, and funding. The SDWA Amendments provided a new source of financial assistance for public water systems to address public health protection needs. Between fiscal years 1997 and 1999, Congress appropriated nearly \$2.8 billion through the Drinking Water State Revolving Fund (DWSRF) for States and Tribes to address their drinking water needs. States are required to provide a 20 percent match on DWSRF grants they receive. States use the funds received from EPA grants to capitalize their own drinking water revolving funds and finance other activities that support drinking water protection. States then use these revolving funds to provide financial assistance to systems to protect public health and ensure compliance with SDWA objectives. The State revolving funds provide low-cost loans to publicly and privately owned water systems, as well as non-profit non-community ones, with repayment terms of up to 20 years. Interest rates on loans can be at, or below, market interest rates.

A recognition of the special needs facing small systems is the SDWA requirement that States target a minimum of 15 percent of the funds available to provide systems serving under 10,000 persons with financial assistance. Also, for many rural communities, even the low interest rate for loans available through the DWSRF may be too high to make loans affordable. To help address this challenge, a State

has the option of providing additional subsidies, including forgiveness of principal, to systems that meet the State's definition of "disadvantaged." "Disadvantaged" systems can also receive extended loan repayment terms of up to 30 years.

EPA fully supports the financing of small drinking water projects to address public health concerns through the DWSRF, since many of the systems in greatest need are small water systems. States have made funding small water system projects a priority. As of the beginning of July 1999, States' revolving funds had made 637 loans totaling \$1.3 billion dollars to eligible water systems for drinking water projects. More than three-quarters (497) of these loans went to small systems. While the SDWA requires that 15 percent of the funds be made available to small systems, States have provided almost 41 percent of the funds available to small systems. This is particularly notable because many States have found that these loans can take a significant amount of administrative assistance to finalize.

EPA has worked with other funding agencies, including the Rural Utilities Service (RUS) and the Department of Housing and Urban Development Community Development Block Grant (CDBG) Program, to coordinate activities and to address rural systems' needs. In 1997, EPA, RUS, and HUD issued a joint memorandum to foster cooperation between the agencies as they administer their grant and loan programs, and to encourage State administrators of our programs to do the same. This coordination is taking place. In Washington, nine projects from the first round of DWSRF applications were co-funded from various sources, including RUS, CDBG, and the State Public Works Trust Fund. In Maine, monthly meetings are held between the State staff administering DWSRF, CDBG and RUS funds to identify projects and optimize use of funds. Several States, including Oregon and Arizona, have developed one-stop meetings that bring funding agencies together in one place with potential applicants for funding. We will continue to work with rural funding organizations at the Federal and State level to provide coordinated assistance to rural water systems. The Department of Commerce advises us that, through its Economic Development Administration, it also provides financial assistance to rural communities to improve their water supply systems.

Examples of projects that have been funded include \$36,000 to the city of Mitchell, Oregon to make improvements in its chlorination system in response to coliform bacteria contamination, and \$1,030,000 to the city of South Bend to fund construction of a new membrane treatment facility. In addition, the Bangor [Maine] Water District used a \$556,000 loan through a DWSRF set-aside to purchase 725 acres of land in the direct watershed of Floods Pond, the District's source of water, which will add protection from microbial contamination.

The DWSRF was created to address drinking water quality needs. States determine which projects are funded by using a system that ranks projects, giving priority to those projects that: address the most serious risk to human health, are necessary to ensure compliance with the requirements of the SDWA, and assist systems most in need on a per household basis. Eligible projects include expenditures to upgrade or replace drinking water infrastructure, treated water distribution or storage facilities, planning and design, and system consolidation. States are prohibited from providing loans to finance growth, economic development, dams, and most reservoirs and water rights.

States also have the option of setting aside funds from their DWSRF grants to support a number of SDWA priority initiatives including capacity development, operator certification, and source water protection. All of these activities can help water systems, including small rural systems, improve their ability to provide public health protection. One of the set-asides is specifically targeted to benefit small systems. This set-aside, which provides funding for technical assistance for small systems, has been popular among States, which reserved 1.6 percent (of a maximum 2 percent) of FY 1997 grants or \$20.2 million to conduct activities. States that have received FY 1998 funds have reserved approximately the same percentage of their grants for this particular set-aside.

Some communities, small and large, have sought financial assistance for water projects as line items in EPA's budget. EPA is responsible for managing grants to these projects which are administered as direct grants with a 45 percent cost share by the grant recipient. EPA remains concerned that the funding of these projects undermines the authority of *States*—as established by Congress in creating the DWSRF (and the Clean Water State Revolving Fund under the Clean Water Act)—to decide which projects will provide the greatest public health and water quality benefits, and to fund those projects that *the State* determines to fund, in accordance with the applicable statutory criteria.

Loans given out through the DWSRF address the highest priority public health needs of water systems in each State, including those in rural areas. State priority lists are developed through a responsive public process which allows citizens within

the State to participate in deciding on public health priorities. The Administration and Congress intended for the DWSRF to be the primary vehicle to fund drinking water treatment improvements, and EPA supports assistance to rural water systems under the DWSRF.

This concludes my prepared remarks. I would be happy to address your questions at this time.

Mr. DOOLITTLE. Commissioner, why isn't the Bureau part of the April '97 joint memorandum between HUD, EPA and RUS to involve coordination amongst the agencies involved in funding or providing technical assistance for rural water projects?

Mr. MARTINEZ. Mr. Chairman, if I may, let me try to place this in context. There's no question that there's a multitude of rural water systems all over the west. Some are small, some are larger than others.

For the most part, these systems access a local water supply that, for most purposes, is adequate for drinking standards. They need assistance either to enlarge the system or if they've got some local groundwater problems they take care of these issues, and probably that's what these programs and these other agencies, are geared to help with.

But the projects that have been coming before the Bureau of Reclamation, at least the while I've been commissioner of Reclamation, are these projects that are much larger in scope. These are projects that are taking water from one location, where it's available in quantity and quality, and moving it across large distances and tying together existing rural systems where water quality is lacking or inadequate into a much larger component.

And if you look at what's before you, it's these large infrastructure systems that are coming before this Subcommittee. It's not the small rural systems that are trying to improve their pipelines and so forth.

So I think that, from that perspective, Reclamation has never been in this business of helping these small rural water projects and probably it's appropriate that they didn't join this memorandum, which I wasn't even aware existed. But, at any rate, these projects that have been funded by Congress or that the Bureau of Reclamation has become involved in are not what I would consider the small rural water projects but rather they are combining these projects into much larger systems.

The Bureau of Reclamation's history on developing projects that deliver water for municipal, industrial needs has always been, under Reclamation law, reimbursable with interest. Basically that follows our position that any of these projects that are funded through Bureau of Reclamation should follow Reclamation law and should be reimbursed at 100 percent with interest.

Notwithstanding that, Congress in the last few years has approved legislation and the Bureau of Reclamation today is helping build projects in North and South Dakota and in Montana for these large regional systems. I am aware of at least two projects being proposed or in the pipeline in the State of New Mexico. So the issue is, is there a Federal role in building these systems that are not addressed by these other programs and, if so, which Federal agency or agencies should be responsible and how should they be financed?

So, you know, maybe I'm going a bit overboard, but I'm trying to sort of isolate the differences in the systems and the issues that are before this Subcommittee with respect to the proposals that have come before you in the last 2 or 3 years.

That's a long answer to—maybe it wasn't a direct answer to your question, but I sort of wanted to set the tone for what I believe could help the Subcommittee in its deliberations.

Mr. DOOLITTLE. Well, I think you've crystallized the issue very well. And in a minute I would like you to express what you think is the right thing to do on this, since it's obviously, for the people that live in these areas, it is a problem. But, you know, is there a Federal role, and if there is, what is it, and how much it would be?

Let me just ask you if you could, with your staff, to look at that memorandum, perhaps, and maybe you can send word after you further consider the issue, if you think there might—does BOR—does it make sense to have them be part of that memorandum?

Mr. MARTINEZ. I will do that.

Mr. DOOLITTLE. Okay. Now, I know the yellow light is there. You posed those questions very articulately. What do you think the answers ought to be?

Mr. MARTINEZ. Well, let me just share some thoughts with you. I think that there's no question that there should be a Federal role, and there is a Federal role. Congress has spoken with respect to its funding of programs for both the rural, small systems and the need for these large, interconnecting systems.

It has already approved six or seven projects that the Bureau of Reclamation is engaged with, to the extent of a total cost of \$750 million. The administration has gone on record supporting delivery of adequate water supply to the rural communities. The question is now, how do we crystallize the resources and the legislation to provide this service that apparently is lacking? Because these project sponsors are trying to figure out where they need to go.

Now, the question, how do you finance that? Well, the concern I have as the Bureau of Reclamation commissioner, as I expressed to you before, is, given our budget resources and the needs for continuing to upgrade and maintain our existing facilities, I cannot, you know, in all due conscience say here that I support the Bureau of Reclamation engaging in these activities in the absence of additional resources being brought to the table in terms of additional funding.

On the other hand, I cannot sit here and support that those resources should be siphoned up from some other program, particularly if those programs are delivering a need that exists and is being utilized by the American public. So I don't know—there's no easy answer to this, but it appears to me that the Congress and the administration, with the resources available to the Federal Government or the support of the States, need to put together a program for funding reclamation activities like they did back in 1902. Together we can surely come up with an approach to address this issue.

I would refer you to the other program that the Bureau of Reclamation is involved in, which is our development of wastewater reuse projects. If you recall, the original projects that were funded

by Congress were site specific. Then Congress revisited that issue a few years ago and redid its wastewater reuse law, set some criteria, directed the Bureau of Reclamation to set up some criteria, which projects they would support and not support and recommend to Congress for funding. They set a cap on the amount going to each project.

So I think there's precedent, and I would defer to you in your judgment as to how Congress should react on this issue.

Mr. DOOLITTLE. Well, thank you.

Mr. Dooley, I will recognize you for your questions.

Mr. DOOLEY. Thank you, Mr. Chairman.

I guess, just to try to help me frame this issue, is if we look at a specific project that's been proposed, the Lewis and Clark project, which I had the chance to review the GAO report that was prepared on that, and basically my assessment of it is there really is not one Federal program out there, any one agency that really is authorized to participate in a manner that would I guess lead to the construction of or the completion of this project. And would you concur with that, Commissioner Martinez?

Mr. MARTINEZ. That is my understanding, if I recall the testimony of the project sponsors, is that they tried going to the different programs and weren't able to put a project together and had come to this Subcommittee and the Bureau of Reclamation because they were aware that the Bureau of Reclamation was involved in a similar project that the subcommittees had authorized and that the Bureau of Reclamation had that expertise for the project in question, which we're talking about these large trunk lines and processing facilities.

Mr. DOOLEY. I guess, Ms. Dougherty, in terms of the EPA's involvement on this, when you have a project like this, which the proponents are advocating or arguing that it is one which is critical to meeting water quality standards, what is the opportunities for EPA's participation in a project of this nature?

Ms. DOUGHERTY. I talked to the people who had come to town to engage people in the project and both John and I did together—and the size of that project dwarfs the money that's available from the drinking water SRF with the three States that would be involved. It would take all of their money every year for several years to go to that one part of their State, and they wouldn't be able to deal with the needs that they have in other parts of their State. So it really overwhelms what's available at the State level from the drinking water SRF.

The total national DWSRF budget each year is around \$800 million, so that project is just very large when you look at that. Some of the issues that we were also looking at were drinking water standard related and some were drinking water issues that we—that related to the specific standards that we have right now.

Mr. DOOLEY. I guess have we basically in some ways almost made a de facto decision because there isn't the ability of the local participants or the States to finance a significant share of this and there's not the available Federal resources nor the policy that would necessarily require Federal participation, that this is just one that there's not a home for?

Ms. DOUGHERTY. Not in the program that we have at EPA; because of size but also because it goes beyond what we normally would be funding.

Mr. DOOLEY. Mr. Romano, as far as USDA is concerned, would your response be very similar to that?

Mr. ROMANO. My response would be very similar, Congressman, except that we would tend to look at a project like that as several potential phases of projects. We would tend to look at a project like that as in cooperation with other agencies; and, as you heard in my statement, we're working more and more closely with other agencies. We would try to look at the possibility there.

If a larger project like that was built over several phases to look at piece by piece, the communities that could potentially apply for our assistance as part of a phase. If it were a community along that system—if somehow the wherewithal could be found to develop the treatment plant and the transmission line or the beginning of the transmission line, we might be able to help with specific communities that were income eligible, that were population eligible, along the way.

In fact, we've been doing that with the Southwest Pipeline Project in the State of North Dakota, which is part of the bigger Garrison Diversion Project.

Now, you might look at 5 percent of what's been spent over the past 13 years as insignificant, but, you know, as I look at that funding, it's been pretty good gap or linchpin funding along the way to make it possible. Apparently, \$160 million from various public sources have been spent there in various phases over 13 years. Eight million dollars of that, mostly in grants, but partly in loans, have come from our program. We would expect to continue to participate with that Southwest Pipeline Project in the future.

I mentioned our average loan and grant size. Our average loan size is \$800,000. Occasionally, we do somewhat bigger loans. Last year on a pipeline project, well, not out west but in Louisiana, an all loan deal, we came in with a loan of around \$7 million. It's a couple of phases, but there's several other financing sources. As I recall, we're slightly over 50 percent of that Project.

The Shoshone-Bannock Project, it's not one of these macroprojects, if you will, in terms of a couple hundred million dollars in Idaho, but the projected cost is \$15 to \$20 million. We look at that as a potential three or four phase project with funding from us, from IHS, and from EPA.

Now, if the BOR were involved—and BOR already has, I believe, a half million dollars in there for a feasibility study, not the part we've already funded, which is in the village where things—where homes are concentrated but out in the rural areas—BOR already has feasibility study money in there. It may be an appropriate role for the BOR later if that study shows a feasibility for their programs to join the other three funding sources—us, EPA, and IHS—to make that four- or five-phase project a two- or three-phase project.

Mr. DOOLEY. Thank you.

Mr. DOOLITTLE. Mr. Pombo.

Mr. POMBO. No questions.

Mr. DOOLITTLE. Let me ask you, Mr. Romano, with what you know about the various programs and the people you serve, do you think the Bureau should be part of that agreement?

Mr. ROMANO. The agreement—

Mr. DOOLITTLE. This 1997 joint memorandum involving HUD and the EPA and RUS.

Mr. ROMANO. Probably, from what I know of their activities and, you know, there certainly is the opportunity to amend it.

Mr. MARTINEZ. Mr. Chairman.

Mr. DOOLITTLE. Yes, Mr. Martinez.

Mr. MARTINEZ. If I may, and, again, if I'm wrong, I'll have the record corrected, but because Reclamation has no general authority to engage in these kinds of projects, and I'm assuming that these two agencies to my left have general authority, they're working under a general authority, under a memorandum, it might be somewhat difficult for us, quite frankly, to join into that kind of memorandum unless it's site specific for each of the projects. So there might be some problems there.

And I guess this goes to the question of what is Reclamation's role in this area and what should be the role. To date, we have moved forward in these activities with planning efforts directed by Congress and authorized, because before we can go into a certain level of study we have to have authority and then we have to have authority for the specific projects.

The question that remains is, for Congress and the administration to work through, is what should be the appropriate role of the Bureau of Reclamation in these activities? Should we have a role in terms of no role at all, continue the way things are working, or should we become more actively engaged in this initiative?

Thank you.

Mr. DOOLITTLE. Well, thank you.

Let me ask, Ms. Dougherty, what are the estimated costs, if you know, for providing a reliable source of drinking water to rural communities throughout the rural areas in the United States? Do you have a figure for that?

Ms. DOUGHERTY. I just have a figure for the small systems that serve less than 3,300 people, which I assume—

That's the \$37 billion.

Mr. DOOLITTLE. That's your policy criteria?

Ms. DOUGHERTY. That's the \$37 billion, right.

Mr. DOOLITTLE. How much is it?

Ms. DOUGHERTY. \$37 billion over 20 years, the needs over the next 20 years. That doesn't simply include the costs to comply with the Safe Drinking Water Act, but also includes other necessary infrastructure upgrades that people would need to just supply water to replace equipment or to replace pipes or to replace storage towers.

Mr. DOOLITTLE. But over 20 years for rural communities or just communities.

Ms. DOUGHERTY. For existing rural public water systems.

Mr. DOOLITTLE. Of less than 3,300 population.

Ms. DOUGHERTY. Less than 3,300.

Mr. DOOLITTLE. \$37 billion?

Ms. DOUGHERTY. Yes. And we actually have a needs survey, which I didn't bring with me, that we would be happy to provide to the Committee.

Mr. DOOLITTLE. I think that would be useful.

[The information follows:]

Mr. DOOLITTLE. Well, what do you think I should tell these people that come to this Subcommittee with these big projects? I mean, obviously they have a need, but obviously we don't—I don't think we have the money to do it in the way, you know, they would have us do it.

I'm kind of looking to the administration to work with us to figure out, what people can reasonably expect of this Subcommittee? What is the right policy for us to sit down to help people work through these problems? Any suggestions?

Mr. MARTINEZ. Mr. Chairman, here we're dealing with Bureau of Reclamation and the oversight responsibility you have with respect to authorization language for Bureau of Reclamation issues. Given the budget limitations that the Bureau of Reclamation has and, again, given the constraints on our budget based on existing needs, I see no other alternative in the Committee than to say, in the absence of a unified program, Federal program, it's very difficult for us to fund these projects. That's a practicality, because you're going to be robbing Peter to pay Paul.

Mr. DOOLITTLE. Well, we've been saying that. Then, the Senate passes something out that undermines our position a little bit.

I do believe the need is legitimate, but I do think we've got to find a different way to do this. And I appreciate your coming before us.

I want to give Mr. Dooley an opportunity—

Mr. DOOLEY. No questions.

Mr. DOOLITTLE. I think what we will do is recess the Committee, we will excuse this panel, and thank you very much for coming, and ask you to respond expeditiously to supplementary questions we put to you.

And with that, we will excuse the panel. We will recess the Committee, and we will come back after this vote.

[Recess.]

Mr. DOOLITTLE. Well, the Subcommittee will reconvene. We have Panel II, and we will ask our members of the panel—let's see, we don't have—it was a rather long break; we had several votes. I think we will just begin with the two witnesses we have and pick up our third one when she arrives.

Let me ask, please, you two if you will rise and raise your right hands.

[Witnesses sworn.]

Mr. DOOLITTLE. Thank you. Each answered affirmatively. We are very happy to have you here, and we will recognize, as our first witness, the Associate Director of Energy Resources and Science Issues Resources—these are long titles—within the Community and Economic Development Division of the General Accounting Office. That is Ms. Susan Kladiva.

STATEMENT OF SUSAN KLADIVA, ASSOCIATE DIRECTOR, ENERGY RESOURCES, AND SCIENCE ISSUES RESOURCES, COMMUNITY AND ECONOMIC DEVELOPMENT DIVISION, GENERAL ACCOUNTING OFFICE

Ms. KLADIVA. Thank you, Mr. Chairman. In your request for us to testify, you asked that we address questions on the funding of rural water projects based on the work that we have been doing for the Subcommittee.

As you know, we have been working on the Lewis and Clark rural water projects as a case study. In that connection, we have reviewed issues concerning the relative benefits and certain alternatives that you recommended for financing the project.

The Lewis and Clark project is a proposed solution to insufficient amounts of good water quality near the junction of South Dakota, Minnesota, and Iowa. The project would divert and treat up to 23.5 million gallons daily of Missouri River water that would be piped to 22 cities and rural communities throughout the area. The cost of the project in 1993 dollars is estimated to be at about \$283 million, and the proposed legislation provides a formula for Federal and non-Federal sharing of planning and construction costs under which the Federal Government would be responsible for a grant of about \$193 million.

In May of last year, we testified before you that the Lewis and Clark project would meet some of the criteria of the USDA and EPA rural water programs, but not key criteria relating to the population of the service area, economic feasibility and priority. Further, its dependence on grants is inconsistent with BOR's long-standing policy of having water users repay 100 percent of costs of projects.

While officials of USDA, EPA and BOR said that they believed that the Lewis and Clark project is worthwhile and needed by the communities it would serve, its biggest limitation is its high cost relative to their agencies' funding availability.

Today we will provide further testimony on Lewis and Clark. My statement will summarize the results of a report that we issued to you in May of this year, discussing the benefit that could result from the project, who would receive them and how they are valued.

Potential benefits fall into three categories: societal, economic and fiscal.

Societal benefits consist of improvements in the health and safety and life-style of residents. Economic benefits include increases in the regional output of goods and services or transfer of economic activity into the Lewis and Clark service area from outside the region. Fiscal benefits are net increases in government revenues, such as sales and property taxes that result from an increase in economic activity.

The primary recipients of these benefits would be local water users such as households and businesses. They would benefit from lower water-related expenditures, as well as higher incomes because of increases in local economic activity.

Local and State governments would be the beneficiaries of any increases in sales and income tax revenues. Counties and school districts could benefit if there were an increase in property taxes.

However, the Federal Government would realize little fiscal benefit from the Lewis and Clark project.

We attempted to quantify the benefits of the project, but found that benefits from municipal and industrial water supplies are difficult to value. Specifically, societal benefits cannot be monetarily measured with reasonable accuracy. Economic benefits are also difficult to measure because of the difficulty in attributing increases in economic activity directly to changes in the quantity and quality of water.

Despite this difficulty, we believe that increases in the value of agricultural goods and services due to Lewis and Clark will be minimal at the national level. At the regional level, however, economic benefits should be greater because they include not only the increase in the value of regional goods and services, but also the transfer of industries into the area from outside the region.

For example, local planners expect that if the project is built, food processing and ethanol plants may consider relocating to the Lewis and Clark service area. Because of the difficulty in identifying and directly attributing changes in economic activity to the quantity and quality of water, economists have developed other methods that can approximate the value of benefits attributable to water projects. One such method is estimating the cost of reasonable alternatives that would be avoided if the project is built.

Individual Lewis and Clark water districts reported that their alternatives consisted of drilling additional water wells, modifying or building treatment plants, and purchasing water from other water districts. We estimate that the sum of these alternative costs for the Lewis and Clark projects' 22 member districts ranges between \$71 million and \$81 million. This compares to the 1993 estimate of \$283 million to build the project, which is about \$313 million in today's dollars.

However, it is important to note that these estimates are minimum value because many of the alternatives would not produce the same quality of water as Lewis and Clark and because two districts did not estimate their alternatives.

In summary, it is apparent that the Lewis and Clark Rural Water Project poses a dilemma. It is deemed to be a worthwhile project that is needed to improve drinking water supplies that are low in quantity and quality, yet its benefits will be minimal at the national level and existing Federal rural water assistance programs are not funded at levels to accommodate such large projects.

It is timely therefore, Mr. Chairman, that this Subcommittee has begun the dialogue to address options for funding rural water projects.

This concludes our prepared statement. We will be pleased to answer questions.

Mr. DOOLITTLE. Thank you.

[The prepared statement of Ms. Kladiva follows:]

United States General Accounting Office

GAO

Testimony

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Committee on Resources, House of Representatives

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RURAL WATER PROJECTS

Federal Assistance Criteria and Potential Benefits of the Proposed Lewis and Clark Project

Susan D. Kladiva, Associate Director,
Energy, Resources, and Science Issues,
Resources, Community, and Economic
Development Division



Mr. Chairman and Members of the Subcommittee:

It is a pleasure to be here to participate in your oversight hearings on rural water project funding. In the past year, we have issued two reports that address issues involving rural water projects. One, issued in May of 1998 to your Senate counterpart, looked at the characteristics of a number of proposed rural water projects and compared them with the criteria of a number of existing programs for funding assistance.¹ One of the projects covered in that report was the proposed Lewis and Clark project in South Dakota, Iowa, and Minnesota. The other report was issued to you in May of this year.² It focused on the benefits that could be expected from constructing a project such as Lewis and Clark.

Specifically, my statement today will cover (1) federal assistance criteria for rural water projects and (2) potential benefits of rural water projects such as Lewis and Clark.

In summary, regarding federal assistance criteria for rural water projects, our work looked at three programs. These were the Rural Utilities Service program of the Department of Agriculture (USDA), the Drinking Water State Revolving Fund of the Environmental Protection Agency (EPA), and the Bureau of Reclamation (BOR) of the Department of the Interior. We found that the USDA and EPA programs had specific criteria that a proposed water project must meet to be considered for funding and that none of the three projects we examined, including the Lewis and Clark project, had characteristics that met all of the criteria of any one of the programs. We further found that while BOR did not have a formal program and, thus, did not have formal criteria, it did have a long-standing policy on reimbursement for its contributions to projects with which none of the three proposed projects—again including Lewis and Clark—could comply.

Regarding potential benefits of rural water projects, our work, using Lewis and Clark as the example, found that the local water users, such as households and business would receive most of the benefits of the project, which could include higher personal incomes and improved lifestyles. While the federal government would realize only minimal financial benefits, the

¹Rural Water Projects: Federal Assistance Criteria (GAO/RCED-98-204R, May 29, 1998).

²Rural Water Projects: Identifying the Benefits of the Proposed Lewis and Clark Project (GAO/RCED-99-115, May 28, 1999).

project would benefit the federal government to the extent that it will be a means of achieving public policy objectives.

Since the proposed Lewis and Clark Rural Water Project was a focus of each of our reviews, I would like to provide some background on that project before describing our findings in greater detail.

Background

The project is to address the dual problems of inadequate quantities of water and poor quality of water. The cost of the project is estimated to be \$282.9 million (in 1993 dollars). The 300,000 people in 14 counties near the junction of South Dakota, Iowa, and Minnesota use groundwater as their principal municipal and industrial water source. The 100,000 urban residents of Sioux Falls, the largest city in the area, obtain water from the city's municipal water system, while rural residents of the area obtain water primarily from smaller rural water districts. A number of rural residents obtain their own water from private wells. Good-quality water, however, is in short supply in this area. Shallow aquifers, a major source of water in the area, often hold insufficient quantities of water for expanding populations and economic activities, and quantities can be limited during times of drought. Also, the groundwater commonly obtained from these shallow aquifers is vulnerable to contamination from nitrates and pesticides from the intense agriculture that is the main economic activity of the area. Groundwater is often plentiful in deeper aquifers, but it is highly mineralized and, thus, requires expensive treatment.

Because of the insufficient quality and quantity of water, 22 water districts in the area advocate the building of a major municipal water system known as the Lewis and Clark Rural Water Project which would draw water from the Missouri River. These districts are requesting legislation that would authorize a federal grant to cover the construction of the project. The proposed legislation provides a formula for federal and nonfederal sharing of the costs of this construction. With the exception of the city of Sioux Falls, the federal government would fund 80 percent of the costs for the project's planning and construction, and nonfederal interests would fund the remaining 20 percent. For the city of Sioux Falls, the federal government and nonfederal interests would each provide 50 percent "of the incremental cost to the city of participation in the project."

"Incremental cost" is not defined in the proposed legislation, and there is more than one way to interpret these words. In our report, we considered the "incremental cost" that would be subject to 50/50 federal funding to be Sioux Falls' proportionate share of the project's capital costs based on its water demand as cited in the project's feasibility study. This proportionate share is 42.6 percent of the \$282.9 million project's total cost less a small amount (about \$8.5 million), which we interpret the federal government would pay for environmental enhancements. Hence, we estimated the cost shares as follows: The federal government would be responsible for \$192.9 million, or 63 percent; Sioux Falls' nonfederal cost share would be \$58.5 million, or 21 percent; and the other than Sioux Falls' nonfederal cost share would be \$31.5 million, or 11 percent.

The Bureau of Reclamation concurred that our interpretation of incremental costs is reasonable but pointed out that other interpretations may exist. According to the Executive Director of the Lewis and Clark Rural Water System, for example, the project's sponsors interpret the "incremental cost to the city of participation in the project" as the amount of savings that would be realized if Sioux Falls was dropped from the project. That is, the sponsors equate incremental cost to an estimated savings from downsizing the pipelines, treatment plant, and wells to account for water that no longer would be delivered to Sioux Falls. They believe that this savings would be \$55.2 million and that the nonfederal cost share for Sioux Falls would be 50 percent of this amount, or \$27.6 million.

Project Characteristics Do Not Meet Some Criteria for Participation in Selected Federal Programs

We identified a number of elements from laws, regulations, and policies from USDA, EPA, and BOR that constitute the criteria that proposed rural water projects must meet. USDA's program has direct criteria for participation. EPA--which provides grants to the states that must, in turn, develop their own plans and policies for participation--establishes minimum requirements for those plans which constitute applicable criteria. BOR, which has no formal program for rural water projects, does have a long-standing policy on full reimbursement for its contributions to the local projects it funds. It has concentrated its activities in the 17 western states that constitute its service area.

The characteristics of the Lewis and Clark project meet some but not all of the criteria of the three agencies. The project does not meet some of USDA's criteria in that it includes a city (Sioux Falls) with a population exceeding the definition of a rural area as a location with fewer than 10,000 people. Thus, only the rural component of the Lewis and Clark project would meet the criterion. The project also does not meet the criterion for economic feasibility for repayment in that it envisions federal funding through grants of 80 percent of the design and construction costs (50 percent for the Sioux Falls component). This amount exceeds the USDA program's maximum grant limitation of 75 percent of eligible project costs.

The project also does not meet some of the criteria of the EPA program. For example, it does not meet the economic feasibility requirement for the state loan program in that it depends on grants to cover 80 percent (50 percent for the Sioux Falls component) rather than a loan. In addition, the inclusion of an entity with more than 10,000 people would call into question the project's applicability for the portion of the EPA's state grant moneys that states are to use for projects with populations under 10,000.

Similarly, the project's dependence on grants is inconsistent with BOR's long-standing policy of having water users repay 100 percent of the costs of projects. In addition, 2 of the 3 states involved in that project—Iowa and Minnesota—are not among the 17 western states that constitute BOR's service area.

Nature of the Benefits of the Lewis and Clark Rural Water Project

The benefits associated with a rural municipal and industrial water project such as the Lewis and Clark project are a result of increases in both the quantity and quality of water. These benefits can generally be categorized as (1) societal benefits, (2) economic benefits, and (3) fiscal benefits.

The societal benefits include improvements in the health, safety, and lifestyle of residents served by the project. Health improvements could result from the Lewis and Clark project because of the improved quality of the water. For example, EPA's research reveals that a reduction in

sulfate concentration in a community's drinking water could result in fewer gastrointestinal illnesses and that reductions in nitrate concentrations in drinking water could result in fewer infants being at risk of serious illness or death. The project could improve safety in the region by making more water available for fighting fires in the smaller communities. Lifestyle improvements could result from a better quality of water being available for drinking, bathing, and washing clothes or more water being available for landscaping. The societal benefits also include contributing to the federal government's efforts to pursue its goal of furthering economic development in rural America.

The economic benefits are increases in the economic value of the national or regional output of the goods and services produced as a result of increases in the quantity or quality of water. The Lewis and Clark project could have an impact on hog and cattle production, milk production, and other agricultural products made from soybeans, corn, and eggs that are processed by local plants. For example, farmers have reported increased weight gains in hogs when rural areas have switched to water having lower sulfates and hardness. Similarly, dairy farmers have attributed increased milk yields to better quality water. Although the water from the Lewis and Clark project will not be used for irrigation, community officials stated that an increased availability of water could provide opportunities for the economic development of industries whose processes require large amounts of water, such as ethanol plants and food processing plants, in the Lewis and Clark service area. In addition, the improved quality of the water would increase the longevity of water heaters, water softeners, and other appliances by reducing mineral deposits and thereby saving residents repair and replacement costs.

The fiscal benefits are net increases in government revenues that result from an increase in economic activity. Proposed construction projects such as the Lewis and Clark project would have an impact on fiscal revenues. Should the Lewis and Clark project be built, increased sales tax revenues could result from an increase in economic activity, and increased income tax revenues could result from the higher earnings associated with this economic growth, particularly in the agricultural sector. Increases in the quantity and quality of water could lead to increases in property values, which in turn could increase property tax revenues. However, the net fiscal benefit to the various levels of government would depend also on the impact of the project on various government expenditures, including increases in infrastructure spending or increases in government outlays to meet increased demands for government services.

Beneficiaries of the Lewis and Clark Rural Water Project

The local water users, such as households and businesses, would receive most of the benefits from the Lewis and Clark project. Thus, the project's 22 member districts would not benefit directly because, as nonprofit water providers, they function as their customers' agents in obtaining water and deliver water to users at or near cost. The benefits accruing to local water users could include (1) higher personal income resulting from the increase in economic activities; (2) decreased costs for replacing water heaters, maintaining water softeners, and servicing other appliances; and (3) societal benefits, such as improved health and lifestyles.

State and local governments would benefit primarily from the increases in tax revenues resulting from an anticipated increase in the production and sales of goods and services. State and local governments could also benefit from increased sales and income taxes generated from the construction activities of the Lewis and Clark project. County governments and school districts could be the beneficiaries of increased property tax revenues.

The federal government would realize only minimal financial benefits from the Lewis and Clark project. Increases in federal income tax revenues resulting from increased economic activities attributable to the project would likely be minimal. However, the project would benefit the federal government to the extent that it will be a means of achieving such objectives as meeting federal drinking water standards, improving the quality of rural life, and investing in the infrastructure of rural America.

How Benefits From the Lewis and Clark Rural Water Project Are Valued

The societal benefits, such as meeting federal drinking water standards, improvements in health and lifestyle, and investing in the development of the infrastructure of rural America, cannot be measured monetarily with reasonable accuracy. For example, water experts we interviewed stated that improved public health is a major benefit, but the benefit is difficult to measure. Improvements in health were also cited by district representatives as a major benefit of the

Lewis and Clark project. However, neither the reduction in illnesses nor the subsequent reduction in health care costs that might be attributable to better quality water can be valued with precision.

Similarly, it is not possible to accurately assign a monetary value to an improved lifestyle attributed to better quality water. However, the Congress has recognized the long-standing need to improve the quality of water in rural America. For example, the Rural Utility Service, through its water and wastewater loan and grant program, has helped fund almost 17,000 water and sewer projects serving more than 12,500 rural communities in the last 30 years. Also, the objective of EPA's Drinking Water State Revolving Loan Fund program is to ensure that the nation's drinking water supplies remain safe and affordable.³

The economic benefits of water projects such as the Lewis and Clark project are, for the most part, difficult to quantify because of the difficulty in attributing with any precision an increase in economic activity directly to an increase in water. Water is rarely the sole factor responsible for economic change, but water can facilitate economic expansion. For example, hog farmers are unlikely to decide to raise more hogs based solely on the availability of better quality water. Instead, they are also likely to consider the cost of feed, the amount of available space in their sheds, and the market demand as reflected in the price paid for their product by slaughterhouses.

Despite the difficulty of measuring the economic benefits, increases in the value of the output of goods and services resulting from the Lewis and Clark project can be viewed from either the national or regional perspective. Although both perspectives are measures of changes in the value of goods and services produced, the regional benefits could be significantly different from the national benefits because regional benefits capture the transfer of economic activities into the project's service area from outside the region. Regional transfers will result in no net national benefits.

³The Safe Drinking Water Act Amendments of 1996 (P.L. 104-182, sec. 130) authorized a Drinking Water State Revolving Loan Fund to help public water systems finance the infrastructure needed to achieve or maintain compliance with the act's requirements and to promote public health protection objectives. Section 1452 authorizes the Administrator of EPA to make grants to states to capitalize drinking water state revolving loan funds, which in turn can provide low-cost loans and other types of assistance to eligible water systems.

At the national level, we believe the increases in the value of goods and services due to the Lewis and Clark project would be minimal. Increases in the output of goods and services do not necessarily result in an increase in their value. For example, hog production, one of the major industries in the tristate area, was initially expected to increase locally because of anticipated improvements in the quantity and quality of water. However, production exceeded the demand of slaughterhouses in 1998, resulting in plummeting prices. The hog price in December 1998 was \$14.70 per 100 pounds, down from an average price of \$52.90 in 1997. Similarly, the December 1998 beef cattle price of \$55.80 per 100 pounds was down from an average price of \$63.10 in 1997, resulting in lower incomes.

From the regional perspective, however, the economic benefits of water projects are greater. The regional benefits reflect not only the increase in value of the goods and services produced in the region but also the regional economy's gain from transfers of industries into the area. For example, local planners expect that on completion of the Lewis and Clark project, food processing and ethanol plants may relocate to their region.

Because of the difficulty of identifying and directly attributing changes in economic activities to the quantity and quality of water, analysts have developed other methods that, for the most part, can approximate the value of benefits accruing from a water project. One method, called a willingness-to-pay study, surveys water users and asks them how much they are willing to pay for an increase in the quality and quantity of their water. BOR analyzed a survey conducted by the Lewis and Clark project's sponsors in 1992 and estimated that residents in the project's service area were only willing to pay an additional \$3.34 million per year to ensure a safe and reliable future water supply. Over the 40-year life expectancy of the Lewis and Clark project, this amounts to about \$87 million in 1998 dollars.⁴ As a result, BOR concluded that from a purely economic standpoint, the Lewis and Clark project does not pay for itself since the cost of the proposed project is \$282.9 million in 1993 dollars. However, if the project is required to meet future water quality standards or solve reliability problems that must be dealt with regardless of cost, BOR concluded that the Lewis and Clark project may be the most cost-effective way to reach such goals. Moreover, economists that we contacted said that figures reported by

⁴Discounted at 3 percent.

respondents in willingness-to-pay studies may underestimate total benefits because respondents may fear that their water bills would be increased by the amounts they report.

Another method used by economists in estimating the value of a water project's benefits consists of estimating the cost of reasonable alternatives that would be avoided if the project is built. In other words, how much the beneficiaries are willing to pay for an alternative water system provides an estimate of the value they would place on the benefits they expect to receive from the increase in the quality and quantity of their water. At the water district level, this cost represents the value of the project's benefits to all water users in the district, including households, farms, and businesses. This method can approximate the value of benefits if the alternative will produce the same quantity and quality of water as the proposed project.

To that end, we asked the 22 individual water districts to identify and estimate the cost of reasonable alternatives that would be avoided if the Lewis and Clark project is built. Reasonable alternatives for the water districts in the project's service area include drilling additional wells, modifying or building treatment plants, and purchasing water from other water districts. A summary of these alternatives and their individual costs appears in appendix I.

We estimate that the sum of these alternative costs for Lewis and Clark members ranges between about \$71 million and \$81 million in 1998 dollars. However, these figures should be considered minimum values because many alternatives would not produce the same quality of water as the Lewis and Clark project and because two districts did not estimate the cost of their alternatives. In addition, only 5 of 16 alternatives that would require large capital investments were based on detailed written cost estimates or engineering studies, so several of the verbal estimates we obtained may lack accuracy.

The net fiscal benefits attributable to the Lewis and Clark project would depend largely on changes in the economic activities in the region as well as on changes in the governments' outlays for services and infrastructure. BOR estimated the tax revenues increases expected from the construction activities of the Lewis and Clark project to be about \$16.5 million in 1992 dollars. Its estimate included the excise, fuel, sales, and income taxes expected to be collected by South Dakota, Iowa, and Minnesota from the contractors and laborers. However, the

estimate did not include increases in tax revenues anticipated from an increase in regional economic activities.

Mr. Chairman, this concludes my prepared statement. We will be pleased to respond to questions you or Members of the Subcommittee may have.

Contact and Acknowledgements

For further information, please contact Susan D. Kladiva at (202) 512-3481. Individuals making key contributions to this testimony included Arleen Alleman, Ronald M. Belak, Brad Hathaway, Mehrzad Nadji, Rudolfo G. Payan, Doreen Feldman, and Kathleen Gilhooly.

Member Districts' Alternatives to the Lewis and Clark Rural Water Project
 Compared With the Project's Commitments

Member district	Average daily water use (gallons)	Lewis and Clark commitment (gallons/day)	Nonfederal proportionate share of Lewis and Clark (1998 dollars)*	Alternative to Lewis and Clark	Cost of alternative (1998 dollars)	Nature of cost estimate for alternative
Lincoln-Pipestone, Minnesota	3,000,000	300,000	\$789,000	None available	Not available	Not applicable
Rock County, Minnesota	583,000	300,000	789,000	Drill more shallow wells in Rock River aquifer	\$2,887,000	Written estimate prepared by district manager
Luverne, Minnesota	1,200,000	500,000	1,282,000	Drill additional shallow wells	388,000 to 1,388,000	Verbal estimate
Worthington, Minnesota	2,720,000	1,730,000	4,436,000	None available	Not available	Not applicable
Sheldon, Iowa	1,300,000	1,000,000	2,564,000	Drill more wells and update water lines	6,532,000 to 6,932,000	Written proposal prepared by engineering firm
Sibley, Iowa	400,000	650,000	1,667,000	Purchase additional water from Ocasola Water District	2,556,000	GAO estimate based on water prices supplied by district
Clay County, Iowa	750,000	1,000,000	2,564,000	Drill more wells and build joint treatment plant with Spencer, Iowa	3,102,000	Written estimate based on studies prepared by engineering firm
Rural Water District 1, Iowa	1,725,000	1,000,000	2,564,000	Drill more deep wells and upgrade treatment plant	Not estimated	Not applicable
Hull, Iowa	165,000	300,000	789,000	Join nearby district in its expansion and purchase 150,000 gallons/day	2,447,000	Written cost estimate supplied by nearby district and GAO estimate of value of water purchase
Sioux Center, Iowa	1,000,000	600,000	1,538,000	Drill wells west of town and build	560,000	Verbal estimate provided by city's

Appendix I

Member district	Average daily water use (gallons)	Lewis and Clark commitment (gallons/day)	Nonfederal proportionate share of Lewis and Clark (1998 dollars)	Alternative to Lewis and Clark	Cost of alternative (1998 dollars)	Nature of cost estimate for alternative
Boyd, Iowa	55,000	190,000	259,000	water line	Not estimated	utility department
Sierraville, South Dakota	290,000	250,000	841,000	Pump existing wells and eventually add new wells	2,000,000	Not applicable
Centerville, South Dakota	200,000	220,000	554,000	Replace treatment plant	4,412,000 to 5,012,000	GAO estimate based on data provided by water department
Harrisburg, South Dakota	70,000	250,000	841,000	Hook up to nearby rural water systems	2,153,000	Verbal estimate provided by city official
Lemmon, South Dakota	200,000	400,000	1,026,000	Drill more wells, construct new treatment and softening plants	1,021,000	Verbal estimate supplied by utility department
Madison, South Dakota	600,000	1,000,000	2,564,000	Drill more wells	0 to 5,040,000	Verbal estimate provided by water department
Parmer, South Dakota	150,000	490,000	1,256,000	Build a new treatment plant	278,000	Detailed study prepared by engineering firm
Sioux Falls, South Dakota	15,876,000	10,000,000	84,101,000	Drill high-volume well and build water tower	30,000,000	Verbal estimate supplied by water department
Tea, South Dakota	150,000	330,000	846,000	Develop Wall Lake aquifer	2,331,000	Informal estimate by city
Lincoln County, South Dakota	593,000	900,000	2,308,000	Purchase balance (160,000 gallons per day) from Lincoln Co.	2,782,000	GAO estimate based on data supplied by city
				Purchase shortfall (up to a maximum of 800,000 gallons per day) from Sioux Falls		GAO estimate based on data supplied by water district

Appendix I

Appendix

Member district	Average daily water use (gallons)	Lewis and Clark commitment (gallons/day)	Nonfederal proportionate share of Lewis and Clark (1988 dollars)*	Alternative to Lewis and Clark	Cost of alternative (1988 dollars)	Nature of cost estimate for alternative
Minnesota, South Dakota	1,800,000	2,000,000	5,128,000	implement water conservation	Not applicable	Not applicable
South Lincoln, South Dakota	600,000	150,000	365,000	Drill three wells; build booster station, lines and softening plant	7,650,000	Informal estimate supplied by water district
Total	33,198,000	23,470,000	\$98,638,000		\$70,879,000 to \$91,019,000	

*These proportionate shares in 1988 dollars are not equal to proportionate shares discussed in the report's text, which are in 1983 dollars.

*Lincoln-Pipestone has plans to increase their commitment to 1 million gallons per day.

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Mr. DOOLITTLE. Our next witness is the Executive Director of the Midwest Electric Consumers Association, Mr. Thomas P. Graves.
Mr. Graves.

**STATEMENT OF THOMAS P. GRAVES, EXECUTIVE DIRECTOR,
MIDWEST ELECTRIC CONSUMERS ASSOCIATION**

Mr. GRAVES. Thank you, Mr. Chairman. Mid-West Electric Consumers Association appreciates the opportunity to come and testify before this Subcommittee on rural drinking water systems.

Mid-West is the regional coalition of consumer-owned electric utilities that purchase power generated at Federal dams in the Missouri River Basin. Since 1958, Mid-West has represented the interests of more than 3 million consumers that depend in part on the Pick-Sloan Missouri Basin program for their power supply.

More than 100 years ago, John Wesley Powell recommended that the boundaries of the western States be determined by river basin drainages. The scope and vision of the Pick-Sloan Missouri Basin program, wittingly or not, followed Powell's concept.

The original Pick-Sloan program provided a variety of benefits for the region—flood control, navigation, municipal and industrial water, irrigation, and, of course, hydropower. Of all the project purposes, only the hydropower function and municipal and industrial water supply pay 100 percent of the costs allocated to that project purpose with interest.

As part of the bargain struck that led to the enactment of the Pick-Sloan program, Pick-Sloan's power users also agreed to shoulder that capital investment in Federal irrigation projects beyond the ability of irrigators to repay. This is the only instance where hydropower revenues provide financial assistance to another project purpose.

As I noted above, municipal and industrial water users are responsible for 100 percent of the capital investment, as well as O&M.

The irrigation support is no small obligation for the power users. Currently, Pick-Sloan power users have over \$700 million in aid to irrigation in their rate base to help repay that capital investment. There is another \$700 million or so of projects that may yet be authorized and built, that were envisioned by the original Pick-Sloan program.

The development of rural drinking water systems was not part of the original Pick-Sloan plan. In an effort to see that Pick-Sloan can meet contemporary needs of the region as well as its historical obligations, Mid-West has developed a policy position that recognizes that the contemporary need of the region is adequate and safe supplies of drinking water. We began working with rural water systems several years ago to ensure that they could make use of some of the seasonal Pick-Sloan power as an important consideration in the operations of these systems.

We are committed to the economic well-being of our region, for we are not solely hydropower users. We are the ranchers, farmers and small businesses of the region. There are, however, limitations on how much support hydropower users can provide.

First, Pick-Sloan generation is a finite resource. There is not going to be any new Federal hydropower development in the re-

gion. So the size of the canteen is fixed. Pass that canteen around to too many people and everyone is still thirsty.

Already allocations to new consumer-owned electric utilities and Native American tribes, which Mid-West has and continues to support, will withdraw 4 percent of the current firm power customers' allocations. In 2005, firm power Pick-Sloan customers will have another 2 percent of that resource withdrawn for allocation to new customers.

As a consequence, firm power customers will have to secure new resources to make up for that shortfall, which will most likely mean higher costs.

The overall Pick-Sloan hydroresource is not just being spread among new customers, but also is a shrinking resource. Threatened and endangered species, currently the Piping Plover and Interior Least Tern, cost Pick-Sloan Federal power customers approximately \$2 million a year in lost generation as the Corps attempts to operate the dams without harming the species. This does not include other costs incurred by the Corps to protect these species.

Additionally, the recovery plan for the Pallid Sturgeon, another species on the threatened or endangered list, has not yet been finalized and could further affect the ability of Pick-Sloan hydro-power.

The Corps of Engineers is also in the final stages of revising the master manual which controls the operation of the Missouri River, which could have a dramatic impact on hydrogeneration. We are also facing additional power investments that will have to be made in the near future. Turbine replacements, generator staters, rewinds and the like are going to add an additional \$100 million to the rate base, probably within the next 5 to 10 years, and that is only on the main stem system. It does not include the costs of similar activities being conducted by the Bureau of Reclamation on its projects in Montana, Wyoming and Colorado.

What this means for the rural electric cooperatives, municipal electric utilities and public power districts in the region is that their resource mix is going to be changing. There is going to be upward pressure on electricity rates at a time when the industry is restructuring and deregulating.

We are not talking about developing rural water systems here for towns or areas that have not made every effort to make the best use of the resource they have. The Upper Great Plains is not a region that rewards profligate use of resources. We are talking about places such as Worthington, Minnesota, a city of some 10,000 people that has already spent over \$1 million looking for a water supply. This is a community with an average residential consumption of 5,000 gallons per month, as compared with a national average of 9,000 gallons per month. Losses in the city water system have also been well below the national average. The two major industries in the city have been able to increase their production without additional water consumption, but now must have additional water supply.

The future economic viability of these communities depends upon the development of adequate water supplies. They have undertaken programs to ensure wise use of the water they already have, but

face the prospect of losing business opportunities and economic growth without further additional water supplies.

The Upper Great Plains region is not, as you know, one of the wealthiest regions of the country. The cost-sharing mechanisms that Congress has enacted to fund these projects recognizes the development of rural water as a substantial undertaking for sparsely settled areas, but every American should be able to have an adequate supply of clean, safe drinking water.

Surcharging Federal power to pay for rural water systems in the region runs the risk of threatening local economies and the marketability of Pick-Sloan power. Despite the prosperity elsewhere in the region, the Upper Great Plains still struggles with the inherent problems of a region dependent upon agricultural and natural resources as their economic engine for the vagaries of the marketplace can have a devastating impact. As of 2 weeks ago, corn sold at 1952 prices, 47 years later. Spring and winter wheat were selling at only a few cents above 1952 levels. The last thing the region needs is increases in the price of electricity.

The economic fragility of this region should not mark it as a candidate for abandonment. This is the part of the country that usually leads the way in voter turnout and participation in the governance of their communities, their States and their country. This is a part of the country whose children consistently achieve top scores in educational testing and they send those children out of the region, bringing their talents to the rest of the Nation. This is a part of the country that is strongly self-reliant. The cost-sharing mechanisms that Congress has crafted over the past decade have served the region and the country well.

Thank you very much.

Mr. DOOLITTLE. Thank you.

[The prepared statement of Mr. Graves follows:]

STATEMENT OF THOMAS P. GRAVES, EXECUTIVE DIRECTOR, MID-WEST ELECTRIC CONSUMERS ASSOCIATION, DENVER, COLORADO

Mr. Chairman, my name is Thomas Graves. I am the executive director of the Mid-West Electric Consumers Association. Mid-West appreciates the opportunity to appear before the House Resources Subcommittee on Water and Power to testify on rural water systems.

Mid-West is the regional coalition of consumer-owned electric utilities that purchase power from Federal dams in the Missouri River Basin. Since 1958, Mid-West has represented the interests of more than three million consumers that depend in part on the Pick-Sloan Missouri Basin Program for their power supply.

More than one hundred years ago, John Wesley Powell recommended that the boundaries of western states conform to river basins and their drainages. The scope and vision of the Pick-Sloan Missouri Basin Program, wittingly or not, followed Powell's concept.

The original Pick-Sloan program provided a variety of benefits to the region—flood control, navigation, municipal and industrial water, irrigation, and hydropower. Of all the project purposes, only the hydropower function and municipal and industrial water function pay 100 percent of the costs allocated to that project purpose.

As part of the bargains struck that led to the enactment of the Pick-Sloan Missouri Basin Program, Pick-Sloan's power users also agreed to shoulder that capital investment in Federal irrigation projects beyond the ability of irrigators to repay. This is the only instance where hydropower revenues provide financial assistance to another project purpose. As I noted above, municipal and industrial water uses are responsible for 100 percent of the capital investment, as well as operation and maintenance.

That is no small obligation. Currently, Pick-Sloan power users have over \$700 million in their rate base to help repay the capital investment in “used and useful” irrigation projects. There is another \$700 million or so of projects that may yet be authorized and built under the Pick-Sloan Missouri Basin Program.

For some time, Mid-West and its members have been grappling with how to insure the continued viability of the Pick-Sloan Missouri Basin Program and its original vision of multi-purpose development of resources in the region.

The development of rural drinking water systems was not part of the Pick-Sloan plan. In an effort to see that Pick-Sloan can meet contemporary needs of the region as well as its historical obligations, Mid-West developed a policy position that recognized that a contemporary need of the region is adequate and safe supplies of drinking water.

Several years ago, Mid-West began working with rural water systems to insure that they could make use of some of the seasonal Pick-Sloan power, an important consideration in the operations of these systems. We are committed to the economic well-being of our region, for we are not solely hydropower users. We are the ranchers, farmers, and small businesses of the region.

There are, however, limitations on how much support the hydro users can provide.

First, Pick-Sloan generation is a finite resource. There is not going to be any new Federal hydropower development in the region. So the size of the canteen is fixed. Pass the canteen around to too many people and everyone is still thirsty. Already, allocations to new consumer-owned electric utilities and Native American Tribes, which Mid-West has and continues to support, will withdraw 4 percent of current firm power customers’ allocations. In 2005, firm power Pick-Sloan customers will have another 2 percent of their resource withdrawn for allocation to new customers.

As a consequence, firm power customers will have to secure new resources to make up for that shortfall, which will most likely mean higher costs for electric utility consumers.

The overall Pick-Sloan hydro resource is not just being spread among new customers, but is also a shrinking resource. Threatened and endangered species—the Piping Plover and Interior Least Tern—cost Pick-Sloan Federal power customers approximately \$2 million a year in lost generation to operate the dams without harming these species. This does not include other costs incurred by the Corps of Engineers to protect these species. Additionally, the recovery plan for the pallid sturgeon, another species on the threatened or endangered list, has not yet been finalized, and could further affect the availability of Pick-Sloan hydropower.

The U.S. Army Corps of Engineers is in the final stages or revising the Master Manual for operation of the Missouri River, which could have a dramatic impact on hydro generation.

Pick-Sloan power users also face additional power costs that will have to be made in the near future. Turbine replacements, generator staters, rewinds and the like are going to add an additional \$100 million to the rate base, probably within the next five to 10 years. And that is only on the mainstem dams. It does not include the costs of similar activities by the United States Bureau of Reclamation on its projects in Montana, Wyoming, Colorado and Nebraska.

What this means for the rural electric cooperatives, municipal electric utilities and public power districts in the region is that their resource mix is going to be changing. There is going to be upward pressure on electricity rates, all at a time when the industry is restructuring and deregulating.

And we are not talking about developing rural water systems for towns or areas that have not made every effort to make best use of the resources they have. The Upper Great Plains is not a region that rewards profligate use of resources. We’re talking about places such as Worthington, Minnesota, a city of 10,000 that has already spent over \$1 million looking for additional water supply alternatives. This is a community with an average residential consumption of only 5,000 gallons per month, as compared to the national average of 9,000 gallons per month. Losses in the city water system are also well below the national average. The two major industries in the city have been able to increase their production without additional water consumption, but now must have additional water supply.

The future economic viability of these communities depends upon the development of adequate water supplies. They have undertaken programs to insure wise use of the water they already have, but face the prospect of losing future business opportunities and economic growth without additional water supplies.

The Upper Great Plains region is not one of the wealthiest in the country. The cost-sharing mechanisms that Congress has enacted to fund these projects recognize that development of rural water systems is a substantial undertaking for sparsely settled areas. But every American should be able to have an adequate supply of clean, safe, drinking water.

Surcharging Federal power to pay for rural water systems in the region runs the risk of threatening local economies and the marketability of Pick-Sloan hydropower generation. Despite the prosperity elsewhere in the nation, the Upper Great Plains still struggles with the inherent problems of a region dependent on agriculture and natural resources as their economic engine, where the vagaries of the market place can have a devastating impact. As of two weeks ago, corn sold at 1952 prices. Spring and winter wheat were selling at only a few cents above 1952 levels. The last thing the region needs is increases in the price of electricity.

The economic fragility of the region should not mark it as a candidate for abandonment. This is a part of the country that usually leads the way in voter turnout and participation in the governance of their communities, their states, and their country. This is a part of the country whose children consistently achieve top scores in educational testing. In North Dakota, 8th graders placed first in math scores three times in the 1990's. This is a part of the country where those children leave the region, bringing their talents to the rest of the nation. This is a part of the country that is strongly self-reliant. The cost-sharing mechanisms that Congress has crafted over the past decade have served both the region and the country well.

Thank you.

Mr. DOOLITTLE. Our next witness is Angela Antonelli, Director of the Thomas A. Roe Institute for Economic Policy Studies of The Heritage Foundation.

Ms. Antonelli, will you please rise and raise your right hand.

[Witness sworn.]

Mr. DOOLITTLE. Thank you. You were out of the room when we did that for the other two. We are not singling you out.

Ms. ANTONELLI. I apologize.

Mr. DOOLITTLE. That is quite all right. The votes dragged us out a little longer than we thought.

You are recognized for your testimony.

STATEMENT OF ANGELA ANTONELLI, DIRECTOR, THOMAS A. ROE INSTITUTE FOR ECONOMIC POLICY STUDIES, THE HERITAGE FOUNDATION

Ms. ANTONELLI. Thank you, Chairman Doolittle. Thank you for the opportunity to testify before you today. The views I express in my testimony are my own and should not be construed as representing the official position of The Heritage Foundation.

This Subcommittee is now considering the Federal financing of rural water projects. These projects are controversial primarily due to the large share of the costs that would be paid for by the Federal Government. An even more fundamental question should be asked, however, and that is whether any Federal role is justified in this area. Many of the newer proposed rural projects reflect a troubling continued expansion of the Bureau of Reclamation's mission, one from that of a construction agency to that of yet another Economic Development Agency and Environmental Protection Agency.

Unfortunately, Congress can't seem to resist the opportunity to seize control of responsibility for water resources that belong to States, regions, local communities and the private sector. Each time Congress contemplates another proposed rural water project, it must face squarely the question of what the role of the Federal Government will be in developing and managing our Nation's water resources. So far, Congress' decisions have been disappointing to many of us.

Although the Federal Government has been supporting water projects since the turn of the century, as GAO has often noted, these programs have been based on a long-standing policy of full

reimbursement for its contributions to the projects. Although many of these loans have been forgiven or reduced, the original continuing intent was that beneficiaries of the program would bear the costs of the program. However, that appears to be changing. In the case of the proposed Lewis and Clark project, for example, the Federal Government's share, depending upon one's definition of cost, could be as much as 80 percent.

This increase in nonreimbursable costs certainly appears to be a function of the fact that more of these projects have a greater proportion of nonreimbursable requirements, particularly to meet environmental objectives such as water quality, fish and wildlife and conservation requirements.

It is important to remember that the Federal funding of rural water projects in the Upper Great Plains States only perpetuates the long-held and mistaken notion that water is not valuable enough for people and businesses to own and manage wisely. I reject this view. Federally subsidized construction of these projects will not fundamentally alter the economic base of this region of the country. Indeed, while the infusion of Federal dollars may be somewhat of a boost to the region, in the end, the boost will not lead to sustained long-term change, but rather addiction to more Federal dollars. Ultimately, such projects will be added to the myriad of expensive and often duplicative special interest projects dressed up as another Federal economic development program.

If we look to the Federal experience with the Economic Development Administration, for example, according to the GAO, in areas where there have not been incentives to produce sufficient private sector investment for economic development, Federal interventions consistently proved to be temporary at best. Indeed, this history suggests that these latest programs are also destined to continue this poor legacy. And as GAO and our first panel today indicated and reported on more than one occasion, these types of rural water projects do not fit Federal funding criteria for programs at USDA, EPA or the Bureau, criteria which I would assume are in place to protect Federal financial interests, that is, the interests of all American taxpayers.

In addition, according to GAO's work, the people in these areas also do not support the project enough to pay for it, even though the per capita costs are quite modest. GAO States that the cost of the project is \$282.9 million in 1993 dollars, and it is designed to serve 300,000 people in 14 counties. This is equal to \$943 per person.

Even assuming that we use a per family figure and assume a five-person family, we are only talking about \$4,715 per family, much less than the cost of a used car and financed over a much longer period of time. But despite this low cost, every survey GAO has done in the area demonstrates that the people in these communities are unwilling to pay for the system-increased water fees.

Why should taxpayers throughout the Nation be asked to pay for a project that the beneficiaries themselves refuse to fund? If the potential economic and other benefits that have been talked about are indeed real, then you would expect to see an interest among local water users. But the local community thinks the project is worth less than a used car, so why should the Nation's hard-working tax-

payers value it more highly? Why should Congress take money from hard-working taxpayers to pay for life-style improvements, such as landscaping? And it certainly doesn't seem as if we are really talking about a water shortage, but more about water quality.

But assuring a supply of clean water doesn't necessarily mean that Washington has to take over. Indeed, for the amount of money many area residents seemingly are willing to pay, according to the GAO, it seems to be a lot cheaper for them to contract out privately to some entity to simply truck pristine water into the communities that they could use for eating, drinking, bathing and so on.

Indeed, to the extent that the commitments in small rural projects are \$37 billion over the next 20 years, I would suggest for \$20 billion of that we probably could get a very good contractor to provide the kinds of water that these communities would need.

Over the past three decades, Congress has allowed the Bureau to move away from the construction and operation of traditional, large, multipurpose water projects. Congress should not expand the mission of the Interior Department. These new Economic Development-Environmental Protection rules and the movement into more States will ultimately just allow Congress to justify more federally financed special interest public work projects. We do not need another EPA or EDA for the West or for anywhere else.

A June, 1996 GAO report counted more than 72 Federal programs or other initiatives cutting across eight departments or agencies that either directly or indirectly support water quality.

Similarly, the agency's strategic plan submitted to Congress as a requirement of the Government Performance and Results Act reveal that there are 342 economic development programs managed by 13 agencies with little or no coordination.

The best way to help support the water supply needs of rural areas in this country is for government to look towards water markets and privatizing existing assets. This means the Federal Government has to get comfortable about the idea of doing less, rather than more.

Today, between 7 and 10 percent of water supply projects in the U.S. are privately held. The trend for an increasing number of States, counties and municipalities is to look to the private sector to build and maintain necessary infrastructure, such as wastewater treatment plants, prisons, schools, highways and airports. Indeed, other nations already are way ahead of the United States in their privatization of such infrastructure. In Britain, 100 percent of water and wastewater treatment facilities are privatized, and in France, 75 percent are privatized.

The United States should be a leader and not a follower, and this trend toward Federal financing of rural water projects moves us in the wrong direction. Instead, Congress should allow local communities to determine what their needs are and to work cooperatively with private entities to provide what is needed and to meet those needs.

And the Federal Government can certainly play a role in facilitating that. The Congress also can work to develop a better understanding of the extent to which environmental and other policies place constraints on local water resources. Congress also should

simply resist pressures to reinvent the missions of agencies like the Bureau of Reclamation. There is no reason why the Federal Government needs to fund the 73rd water quality program or the 343rd economic development program.

Congress needs to take steps to get the Federal Government out of the business of maintaining water projects. The Federal Government should not be in direct competition with private entities in providing generous subsidies to special interests at great cost to the American taxpayer.

Thank you.

[The prepared statement of Ms. Antonelli follows:]

STATEMENT OF ANGELA ANTONELLI, DIRECTOR, THOMAS A. ROE INSTITUTE FOR
ECONOMIC POLICY STUDIES, THE HERITAGE FOUNDATION

Chairman Doolittle, Members of the Committee:

Thank you for the opportunity to testify before you today. The views I express in the testimony are my own and should not be construed as representing any official position of The Heritage Foundation.

This Subcommittee is now considering the Federal financing of rural water projects. These projects are controversial primarily due to the large share of the construction costs that would be paid for by the Federal Government. An even more fundamental question should be asked, however; and that is whether any Federal role is justified in this area. Many of the newer, proposed rural projects reflect a troubling expansion of the Bureau of Reclamation's (BOR) mission—from one of a construction agency to that of yet another economic development agency and environment protection agency.

Although Congress and the Administration appeared to agree some time ago that it makes sense to transfer responsibility for some Bureau of Reclamation projects to states, local communities and the private sector, the pace of progress on this front has been pitifully slow. Moreover, Congress appears more than willing to authorize and finance new federally controlled rural water supply projects. The era of big government water projects is not over.

Congress cannot seem to resist the opportunity to seize control of responsibilities for water resources that belong to states, regions, local communities, and the private sector. Each time Congress contemplates another proposed rural water project, it must face squarely the question of what the role of Federal bureaucrats will be in developing and managing our nation's water resources, and, more specifically, the role of the Interior Department. So far, Congress's decisions have been disappointing for many of us.

A Long History of Federal Water Subsidies

More than one hundred years ago, the Federal Government began to subsidize construction and operation of major water storage and delivery projects. The primary goal was to convert arid land into productive farmland through irrigation, and water was provided to users at highly subsidized prices. Although the costs of the construction of these projects are supposed to be repaid, few have been, and there is a long history of audits by the U.S. General Accounting Office (GAO) that address the allocation and repayment of project costs and the government's poor track record of recovering those costs. Ultimately, much of the costs of these projects are spread over all taxpayers, although the benefits are concentrated on well-defined groups.

As a consequence of these poorly designed programs, the predominant consumer of water today in the West is agriculture. As GAO and others have noted, the disparities in the cost of water between farmers and urban consumers can be tremendous, as much as 100 times more expensive for the urban user. In addition to burdening the taxpayer, subsidized prices create an insatiable demand for water and encourage inefficient use. With low prices, the users have no incentive to consider alternative technologies and lifestyle changes that would save water. Many irrigation systems use less than half of the water flowing into them. The rest runs off fields, evaporates from open canals, or percolates into the ground through unlined ditches. The low price of water encourages farmers to irrigate even marginal lands. In some cases, Federal water subsidies create, rather than solve, environment problems. For example, wastewater from a farm that drains into a wildlife refuge via a drainage system built by the Federal Government.

Contrary to what the public has been led to believe, our nation is not about to run out of clean water. If just 5 percent of the agricultural water supply could be

allocated through water markets to municipal uses, the needs of urban areas in Western states would be met for the next 25 years, according to Terry Anderson and Pamela Snyder, authors of *Water Markets: Priming the Invisible Pump*. Fortunately, predictions of natural resource shortages are often wrong because they ignore the impact of market forces on supply and demand. There is an ample supply of water in this nation to meet the needs of farmers, municipalities, and industrial users. The real problem is a political system that denies ownership of water rights and thus precludes the market from efficiently allocating it. New federally funded rural water projects only serve to continue and expand such inefficiencies.

Financing Rural Water Projects Continues the Tradition

Although the Federal Government has been supporting rural water projects since the turn of the century, these programs have largely been loan based and required a 100 percent repayment obligation. Although many of these loans may have been forgiven or reduced, the original and continuing intent was that beneficiaries of the program would bear the costs of the program. However, that appears to be changing. According to the Congressional Research Service, for the more recent rural water supply projects, the non-reimbursable component has been higher than typical for traditional reclamation projects. The non-reimbursable share can be as high as 75 to 85 percent or more. The increase in non-reimbursable costs may well be a function of the fact that more of these projects have a greater proportion of non-reimbursable requirements, particularly to meet environmental objectives such as water quality, fish and wildlife and conservation requirements.

What is most important to remember is that the Federal funding of rural water projects in the Plains states only perpetuates the long held and mistaken notion that water is not valuable enough for people and businesses to own and wisely manage. I reject this view. Federally subsidized construction of these projects will not fundamentally alter the economic base of this region of the country. Indeed, while the infusion of Federal dollars may be somewhat of a boost to the region, in the end, the boost will not lead to long-term sustained change, but addiction to Federal dollars. Ultimately, such projects will just be added to the myriad of expensive and often duplicative special interest pork dressed up as a Federal economic development program.

If we look to the Federal experience with the Economic Development Administration according to the GAO, in areas where there have not been incentives to produce sufficient private sector investment for economic development, Federal interventions consistently prove to be temporary at best. To quote GAO, "the study found that EDA's program had a very small effect on income growth rates during the period the aid was received and no significant effect in the years after the aid ceased." The Subcommittee may want to consider asking GAO to do a similar study of the impact of Federal owned water projects on economic development.

A New Mission for the Bureau of Reclamation to Justify New Projects

Over the past three decades, the Bureau has been moving away from the construction and operation of traditional, large, multipurpose water supply projects. And within the past decade, the mission of the Bureau has shifted to focus more on environmental mitigation and function as another branch of the Environmental Protection Agency. Indeed, the Bureau's self-described mission today is "to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public."

Congress should rein in, rather than expand, the Interior Department. These new economic development and environmental protection roles allow Congress to justify more federally financed, special interest public works projects. And, of course, the Bureau's bureaucracy appears more than willing to reinvent and expand its budget if given the opportunity. We do not need another EPA or EDA for the West. For example, a June 1996 GAO report counted more than 72 Federal programs or other initiatives cutting across 8 departments and agencies that either directly or indirectly support water quality protection. Similarly, the agency strategic plans submitted to Congress as a requirement of the Government Performance and Results Act revealed that there are 342 economic development programs managed by 13 agencies with little or no coordination among them.

The shift in the Bureau's mission, and Congress's willingness to fund projects consistent with this expanded mission is detrimental to our nation's water resources. As long as a free market does not apply water, no one will have incentive to use it wisely or to invest in more advanced technologies or lifestyle changes that will conserve it. And certainly such policies will make any effort to transfer responsibility or to privatize existing assets and develop water markets more difficult. For example, the often unexpected costs of environment enhancement and mitigation re-

quirements that are added to projects (either directly through the Bureau or by Federal laws or programs) have the effect of discouraging beneficiaries or investors who might otherwise be interested in assuming responsibility for the asset because they are afraid that there would be no certainty with regards to the costs. The tension within the Bureau's budget to pay for these activities competes with the need for funds to simply operate and maintain existing facilities.

Policy Recommendations

The best way to help support the water supply needs of rural areas of this country is for government to look toward water markets and privatization of existing assets. This means the Federal Government must get comfortable with the idea of doing less rather than doing more. A new Federal water policy for the 21st century should be one in which Congress and the Administration work together and with state, regional, and local governments to develop local and private alternatives that will meet their water needs. Ultimately, this will significantly reduce, if not eliminate, the Federal role.

If the true purpose of these rural water supply projects is to meet growing needs for water to support municipal and industrial needs, then water users should provide the funding. A demonstrated need is a signal to the private sector that there is a secure revenue stream to justify the financing of a project. Successful private investment can minimize the costs and the involvement of the Federal Government in many of these projects.

Today, between 7 and 10 percent of water supply projects in the United States are privately held. The trend for an increasing number of states, counties, and municipalities is to look to the private sector to build and maintain necessary infrastructure, such as wastewater treatment plants, prisons, schools, highways, and airports. Indeed, other nations already are way ahead of the United States in their privatization of such infrastructure. In Britain, 100 percent of water and water treatment facilities are privatized, and in France 75 percent are privatized.

The United States should be a leader and not a follower. A trend toward Federal financing of rural water project moves us in the wrong direction. Instead, Congress must:

1. Allow local communities to determine water resource needs and to work cooperatively with private entities to provide what is needed to meet those needs.
2. Require better information about whether a project is economically viable and produce an expected return on investment before making any decisions.
3. Develop a better understanding of the extent to which environmental and other policies place constraints on local water resource management.
4. Resist pressures to reinvent the mission of the Bureau of Reclamation. There is no reason why the Federal Government needs to fund the 73rd-water quality program or a 343rd-economic development program.
5. Act to transfer responsibilities for existing assets to states, local communities and the private sector.

Congress needs to take steps to get the Federal Government out of the business of building and maintaining water projects. The Federal Government should not be in direct competition with private entities or provide generous subsidies to special interests at great cost to the American taxpayer.

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Mr. DOOLITTLE. Thank you.

Could you make available those studies in Great Britain on the water and wastewater plants that are all 100 percent privately financed?

Ms. ANTONELLI. Sure. These are studies that have been done by people at the Reason Foundation. I would be more than happy to.

Mr. DOOLITTLE. Great.

Ms. Kladiva, could you tell us, if the Federal share for the Lewis and Clark project costs were included in the electric rates for the Pick-Sloan program, what would be the impact on the rates?

Ms. KLADIVA. Mr. Chairman, we have conducted a preliminary analysis into the question. In general, the rate impact would depend upon the assumptions that you use.

On average, the dams that are developed in the Pick-Sloan program produce approximately 12 million megawatt hours of electricity each year, and in 1998, the electricity was sold at an average rate of 1.6 cents per kilowatt hour. These are wholesale rates. That includes the transmission cost.

As an example of how the rates could be affected, in order to amortize approximately \$193 million, which would be the Federal grant portion of the project, at 6 percent interest over 50 years, which is the traditional repayment period for water projects, it would take about a 6 to 7 percent increase, based on the 1998 sales figures. The 6 percent rate increase would raise the rate by less than one-tenth of 1 cent in the Upper Great Plains area, and it would raise it slightly over one-tenth of 1 cent in the Rocky Mountain region. Based on our preliminary analysis, we believe that this level of rate increase does not appear likely to push the power cost for Pick-Sloan generated power above what the prevailing market in that area is.

Our answer is subject to a variety of factors that include—such as the directions of the deregulation of electricity at Federal and State levels, as well as other factors, but this is a preliminary estimate.

Mr. DOOLITTLE. Thank you. We have talked about increasing rates as one alternative method of financing rural water projects such as the Lewis and Clark project. However, there may be some opportunities to increase the generating capacity and electricity generation from some of the Pick-Sloan hydroelectric dams.

Could you discuss some of these?

Ms. KLADIVA. Yes, Mr. Chairman. During the course of our work on issues related to the Pick-Sloan program, we identified, we believe, some opportunities to boost output from some of the existing Federal facilities, in particular the large dams that are operated on the Missouri River main stem by the Army Corps of Engineers.

As you know, the Pick-Sloan program was initiated over 50 years ago. Many of the dams and hydroelectric equipment are now in the 30-year-old range, some as old as 50 years. Since the time that these generators and turbines have been installed, there have been increases in efficiency of equipment, and particularly for generators and turbines.

Again, based on our preliminary analysis, there appear to be a number of generators that could be refurbished that could add substantial generating capacity and a number of turbines that could

be refurbished that would offer improved efficiencies and other benefits. Under WAPA's current repayment guidelines, any increased revenue resulting from such an improvement could go toward the repayment of the Federal investment in the project. Adoption of legislation mandating any other applications would be a policy question for the Congress to determine.

Mr. DOOLITTLE. Thank you. So if I understand what you are saying then, this new equipment would pay the entire Federal share in this Lewis and Clark project, in other words, the increased sales resulting from the new equipment?

Ms. KLADIVA. Well, talking about not reallocating the existing firm power that is there now for preference power, but if you could increase the amount of capacity, which appears to be a possibility, from rewinding the generators and refurbishing the turbines, then you get an additional generation that is not now committed. And if those funds were earmarked, its revenues that were sold, and the revenues were earmarked for repayment of the cost of Lewis and Clark project, then that is a possibility.

Mr. DOOLITTLE. What do you think about that, Mr. Graves?

Mr. GRAVES. Well, all I can say, Mr. Chairman, I feel a little bit like I am between Scylla and Charybbis here. But the fact of the matter is, I do disagree with that on several bases.

Number one, the rewinds of the generators and turbines are not free. They cost money. That is the \$100 million I was talking about. That is part of the rate base.

Pick-Sloan is a cost-based rate. The rate charged is the cost of the generation, so there are no extra dollars, unless the government wants to invest this and then not put it in the rate base.

Number two, the assumption of increased generation forgets that there has been a degradation of generation throughout the system because as the equipment ages, it erodes and corrodes. The estimates at Fort Randall, for instance, we are talking about a 4 to 5 percent increase in the capacity, in generation capacity, but that ignores the fact that there has been a loss of capacity at those facilities. So we would be merely getting back the capacity we had already paid for.

Number three, it assumes that these units are going to be run in a very efficient manner, which they will be by the Corps, but at Fort Randall, which is one of the units that is there, and Garrison as well, the operation of those facilities are constrained by the threatened and endangered species during the entire summer season, from about April or March through the end of August. So we cannot run those units even today at full efficiency.

So I think much of the increased generation capacity is, one, recapturing generation capacity that has been lost, and may or may not be there, depending on whether the water is there, because the Pick-Sloan averages about 12 billion kilowatt hours, I believe—excuse me, 10 billion, not 12—and it fluctuates wildly.

In 1988, the river only ran at 12.5 million acre-feet, which is 50 percent of its normal capacity. Generation is not a steady, reliable thing on the Missouri River.

Mr. DOOLITTLE. Well, as you have observed, there are some environmental factors thrown in. But actually power users are stuck paying for that now in some cases, aren't they?

Mr. GRAVES. Oh, to be sure. But I am just suggesting that projections of increased capacity are not taking into account all of the potential constraints on generation that occur either for environmental problems or the lack of water. I mean, you have to look at this very closely. And the erosion of our capability through the age of the equipment is very real, and the Corps of Engineers will tell you that.

Mr. DOOLITTLE. Ms. Kladiva, did you take into account these variables when you were making your assessment about the increased opportunities for revenues to be generated by this updating of the equipment?

Ms. KLADIVA. Yes, we did, Mr. Chairman. In fact, we made visits to WAPA, to the Corps and to the Bureau just within the last couple of months. So we have current information from them and current contact with them concerning what they believe is doable.

Obviously, if you make an investment in doing the rewinds or refurbishing the turbines, then you need to take into consideration that you need to recover the cost of those refurbishments and that you have to look at what the potential payoff for that is going to be, so that it makes economic sense to do that.

At Garrison, for example, where they have done the turbine—I am sorry, the generator rewinds, they found that they had a 36 percent increase in capacity in the output, based on what they had done, and it cost approximately \$1 million per generator to do the rewinds. The mention of the fact that the current equipment, because it is old, there is some degradation in its potential to produce power, is true; so you would gain from making the investment where it makes sense, you would gain, basically getting the equipment back up so it is working at full performance, so you would regain efficiencies that have been lost because the equipment is old, as well as getting increased generation capacity.

Particularly where the big power opportunities are is on the Missouri mainstream, because that is where 80 percent of the power generated by Pick-Sloan is available; that is where the big dams are, and that is where the cheap power is from the standpoint of its capacity.

When you look at that part, yes, you have to take into account—in considering what your potential upside would be in the gain, you have to take into consideration Missouri River flows. That is why, in fact, only 80 percent of the power produced from those dams on the Missouri mainstream are currently committed as firm power sales to the preference customers, and that is because they take into consideration that you are going to have years of high water flow and low water, and therefore, the purpose in the contracts is to be sure that they will be able to deliver on the contracts.

So potentially you have in any given year now 20 percent of the power that is being sold at market rates. As WAPA tells us, it is sold at “market rates” and it is generally done through bilateral agreements with companies in the area.

But, yes, we did take those factors into consideration, and we do believe that this is an area that is worth pursuing, but it needs to be done so that it makes economic sense to proceed.

Mr. GRAVES. Mr. Chairman, if I might just try to address this issue, they only market 80 percent of the power because, like all

electric utilities, they are responsible for maintaining reserves in the event of the drop of a generator or facilities. And the additional power that is "available" in Pick-Sloan they cannot market as firm power because they are committed—they have committed that generation to reserves in the event of failure in other dams, as all utilities must do.

Mr. DOOLITTLE. Well, let's go back to one of the other possibilities, which is the 6 percent increase. Was that in the retail rate, Ms. Kladiva?

Ms. KLADIVA. That was in the wholesale rate.

Mr. DOOLITTLE. So what would that translate to the retail customer?

Ms. KLADIVA. For the Upper Great Plains, that would be less than one-tenth of 1 cent added to the wholesale rate for power.

Mr. DOOLITTLE. And so—

Ms. KLADIVA. That is looking across both firm and nonfirm sales for 1998.

Mr. DOOLITTLE. So if your power bill were \$200 a month, how much extra would it be?

Ms. KLADIVA. I don't know what that would translate to in terms of the retail sales, because, number one, it would depend on the wholesale increase, how much of the increase was passed through to the retail customer. It would also depend upon the retail customer's power company, how much of their power they were getting from the power marketing administration.

Mr. DOOLITTLE. Well, would it be safe to say that it couldn't be more than 6 percent? Do you want to answer that, Ms. Antonelli? Would that be the upper figure, right?

Ms. KLADIVA. May I invite to the table Jon Ludwigson, who is an energy expert with our office?

Mr. DOOLITTLE. Sure.

We have to do this. Raise your right hand. I only have about 5 minutes, but let's do this.

[Witness sworn.]

Mr. DOOLITTLE. Thank you. Will you just identify yourself, please, and your position for the record.

**STATEMENT OF JON LUDWIGSON, ENERGY RESOURCES AND
SCIENCE GROUP, GENERAL ACCOUNTING OFFICE**

Mr. LUDWIGSON. My name is Jon Ludwigson. I work at the Energy, Resources and Science Group at the U.S. General Accounting Office.

Mr. DOOLITTLE. Okay.

Mr. LUDWIGSON. In response, as far as what the effect on retail rates would be, it would—as Ms. Kladiva said, it would depend on the supply picture for each of the co-ops or municipals. If they received 100 percent of their power, for example, from the PMA, in this case WAPA, it would not necessarily translate to a 6 percent increase in retail rates, because the power component of retail rates is only one of several including distribution, administrative and customer service. The relative importance of these others varies depending on the individual municipal.

It really at this point, is not prudent to estimate the percentage impact for any, or all, recipients of PMA power.

Mr. DOOLITTLE. Let me just ask you this: There is no way it could be more than 6 percent, since that is the wholesale rate increase, right? It is either that or something less. In all likelihood, it is considerably less, right?

Mr. LUDWIGSON. All other things being equal, it would be something less.

Mr. GRAVES. Mr. Chairman?

Mr. DOOLITTLE. Yes.

Mr. GRAVES. I noted in Ms. Kladiva's statement to you that they were averaging this over both firm and nonfirm sales. There is no set price for nonfirm sales on Pick-Sloan. It is on the spot market. The rate that the power customers pay is the rate for all of the generation and all of the firm generation and all of those costs. To spread the costs of this over nonfirm generation is diluting the pie. The costs need to be isolated on the firm power. The nonfirm sales vary in price widely, depending on the time of year.

We didn't get any of that really expensive stuff that was sold in the Mid-West last summer, but it is the firm power sales that set the rate, where the rate is set, and where the power repayment is set.

Mr. DOOLITTLE. Let me just sum up.

It seems to me in the testimony I am hearing, first of all, it seems like there it is no way the Federal Government is going to come up with the money to do these vast projects for rural areas.

Secondly, it seems like the seeds are out there for a solution to this problem, so that somehow these people can get the better quality water they need, and in some cases, the greater quantities that they need, without burdening the Federal taxpayer. I think we are going to have to look further into this when we get into these hearings on this Lewis and Clark.

But I would invite you to be thinking about how—you know, Great Britain apparently has—I am interested in your evidence there, because we know how expensive these wastewater treatment plants are, and it is intriguing to me that those are all privately financed there. So I am interested in that.

I really wish we could prolong this, but if I do, you will have to hang around for another series of votes, and I won't inflict that upon you.

So I would like to thank you for your efforts and your testimony this afternoon, and we will have further questions, keep the record open for hopefully what will be your timely response.

Mr. DOOLITTLE. With that, this hearing is adjourned.

[Whereupon, at 4:50 p.m., the Subcommittee was adjourned.]