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OVERSIGHT HEARING ON BUREAU OF RECLAMATION FUNDING OPTIONS FOR WATER PROJECT CONSTRUCTION, ENHANCEMENT, REHABILITATION AND MITIGATION

OVERSIGHT HEARING

BEFORE THE

SUBCOMMITTEE ON WATER AND POWER

OF THE

COMMITTEE ON RESOURCES
HOUSE OF REPRESENTATIVES

ONE HUNDRED FIFTH CONGRESS

FIRST SESSION

ON

BOR FUNDING FOR WATER PROJECTS

MAY 6, 1997—WASHINGTON, DC

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OVERSIGHT HEARING ON BUREAU OF RECLAMATION FUNDING OPTIONS FOR WATER PROJECT CONSTRUCTION, ENHANCEMENT, REHABILITATION AND MITIGATION

TUESDAY, MAY 6, 1997

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

The Subcommittee met, pursuant to call, at 2:02 p.m., in room 1324, Longworth House Office Building, Hon. John T. Doolittle (Chairman of the Subcommittee) presiding.

STATEMENT OF HON. JOHN T. DOOLITTLE, A U.S. REPRESENTATIVE FROM CALIFORNIA; AND CHAIRMAN, SUBCOMMITTEE ON WATER AND POWER

Mr. DOOLITTLE. The Subcommittee on Water and Power will come to order. The Subcommittee is meeting today to hear testimony concerning funding options for Bureau of Reclamation projects. I would like to welcome our witnesses here today. Since the beginning of this century the Federal Government has played a major role in the development of water resources in the Western United States.

The Bureau of Reclamation was created by the Reclamation Act of 1902 to reclaim arid and semiarid lands. Over the past 95 years, the Federal Government has invested more than $16 billion in reclamation projects, 80 percent of which is subject to repayment to the U.S. Treasury.

The purpose of this hearing is to explore various funding mechanisms available to help finance reclamation projects in the future. The witnesses have been asked to address a wide range of funding options, including traditional repayment programs, modifying the existing Small Loan Program, loan guarantees, grants, revolving funds, and the increased use of private capital.

Today we stand at a crossroads with two opposing forces in view. There is a need to expand and improve our existing water supply system to meet agricultural, urban, rural, tribal and environmental needs. At the same time, we must find ways in every government program to reduce costs as we move toward a balanced budget.

The Congress is determined to eliminate the Federal budget deficit, and we must find ways in our area of responsibility to reach that goal. In a recent draft of its Strategic Plan, the Bureau stated generically that "there is no 'new' water to develop, no new dams

to store water for the dry season and little groundwater resources to pump from the earth."

What a tragedy that the Federal Government's primary water supply agency has no greater vision. While it remains to be seen what role the Bureau and the Federal Government should play, we certainly do not, as a nation, lack opportunities to develop new water. There are onstream and offstream reservoirs under construction and available to be built.

There are groundwater basins in need of recharge to hold water resources. There are emerging technologies that make it economical to recycle our water and to convert ocean water to freshwater. And every year, there are floods throughout the west that currently destroy homes, lives, and the environment and which could be harnessed to meet productive needs.

The challenge we face today is how to encourage the development and management of water resources in an economically responsible manner. If the purpose of future developments is to meet general public benefits such as environmental enhancement or Indian water settlements or if it is to avoid Federal costs for disaster relief, there is, it seems to me, the need to consider a higher Federal cost-share.

If the purpose is to meet growing needs for water to support food production or urban needs we can look to the water users to provide a greater portion of the funding. Indeed, as we will hear from some of our witnesses, we can use innovative ways to finance these projects. If we design these programs to maximize the use of the private sector in financing, constructing, and managing future water resource projects, we can greatly reduce the cost and the involvement of the Federal Government in many of these endeavors.

Historically, the Reclamation Program does not flow from a single organic Federal statute. There have been various acts since the 1902 Reclamation Act which have shaped the program. Since 1939, every project has been individually authorized with its own terms and conditions.

Although the authorizing language in each was developed with careful consideration of the project beneficiaries in mind, little was done to step back and look at the overall trend or to anticipate future needs and requests. With this hearing, we are going to begin looking to the future and assessing new options for funding future requests.

In recent years, the Subcommittee has not considered requests for the traditional multi-purpose projects that deliver irrigation water. Today, the Subcommittee is being asked to authorize rural water supply systems, water delivery systems for Indian reservations, environmental enhancement/mitigation projects for existing Reclamation projects, and water reclamation and reuse facilities.

I do not believe that the seemingly conflicting goals of enhanced water supply and cost control present insurmountable obstacles. Rather, they represent reasonable parameters and provide attainable goals which should help us develop a blueprint for how the government will participate in meeting these needs.

New water development has the potential to be used to enhance the water quality and environmental resources in the west. How we go about designing and financing these projects will be a test

of the Federal Government's ability to transition to a smarter, more efficient, less costly mode of operation. After the ranking member has a chance to make his statement, I will look forward to hearing from the witnesses. Now let me invite Mr. Pickett, if he would like to make a statement.

Mr. PICKETT. Mr. Chairman, I do not have an opening statement.

Mr. DOOLITTLE. OK. Let me ask our first panel to come forward. If you will come forward and remain standing for just a minute, please. I do want to make this observation. Before we call upon our witnesses, I would like to indicate that since the intent of the hearing is to look at both the historic funding arrangements as well as to consider innovative ways to fund or encourage such projects in the future, we will be hearing from witnesses both inside and outside the Reclamation Program.

As such, with some of the witnesses we are only looking to them to answer questions limited to private, State and other Federal programs with which they are familiar. We have as witnesses today the Honorable Eluid L. Martinez, Commissioner of Reclamation; Ms. Betsy A. Cody, Specialist in Natural Resources Policy, Congressional Research Service; and Mr. Victor S. Rezendes, Director, Energy, Resources, and Science Issues, U.S. General Accounting Office.

Would you please raise your hands and take the oath?

[Witnesses sworn.]

Mr. DOOLITTLE. Thank you. Each answered in the affirmative. We welcome you here today for your testimony and, Commissioner, we will recognize you and begin this panel.

STATEMENT OF HON. ELUID L. MARTINEZ, COMMISSIONER OF RECLAMATION, DEPARTMENT OF THE INTERIOR

Mr. MARTINEZ. Thank you, Mr. Chairman, members of the Subcommittee, thank you for the invitation to discuss funding and cost-sharing options for the Bureau of Reclamation. Given our mutual interest in reducing costs and balancing the budget, this hearing is timely.

With your permission I would like to summarize my remarks and have the full text of my prepared statement entered into the hearing record. Since fiscal year 1985 Reclamation's construction budget has declined by more than one-half in real terms. Over the same period, appropriations for operation and maintenance activities have nearly doubled.

For fiscal 1988 about 60 percent of Reclamation's budget requested is for the completion of ongoing projects and the promotion of an integrated approach to water management. The remaining 40 percent is for operation, maintenance, and rehabilitation of existing infrastructure.

Now I would like to turn to the specific items mentioned in your letter of information beginning with cost sharing for traditional projects. While Reclamation has not established a hard and fast rule for the required level of cost sharing, in recent years Reclamation has advocated that beneficiaries pay at least 35 percent of the nominal cost for traditional Reclamation projects.

A portion of the cost sharing can be provided up front in cash or in-kind services. With respect to the Small Reclamation Projects

Act Loan Program, loan guarantees, and the rehabilitation and betterment program, Reclamation believes that in this budget climate the private sector may be better equipped than the Federal Government to provide financing for these projects.

In 1995 the Administration recommended in the National Performance Review that the Small Reclamation Projects Act Loan Program should be phased out. Since then, Congress has provided only limited funding needed to complete grandfathered projects. As I previously testified, the Administration is opposed to loan guarantees and the authorization of a new comprehensive program.

However, I do believe that there might be meritorious small reclamation projects and all projects should receive authorization on an individual basis rather than through generic legislation. Reclamation is working hard to cut costs and adapt stringent physical constraints within our budget limitations.

However, we are prepared to discuss options for the water users and interested organizations and commerce and we intend to continue our dialog to see what, if any, alternatives may exist for this particular program. Except as related to dam safety, Dam Reclamation is no longer seeking congressional appropriations to replace, rehabilitate or renovate facilities related to the reimbursable functions of our projects.

In the event the water district cannot obtain private financing Reclamation will evaluate its options to address these problems. With respect to dam safety, the Reclamation Safety of Dams Act requires that 15 percent of the costs be reimbursable. Our policies require repayment of dam safety costs allocated to reimbursable project purposes such as irrigation, municipal and industrial uses and hydro power.

These reimbursable costs are paid by the beneficiaries of the corrective action within 25 years. Last year upon becoming Commissioner I commissioned a peer review team consisting of dam safety professionals from outside the Department of the Interior to review the Department's Dam Safety Program. That team has issued its findings and recommendations and a copy of that report has been provided to Congress.

The report basically said in addition to supplementing Federal funds the reimbursable policies of both the Safety of Dams Program and the operation and maintenance programs of Reclamation provide a useful check for the water districts on the amount of money and expenditures that Reclamation has undertaken for these programs.

Reclamation is reviewing the findings and recommendations of the peer review team. In the future, Mr. Chairman, I expect to come before Congress to request an increase in the cost ceiling authorized by the Dam Safety Program and will address the issue of cost sharing for dam safety in that context.

Your letter of invitation also asked me to discuss the Bureau's position regarding appropriate cost sharing for rural water distribution projects. Longstanding Reclamation policy for municipal, rural, and industrial water supply projects requires that non-Federal interests pay, at current interest rates, 100 percent of the cost of the projects.

Other Federal agencies such as the Department of Agriculture might be a more appropriate agency for the project sponsors to seek for funding. In the past the Administration has supported rural water supply systems where the needs of the Indian communities justified Federal involvement and Reclamation in my opinion should be involved with Federal funding as needed to encourage innovation or otherwise serve a basic national purpose.

Finally, I would like to discuss water reuse projects. Last year, the Congress in Public Law 104–266 authorized 16 new water reclamation and reuse projects, in addition to the four projects that Reclamation is already funding under the authority of Public Law 102–575. There is a growing demand to devote a greater portion of Reclamation's budget to water reuse projects.

With fewer Federal dollars available Reclamation will have to make difficult choices even to fund the most deserving projects. Let me put this in context. Reclamation's overall budget request for fiscal year 1988 is about $764 million. If all authorized wastewater reuse projects were funded at optimum levels in fiscal year 99 Reclamation estimates that $130 million would be required.

An estimated $550 million would be required to fund all authorized projects to the year 2005. Given these budget realities Reclamation has adopted an internal self-imposed cap of about $30 million annually in its budget request for wastewater reuse projects. I would like to commend the Congress, especially this Subcommittee for taking some important steps in Public Law 104–266 to alleviate some problems, in particular, the feasibility study and financial capability requirements to improve the Federal Government's ability to control expenses and ensure that Federal funds are used appropriately.

Nevertheless, there is a need to establish criteria and prioritize projects for funding to determine what constitutes a sponsor's financial capability and to develop requirements for feasibility studies. I have appointed a water recycling team and that team has reviewed Reclamation's Program and developed recommendations on how it intends to address these issues.

Last year the water recycling team held a series of public meetings where individuals presented their ideas. Attendees suggested that Reclamation explore alternative funding mechanisms such as competitive annual grants.

Reclamation is hopeful that the team will provide additional insight based on public participation that will be useful to this committee and to Reclamation in our efforts to fund water recycling projects. Mr. Chairman, that concludes my prepared remarks. I would be pleased to answer any questions.

[Statement of Mr. Martinez may be found at end of hearing.]

Mr. DOOLITTLE. Thank you. Mr. Rezendes, you are recognized for your testimony.

STATEMENT OF victor s. rezendes, director, energy, resources, and science issues, u.s. general accounting office

Mr. REZENDES. Thank you, Mr. Chairman. It is a pleasure to be here. I have two basic points I want to make today. One is talk a little bit about the evolution of the Reclamation laws and second,

talk a little bit about water project cost recovery. The Federal Government initially got involved with Reclamation with the passage of the Reclamation Act of 1902. Basically that act was to fund irrigation projects in the west but it was also basically a development pact.

It was intended to settle the West. And right from the outset basically the intent was for the program to be self-sufficient. No appropriation funds were intended to be used pro rata. A revolving fund was set up using moneys from the sale of Federal lands. Once loans were made and paid back, additional loans would be made for additional irrigation projects out of that revolving fund.

Also, from the outset, the Federal Government chose to forego any interest on these loans. The notion was they wanted to settle the West and the government felt content with just receiving the payments for principal in lieu of giving up the interest for the farmers to settle the West.

Early on though it was also very clear that both the cost of farming and the cost of building these water projects was more than anybody expected. Starting in around 1906 came a series of pieces of legislation to provide not only relief to farmers in terms of their ability to pay but also extended over various time periods the requirement on pay back.

Repayment went from 10 years, to 20 years, to 40 years. Legislation also provided periodic relief to farmers in the form of charge-offs and provided that funds obtained from the use of water to generate electricity could offset some of the costs of the projects.

Probably 1939 was the most significant year. The Congress fundamentally changed the program. At that point all projects were funded with appropriated funds rather than through the revolving fund. Congress also established multi-purpose projects, basically municipal water, flood control, that sort of thing, and allocated the cost among the project uses so they could all be judged individually in terms of the economic viability. They also changed the payment system for the irrigators by providing for both a variable annual payment based on crop returns as well as providing an interest-free development period of up to 10 years beyond the 40 years already established.

The last piece of legislation I want to talk about was enacted in 1982 which was the Reclamation Reform Act. That was the first time Congress established the notion of full cost recovery. The legislation required, for specific leased acres, over 960 acres, full recovery of the cost of irrigation. For the first time Congress charged not only the cost of construction but also the operation and maintenance as well as the interest cost for those specific uses.

I now want to call your attention to appendix I of my testimony and just talk a little bit about how these costs are defined in terms of reimbursable and nonreimbursable and who pays them. I will quickly walk you through that. Basically you see on the top of that chart it shows reimbursable construction costs. In essence, irrigation pays the cost of construction based on their ability to pay but is relieved of any interest payment. The next is municipal and industrial users. They pay the cost of construction plus interest during construction and interest during the repayment process.

The last one is general power generation. They pay similar to municipal and industrial users construction plus interest but they also pay a good part of the irrigation costs that the irrigators, the farmers, cannot pay.

The bottom of the chart shows nonreimbursable costs. Those are pretty much construction costs that are defined as national in scope. They include things like fish and wildlife purposes, recreation and flood control. Historically, the Federal Government has borne the cost of those aspects of projects.

Through the end of fiscal year 1994, there were 133 projects that had some sort of irrigation involved with them and the total cost was about $22 billion. Of that $22 billion, roughly about 77 percent is in the reimbursable cost category and 23 percent is in the nonreimbursable. That is probably a good place for me to stop and turn it over to Ms. Cody who is going to bring you up to date on the most recent legislation.

[Statement of Mr. Rezendes may be found at end of hearing.]

Mr. DOOLITTLE. Thank you. Ms. Cody, you are recognized.

STATEMENT OF BETSY A. CODY, SPECIALIST IN NATURAL RESOURCES POLICY, CONGRESSIONAL RESEARCH SERVICE

Ms. CODY. Thank you. My testimony focuses on repayment obligations established in law for capital projects authorized or modified since 1979. In particular, I will discuss the projects authorized over the last two decades and the breakdown between reimbursable and nonreimbursable costs. There are two points I would like to make before summarizing my analysis.

First, it appears that projects authorized or modified within the last 18 years that are similar to traditional Reclamation projects have generally followed the typical repayment pattern that GAO has described. Many projects authorized in recent years have had a higher proportion of nonreimbursable costs such as for flood control, fish and wildlife and Indian water right settlement purposes.

This may raise the question of whether Federal policy has changed regarding reimbursable costs. My review does not find any major alteration in overall policy. However, there are some instances where Congress has departed from past reimbursement procedures, particularly for rural water supply projects.

Based on information gathered from the Bureau of Reclamation, Congress has authorized at least 55 projects since 1979. I have placed these authorizations in a table accompanying my testimony which you should find on page 7. Of the 55 projects authorized that I analyzed, 24 percent were for the relatively traditional multi-purpose/irrigation projects or project modifications, 7 percent were for rural water supply systems, 36 percent were for reclamation water reuse and recycling, also known as Title XVI projects, 18 percent were for water quality, fish and wildlife, or conservation purposes, and 15 percent were for Indian water rights settlement.

The repayment obligations authorized for these projects and modifications vary greatly. They vary depending both on reimbursement provisions established in law and upon the percentage of project costs allocated to non-reimbursable purposes such as flood control, fish and wildlife, Indian water rights.

For the traditional multi-purpose projects, repayment obligations range from 0 percent non-reimbursable to 100 percent non-reimbursable. The two totally non-reimbursable projects are flood control projects, which under reclamation law are typically non-reimbursable. Outside of these two projects, reimbursement responsibilities ranged from 33 percent to 93 percent with the average being 79 percent reimbursable. This is very close to the 77 percent average reimbursable rate that GAO estimated for the 133 projects it looked at since 1902.

When the two flood control projects are considered, the average comes to 66 percent, still roughly in the same ballpark. For the rural water supply projects, the non-reimbursable component is higher than typical for traditional reclamation projects. Here the non-reimbursable share ranged from 75 percent to 85 percent with one exception, the Mni Wiconi project in South Dakota.

In each case here, Congress specified the reimbursement ratio in the authorizing legislation. These projects differ from the more traditional reclamation projects in that they focus on municipal and industrial water supplies for rural areas with specific water quality and quantity concerns.

For the reclamation water recycling and reuse projects the non-reimbursable component established in law is generally 25 percent. Again, this ratio is similar to the ratio that has evolved over time for the traditional projects. However, the financing arrangements, as have been described by GAO, are quite different. Instead of financing and building the projects up front and requiring repayment of reimbursable costs through contract the Federal Government funds only a portion of project costs with the rest shared by local participants. Essentially the Federal Government funds the 25 percent non-reimbursable share as a grant.

For the water quality/fish and wildlife, and conservation projects, the non-reimbursable costs ranged from 35 percent to 100 percent. All of the projects in this category outside of California have been 100 percent non-reimbursable by law. All of the California projects, however, as authorized under CVPIA have a significant reimbursable cost share, some paid by the State, some paid by local project users. I should note, however, that some of these costs may be offset by payments in the CVP Restoration Fund.

Finally, the Indian water rights settlement projects are all 100 percent non-reimbursable (although, there is local cost-share with some). Unlike other reclamation projects, both new and old, these projects have been authorized as part of settlement agreements between tribes, the Federal Government, and other interested parties. Therefore, they do not really fall within the realm of traditional reclamation law and consequently are not directly comparable to other reclamation projects.

In conclusion, it appears that projects authorized or modified in the last 18 years have followed a typical repayment pattern, with a few exceptions, most notably three of the four rural water supply projects have a significantly higher non-reimbursable share than has been typical for other industrial and water supply projects attached to the traditional irrigation projects. However, these projects in total represent less than 7 percent of all the projects analyzed since 1979.

Most of the rest of the projects where the non-reimbursable cost exceeds 50 percent involve project purposes that Congress has declared as non-reimbursable, flood control, fish and wildlife, water quality, and Indian water rights settlement. In other words, the reimbursement provisions generally have not changed, rather, the typically reimbursable functions of these projects as a percent of total project functions, have declined. Thank you.

[Statement of Ms. Cody may be found at end of hearing.]

Mr. DOOLITTLE. Commissioner, in your testimony you state that Reclamation no longer requests congressional appropriations to replace rehabilitative facilities related to reimbursable functions in a project with the exception of dam safety. And yet the government, Reclamation, hold title to these projects. Does that strike you as paradoxical?

Mr. MARTINEZ. I think on the face of it, it looks like an inconsistency. But we spent about 40 percent of our budget on rehabilitation, maintenance and operation. Reclamation continues to expend moneys to make sure that our facilities are kept up in a good operational status.

As I understand the betterment and rehabilitation activity that we are talking about was a separate act. It enabled moneys to be used by districts for projects or for work that was not funded under regular operation and maintenance programs. In the two years that I have been involved with the Bureau of Reclamation I have not had an irrigation district or representative of irrigation districts raise concern to me that they have not been able to address rehabilitation and maintenance on district properties and government properties as a result of the Reclamation not requesting funds for this program.

So I think we are talking about two distinct efforts by Reclamation. We are talking about this program versus operation and maintenance for our facilities.

Mr. DOOLITTLE. You went on to state that in the event private financing could not be obtained, Reclamation will need to evaluate its options, including revision of operating standards. Is that then telling us that it is going to be the Administration's policy to allow the infrastructure to deteriorate to the point that operations would have to be modified rather than to seek the necessary appropriated funds to rehabilitate these facilities?

Mr. MARTINEZ. I think we need to put this in context. If what we are talking about is an internal water distribution system within a district facility that delivers water from a canal to another canal and to the extent that that facility might deteriorate because the district is not maintaining that facility then it might be possible that if the district does not obtain financing of some sort and if the Federal Government does not provide financing that water might not be able to become available.

And in that case the facility might be inoperable. But if we are looking at a facility such as a dam or a structure that has a national interest, I do not think it is in the Federal Government's best interest to let those kind of facilities deteriorate because of a lack of funding. Those are the kind of facilities that we would continue to make sure that they are adequately maintained if it comes

to a situation where we had to come to Congress to get authorization. You have to look at the different facilities.

Mr. DOOLITTLE]. But for the ones you deemed to be the highest priority, you would not let them fall into disrepair but would come and seek appropriate funds if necessary?

Mr. MARTINEZ. That would be my recommendation.

Mr. DOOLITTLE. Mr. Flicker on the panel to come will state in his testimony that the Bureau of Reclamation no longer needs to do in-house engineering and in fact it is competing with the private sector to provide those services. Could you comment on that issue?

I realize this is not your testimony, but I want to address that question to you, Commissioner. Mr. Flicker is going to testify in the next panel that the Bureau of Reclamation in-house engineers are competing with the private sector to provide those services, apparently now competing both domestically as well as internationally. Could you comment on that?

Mr. MARTINEZ. That is an issue I am sensitive to. We have engineers in Denver that work on a cost reimbursable basis. They are primarily charged to provide engineering services to regional areas in the Bureau of Reclamation. There are instances where governmental entities such as cities and counties and States ask the Bureau of Reclamation because of their expertise to provide assistance.

What I have told my engineers is I do not want them competing with the private sector and going out and soliciting business but if we have these entities that come to us and seek assistance and we can work out something that is in their best interest and our best interest we will proceed.

We have an international arm in the Bureau of Reclamation and we have other countries that seek our assistance in certain areas but I think if you look at our record, and I will be glad to provide you the information, even Reclamation goes out to quite a few private entities seeking engineering services.

Mr. DOOLITTLE. Thank you. Mr. Dooley is recognized.

Mr. DOOLEY. Thank you, Mr. Chairman. Thank all of you for attending. I guess, Mr. Martinez, just for a little bit of clarification in your statement you talked about how there has been a change in direction and allocation of funds with Reclamation which we all I think are fairly well aware of.

You talk about, in one sentence you say that reflects the need to focus on the Federal funding on higher Federal priorities such as addressing adverse impacts of existing projects. You then go on to say Reclamation has organized this program so almost 40 percent of its fiscal year budget request is allocated to operation, maintenance, rehabilitation of the existing structure and the other 60 percent is for completion of ongoing projects and a promotion of an integrated approach to management of water.

My question is what is the amount of the Bureau's budget that really is being allocated and indeed can you account for that that is allocated for addressing the adverse impacts of existing projects? I guess what I am looking at is environmental enhancement and do you have that figure that it also does not account for the reimbursable funding as we are doing with the CVPIA?

Mr. MARTINEZ. I am sorry, Mr. Dooley, I do not have that information handy but I will be glad to provide it to the committee and to you.

Mr. DOOLEY. What I am a little interested in is we see the mission of the Bureau of Reclamation changing and that it is no longer being directed in terms of construction and new projects which the periods are quite evident even within your testimony is that the issue as it relates to reimbursable or nonreimbursable also appeared to be changing too because the issue of what is reimbursable really often times has been a function of who the primary beneficiary was and assuming that if the environmental enhancement would be more allocated as a side benefit are we seeing a change in a reduction in what we are expecting from reimbursable contributions that reflect what appears to be a traditional nonreimbursable function of the Bureau?

Mr. MARTINEZ. To the extent that our budget is increasing for addressing environmental issues, restoration issues and wetlands and to the extent that our budget has increased for operation and maintenance at facilities where there are nonreimbursable purposes then we would begin heading down the road toward situations where you would get less reimbursement for expenditures in our budget.

Mr. DOOLITTLE. Mr. Thornberry is recognized.

Mr. THORNBERRY. Thank you, Mr. Chairman, and I appreciate your efforts and the interest in trying to update and modernize funding of Bureau of Reclamation projects. I listened to the testimony and cannot help but think the issues are not strictly funding issues because as you are well aware some of the difficulties that we have experienced in just trying to modernize and put some flexibility into the Bureau and getting them to follow the law are not funding issues but seemingly just common sense issues.

I will not go into the details of what we have been trying to do. We talked to Commissioner Martinez about that before when he has been before this Subcommittee. It is not getting better. I think we can also see as evidence going back several years to Vice President Gore's reinventing government proposal where title transfers were part of what he suggested and encouraged.

It does seem like if we could have title transfers it could free up resources and maybe look at other projects or more maintenance of existing projects. And as I understand it there has not been a single title transfer occurred since he first made that proposal. So from our perspective I think it is rather discouraging as to the Bureau's attitude toward putting more flexibility and modernization into the way that projects are funded or for that matter the operation and maintenance and rehabilitation of existing projects. It has been extremely difficult.

I am going to ask Commissioner Martinez, are you going to have any title transfers this year? Where do we stand with that?

Mr. MARTINEZ. I think I testified last time that from my perspective I think we need to bring some of these to closure. I continue to work with the Administration to make sure we bring some of these to closure and I am hopeful that we will have some this session.

Mr. DOOLEY. I think the difficulty, Mr. Chairman, as you know, is that in some of the negotiations so far have been drug out for years and in others there are just unbearable conditions that get put on by the Administration which has the effect that none occur.

And so it is unfortunate. I think this is an area where the Federal Government could do more on behalf of the taxpayers and the people that are served but we seem to have a difficult time getting there and I certainly want to continue working with you to help move it along.

Mr. DOOLITTLE. Mr. Farr is recognized.

Mr. FARR. Thank you very much, Mr. Chairman. I want to first of all thank you for having the hearing. I think this is one that this Congress needs to really focus on. It is kind of a misnomer that the Bureau of Reclamation reclaims all this water because my idea of reclaim is reuse and I think we ought to put more emphasis on it.

I am a little bit disturbed because I am not sure which way your testimony wants to lead us. At one point you point out that you commend Congress for cutting out the small loan program and on the other part of your paper you say that there is a growing demand to devote a greater portion of the Reclamation budget to water reuse projects.

How can we meet the demand which I think is an appropriate one, to use essentially very expensive water that we are cleaning up; sewage water that we are treating and move that treated water from dumping it in rivers and oceans to moving it to Reclamation. As you know, the area I represent in Salinas Valley has been a very successful project thanks to the Department, and frankly, thanks to the Department being able to grant the last large loan.

These projects are going to be opening in the latter part of this year and it will be the largest amount of agricultural land in the United States that is being irrigated by reclaimed water. The point is that I do not find in the Bureau's new strategic plan under the reinventing government initiative any language regarding new projects which the Bureau intends to undertake regarding reuse of reclaimed water.

And I would like to see us put more emphasis on that. Mr. Garamendi, when he was here on the CVPIA oversight hearing, discussed water that we needed in the Pajaro Valley. They have been on the list to get CVP water for a long, long time. They are not able to get it. And the question was how do you resolve this problem because you can't just drop that ball.

So my point of interest here is to see what we can do to expedite the stand to get some moneys to those communities who really want to go to effective reuse for Reclamation projects.

Mr. MARTINEZ. Mr. Chairman, my personal perspective is that reclamation and reuse of these water resources is a good way to create for lack of a better word new water supply. What I am trying to point out here is that Reclamation has a budget to work with, $764 million, with competing interest.

To the extent that we would aggressively fund wastewater reuse projects it indicates that in the next year we will need $130 million. The question is where are we going to get the $130 million? If we turn to our $764 million budget, this will impact our ability to continue to construct the projects that have been authorized.

It will further complicate our ability to maintain and operate our system. The question is, if we are going to move forward on some of these initiatives how are we going to fund them?

Mr. FARR. Well, exactly. The loan program seems to me a way to work that. I understand it was very cumbersome. It was too long. It took years and years to qualify for the loan and some of the loans were not paid back but if indeed when you say that reuse is the newest source of water and it is a high priority for you then why isn't there an emphasis in moving that priority into the fiscal arena as well?

Mr. MARTINEZ. I think my testimony in the past has indicated that it is my belief that the Small Projects Reclamation Loan Act as it currently exists has outlived its usefulness. I think that perhaps there might be a reformulation, from my personal perspective, a reformalization of that program that might allow Reclamation to fulfill its mission and I will continue to engage other parts of the Administration to try and see if we can move forward in that initiative.

Mr. FARR. We need some leadership here. That is what I am asking. Where is the leadership to say that what you just stated, that this is the best new source of water. It might be it is all paid for because it is already in—you know, it is being collected and delivered to the households and businesses and it is being delivered back to its treatment plant.

It is just a matter of upgrading those treatment plants and getting the distribution system in. It seems to me a very cost effective way of gaining new water and environmentally without any problems. But where is the leadership from the Bureau of Reclamation saying that this is going to be one of our agendas?

Mr. MARTINEZ. We are taking an aggressive approach to try and move these projects forward. The bottom line is that the demand for these programs is expensive. The Federal commitment on the four projects that have been authorized already and where construction is taking place in California requires a Federal commitment of over $300 million.

Mr. FARR. And those were loan programs, they were not grants.

Mr. MARTINEZ. They were grants.

Mr. FARR. Well, not the one that I am involved with. It was a loan.

Mr. MARTINEZ. Yes, the loan but these are—and I am talking about the wastewater reuse projects in California are grants. Over $300 million.

Mr. FARR. And yet, excuse me, it turns out that your paper says you do not support the loan program, you are glad it is phased out and you would like to encourage the grants. See, I do not see where the leadership is coming from to try to get to move in that direction.

Mr. DOOLITTLE. Mrs. Chenoweth is recognized.

Mrs. CHENOWETH. Thank you, Mr. Chairman. Mr. Martinez, the Chairman in his opening remarks made reference to the recent draft as a strategic plan of the Bureau of Reclamation and I studied that plan also and I was pleased to see that the Chairman pointed out the fact the Bureau has said there is no new water and yet just two pages away you talk about acquiring more water espe-

cially for conservation practices in the movement of fish especially in the west. Where do you intend to get that water?

Mr. MARTINEZ. If I might try to put it in context. I think the GPRA plan basically says that we need to turn our attention away from the concept that we are going to provide new water resources by building water projects, building new dams, new reservoirs for two practical reasons. One is the expense of these projects, and second of all is the mood of the country.

But if there are other forces to create additional water supply, wastewater reuse would be one source, water marketing would be another, water conservation or the improved management of water resources would be another. So in summary where we are headed is to make better use of the resource that we have developed to provide the needs out west rather than creating a new water supply project.

Out west there is a tremendous amount of water underground that is saline. To the extent that we take the leadership in reclaiming saline water in a cost effective way it would be providing new resources. Wastewater reuse we just finished talking about. But those are expensive projects and my testimony indicates that with the Bureau of Reclamation's existing budget there is not enough money to fund all projects.

On the 16 projects that have been authorized for construction for the next few years, they require almost half a billion dollars. I support these projects but I cannot support them at the expense of moving money from one part of my budget to another part because I got a commitment, other commitments, I have to live with.

Mrs. CHENOWETH. In your draft strategic plan you talk about acquisition or leasing of water rights and ways to improve environmental conditions and I found that beginning on page—you also discuss it on page 2 of your testimony. How do you intend to finance this kind of acquisition and when and where did the Congress give the authority or confer the authorization to the Bureau for this kind of acquisition whether it be leasing of water rights or selling of storage rights?

And then the second part of my question—the first part, where is the money going to come from, secondly, did Congress defer that on your Department? And, thirdly, isn't a storage right a contract obligation rather than a right that was somehow acquired by the Bureau to be able to sell or rent?

Mr. MARTINEZ. The authorization to use those kind of moneys would have to come from Congress. In the absence of a new allocation to the Bureau of Reclamation for those purposes, we would have to look within our existing resources and make recommendations as to how to best utilize those resources.

And if the national priority to purchase water to address certain environmental concerns outweighs the use of the money for other purposes, we would be making those kind of recommendations to the Congress.

With respect to the acquisition of water the one that comes to mind is the Thunder River Basin where based on the biological opinion issued by the National Marine Fisheries Service Reclamation is charged with acquiring water. We are acquiring it from willing sellers under Idaho law for the purpose of addressing fish con-

cerns. We have requested the appropriations in our budget and Congress has seen fit to appropriate the money to us.

Mrs. CHENOWETH. Thank you, Mr. Chairman. I have no more questions.

Mr. DOOLITTLE. Commissioner, how many in-house engineers does the Bureau employ?

Mr. MARTINEZ. I would be glad to provide that information to you but I would probably say that the Bureau of Reclamation is primarily an engineering organization.

Mr. DOOLITTLE. And yet you are abandoning the structural solutions in favor of non-structural, as I understand your testimony.

Mr. MARTINEZ. Well, we have a large infrastructure out west and it is imperatively important that we maintain an expertise, an engineering expertise, to maintain that infrastructure. So one of the things that I did when I became Commissioner is I created an in-house task force, to look at how we were going to be able to maintain an engineering capability to make sure that our facilities remained adequately maintained and sound replacements were made from an engineering standpoint. And we are not going to lose that expertise.

Mr. DOOLITTLE. So where there is a trend toward privatization going on all around the world, why couldn't you maintain that expertise largely through contracting out and terminating the in-house engineers that you have, retaining a few who you need to supervise the work of the contractor? I do not know how many hundreds you have but you have a lot, I presume.

Mr. MARTINEZ. Let me try to answer it from this perspective, Mr. Chairman. The Bureau of Reclamation at the height of its dam building in the 1960's had, I understand, about 35,000 employees. We have cut back in the last two years approximately 20 percent of our employees and we are reducing the number of engineers. We are hoping to maintain an adequate work force to address our needs. And we are down to about 6,000 employees now.

Mr. DOOLITTLE. So you went from 35,000 in the 1960's to 6,000 now?

Mr. MARTINEZ. About 6,000 now.

Mr. DOOLITTLE. And what percentage of those, and I realize you can submit the precise number for the record, but what you get, what percentage of the remaining employees are engineers?

Mr. MARTINEZ. I would venture to say—I would be happy to provide the information to you but in terms of overall percentages we probably have less engineers percentage wise now than we did back then but I will provide that information to you.

Mr. DOOLITTLE. What about the idea of contracting out to the private engineering firms that have demonstrated an ability now to design big complex projects like we used to build and hopefully will build in the future?

Mr. MARTINEZ. I will provide you the information but I believe, like I said, we are contracting out but it would still be my recommendation and I think it would be remiss as long as the Federal Government holds title to some of these facilities, especially facilities such as the dam on the Columbia River, Grand Coulee Dam, and Hoover Dam and these large dams that it is imperative that we maintain in-house expertise to address those issues.

Mr. DOOLITTLE. Well, couldn't you maintain in-house expertise and simultaneously accelerate the amount of work going out to the private companies? Are we so lean in the Bureau of Reclamation that we are not capable of further reducing in-house engineers without damaging the minimum level of necessary expertise?

Mr. MARTINEZ. If what you are asking me is should the Bureau of Reclamation operate with entirely outside consultants I think that my advise to this commission, to the Administration would be, no, we need to maintain some in-house expertise.

Mr. DOOLITTLE. Just so we have a meeting of the mind—if the private sector can do it, and if by definition they can do it less expensively than the government, do you really need to have in-house engineers beyond the minimum necessary to supervise the work of the private contractors?

Mr. MARTINEZ. I see your objective and I believe that the record will reflect that we have reduced our in-house engineers. We do contract but we need to have a balance and I will revisit that and I do believe that we ought to be as cost efficient as possible but we need to make sure that we protect the Federal Government's interest in doing that.

Mr. DOOLITTLE. I still do not feel like you have given me a direct answer to that question. I am not trying to badger you to say something you do not want to say, but—well, maybe you do not want to say it. To me, the answer should clearly be, yes, we can make further reductions. Now is that not the case in your mind?

Mr. MARTINEZ. Mr. Chairman, I would have to look because we have reduced substantially in the last two years. What I do not want to do is leave you with an impression that I can reduce much further than that. I need to go back and revisit that and find that information because of the 2,000 positions that we have lost in the last two years, the majority of those have been highly technical engineering positions.

I do not think I can tell you that I am going to reduce my staff by another 2,000 engineers. I might not have that flexibility but I can provide that information.

Mr. DOOLITTLE. I agree with you. I think we have suffered a tragic loss in expertise out of the Bureau of Reclamation, but it must be very demoralizing for these highly trained engineers to find themselves being converted into an environmental restoration agency instead of a water management agency, which is what the law intended and I believe intends them to be. Mr. Farr is recognized.

Mr. FARR. Thank you, Mr. Chairman. I would like to follow up with a question for Mr. Rezendes. If we are going to have a fixed budget for the Bureau of Reclamation in this downsizing era, if indeed there is an agenda out there that, we need to find some capital funds for moving into the new reuse issues. I guess the question then comes to where you can cut the Bureau's budget.

And it seems to me we have gone through a process here, that is the same in the military, where we went to the BRAC Commission to suggest to Congress what bases ought to be closed; and it was a recognition that we really did not need all that Federal real estate for the mission.

I come from a State where you have a California State water canal and you have a Federal canal, two canals running right next to each other, one run by one government and one run by the State. The price of water is different in each canal. It begins to appear that maybe we have reached a time of maturity in this country where a lot of those projects that we run at the Federal level be run by the States or by a consortium of States.

Should we consider the unloading of some of those projects to a local level and then reserve whatever savings we get then to move into these new agenda items?

Mr. MARTINEZ. We have not specifically looked at that. I can tell you the cost effectiveness of what the implication of that would be but I think that certainly is an option, I think you put your finger on it. I think a decision has to be made here in the Congress as to what the missions and the roles or responsibilities of the Bureau of Reclamation and which business you want to be in at the Federal level.

And once you decide that then it is easy for GAO and other people to come in and then tell you how best that could be played out through either the State level or contracting out or various other kinds of options.

Mr. FARR. Well, I have a vested interest in this law because my great-great uncle was Senator Newlands who wrote the new Reclamation Act, but on the other hand we are in a different era now where we have different sources of water and we need to practice water conservation.

I live in a coastal area that gets no water except for what comes out of the sky and if we get a dry year we live with it and we have learned to—we have a water bank for every community that essentially you are given an allocation of water. In that community that is all they get. If they want to build water-intensive projects and use up their water allocation that is it, but once they have reached that limit they cannot get any more water so people have become very conscientious about water and I think we probably done a better conservation job than anywhere in the United States.

And we have allowed with that savings to provide for growth. It just seems to me that we need to in the 1990's to relook at the way we govern water and suggest that perhaps there is some governance at the local level that could be more progressive than at the Federal level and be more cost effective.

And I would think that your agency, the general county agency, ought to be coming to this Congress and making some of those recommendations.

Mr. DOOLITTLE. Mrs. Chenoweth.

Mrs. CHENOWETH. Thank you, Mr. Chairman. I am interested, Mr. Martinez, in your telling us how the Bureau intends to address the continuing O&M backlog at many of our projects. I know in Idaho we have a backlog of operation and maintenance. With the financial picture that you have presented and so forth could you please let us know when you are going to bring that up to date?

Mr. MARTINEZ. It is my understanding that the Bureau of Reclamation is addressing operation and maintenance in all facilities to the point where we do not have any unsafe projects. Now there are some needs out there that need to be addressed and we have

identified those needs and we will seek funding to address those needs over the next few years.

In California, we will be seeking funding over the next few years to complete those items on our RACS lists. But I do not want to leave you with the impression that we have unsafe facilities. We are adequately addressing the maintenance of our facilities to make sure that they are in safe condition.

And I have told my management team that I place great emphasis on that and in the last two budgets we put more money into that area because I am concerned as you are concerned about those facilities.

Mrs. CHENOWETH. Thank you, Mr. Martinez. With regard to your answer on a previous question where I asked where did the Congress confer the power to the agency to move water or managed water for environmental purposes, I believe that your answer was because the money has been appropriated for that purpose, is that correct?

Mr. MARTINEZ. Well, we have several Federal laws, and I will be more than glad to provide the information, but with respect to the appropriations our budget document specifies and documents how those moneys will be used.

And I am assuming that when Congress appropriates our money for our budget it appropriates under the conditions that we have requested for.

Mrs. CHENOWETH. I wonder, Mr. Chairman, if it would be all right with you if we can ask for a copy of that for this 1997–98 year.

Mr. MARTINEZ. Yes, we can provide it.

Mrs. CHENOWETH. How much of a percentage of your budget has been allocated in that document for acquisition of water in one form or another either rental or leasing or purchased?

Mr. MARTINEZ. I am advised that it is under 1 percent but we will provide you that information.

Mrs. CHENOWETH. Thank you. And then we also ran out of time last time when I asked you how is it possible to sell storage rights as a water right? Since it is a contract it is a concept in contract and it was never a condition of the bargain that storage rights could be sold and it tortures the whole concept of contracting.

Mr. MARTINEZ. Well, I am not prepared—I am not familiar enough with the concept to answer that question but I will get an answer to it.

Mrs. CHENOWETH. Would you, please? Mr. Leshy has been very aggressive in pushing for the sale of storage rights and storage rights are much like a building that you drive your car into to rent that space. The Bureau does not own the car when it is driven out. It does not even own the car when it is in the space and so we are very concerned. This is an issue that I am watching very, very carefully.

I hope we do not have to resolve this issue in the courts because, Mr. Martinez, I very sincerely believe that you do exude leadership and I have not been entirely pleased with the philosophy and the direction of the Bureau but I believe you are a very, very capable man. And to that end I want to congratulate you. Thank you.

Mr. MARTINEZ. Thank you. In New Mexico where I am from, we do not have any storage right conflicts so I am not familiar with that but I will find out about that and visit with you.

Mr. DOOLITTLE. Mr. Smith is recognized.

Mr. ROBERT SMITH. Thank you, Mr. Chairman. I apologize for being late and to the other members as well. Thank you very much for holding this hearing and I am pleased to be able to say hello again to Mr. Martinez who has been to Oregon and is very familiar with an issue that I want to raise with him today which has to do exactly with the climate of irrigation projects which is in northern California and southern Oregon which has been, Mr. Chairman, under great debate of late with respect to the questions of increased demand of water between the BIA and the environmentalists, Fish and Wildlife, and of course the concern by those who irrigate in the climate's region of about 12,000 families, by the way, who take their living from the project which was completed in '95 by the Bureau of Reclamation and probably is the most efficient use of water, everyone agrees, maybe in the nation.

It is an immense effort and one that everybody I think agrees is an engineering wonder. Of late, however, as I say, under the increased competition for water there has been increased concerns that water that comes through that region be identified for other purposes than irrigation.

And, Mr. Martinez, though I might add, Mr. Chairman, two to four decisions have been made on the distribution of water which really is in the area of the Bureau of Reclamation by the Bureau of Reclamation. Normally it is done at a local level by those people that are in charge. Recently, however, in the last year and a half or two years the decisions have been seized from the Bureau of Reclamation and are now being made in Washington, D.C., by the Department of Interior.

Now that creates a whole different cast on the decisionmaking process and the question I am about to ask Mr. Martinez may be involved with decisions that he had nothing to say about because he was not consulted. And they go like this. Mr. Martinez, let me review again, the question I have of you some time ago regarding the reimbursable cost to the climate project and we went through that and I would ask you if you have it to further identify those costs that are reimbursable or non-reimbursable to water users simply because there is great concern.

For instance, I have before me here the previous five-year repayment history of the climate project which indicates an item called investigation cost—I think it means fish cost from $189,000 in September to $3.797 million in 1995. That is so far as I can understand it the reimbursable cost which means water users have to pay for it.

The question is should the water users pay for a public interest item like the advancement of fish or should they only be paying for project direct costs for approving the project?

Mr. MARTINEZ. I am aware that the costs for that project have gone up and I am aware that the irrigators are concerned about the portion that they have to pay. I will be glad to look at that and then visit with you. That is sort of an issue that also is tied in with this facility transfer issue and the cost studies.

Mr. ROBERT SMITH. Well, let me ask one other point, as you well know about, but, for instance, as short a time ago as three years—I may want to correct that. Yes, a short a time ago as three years the districts were about to repay the total cost of the Reclamation project, Mr. Chairman, that started in 1995. Irrigators must pay, as you know, for all of these costs over a period of time.

Since that time there have been loaded up on the district enough questionable payments to indenture the district for 20 years and at the same time that the irrigators were never asked whether they supported or opposed these additional charges. And so that brings the next question. If I might ask unanimous consent to continue, Mr. Chairman.

Mr. DOOLITTLE. Just reasonably follow the redlight. There are not too many of us here so please just go ahead.

Mr. ROBERT SMITH. I will be happy to yield back——

Mr. DOOLITTLE. Just quickly.

Mr. ROBERT SMITH. Thank you, Mr. Chairman. The question that follows again, Mr. Martinez, is I want to ask you indeed in the future if there is a reimbursable cost that you have identified for the irrigation district would you consult with the irrigation district prior to the time you went forward with that sort of an endeavor?

Mr. MARTINEZ. I can commit to you that from the Bureau of Reclamation's perspective we will do that. But I think that what you have hit is a very interesting issue and the issue is this. As the Bureau of Reclamation is charged with relooking at how it should operate its projects to meet either Indian trust responsibilities or environmental issues.

And to the extent that it undertakes expenses and studies is it proper to charge the irrigators for those studies or should that be a national expenditure and that is what you are asking really. And at this point in time the irrigators are being asked to pay a certain percentage of it and they have a concern. And I know what your concern is and I will follow up on that.

Mr. ROBERT SMITH. And I will take that with anybody. If we are pursuing an endangered species that is a nationwide problem brought on by an act of Congress. If we are pursuing the Bureau of Indian Affairs rights that is again a national problem. It has nothing to do with the Bureau of Reclamation project in the climate project. I would yield back, Mr. Chairman, and wait for another round. I had one more question.

Mr. DOOLITTLE. Why don't you just go ahead and ask it.

Mr. ROBERT SMITH. Thank you very much. I thank the members of the committee for indulging me here. Mr. Martinez, you may know, I know you know, there is a water supply initiative that is being proposed which I welcome, that everybody does, the satisfaction of the climate project issue can be solved with either increased storage or groundwater or both. We need 70,000 to 100,000 acre feet of water that satisfies the Endangered Species Act, that satisfies the tribes, and it would protect water coming from—for irrigators.

In the water supply initiative do you have money in your budget to begin either pumping water or determining the aquifer for trying to find a method to put more water in that river below Iron Gate

going into California which would really support the full system immensely?

Mr. MARTINEZ. I became aware of the water augmentation initiative that you are talking about. I have not been engaged in discussions to date but to the extent that there is support for that proposal within the Department of Interior and the water users and if I have the flexibility within my financial resources I will direct the money to that.

Mr. ROBERT SMITH. Thank you, gentlemen.

Mr. DOOLITTLE. Commissioner, following up on the question Mr. Smith raised with you, does it seem strange to you, it seems strange to me, that for fully reimbursable costs for operation and maintenance the Federal Government is not undertaking these obligations on the one hand and yet on the other hand they are more than happy to mandate costs on the irrigators, etc., for environmental purposes? What an upside down world we live in. Doesn't that seem strange to you?

Mr. MARTINEZ. In that context it does seem strange to me. And I have been trying to come to grasps with that issue and I guess the issue is that we could put before the Congress a budget request for instead of $764 million—$864 for an additional rate program for efficiency. They do occur out there.

Even though they are reimbursable we still would need the appropriation and I think that is the crux of the question. That is based on the limited resources that we have and the competing mass we have put together, our budget proposal we think best meets the needs that exist out there.

Mr. DOOLITTLE. Mr. Martinez, I hold you in high regard, so I apologize that sometimes my questions seem hostile, because really they are not directed at you personally. You are in the position you are in and you are defending the Administration of which you are a part.

But this philosophy of smaller is better reminds me of a bygone era, namely, the Jimmy Carter-Jerry Brown era and I find it very frustrating to sit here and to maintain that we do not need to develop new sources of water. In one of the counties I represent, and one I used to represent, they are busily overdrafting their groundwater basins just so we can make sure we are in tune to the so-called national climate that I believe you mentioned which I think there is no national climate at all opposed to dam building.

It is a tiny minority which has incredible clout with the public officials and with the media. I think the national climate would support having ample supplies of clean water. When I witness this overdraft of the groundwater, we are ruining our aquifer in San Joaquin County because of the overdrafting.

But that is OK because it fits in with the environmental agenda and dams do not anymore. Let me ask one of the three of you if you could comment. Don't these multi-purpose dams that we have pay for themselves many times over? Could someone comment upon that?

I know that it has to be addressed dam by dam but I have been told, for example, the Folsom Dam completed, I believe, in 1955 or thereabouts has paid for itself two or three times over. Could one of you comment upon that?

Mr. MARTINEZ. Let me just answer from a general perspective. To the extent that the Bureau of Reclamation projects in my opinion, personal opinion, have opened the west to development that have prevented flooding in certain areas, they have paid for themselves. Now whether that is good or bad can be debated.

Mr. ROBERT SMITH. Well, I am not going to debate. I think it is good, don't you?

Mr. MARTINEZ. But we have an infrastructure and a develop list that has basically come about because of water development projects.

Mr. DOOLITTLE. Well, do you think that is good?

Mr. MARTINEZ. I personally believe it is good.

Mr. DOOLITTLE. Does the Clinton Administration think it is good?

Mr. MARTINEZ. But now that we have completed that task we are turning our attention to other issues and that is what the mirror of this discussion is.

Mr. DOOLITTLE. Well, I am not going to argue with you about it. I would ask the question, why are we turning our attention to other issues? It seems to me that as the population continues to grow, the demands on the limited resource, unless we develop more of it, are going to get more intense. So, we ought to be responding.

I am in favor of water conservation like everybody else but to pretend that that is going to be the main source of our future water supplies is absurd because we are not going to be willing to live with the restrictions that go along with extreme conservation measures.

All right, let me ask you this. We have talked about transfers. Have we had any transfers under the Clinton Administration since their policy on transfers was announced?

Mr. MARTINEZ. Facility transfers?

Mr. DOOLITTLE. Pardon me? Facility transfers, yes.

Mr. MARTINEZ. Yes, we have had the transfers on the lower Rio Grande project and the project in New Mexico but I believe the legislation most probably passed before the Clinton Administration.

Mr. DOOLITTLE. Those were the ones that were in the pipeline before the reinventing government policy came along, weren't they?

Mr. MARTINEZ. That is my understanding.

Mr. DOOLITTLE. Have we had any out there since the policy was set forth?

Mr. MARTINEZ. No.

Mr. DOOLITTLE. And I am trying to transfer one little isolated unit of the Central Valley project and the Clinton Administration opposes it.

Mr. MARTINEZ. We are working toward making sure that we get some on board. Hopefully we will be successful this session.

Mr. DOOLITTLE. I see my time is up, but if Mr. Smith, who is the only one who could possibly object, will indulge me. What is the present backlog of operation and maintenance for the Bureau of Reclamation?

Mr. MARTINEZ. I do not have that and I do not believe we have any eminent backlog but there is a list of RAC items in the California region. I would be glad to provide you that. I will be glad to provide you our response to that in writing if I can.

Mr. DOOLITTLE. Well, the figure just for the CVP strikes me as about $80 million. Does that ring a bell?

Mr. MARTINEZ. I will be glad to respond to that.

Mr. DOOLITTLE. OK, well, it is my impression it is tens of millions of dollars at a minimum.

Mr. MARTINEZ. That is not my understanding but I will be glad to——

Mr. DOOLITTLE. All right, then we will wait for the written response. My point is, wouldn't privatization relieve the Federal Government of millions and millions of dollars worth of liabilities?

Mr. MARTINEZ. Let me answer from this perspective. Leaving aside whether there is or is not a backlog right now we have a large infrastructure out west and the Federal Government has a large responsibility to maintain that infrastructure. That infrastructure is aging and it is going to require more and more Federal monetary commitments.

So it is in the Federal Government's best interest to get some projects in private hands if it can so that others bear the cost. The issue is going to be if you do transfer that you put in place a provision where the project owners then do not come back to the Federal Government at some point in the future to seek funding if they are not able to correct the actions.

So there is benefit in transferring the projects to private hands if they are going to assume all liability and all financial risks in the future.

Mr. DOOLITTLE. Well, I was under the impression that the ones who want to do it have been willing to go for that but this has met with resistance by the same national climate that opposes the development of more water supplies or opposes doing anything that is not consistent with their own narrow agenda.

Because I can tell you this. This is the most anti-transfer Administration I think I could say I have ever seen. The Administration's actions are so contrary to what it says in public, which is it supports transfers. When you attempt one, it erects every possible barrier to accomplishing it.

Mr. MARTINEZ. Mr. Chairman, I commit to working with other parts of the Administration to make sure that we bring some of these to closure.

Mr. DOOLITTLE. Well, let me tell you. I hope they increase your power and influence, Mr. Martinez, because I do believe if you have the ability to implement some of these policy directives, you would produce solutions. I simply express my frustration that it appears as someone else, I think Mr. Smith, was talking about many of these decisions being made at a higher level than yours so your hands are in effect tied.

But I value your good will and practical problem-solving oriented approach. If you could, Commissioner, I would specifically ask for information that you can submit supplementary to the hearing, regarding the issue of the Folsom Dam, its construction cost and the amount returned to the Treasury over the years from the dam.

Let me ask our General Accounting Office and the Congressional Research Service also to please look into this general subject area on the issue of the dams and provide the committee with the information that you turn up.

And I will be happy, if you want further specificity, to put it in a letter. It is my belief that in the terms of both the actual costs recovered from the sale of power and in terms of the avoided costs and natural disasters these things have paid for themselves many times over, and I would like to see that documented. I am finished with my questions and I recognize Mr. Smith.

Mr. ROBERT SMITH. Thank you, Mr. Chairman.

Mr. DOOLITTLE. All right. We thank the first panel and we will have perhaps further questions. I would ask you to please respond expeditiously when they are tendered. Thank you. With that we will excuse you and ask our second panel to come forward.

We have on the second panel James Smith, Executive Director, Council of Infrastructure Financing Authorities, Mr. Eric L. Flicker, Vice President, American Consulting Engineers Council, Mr. Thomas F. Donnelly, Executive Vice President, National Water Resources Association, Mr. David C. McCollom, General Manager, Olivenhain Municipal Water District. Let me ask you, please, to rise to raise your right hands.[Witnesses sworn.]

Mr. DOOLITTLE. Let the record reflect that each answered in the affirmative. Well, gentlemen, we are just here together. Let me recognize Mr. Smith if he will begin the panel's testimony.

STATEMENT OF JAMES N. SMITH, EXECUTIVE DIRECTOR, COUNCIL OF INFRASTRUCTURE FINANCING AUTHORITIES

Mr. JAMES SMITH. Thank you, Mr. Chairman. I am James Smith, Executive Director of the Council of Infrastructure Financing Authorities referred to as CIFA. It is a non-profit association representing state and local public financing authorities. Members of the organization have the capacity to issue debt mostly in terms of bond indebtedness for infrastructure financing and most administer at least the financial aspects of the State Revolving Loan Funds for wastewater and drinking water facilities. I am pleased to be here today to describe that program and its successful operation to the committee at their request.

In 1987 the Clean Water Act was amended to alter the fundamental approach to financing municipal wastewater treatment improvements. The construction grant program, which had provided grant assistance for municipal wastewater treatment projects, was transformed into a revolving loan program.

Under the loan program, capital grants are now made to each state. They are matched by a state contribution of 20 percent, and they provide a source of low-cost borrowing for localities to finance their wastewater treatment needs with 20-year loans to municipalities and communities.

Managed as a revolving loan fund, with the retainment of principal and interest returning to the fund to be lent again, Congress envisioned a loan fund that could effectively operate in perpetuity, providing low-cost financing well into the next century.

In addition, Congress provided one other unique feature which has proven to greatly enhance the growth and lending capacity of the funds, that is, the capacity to leverage the dollars in the fund by borrowing in the municipal tax-exempt market. This capability to leverage the funds is one of the most innovative and successful features of the SRF.

About one-half of the states have used this funding device to increase their lending capacity, and a number of other states, while not directly leveraging the Federal dollars, combine the SRF fund with other state funds which are leveraged in the bond market, also increasing the overall pool for lending. Some states leverage their funds at ratios as high as 4:1. I mention this because it is an example of the flexibility and ingenuity that can be demonstrated in the management of these loan funds.

Together, the Clean Water SRF lending pool, according to recent EPA data, has grown to approximately $22 billion. Through state match, fund leveraging and the return flow of interest and principal back to the fund, the Federal capital contribution of approximately $11 billion has been more than doubled.

Over 4,400 low-interest loans have been made; 1,000 just in the last year. The average rate, the lending rate, for these loans which I mentioned are 20-year loans is roughly about 3 percent and so far I am very pleased to say that in the experience of the program there has not yet been a default.

SRFs are a true success story. Loan repayments are approaching $1 billion a year, returning to the fund to be relent again. Does the SRF loan prototype have potential for application to other types of infrastructure investments? Well, obviously, as a loan program, the SRF is most adaptable to those types of financings with a revenue stream for repayment, such as a public utility.

Congress, in last year's reauthorization of the Safe Drinking Water Act, created a State Revolving Loan Fund to finance needed public drinking water supply improvements. Here I might just parenthetically add that EPA has restricted the use of those funds for funding any kind of reservoir or dam facility even though it may be associated with water supply. I think this reflects a colossal misunderstanding of how water is supplied, domestic water is supplied, particularly in the west.

The loan fund concept is being advanced for other areas as well. The State Infrastructure Banks created by the National Highway Designation Act of 1995, initiates a system of loan project financing that can be a revolving loan system.

In closing, I am not closely familiar with the project cost allocation and repayment requirements of the Bureau of Reclamation's water projects, so I am not prepared to provide an opinion on the adaptability of the loan funds, especially with its leverage capacity, to those types of projects.

However, I am willing to provide the committee and its staff with any additional information you may wish on the SRF operations, or answer any of your questions. Thank you.

[Statement of Mr. Smith may be found at end of hearing.]

Mr. DOOLITTLE. Thank you. Mr. Flicker, you are recognized for your testimony.

STATEMENT OF ERIC L. FLICKER, VICE PRESIDENT, AMERICAN CONSULTING ENGINEERS COUNCIL

Mr. FLICKER. Good afternoon, Mr. Chairman, and thank you for inviting me to testify before the Water and Power Subcommittee. I am Eric Flicker, Vice President of Pennoni Associates, Inc., and also a Vice President for the American Consulting Engineers Coun-

cil, or ACEC, a trade association representing approximately 5,000 engineering firms.

Each year, our member firms design over $100 billion in completed public and private infrastructure projects. Our firms are overwhelmingly small business with 80 percent of our members employing 30 people or less. Nevertheless, ACEC member firms have worked in nearly every country in the world.

I will first touch on the infrastructure crisis that our country faces. The United States faces a critical challenge to provide sufficient infrastructure investment to meet the ever increasing demand placed upon our roads, water and solid waste systems, ports, and other public works. Today, all we must do is look around and we will see evidence of neglect all around us, particularly in the area of water pollution and the availability of a ready supply of clean drinking water.

Why is infrastructure important? Both the quality of life our citizens enjoy and our nation's overall competitiveness are at stake. We know, for example, that countries that invest a higher percent of GDP in public works than the United States enjoy a higher productivity growth.

Truly the value of infrastructure is not the jobs that construct it, but in the way the completed infrastructure underpins the quality of life of a region. Just ask those who have suffered a natural disaster if infrastructure is important. The arguments for infrastructure impact directly on the issue before this committee, providing for the water resource needs of our western states.

Lack of adequate resources will impact cities, farms, and industry, which will have a tremendous effect on the economic vitality of the region. Privatization is an important tool. Let me take a moment to talk about it.

As the Federal source of infrastructure funding decreases others must pick up the slack.

The states, counties and municipalities are now turning to the private sector to help them achieve their mission of assuring there is adequate infrastructure to protect the health and safety of their constituents. Drinking water, wastewater treatment, prisons, highways and airports are all being privatized under a number of schemes.

In some cases, the asset is actually sold to the private sector. In most cases, particularly wastewater treatment, the facility is leased to the private sector for a length of time, which saves considerable amounts of money for the municipality. In my written statement, I highlight the tremendous growth of privatization in this country and particularly in other nations around the world.

The United States is behind a number of developed and developing nations in this area. It is my hope that we will soon catch up. There are significant funding mechanisms that have potential to improve this situation. Let me touch on them.

Over the years, well-intentioned regulations have been issued to protect the public's interest.

Unfortunately, they are having the opposite effect by limiting the ability of government to use innovative financing, or partnering with the private sector, to deliver infrastructure. In my written

statement, I highlight four Federal changes that would facilitate private sector infrastructure investment.

I urge you to work with your colleagues on the Ways and Means Committee to address these issues. I have shared with you a number of ways to use the private sector to help the government and this subcommittee achieve their goals of providing for the water resource needs of the nation. The important question to answer now is how to use the private sector and what is the role of the government in delivering infrastructure.

There may have been a time in this country when the Bureau of Reclamation needed to do in-house engineering to meet a specific need. This is no longer the case because it can contract out to the private sector. Unfortunately, not only does the Bureau of Reclamation maintain a significant in-house capability, it is marketing that capability in competition with the private sector.

I have attached to my written statement a copy of a marketing brochure used by the Bureau that has been provided by our Washington State affiliate. ACEC has also received complaints from our members that the Bureau of Reclamation is competing with them for design at state, local, and tribal projects. They are not only competing with us domestically but internationally.

Mr. Chairman, I have included a report in my written statement that shows that agencies that contract out the majority of their engineering work are the most efficient. The lessons of this study apply to Federal agencies and to the type of work that the Bureau of Reclamation is doing. I hope that the relevance of this report to the issues we are discussing today is clear, the subcommittee can stretch its project resources further by assuring that the Bureau of Reclamation contract out to the maximum extent practical.

Even quasi Federal agencies are competing with us. For example, Bonneville Power Authority has increased the size of its internal engineering resources and begun marketing them to clients in competition with consulting engineers. Let me conclude, Mr. Chairman, and members of the subcommittee by saying that ACEC stands prepared to assist you in achieving your goal of assuring that the water resource needs of this country are met as efficiently as possible. Again, thank you for this opportunity to testify before the subcommittee. I look forward to answering your questions.

[Statement of Mr. Flicker may be found at end of hearing.]

Mr. DOOLITTLE. Thank you. Mr. Donnelly, you are recognized.

STATEMENT OF THOMAS F. DONNELLY, EXECUTIVE VICE PRESIDENT, NATIONAL WATER RESOURCES ASSOCIATION

Mr. DONNELLY. Thank you, Mr. Chairman. Before I begin, I have two statements from member agencies within our association that I have been asked to submit for the record.

Mr. DOOLITTLE. We will include them in the record.

Mr. DONNELLY. Thank you. In the west water infrastructure needs continue to exist. However, on the whole they are quite different from those of the past. No one envisions a future infrastructure development program and financing arrangements like the Reclamation Program. It is time to recognize and address a new generation of infrastructure development needs and financing realities.

Future projects are more likely to feature non-structural solutions, environmental enhancement, proven best management practices, innovative approaches to water quality/quantity problems, and greater levels of non-Federal financing. Meanwhile, however, the Bureau of Reclamation must continue to maintain and improve upon existing projects and programs.

An essential element, which is currently missing from the planning equation, is a basin by basin infrastructure needs assessment. Such assessment cannot be developed without the active involvement and, perhaps, the leadership of the Western governors, water resources professionals, and state and local officials.

Over the years, several Federal water projects have been authorized by Congress but remain unfunded. These projects should be reviewed to determine if they still meet the needs that they were authorized to address. Additionally, Congress should determine what projects benefits remain in the Federal interest for funding purposes.

The Bureau of Reclamation recently published its draft Strategic Plan. The plan calls for the Bureau to complete construction of all sixteen water and energy supply projects which are currently under construction. These projects should be completed as rapidly as possible in an effort to minimize cost and keep faith with the states and project beneficiaries involved.

Congress should not allow special interests to continue to unnecessarily delay these projects until the cost to complete the projects has undermined the Federal investment. Congress should take a more aggressive role to ensure that projects which facilitate the settlement of longstanding Native American water rights claims against the Federal Government are funded and completed expeditiously.

There are urgent needs in existing programs that are not being completely met. These include the Colorado River Salinity Control Program, annual operation and maintenance, Native American water rights settlements, rehabilitation and betterment, and the Small Reclamation Loan Program projects.

Without an adequate annual operation and maintenance budget the question simply becomes how many balls you can keep in the air at one time. Given the fact that Bureau of Reclamation project water users are required by law to reimburses the Federal Government for operation and maintenance expenditures on an annual basis, there seems to be little justification for annual O&M budgets that require deferred maintenance to occur and accumulate to a crisis level.

Generally, throughout the Federal Government, small project programs provide the most bang for the buck. Nowhere has this been truer than the Bureau of Reclamation's Small Reclamation Projects Program. One comment that Mr. Farr made earlier about possibly being several defaults. To my understanding, in the Small Reclamation Program there has not been one default since 1956 since its inception in 1956.

In early 1995 the Administration announced the termination of several Department of Interior programs, one of which was the Small Reclamation Program. Rather than accept the Administration's bad decision NWRA took a more responsible course and developed ideas that culminated with the introduction of H.R. 3041 during the 104th Congress.

The changes proposed by H.R. 3041 are contained in my full statement. Loan guarantees remain an unresolved issue for us. We have committed to sit down with the proponents of loan guarantees. We would like to get that done in May so that legislation could be reintroduced and hearings held in June.

We do not have a problem with the concept of loan guarantees. However, at this time our position remains only to support such guarantees if they are made to governmental entities with specific conditions. There is no question that the financing of future project development will be necessarily different than in the past.

Times have changed and the national goals accomplished through the Reclamation Program are generally satisfied. A significantly higher percentage of the cost of future development must be borne by state and local governments and project beneficiaries. However, other important sources of revenue must continue to be utilized.

Power revenues in particular must continue to be made available as a funding source for water resources development. The National Water Resources Association strongly supports the position that tidal and operational control should be expeditiously transferred to Reclamation project beneficiaries where the contracting entity is willing and able to assume full responsibility for the project.

In order to concentrate on its future goals and objectives the Bureau of Reclamation should be anxious to transfer those projects that can be operated and maintained more efficiently by local beneficiaries. Congress should take the appropriate steps to facilitate transfers that make sense from a financial and public policy perspective.

Thank you, Mr. Chairman. At this time I will attempt to try to answer any questions that the committee might have.

[Statement of Mr. Donnelly may be found at end of hearing.]

Mr. DOOLITTLE. Thank you. Mr. McCollom is recognized.

STATEMENT OF DAVID C. McCOLLOM, GENERAL MANAGER, OLIVENHAIN MUNICIPAL WATER DISTRICT

Mr. MCCOLLOM. Thank you Mr. Chairman and members of the subcommittee for this opportunity to testify today. My name is David McCollom. I am the General Manager of the Olivenhain Municipal Water District in Encinitas, California. Our agency serves in the cities of Encinitas, Carlsbad, San Diego, Solana Beach, San Marcos, and unincorporated communities of Olivenhain, Leucadia, Rancho Santa Fe, Fairbanks Ranch and 4S Ranch.

I note with great interest the variety of opinions and issues that are before the committee today and before the Bureau and I have to assure you that north San Diego County and the Olivenhain Water District faces the same kinds of problems as any of the agencies in southern California and for that matter the arid west.

And in California, particularly in my part of California, we have a more particular problem in terms of the importance source of all of our water. Our water runs from 500 miles away in the Bay Delta or from 200 miles away in the Colorado River. And what I would like to focus on today are ways that we can improve and help our

communities and our people with financing options through the Bureau of Reclamation.

I am very glad to hear the expertise of yourself, Chairman Doolittle, and the knowledge that Congressman Farr expressed today. It shows that perhaps the issue here as Congressman Farr was mentioning is not a leadership issue as much as urging the subcommittee to put together the directives and the programs that we need to manage the next generation of water projects.

I heard a lot from the Bureau today with regard to tradition and I think it is incumbent on all of us to be thinking of tradition. That is how our country maturated but it is also incumbent to think of the future and have vision. And somebody had vision when they built the Grand Coulee Dam. In fact, that vision helped us so much that probably without the Grand Coulee there would have been insufficient electrical energy to smelt the aluminum that was necessary to defeat Hitler's Third Reich.

So we never know what these projects may end up doing. The fact of the matter is that we at some point in time in this country's history decided to settle the arid west and make more water available and we did that and that is certainly extremely good. But the job is not over. The job is far from over and we heard about the environmental problems that we have.

And the programs that I am going to briefly give you an overview on today help cure a lot of those problems and also set the stage for more innovative public and private partnering that really gets us outside the box of having government do for us but puts government in a position of helping the people help themselves while the people pay for the projects.

I think this is necessary for the Bureau to change to this kind of a role. I do not think the Bureau should be going out of business. They should be taking a very forward looking position with regard to getting outside the box, outside I guess the current buzz word is the paradigm of traditional government.

First of all, we are here to discuss the loan guarantee proposal. Congressman Duke Cunningham has introduced legislation that is pending before this committee. The legislation is called H.R. 134 and it would demonstrate by the Olivenhain Water Storage Project the loan guarantee program of which we speak and the one we are interested in working with the Bureau of Reclamation on.

These loan guarantee programs could be very, very helpful in the future for the EPA which we are estimating that the Safe Drinking Water Act is going to require $200 billion in the next 20 years. In Olivenhain our price of wholesale water has gone up 55 percent in the last five years. That is well over $250 per acre foot increase in price that our customers have to pay.

It is very difficult for local agencies to meet these increasing financial challenges. In addition, I named cities that we serve in and cities have terrific financial pressures today. A loan guarantee would help the cities avoid layering of traditional municipal debt which eventually as the municipal debt layers and layers and layers lead the risk factor goes up. The rating agencies rate the interest rates higher and higher.

It would keep low interest rates for other forms of infrastructure and public service projects like schools, police, fire, and some of

those programs that are not entrepreneur and enterprise programs that ought to be run more like a private entity. We have a product to sell. We ought to be managing our water resources like a company that is selling the product reserving the elected officials to maintain the public trust for the benefit of the people.

So our loan guarantee program would go a long way toward leveraging money from the Federal Government, allow the Federal Government to maintain a balanced budget and improve the level of service to our customers, the quality of life, and assure good quality of life in the future.

Additionally, we are here to talk about Title XVI Program for water reclamation. I just wanted to reiterate some of the things that I heard. The issue of environment. The Secretary of the Interior has a responsibility to control and operate the Colorado River. 100 percent of Olivenhain's water is currently coming from the Colorado River.

We are willing to make a substantial investment in water reclamation programs that will recycle Colorado River water. As Congressman Farr said it is already paid for and the sewer plants have treated it. We ought to be reusing that resource. There is a new source of water in the west. The new source of water is reclaimed water and it ought to be used as many times as possible.

You may have heard there are not customers for reclaimed water in the west. That is not correct. It is pretty difficult to get started in this business because it starts slowly but there are customers out there. Olivenhain has six golf courses and hundreds and hundreds of acres of greenbelt that reuse water to be used to offset the cost of new infrastructure to deliver scarce resources from the Colorado River.

And this infrastructure is partially in the ground now. We can put it to good use immediately and we urge your support on both of these bills. And if I may, I will be glad to answer any questions. I hope we can stimulate a little bit of conversation like we had in the previous panel. Thank you.

[Statement of Mr. McCollom may be found at end of hearing.]

Mr. DOOLITTLE. Thank you. Let's begin with you. When you do reclaim water don't you tend to have a separate distribution for that?

Mr. MCCOLLOM. Yes, you do, and that is why we are here asking for Federal help. It is a separate distribution system and some day we may not have separate distribution systems but for now it can be most economically handled that way but the separate distribution systems are really the problem. The problem is at the treatment plant it is getting the water out to the customers.

Mr. DOOLITTLE. So when you build these distribution systems they all line up at the treatment plants, is that where they begin?

Mr. MCCOLLOM. These distribution systems need to connect with treatment plants. In our particular case in the case of the north San Diego County project much of the infrastructure is in place. We need the connecting pipelines to the treatment plant to transfer this water and so what we are looking for is some seed money to take care of that.

Once the project is operative and selling water it will become an enterprise of the various agencies, Olivenhain included, and then

we will be self-funding. And so a short-term investment by the Federal Government turns into a long-term benefit for the community.

Mr. DOOLITTLE. I am trying to envision how this would work. If you got six golf courses then there would be a pipeline built between the treatment plant and each of the six golf courses or any other additional customers, is that right?

Mr. MCCOLLOM. That is essentially correct.

Mr. DOOLITTLE. And so then you are involved in tearing up the streets, because you have a completely separate pipeline, right?

Mr. MCCOLLOM. In our particular case we have already laid close to eight miles from pipeline. A goodly portion of it has been laid in developing communities in preparation and so while yes, there is the drawback of having to rip up streets in some cases to make the full connection to the system our district and many of the districts in north San Diego County as well as others under the Title XVI Program have been planning for this for a long time. This is not something that just arose quickly and it is very thoroughly planned in most communities.

Regrettably, any kind of infrastructure improvements or additions require some inconvenience to the general public but in our communities people are very anxious to see this kind of inconvenience and very, very supportive of water reclamation and the need to recycle.

Mr. DOOLITTLE. Just out of curiosity, what is the diameter of these pipes that are attaching to the water treatment plant?

Mr. MCCOLLOM. In our particular project most of the pipelines would not exceed 21 to 24 inches and the majority of them would be in the 10 and 12 inch category. Most of the—we have part of our 7½ mile system is as large as 18 inches for a short ways.

Mr. DOOLITTLE. This water is treated to secondary standards?

Mr. MCCOLLOM. It would be treated to secondary standards, yes.

Mr. DOOLITTLE. And if it were to be drinking water under the current rules it would have to be tertiary standards?

Mr. MCCOLLOM. It would have to go to some sort of tertiary standard. And in addition, I might add some might argue that the secondary standards are actually tertiary standards and we did put it through a final filtration so it would be a very advanced secondary. When I say that to a point of a confusion between tertiary in terms of what is consumable.

Mr. DOOLITTLE. And the reason that you are doing it as a separate system is just the concern over the public reaction mainly to intermingling that with the existing water supply?

Mr. MCCOLLOM. Public reaction and the ability to create a product competitively that can be used for alternative uses and so perhaps the expense isn't necessary in terms of what has to be done at a treatment plant.

Mr. DOOLITTLE. OK, because it is just for irrigation so you do not have to——

Mr. MCCOLLOM. That is correct. I would envision throughout the west that there would always be parallel systems in the future just like there are grades of gasoline but the ability to make this water drinkable and put it into the total system is actually here and the city of San Diego to the south of us has done considerable work toward this and I believe we will see that as a reality very shortly

and that will also be very significant in terms of the benefits and the impacts that it will have on the arid west and recycling water.

Mr. DOOLITTLE. Is San Diego devoid of aquifers?

Mr. MCCOLLOM. San Diego County is for all intents and purposes devoid of aquifers. There are very small local pockets. In fact, in our district we had been working on the San Dieguito Basin but it presents a very small pocket. It is a very low quality water. Historically we have had tremendous amounts of natural occurring salt in the water and so our aquifers are very poor.

And so we do not have the benefit to be able to inject treated groundwater in and pumping it out later. We have to do everything on the surface but that may be seen as an advantage in the case of our Title XVI project because we are going to be delivering from the plant to the customer and with the exception of the small amount of storage that has to be built in the form of tanks this is a much more direct use and could be managed and controlled much more thoroughly than a groundwater recharge program. And we may do some groundwater recharge on the side, Mr. Chairman, but it is not really a great resource that we can depend upon.

Mr. DOOLITTLE. Mr. Flicker, you have heard my exchange with the Commissioner about the in-house engineers and I think it is true he has lost a lot of expertise which I think anybody committed to the traditional function of the Bureau would regret. Nevertheless, do you have an impression as to the number of in-house engineers the Bureau retains at this time?

Mr. FLICKER. I do not.

Mr. DOOLITTLE. I thought your suggestion there was interesting. Of course we will have to be careful or they will cut that back and we will have them going to the Americorps or some other Clinton Administration social program but I think if it could be used to stretch the dollar and enable them to do their operation and maintenance backlog and to help develop some of these water projects can be a very good thing including the reclamations and interesting technology coming out of line beginning to expand.

You mentioned in your testimony, you gave us those four things that you thought were very useful. One of the impediments you said was the limitations on private activity bonds which are contained in the '86 Tax Act. And I want to ask Mr. Smith probably about these—let's see, you called them SRFs which actually stands for State Revolving Loan Fund, right?

Mr. JAMES SMITH. Correct.

Mr. DOOLITTLE. And are those private activity bonds, funds, are those covered by that cap, do you know?

Mr. JAMES SMITH. No, sir, they are not. At the present time because under the wastewater SRF only the public entity can access the fund so there is no limitations under the private activity bond rules. With the new drinking water program, however, for the first time the privatizer may access this revolving loan fund and in doing that they will if there are bonds that are issued in conjunction with that they will become private activity bonds. If more than 10 percent of the use of bond proceeds goes to the privatizer.

Mr. DOOLITTLE. Therefore, they come under the caps, you mean?

Mr. JAMES SMITH. They would come under the caps, that is right, sir.

Mr. DOOLITTLE. Well, it would seem if we are serious about privatization that those caps should be removed or altered.

Mr. JAMES SMITH. We would certainly support that and there is legislation before the Ways and Means Committee to consider that and expand the cap availability. It is something though that requires a revenue offset and that has always been a difficult situation.

Mr. DOOLITTLE. And the purpose of the cap is what, to make sure we do not have too much infrastructure?

Mr. JAMES SMITH. The purpose of the cap originally was to limit the access of the private sector to tax exempt proceeds on the assumption that there should not be—these preferred interest rates should not be available to the private sector. They were intended for the public sector.

Mr. DOOLITTLE. Yes, the view being that the public sector is going to be the one that met these needs but now we are in a new era where it may be the private sector.

Mr. JAMES SMITH. That is true.

Mr. DOOLITTLE. Let's see now. Mr. Flicker, in your testimony you indicated that $137 billion worth of infrastructure in just wastewater treatment was going to be needed here between now and the year 2012?

Mr. FLICKER. Yes, that was based EPA's 1992 needs survey.

Mr. DOOLITTLE. Right, and that is just the sewage treatment facilities.

Mr. FLICKER. That is correct.

Mr. DOOLITTLE. And you pointed out that it has been at about $2 billion per year for the last ten years. Then you gave us this chart. Let me ask you what happened between 1982 and it looks like 1984 was the zenith of it and it began to decline after that. What was that?

Mr. FLICKER. We do not have a copy of the chart in front of us. I apologize.

Mr. DOOLITTLE. It says Federal investment in infrastructure as percent of GDP and this little peak I think—our consultant is bringing it to you but it went up. Something good must have happened.

Mr. FLICKER. I cannot explain that. We will get back with some explanation.

Mr. DOOLITTLE. But since that point it has been quiet and then declining rather precipitously. You testified, Mr. Smith, and I did not quite catch everything you said but it sounded like the EPA restricted on its own the application of the SRF Program to anything that might involve dams, is that right?

Mr. JAMES SMITH. That is right, Mr. Chairman. In the implementation of the new drinking water State Revolving Loan Fund they specifically restricted the use of those loan funds for anything that would involve the construction or dam or reservoir storage.

Mr. DOOLITTLE. Was there anything in the authorizing statute or the appropriation that granted them the authority to do that or did they have some authority?

Mr. JAMES SMITH. There is no restriction whatsoever in the authorizing legislation nor is there in the appropriation. It was purely on their own volition.

Mr. DOOLITTLE. And when was that done?

Mr. JAMES SMITH. That was done about three months ago.

Mr. DOOLITTLE. Would you please provide the subcommittee with the documentation for that?

Mr. JAMES SMITH. I will indeed.

Mr. DOOLITTLE. Because that is something we ought to follow up on with the oversight powers that we have now in Congress. Has the engineering community ever thought of trying to challenge that?

Mr. JAMES SMITH. Some of the states have suggested a challenge to it and there may be the possibility of actually a court case on it although I am not familiar specifically with what is happening on that issue. The engineering community I do not believe has considered it although you may know better than I.

Mr. FLICKER. Not that I am aware of.

Mr. DOOLITTLE. Well, I want to encourage you gentlemen. As you are aware, where the agencies do these things it is usuallly by an executive order, some agency rule or something. We now have the ability to overturn that by majority vote in both houses and then the President of course can veto it and then we are back at the two-thirds situation.

But this is a whole new area that is now going to be thoroughly tested and explored so as you become aware, as I am sure you will since you work in the intricacies of these areas where actions are being taken like that and you think something like the dam and reservoir regulation suggests, I would appreciate hearing about it.

Mr. JAMES SMITH. Very well.

Mr. DOOLITTLE. That will allow us to elevate the issue. Mr. Donnelly, you talked about supporting privatization efforts where the recipients are willing to assume full responsibility. What is your impression of the record of the Clinton Administration on this issue?

Mr. DONNELLY. What record? They have not transferred anything that I am aware of. And I agree with Mr. Smith that that is not the Commissioner's fault. Those decisions are being made at a much higher level. I think he is doing everything he can to make the process work.

Mr. DOOLITTLE. How many such projects are you aware of, roughly, that people would like to have transferred?

Mr. DONNELLY. I probably could not give you an accurate number west wide or how many projects—initially when we first started the discussion about project transfer a lot of the people that came forward and wanted to get involved in having their projects transferred back to them both title—and for the most part operation and maintenance has been transferred on a number of projects but title transferred to them have second thoughts about it, particularly those that were involved—that were concerned about the liability.

What we have told our members is if you are concerned about the liability issue, you do not belong in the debate of title transfer. You cannot expect the Federal Government to turn over title and everything to the beneficiaries and then expect the Federal Government to retain the liability for the structure. That is just not the way it goes.

We feel that there are a number of projects out there that should be transferred. They make more sense from an efficiency standpoint, from a cost standpoint as far as the Federal Government is concerned. I sense there are probably also projects out there that should not be transferred simply because—for several reasons, because the involve multi-state, multi—the projects like the Hoover Dam, something like that where it is not one state or one water district that is controlling the title to it.

There are other reasons too. I believe that there are water districts out there that do not have the capability financial or otherwise to continue to operate and maintain those projects in a safe manner.

Mr. DOOLITTLE. Mr. McCollom, how much do you presently pay per acre-foot of water?

Mr. MCCOLLOM. Currently our wholesale price for treated potable water is $511 per acre foot.

Mr. DOOLITTLE. You said that in the last five years that went up by $250?

Mr. MCCOLLOM. That is correct.

Mr. DOOLITTLE. How come it went up so much?

Mr. MCCOLLOM. Cost of infrastructure, government regulation, costs for meeting service water treatment rules, things of that nature.

Mr. DOOLITTLE. What is the cost to lay a mile of 12-inch pipeline anyway?

Mr. MCCOLLOM. Well, a 12-inch pipeline in an extremely general rule of thumb would probably cost about $2 to $2.50 a foot per diameter inch. That is very general. If you have rock or if you have issues such as pumping, pressure reduction, that price would be considerably higher.

Mr. DOOLITTLE. OK, I will have to work out the numbers on that. So if it is 12-inch pipe——

Mr. MCCOLLOM. $25 to $40 a linear foot. On average around $32 a linear foot.

Mr. DOOLITTLE. It does sound pretty expensive.

Mr. MCCOLLOM. Oh, it is very expensive, yes. Very definitely but these kind of facilities last and today even more so I believe that the facilities we are building today instead of being 25 or 30-year construction projects we are really building for 100 years into the future due to improved engineering techniques and improved construction techniques and improved material.

Mr. DOOLITTLE. You mean you only had to dig up the street the first time and the pipe will last 100 years?

Mr. MCCOLLOM. Well, I started this business 25 years ago. We had to dig up the streets regularly. When I started at the Olivenhain Water District we have a regular leak crew that went around. Today if we have one or two leaks a year it is unusual. These are due to improvements with knowledge of pothotic protection from the oil industry. These are due to improvements of materials for service connections and diligent maintenance. You cannot let your maintenance go to the point where you are just using bubble gum and baling wire.

But I would like to point out that all these innovations came from private companies and I am a lifelong public servant and very

proud of it. I have not had time to invent anything or develop anything. I use public sector knowledge and I put that into good use and so just as the Department of Defense employees do not build airplanes, Boeing and Douglas does, the things that we are proposing here today are really not at all unusual or new. They are just business as usual using ingenuity.

Mr. DOOLITTLE. Well, I would like to recommend you to the Bureau of Reclamation. Maybe your views on operation and maintenance could have some positive effect.

Mr. MCCOLLOM. Well, thank you, Mr. Chairman, and if you stay around long enough and I get my dam and lake built perhaps I do want to do a stint in Washington if all the days would be like today but I bet you won't promise that. It was a glorious day today in Washington, D.C.

Mr. DOOLITTLE. It is indeed. Well, I think I have concluded my questions. I really appreciate the suggestions you gentlemen have offered. I think there are some very good ones in here and we will look forward to getting any further responses some of which we have talked about for the record.

And I would like to thank you all for your time and trouble to be here today and we will excuse you and with that the hearing is adjourned.

[Whereupon, at 4:15 p.m., the subcommittee was adjourned; and the following was submitted for the record:]

Honorable Eluid Martinez
Commissioner, Bureau of Reclamation
Department of the Interior

before the
House Subcommittee on Water and Power Resources

May 6, 1997

Mr. Chairman and Members of the Subcommittee, thank you for the invitation to discuss potential funding and cost-sharing options for Bureau of Reclamation projects. Given the competing demands for Federal resources and this Administration's and your efforts to reduce costs and balance the budget, this hearing is timely.

Reclamation's overall budget has declined in recent years. Between 1992 and 1996, Reclamation reduced its work force by 20 percent to 6,200 people. Reclamation's construction program since Fiscal Year 1985 has declined by more than half in real terms. Over the same period, appropriations for operation and maintenance have nearly doubled in real terms. This growth in Federal operation and maintenance costs has reduced our opportunities to support new initiatives.

Today, I will address the items outlined in your letter of invitation. First, you asked me to discuss funding options for "traditional" Reclamation projects. Most of the costs of "traditional" Reclamation projects have been borne by the general taxpayer. Typically, water users were required to contribute only a small fraction of the actual cost that taxpayers incurred in financing the construction of the projects. While Reclamation has not established a hard and fast rule for the required level of project cost sharing, in recent years Reclamation advocated that beneficiaries should pay at least 35 percent of the nominal cost of construction for "traditional" Reclamation projects, a portion of which would be provided up front in cash or in kind services.

Other than completing the authorized projects under construction, such as the Central Arizona Project, Reclamation is not initiating new irrigation water supply projects. This reflects the need to focus limited Federal funding on higher Federal priorities such as addressing adverse impacts of existing projects. Reclamation has organized its programs so that almost 40 percent of the Fiscal Year 1998 budget request is allocated to operation, maintenance and rehabilitation of the existing infrastructure. The other 60 percent is for the completion of ongoing projects and the promotion of an integrated approach to the management of water.

We know there is a growing need to manage water more efficiently in the cities as well as rural areas throughout the west. There is much that can be done to promote water conservation and environmental restoration efforts throughout the west. Reclamation recognizes that being a water resource manager requires more than seeking structural solutions to problems. Over the coming years, Reclamation will increasingly seek to use market oriented approaches to assist in achieving its management objectives. This could include promoting water transfers between willing buyers and willing sellers and, where appropriate, seeking to improve environmental conditions by acquiring or leasing water rights from willing sellers. In addition, Reclamation is committed to considering less costly non-structural approaches to the water resource problems it is asked to address. We believe alternative management approaches are the key to solving water problems in the west.

Direct Funding Arrangements

With fewer Federal discretionary dollars available, Reclamation has tried to reduce the need for appropriations by turning to direct funding agreements. For example, we have an agreement with the Bonneville Power Administration (BPA) to directly fund certain major rehabilitations at Reclamation facilities in the Pacific Northwest. Recently we signed a new agreement with BPA to directly fund annual operation and maintenance costs that are directly related to power.

Small Reclamation Projects Act Loan Program

In 1995, the Administration recommended in the National Performance Review that the Small Reclamation Projects Act loan program should be phased out. The program was authorized in 1956 at a time when Reclamation was actively engaged in the construction of large irrigation projects. The program was designed primarily to supplement Federal Reclamation law by providing largely interest-free loans for smaller irrigation projects.

Since the time that the National Performance Review issued its recommendations, Congress has provided only the limited funding needed to complete "grandfathered" projects. We agree with this approach. In this era of budget constraints, we believe that it does not make sense for Reclamation to be the "banker" for the development of small water projects. We also would strongly oppose augmenting the program through the use of loan guarantees, which would increase the likelihood that loans would be made to undeserving parties who may never be in the position to repay the government.

Reclamation should not be engaged in the business of providing loans or loan guarantees. Reclamation should not compete with private sector financing, and is not properly equipped to do so. Continuing the loan program beyond the currently grandfathered loans could require Reclamation to hire qualified staff to conduct the necessary expert risk analyses and pursue appropriate collection practices. Under a loan guarantee program, Reclamation could have to

develop the capability to oversee the activities of lenders. Under both a loan and a loan guarantee program, Reclamation would have to calculate and recalculate subsidy costs annually under the 1990 Federal Credit Reform Act -- over the long-term life of its loan portfolio. These activities would divert Reclamation's focus away from its mission, with little return to the national interest. In this era of smaller government, Reclamation must instead find ways to reduce such administrative costs.

In short, Reclamation does not support efforts to continue the existing small loan program.

Rehabilitation and Betterment Program

The National Performance Review Phase also recommended the elimination of the Rehabilitation and Betterment Program. Except as related to dam safety, Reclamation is no longer seeking Congressional appropriations to replace, rehabilitate, or renovate facilities related to the reimbursable functions of a project. We believe water districts should rely on private financing for these purposes. In the event private financing cannot be obtained, Reclamation will need to evaluate its options, including the revision of operating standards.

Safety of Dams Program

The Commissioner of Reclamation is responsible for the overall coordination of the Department's dam safety program. This responsibility affects Reclamation facilities as well as those of other Interior agencies, such as the Bureau of Indian Affairs. In this role, the Commissioner provides guidance to other Interior agencies regarding their individual dam safety programs. However, Congress provides appropriations for dam safety activities directly to the affected agencies.

The Reclamation Safety of Dams Act authorizes the Secretary of the Interior to take actions to preserve the structural safety of Bureau of Reclamation dams. The Act, as amended, requires that 15 percent of the costs are reimbursable for corrective actions based on new hydrologic or seismic data or changes in the state of the art criteria for dam design and construction. The reimbursable costs are paid by the beneficiaries of the corrective action. Reclamation's reimbursement policy is to require repayment on the Safety of Dams costs allocated to irrigation purposes at 100 percent of irrigators' annual ability to pay, and to seek reimbursement within 25 years.

Last year, I commissioned a peer review team comprised of dam safety professionals from outside the Department of the Interior to review our dam safety program. The team issued its findings and recommendations earlier this year. Among other findings, the report said, "In addition to supplementing Federal funds, the reimbursable policies of both the Safety of Dams program and the operation and maintenance programs provide a useful check for the water districts on the amount of Reclamation expenditures in these programs. However, we were

advised of numerous cases in which Districts were either resistant, felt they could not afford to pay, or entered into prolonged negotiations with the Area Offices when Reclamation wanted to increase dam safety-related reimbursable expenditures. We did not find any instances in which we could determine that SOD rehabilitation work inappropriately compromised prudent public safety as a result of District pressure to minimize reimbursable costs."

We are still reviewing the findings and recommendations of the Peer Review Team, including those concerning cost sharing. In the near future, we expect to come before the Congress to request an increase in the cost ceiling authorized for the safety of dams program, and believe that the issue of cost sharing for dam safety is best addressed in that context.

Rural Water Supply Projects

Long-standing Reclamation policy for municipal, rural, and industrial water supply projects requires that non-Federal interests repay, at current interest rates, 100 percent of project costs. Reclamation has consistently opposed authorization of new municipal, rural and industrial water supply projects, except where the needs of Indian communities justify Federal involvement. We believe there are other Federal agencies which are more appropriate to provide water to rural areas. Specifically, we have recommended interested rural communities contact the Department of Agriculture's Rural Economic Development Administration, which provides low interest grants and loans to rural communities.

Title XVI -- Water Reuse and Recycling Projects

Last year, the Congress in Public Law 104-266 authorized 16 new water reclamation and reuse projects, in addition to the four that Reclamation is already funding under the authority of Public Law 102-575. There is a growing demand to devote a greater portion of Reclamation's budget to water reuse projects.

We believe water recycling can play a useful role in managing use of water supplies in arid areas. We also know that projects must be funded in a fiscally responsible manner. With fewer Federal dollars available, we will have to make tough choices even to fund the most deserving ones.

To put the situation in context, Reclamation's overall budget request in Fiscal Year 1998 is $763.6 million. If we were to fund all authorized projects at optimum levels in Fiscal Year 1999, we estimate that approximately $130 million would be required. We further estimate that we would need a total of $550 million to fund all authorized projects through 2005. Given these budget realities, Reclamation has adopted an internal self-imposed cap of about $30 million anuually in its budget request for water reuse projects.

Before I explain what Reclamation is doing in this area, I would like to commend the Congress, especially this Subcommittee, for taking an important step in Public Law 104-266 to

alleviate some problems. In particular, the feasibility study and financial capability requirements should improve the Federal government's ability to control expenses and ensure that Federal funds are used appropriately.

Nevertheless, there remains a need to establish criteria to prioritize projects for funding, to determine what constitutes a sponsor's financial capability, and requirements for feasibility studies. A systematic and rigorous procedure to evaluate these projects is also needed.

Last year I created a water recycling team to review Reclamation's water recycling efforts, and provide recommendations. The recycling team held a series of public meetings where individuals presented their ideas on Reclamation's water reuse program. Attendees suggested that Reclamation explore alternative financing mechanisms such as competitive annual grants, which is the model used in the Colorado River Basin Salinity Control Act amendments authorized last Congress in Public Law 104-20. My water recycling team intends to hold another public workshop with project sponsors this Spring on these topics.

This concludes my prepared remarks. I would be happy to answer any questions you may have.

United States General Accounting Office

GAO

Testimony

Before the Subcommittee on Water and Power Resources, Committee on Resources, House of Representatives

For Release on Delivery Expected at 2:00 p.m. EST Tuesday May 6, 1997

BUREAU OF RECLAMATION

Reclamation Law and the Allocation of Construction Costs for Federal Water Projects

Statement of Victor S. Rezendes, Director, Energy, Resources, and Science Issues, Resources, Community, and Economic Development Division

GAO/T-RCED-97-150

Mr. Chairman and Members of the Subcommittee:

We are pleased to be here today to discuss the Bureau of Reclamation's financing of federal water projects. Since 1902, the federal government has been involved in financing and building water projects, primarily to reclaim arid and semiarid land in the West. Initially, these projects were generally small and built almost solely to provide irrigation. Over the years, however, new projects have grown in size and purpose to include providing for municipal and industrial water supply, hydroelectric power generation, recreation, flood control, and other benefits in addition to irrigation. The Department of the Interior's Bureau of Reclamation and the U.S. Army Corps of Engineers build most federal water projects. While the Corps operates nationwide, the Bureau conducts its activities only in 17 western states.

Over the years, in response to issues raised by this Subcommittee and other congressional committees, we have reported on several aspects of water resource management within the Bureau of Reclamation. My testimony today is based primarily on the findings of three of these reports[1] and focuses on (1) the evolution of reclamation law[2] primarily from 1902 to 1982 and (2) the allocation and repayment of construction costs for federal water projects among the projects' beneficiaries.

RECLAMATION LAW FROM 1902 TO 1982

The Reclamation Act of 1902 established the Reclamation Fund and provided for the construction of single-purpose irrigation projects in the West. These projects were built primarily to meet the nation's objective at that time of "developing the West." Since then, reclamation law has been significantly amended and supplemented.

Initially, the federal water project construction program was to be self-sufficient. Although debate occurred on how a reclamation program should be financed, when the Congress passed the Reclamation Act of 1902, it clearly intended that the projects' costs should be repaid by the irrigators using the water delivered by the projects. No appropriated funds were to be used to build these water projects. Under the 1902 act, projects were to be funded through a revolving fund initially capitalized by revenue generated from the sale of public lands. Upon the completion of a project, irrigators were to repay the revolving fund for the costs of constructing the project within 10 years. However, from the beginning, irrigators were not required to pay interest on their

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[1]Bureau of Reclamation: Information on Allocation and Repayment of Costs of Constructing Water Projects (GAO/RCED-96-109, July 3, 1996), Water Subsidies: Basic Changes Needed to Avoid Abuse of the 960-Acre Limit (GAO/RCED-90-6, Oct. 12, 1989), and Reforming Interest Provisions in Federal Water Laws Could Save Millions (CED-82-3, Oct. 22, 1981).

[2]Collectively, the federal statutes that are generally applicable to all reclamation water projects and the statutes authorizing individual projects are known as reclamation law.

repayment obligation. The act's legislative history states that ". . . the Government, interested only in the settlement of the lands, can well forego any interest on investments and be content with the return of the principal."

Early on, it was discovered that the costs of establishing irrigated farming on previously unfarmed, arid land were much higher than expected and the costs of building water projects were much higher than originally estimated. As a result, major funding and repayment changes were made to the reclamation program between 1902 and 1939. For example, in 1906, the Congress authorized the sale of surplus power from water projects to towns and the crediting of the sale revenues to the repayment of irrigation costs. In 1910, the Congress directed the U.S. Treasury to loan up to $20 million to the fund to finance completion of the construction of water projects. Then, in 1914, to ease irrigators' financial difficulties, the Congress enacted the Reclamation Extension Act, which extended the repayment period from 10 to 20 years. Although the irrigators were having difficulty meeting their repayment obligations, the principle that they should repay the costs of construction continued. In 1926, the Congress enacted the Omnibus Adjustment Act, which further extended the repayment period for all water projects from 20 to 40 years and relieved some irrigators of parts of their repayment obligations because of nonproductive lands in certain projects. Repayment for irrigators remained interest-free.

In 1939, the Congress fundamentally changed the nature of the program by enacting the Reclamation Project Act of 1939. Under this act, projects could be authorized for multiple purposes, and the construction costs would be allocated among the projects' various purposes: irrigation, municipal and industrial water supply, hydroelectric power generation, flood control, and navigation. The legislation allowed the costs of these multipurpose projects to be shared among the various beneficiaries so that the projects, including those that provided irrigation, would be economically viable. The act provided that construction costs allocated to municipal and industrial water supply and power could be repaid with interest. The act also gave irrigators additional relief in fulfilling their repayment obligations by allowing for variable annual payments based on crop returns and providing for an interest-free development period of up to 10 years before starting to require repayment. Since 1939, appropriated funds have been used to construct most reclamation projects.

With the passage of the Reclamation Reform Act of 1982, the Congress increased the number of acres that an individual or legal entity, such as a partnership or corporation, could irrigate with water from federal projects from 160 acres to 960 owned or leased acres. However, owned land above this limit could not be irrigated with federal water, and the act required irrigators to pay the "full cost" for water delivered to leased land over the limit. The concept of full-cost pricing represented a significant departure from prior reclamation law. The full-cost rate is an annual rate intended to repay over time the portion of the federal government's expenditures for project construction allocated to irrigation, including the operation and maintenance expenses, with interest.

In addition to legislation that is generally applicable to all federal water projects, the Congress has also enacted specific authorizing legislation dictating a water project's purposes, cost reimbursement terms, and repayment period. For example, section 2 of the Tualatin Project Act of 1966[3] authorizes a 50-year period for the repayment of the portion of a project's construction costs allocated to irrigation and municipal and industrial water supply.

Although these legislative provisions include changes in the requirements for repaying costs, they still support the overall principle that the federal costs incurred in constructing a water project for the purposes of irrigation, municipal and industrial water supply, and power should be repaid to the federal government. Appendix I lists some of the significant legislation enacted since 1902 affecting the reclamation project construction program.

ALLOCATION OF PROJECTS' COSTS AND REPAYMENT REQUIREMENTS

Reclamation law determines how the costs of constructing reclamation projects are allocated and how repayment responsibilities are assigned among the projects' beneficiaries. In implementing reclamation law, the Bureau is guided by its implementing regulations, administrative decisions of the Secretary of the Interior, and applicable court cases.

Under reclamation law, a project's construction costs are divided into two categories--reimbursable and nonreimbursable costs. Reimbursable costs are those that are repaid by the project's beneficiaries. The costs allocated to irrigation, municipal and industrial water use, and power generation are reimbursable. Nonreimbursable costs are those that are borne by the federal government because certain purposes of the project are viewed as national in scope. These costs include those allocated to flood control and navigation, as well as the majority of the costs allocated to fish and wildlife enhancement, highway transportation, and recreation. For example, the $108 million Weber Basin project in Utah includes $18.9 million in nonreimbursable costs allocated to flood control, recreation, fish and wildlife enhancement, highway transportation, and the safety of dams.

The amount of reimbursable costs that a water user is responsible for repaying varies by the type of user. Irrigators are responsible for repaying their allocated share of a project's construction costs as limited by a determination of their ability to

[3]P. L. 89-596, 80 Stat. 822.

pay.[4] They are not required to repay the interest that accrues during construction or during the repayment period. Municipal and industrial water users and power users are responsible for repaying their allocated share of the construction costs plus the interest that accrues during the repayment period. They can also be required to repay the construction costs that are determined to be above the irrigators' ability to pay; however, they pay no interest on these shifted costs. Appendix II shows how costs are typically allocated for repayment among a project's water users.

As of September 30, 1994,[5] the federal government had spent $21.8 billion to construct 133 water projects that included irrigation as a purpose. The Bureau has determined that the federal government should be reimbursed for $16.9 billion, or about 77 percent, of the $21.8 billion. Of these reimbursable costs, the largest repayment obligation–$7.1 billion–was allocated to irrigation. The Bureau has also determined that under reclamation law, $5 billion, or about 23 percent, of the water projects' total construction costs is nonreimbursable. The largest share of these nonreimbursable costs, about $1.1 billion, was allocated to flood control. We did not determine how much of the $16.9 billion of reimbursable costs has been repaid. Appendix III shows how the $21.8 billion is allocated among specific project purposes.

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This concludes my statement, Mr. Chairman. I would be happy to respond to any questions that you or other Members of the Subcommittee may have.

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[4]Since 1906, reclamation law has authorized the use of power revenues to assist in the repayment of irrigation costs. A 1944 opinion from the Department of the Interior's Office of the Solicitor, interpreting the provisions of the 1939 act, confirmed the principle of limiting the financial obligation of irrigators to their ability to pay their share of a project's construction costs. Costs determined to be beyond the irrigators' ability to pay could be repaid from other revenue sources, primarily from revenues earned from the sale of electrical power generated by the projects. Payments made from other sources under this interpretation of the law became known as irrigation assistance.

[5]When we issued our 1996 report, these were the most current data available in the Bureau's financial reports for the 133 projects.

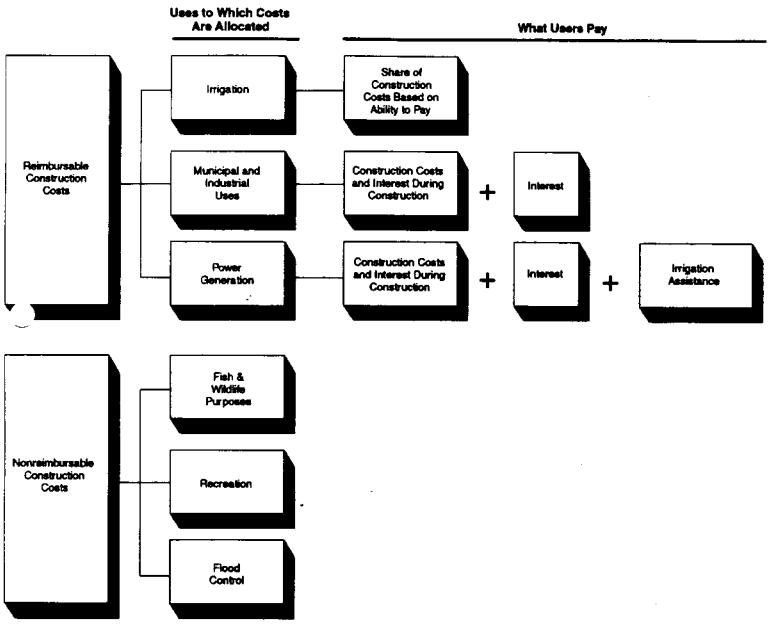
SOME SIGNIFICANT CHANGES IN RECLAMATION LAW REGARDING THE ALLOCATION OF PROJECT COSTS AND THEIR REPAYMENT

Statute	Change
Reclamation Act of 1902 (32 Stat 388)	. Irrigation projects are authorized. . Construction is funded via a revolving fund. . Repayment of costs takes place over 10 years. . Repayment is interest-free.
Town Sites and Power Development Act of 1906 (34 Stat. 116)	. Establishment of towns and provision of water are authorized. . Projects' surplus power can be sold to towns and the revenues credited to repayment of irrigation costs.
Advances to the Reclamation Fund Act of 1910 (36 Stat. 835)	. U.S. Treasury is directed to loan up to $20 million to the fund to finance completion of water projects' construction.
Reclamation Extension Act of 1914 (38 Stat. 686)	. Repayment period is extended from 10 to 20 years.
Fact Finders' Act of 1924 (43 Stat. 672)	. Repayment requirements are amended to 5 percent per year of irrigators' average crop value for the preceding 10 years. . Use of project revenues from nonirrigation activities, such as power sales and surplus water sales, is authorized for repayment of irrigators' construction costs and payment of operation and maintenance costs.
Omnibus Adjustment Act of 1926 (44 Stat. 636)	. Repayment period is extended from 20 to 40 years. . Irrigators are relieved of parts of their repayment obligations because of nonproductive land at specified projects.

Five Million Dollar Advance to the Reclamation Fund Act of 1931 (46 Stat. 1507)	. U.S. Treasury is directed to loan up to $5 million to the fund to finance completion of water projects' construction.
Reclamation Project Act of 1939 (53 Stat. 1187)	. Water projects are authorized for multiple purposes, including power, municipal and industrial water supply, navigation, and flood control. . Construction of projects is financed by appropriated funds. . Development period of up to 10 years is added to irrigators' repayment schedule. . Some construction costs are designated as nonreimbursable. . Power costs are to be repaid with interest. . Municipal and industrial water supply costs can be repaid with interest. . Repayment of irrigation costs remains interest-free.
Rehabilitation and Betterment Act of 1949 (63 Stat. 724)	. Repayment of expenditures is authorized for the rehabilitation and betterment of the irrigation systems of existing Bureau projects in installments fixed according to the water user's ability to pay.
Federal Water Project Recreation Act of 1965 (P.L. 89-72, 79 Stat. 213)	. Up to 50 percent of the separable construction costs for recreation and fish and wildlife enhancement are deemed nonreimbursable. . Reimbursable costs for these purposes are to be repaid with interest over 50 years.

Reclamation Reform Act of 1982 (43 U.S.C. 390aa to zz-1)	. The acre limit that an individual or legal entity can irrigate with water from a federal project is increased from 160 acres to 960 owned or leased acres. . Owned land above the acre limit cannot be irrigated with federal water. . Irrigators are required to pay full cost for water delivered to leased land over their acre limit.

TYPICAL ALLOCATION OF FEDERAL WATER PROJECT CONSTRUCTION COSTS



ALLOCATION OF CONSTRUCTION COSTS FOR 133 WATER PROJECTS, BY SPECIFIC PROJECT PURPOSE AND AMOUNT, AS OF SEPTEMBER 30, 1994

Dollars in thousands

Type of costs	Amount
Reimbursable costs	
Irrigation	$7,095,702
Municipal and industrial water supply	3,103,283
Power	6,373,084
Other	292,605
Subtotal	$16,864,674
Nonreimbursable costs	
Flood control	$1,093,760
Recreation	504,149
Fish and wildlife	929,980
Highway improvement	80,482
Safety of dams	750,683
Cultural restoration	54,943
Indian use	806,615
Other	739,610
Subtotal	$4,960,222
Total costs	$21,824,896

Source: Bureau of Reclamation Project Construction Cost and Repayment Reports as of September 30, 1994.

(141051)

Congressional Research Service • The Library of Congress • Washington, D.C. 20540

Statement of

Betsy A. Cody
Specialist in Natural Resources Policy
Environment and Natural Resources Division
Congressional Research Service

Before the

House Committee on Resources
Subcommittee on Water and Power

May 6, 1997

Reclamation Project Authorization and Financing Since 1979

Introduction

Good afternoon. My name is Betsy Cody. I am a specialist in natural resources policy with the Congressional Research Service, Library of Congress. I am pleased to join my colleagues today to discuss the history of Bureau of Reclamation (Bureau) project financing.

GAO has outlined the history of reclamation law and evolution of project repayment requirements through 1982. My testimony focuses on repayment obligations established in law for capital projects authorized or modified since 1979. In particular, I will discuss the different types of projects authorized over the last two decades and the breakdown between reimbursable and non-reimbursable costs.

There are two points I'd like to make before summarizing my analysis:

- It appears that projects authorized or modified within the last 18 years that are similar to traditional projects have generally followed the typical repayment requirements that have evolved over time (as described by the GAO);
- Many projects authorized in recent years have had a higher proportion of non-reimbursable functions, such as flood control and fish and wildlife components. This may raise the question of whether federal policy has changed regarding reimbursable costs. This review does not find any major alteration in overall policy, although, there are some instances (rural water supply projects in particular) where Congress departed in some respects from past policies regarding reimbursement procedures.

Project Authorizations and Financing Since 1979

Based on information supplied by the Bureau, Congress has authorized at least 55 projects and project modifications involving some level of construction since 1979.[1] I have placed these authorizations in five categories (see attached table):

1) Multi-purpose/irrigation projects and/or modifications;

2) Rural water supply projects;

3) Reclamation wastewater reuse and recycling projects (Title XVI);

4) Water quality/fish & wildlife and/or water conservation projects; and,

5) Indian water rights settlement projects.

Of the 55 project authorizations analyzed, 24% were for the relatively traditional multi-purpose/irrigation projects or project modifications; 7% were

[1] Due to time constraints, CRS did not independently verify this figure. A brief review of the Statutes at Large and familiarity with recent project authorizations suggest the actual number may be higher.

for rural water supply systems; 36% were for reclamation water recycling and reuse (also known as Title XVI projects); 18% were for water quality, fish and wildlife, or conservation purposes; and 15% were for Indian water rights settlement projects.

The repayment obligations authorized for these projects and modifications vary greatly, depending both on reimbursement provisions established in law and upon the percentage of project costs allocated to non-reimbursable purposes. As GAO noted, Congress has established different reimbursement requirements for irrigation, power, municipal and industrial use, and public purposes such as flood control and fish and wildlife enhancement and mitigation.

Multi-purpose/Irrigation projects

For the traditional multi-purpose/irrigation projects, repayment obligations ranged from 0% non-reimbursable to 100% non-reimbursable. The two totally non-reimbursable projects (Gila River Channel Improvement and Colorado River Floodway Protection) are largely flood control projects, which under reclamation law are typically considered non-reimbursable project costs. Outside of the flood control projects, reimbursement responsibilities ranged from 33% (Central Arizona Project Siphon Repair) to 93% (Belle Fourche Irrigation Project Modification), with the average being 79% -- fairly close to the 77% average construction cost reimbursement that GAO estimated for the 133 projects it analyzed in its report.[2] When the two 100% non-reimbursable flood-control projects are included, the reimbursement average for projects authorized since 1979 comes to 66%.

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[2] U.S. General Accounting Office. *Bureau of Reclamation: Information on Allocation and repayment of Costs of Constructing Water Projects*, (GAO/RCED 96-109, July 3, 1996).

Rural Water Supply Projects

For rural water supply projects, the non-reimbursable component ranged from 75% to 85%, with one exception: the Indian portion of the Mni Wiconi project in South Dakota is 100% non-reimbursable and the non-Indian portion is 20% non-reimbursable. In each case, Congress specified the reimbursement ratio in the authorizing legislation. These projects differ from the more traditional reclamation projects in that they focus on municipal and industrial water supply for rural areas with specific water quality and quantity concerns, rather than on irrigation and general municipal and industrial water supply.

Wastewater recycling/reuse projects

For reclamation wastewater recycling and reuse projects, the non-reimbursable component established in law is generally 25%; the lone exception is the Long Beach desalting project, which is 50%. Again, this non-reimbursable/reimbursable ratio is similar to the ratio that has evolved over time for traditional reclamation projects. Reclamation wastewater and reuse projects are relatively new; they were first authorized in Title XVI of the Reclamation Projects Authorization and Adjustment Act of 1992 (P.L. 102-575), and expanded during the 104th Congress. The financing arrangements that were authorized for these projects are quite different from other reclamation projects. Instead of financing and building the project up front, and requiring repayment of reimbursable costs through contracts -- as was authorized for most traditional reclamation projects -- the federal government funds only *a portion* of project

costs, with the rest shared by local project participants. Essentially, the federal government funds the 25% "non-reimbursable" share through a grant.[3]

Water quality/fish and wildlife projects

For the water quality/fish and wildlife, and conservation projects, non-reimbursable costs ranged from 35% to 100%. All of the projects in this category outside of California have been 100% non-reimbursable by law. I should note that the Central Valley Project Improvement Act (CVPIA, P.L. 102-575, Title 34) authorized 16 fish and wildlife and environmental restoration, mitigation, and enhancement projects; however only the Shasta Dam temperature control device is listed in the table because it is the only major construction project. All of the California projects have a significant reimbursable component under the CVPIA; however, these costs may be offset by project users' payments into the CVP Restoration Fund.

Indian water rights settlement projects

The Indian water rights settlement projects are all 100% non-reimbursable. Unlike other reclamation projects, both new and old, these projects have been authorized as part of settlement agreements between the Tribes, the federal government, and other interested parties. Therefore, they do not fall within the realm of traditional reclamation law and consequently are not directly comparable to other reclamation projects.

Conclusion

All in all, it appears that projects authorized or modified within the last 18 years have followed a typical repayment pattern, with a few exceptions.

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[3] By law, the federal share may not exceed 25%. Additionally, the federal share is now capped at $20 million per project.

First, three of the four rural water supply projects have a significantly higher non-reimbursable share (which is specified in law) than has been typical for other municipal and industrial water supply users in the traditional reclamation projects; however, these three represent less than 6% of all the projects analyzed since 1979.

Second, since 1992, Congress has authorized construction of 20 wastewater reuse/recycling projects.[4] The overall non-reimbursable/reimbursable cost breakdown is similar to that which has evolved over the history of the reclamation program, but the method of financing is quite different.

Lastly, the last decade has brought forward many Indian water rights settlements, which are typically 100% non-reimbursable. Again, these settlements are part of the United States' trust responsibility to the Tribes and fall outside of the more traditional Bureau water supply projects.

Most of the rest of the projects where the non-reimbursable cost share exceeds 50% involve project purposes that Congress and the Bureau have typically declared as non-reimbursable (primarily flood control, and fish and wildlife functions). In other words, the reimbursement provisions generally haven't changed; rather, the typically reimbursable functions of many of these projects (irrigation, power use, and municipal and industrial use) declined as a percentage of total project functions.

This concludes my testimony. I am happy to answer questions.

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[4] Congress also authorized several wastewater reuse/recycling studies. Only construction projects were considered for this analysis.

SUMMARY TABLE

Reclamation Projects Authorized or Modified since 1979 and Repayment Allocations

	PROJECT TYPE				
	MULTI-PURPOSE /IRRIGATION PROJECT MODIFICATION	RURAL WATER SUPPLY	RECLAMATION WASTEWATER REUSE /RECYCLING	WATER QUALITY/FISH & WILDLIFE/ CONSERVATION	INDIAN WATER RIGHTS SETTLEMENT
Average Non-reimbursable/ reimbursable ratio	34% / 66%	64% / 35%[5]	25% / 75%[6]	100% / 0% (outside of Calif.) (48% / 52% for CVPIA projects)	100%
Total Number of Projects (percentage of total)	13 (24%)	4 (7%)	20 (36%)	10 (18%)	8 (15%)

[5] This percentage excludes the Indian portion of the Mni Wiconi project, which is 100% non-reimbursable.

[6] The non-reimbursable share may not exceed 25% of total project costs.

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Fax: (202) 371-6601

Testimony Before the Water and Power Subcommittee
U.S. House of Representatives
James N. Smith, Executive Director
Council of Infrastructure Financing Authorities
May 6, 1997

Mr. Chairman, I am James N. Smith, Executive Director of the Council of Infrastructure Financing Authorities (CIFA). CIFA is a non-profit association representing state and local public finance authorities. Members have the capacity to issue debt for infrastructure financing and most administer at least the financial aspects of the State Revolving Loan Funds for wastewater and drinking water facility financing. I am pleased to be here today to describe that program and its successful operation to the Committee.

Change to Loan Financing

In 1987 the Clean Water Act was amended to alter the fundamental approach to financing municipal wastewater treatment improvements. The construction grant program, which had provided grant assistance for municipal wastewater treatment projects, was transformed into a revolving loan program. Capital grants are made to each state, matched with a 20% state contribution, to provide a source of low-cost borrowing for localities to finance their wastewater treatment needs. Managed as a revolving loan fund, with the repayments of principal and interest returning to the fund to be lent again, Congress envisioned a loan fund that could effectively operate in perpetuity -- providing low-cost financing well into the next century.

In addition, Congress provided one other unique feature which has proven to greatly enhance the growth and lending capacity of the SRFs -- that is the capacity to leverage the dollars in the fund by borrowing in the municipal tax-exempt market. This capability to leverage the fund is one of the most innovative and successful features of the SRF. About one-half of the States have used this funding device to increase their lending capacity, and a number of other states, while not directly leveraging the federal dollars, combine the SRF fund with state funds which are leveraged in the bond market, also increasing the overall pool for lending. Some states leverage their funds at ratios as high as 4:1. I mention this because it is an example of the flexibility and ingenuity that can be demonstrated in the management of these loan funds.

Together, the total Clean Water SRF lending pool, according to recent EPA data, has grown to approximately $22 billion dollars.[1] Through state match, fund leveraging and the return flow of interest and principal back to the fund, the federal capital contribution of approximately $11 billion has been more than doubled. Over 4,400 low-interest loans have been made, 1,000 of these in just the past year. Even in the face of a year (1995) of unprecedented uncertainty with regard to the reliability of EPA appropriations, state lending rates accelerated with the 50 States and Puerto Rico committing 80% of available loan funds. (See attached table for state-by-state detail).

SRFs are a true success story with loan repayments approaching $1 billion a year, returning to the fund to be relent. Moreover, the loan process is far more efficient than the previous grant program. Loan financed projects are more efficiently and economically designed and more quickly constructed. EPA estimates that the federal dollar, delivered through the loan program, has four times more buying power than the grant, in terms of projects constructed.

Does the SRF loan prototype have potential for application to other types of infrastructure investment? Obviously, as a loan program, the SRF is most adaptable to those types of financings with a revenue stream for repayment, such as public utilities. Congress, in last year's reauthorization of the Safe Drinking Water Act, created a State Revolving Loan Fund to finance needed public drinking water supply improvements. But the concept is being advanced for

[1] Data is as of June 30, 1996.

other types of capital investment, as well. The State Infrastructure Banks (SIBs) created by the National Highway Designation Act of 1995, initiate a system of loan project financing. The state loan fund approach would also be an allowable component of the Administration's proposal to assist communities in financing school construction and improvements.

I am not closely familiar with the project cost allocation and repayment requirements of Bureau of Reclamation's water projects, so I am not prepared to provide an opinion on the adaptability of the revolving loan fund, especially with its leveraging capacity, to those types of projects. However, I am willing to provide the Committee and its staff with any additional information you may wish on the SRF operations, or answer any questions you may have.

Thank you for the opportunity to provide this information to the Committee.

Comparison of Clean Water SRF Funds Available for Projects and SRF Assistance Prov. J to Projects, by State*
July 1, 1987 through June 30, 1996

State	Millions of Dollars			Number of SRF SRF Assistance Agreements	SRF Assistance as a Percent of SRF Funds Available
	Federal Capitalization Grants	SRF Funds Available for Projects	SRF Assistance Provided to Projects		
U.S. Total	**11,897.9**	**21,458.0**	**17,153.9**	**4,472**	**80%**
Alabama	114.7	357.8	374.3	89	105
Alaska	58.8	84.4	59.4	27	70
Arizona	77.9	128.6	98.4	10	77
Arkansas	92.1	206.4	185.8	72	90
California	936.5	1,239.4	839.8	91	68
Colorado	97.2	193.9	158.6	34	82
Connecticut	193.8	483.5	444.1	102	92
Delaware	50.6	59.7	44.6	183	75
Florida	445.1	650.1	658.1	154	101
Georgia	253.4	351.4	193.7	59	55
Hawaii	86.0	115.7	98.8	18	85
Idaho	50.4	63.0	56.4	34	90
Illinois	522.6	743.0	604.9	197	81
Indiana	264.6	605.2	155.3	31	26
Iowa	148.6	233.2	165.7	95	71
Kansas	104.8	179.4	157.8	77	88
Kentucky	185.4	238.7	197.5	100	83
Louisiana	139.0	161.2	132.0	33	82
Maine	91.7	180.2	121.4	45	67
Maryland	248.2	460.6	314.6	119	68
Massachusetts	432.9	906.5	879.9	159	97
Michigan	509.1	667.5	602.7	114	90
Minnesota	203.9	483.9	448.3	249	93
Mississippi	107.2	148.6	153.1	80	103
Missouri	294.2	530.4	530.8	79	100
Montana	56.5	66.7	38.3	29	57
Nebraska	59.2	86.3	69.8	44	81

Comparison of Clean Water SRF Funds Available for Projects and SRF Assistance Provided to Projects, by State
July 1, 1987 through June 30, 1996

State	Millions of Dollars			Number of SRF SRF Assistance Agreements	SRF Assistance as a Percent of SRF Funds Available
	Federal Capitalization Grants	SRF Funds Available for Projects	SRF Assistance Provided to Projects		
Nevada	53.7	102.8	82.3	18	80
New Hampshire	118.2	146.2	130.2	40	89
New Jersey	598.7	1,243.3	883.6	118	71
New Mexico	65.8	86.5	64.1	30	74
New York	1,275.4	3,932.3	3,090.0	261	79
North Carolina	208.2	274.2	253.8	81	93
North Dakota	50.2	77.1	32.7	42	42
Ohio	631.5	1,068.1	848.0	331	79
Oklahoma	102.1	200.2	172.4	42	86
Oregon	124.0	160.2	123.0	75	77
Pennsylvania	407.7	530.0	317.2	224	60
Puerto Rico	133.8	164.5	118.6	38	72
Rhode Island	69.4	125.8	77.1	63	61
South Carolina	135.4	183.1	156.6	35	86
South Dakota	60.1	94.6	69.3	83	73
Tennessee	197.7	280.4	278.0	83	99
Texas	703.4	1,602.3	1,250.9	175	78
Utah	70.6	93.7	87.9	29	94
Vermont	51.5	60.5	48.6	27	80
Virginia	325.8	483.6	372.7	94	77
Washington	179.7	235.9	219.0	99	93
West Virginia	159.9	196.9	122.5	57	62
Wisconsin	297.1	411.2	510.6	58	124
Wyoming	53.4	77.4	61.2	45	79

* data from the U.S. EPA, Office of Wastewater Management

AMERICAN CONSULTING
ENGINEERS COUNCIL

Testimony of
Eric Flicker
Pennoni Associates, Inc.
Philadelphia, Pennsylvania

Before the
Water and Power Resources Subcommittee

on the
Options for the Financing of Projects
Within the Bureau of Reclamation

May 6, 1997

1015 Fifteenth Street NW • Washington DC 20005-2605
Phone: 202-347-7474 • Fax: 202-898-0068

Good afternoon Mr. Chairman and thank you for inviting me to testify before the Water and Power Subcommittee. I am Eric Flicker, Vice President of Pennoni Associates, Inc. I am also a Vice President for the American Consulting Engineers Council, or ACEC, a trade association representing approximately 5000 engineering firms. Each year, our member firms design over $100 billion in completed public and private infrastructure projects. Our firms are overwhelmingly small business, with 80% of our members employing 30 people or less. Nevertheless, ACEC member firms have worked in nearly every country in the world.

Consulting engineering firms also play a special role with the government by providing engineering expertise for a vast array of projects. We help government agencies achieve their missions while enabling them to focus on inherently governmental functions.

Today, I would like to touch on several issues relevant to the Subcommittee's deliberations. First, I want to touch on the infrastructure crisis that our country faces. Next, I will talk about ways that this crisis can be overcome. I would also like to share with the Subcommittee some exciting approaches that are being used to deliver infrastructure around the world. Finally, I would like to discuss the appropriate role of the Bureau of Reclamation and private sector in delivering infrastructure.

Infrastructure Crisis

The United States faces a critical challenge to provide sufficient infrastructure investment to meet the ever increasing demand placed upon our roads, water and solid waste systems, ports, and other public works. Today, all we must do is look around and we will see evidence of neglect all around us, particularly in the area of water pollution and the availability of a ready supply of clean drinking water.

Let's look at the facts. As of 1992, states reported the following:

- 8% of rivers, 43% of lakes, and 13% of estuaries are contaminated with toxic chemicals.
- Of the assessed rivers, 38% are polluted to the point where they fail to meet designated uses.
- 44% of lakes, ponds, and reservoirs fail to meet designated uses.
- 97% of the Great Lakes shoreline fail to meet designated uses.

Polluted water can cause illnesses when waterborne pathogens are ingested through drinking water. Effective water pollution control is essential to ensure safe drinking water. Though much progress has been made since the 1972 Clean Water Act, without constant attention, the quality of our nation's streams and lakes will decline.

According to EPA's own 1992 Needs Survey, meeting the needs of the population in the year 2012 will require a $137 billion federal investment in sewage treatment facilities. Yet, as capital investment requirements will increase over the next several decades, federal funding for the last ten years has been little more than $2 billion per year. At this rate, the promise of improved water quality for our nation's citizens will not be achieved.

Compounding the problem is our nation's continuing deficits and long-term debt. Each year more pressure is placed on the discretionary spending accounts that fund infrastructure as the share of entitlement spending and interest continue to grow. As a result, federal public investment in infrastructure has actually declined during the past three decades. (Table 1 summarizes the overall decline.) This trend would be less disturbing if, as we are told, states and local governments were assuming the burden of meeting the unmet needs I described earlier. However, we don't believe that is the case.

Why is infrastructure important? Both the quality of life our citizens enjoy and our nation's overall competitiveness are at stake. We know, for example, that countries that invest a higher percentage of GDP in public works than the United States enjoy higher productivity growth ("Highway Capacity and Economic Growth," *Economic Perspectives*, Sept./Oct. 1990. D.A. Aschauer). Former Labor Secretary Robert Reich recently testified that a one percent increase in the stock of public capital would increase national output by .34 percent. Some policy makers refer to the value of infrastructure in terms of construction jobs created- that makes infrastructure look like the infamous pork barrel. Truly the value of infrastructure is not the jobs that construct it, but in the way the completed infrastructure underpins the quality of life of a region. Just ask those who have suffered a natural disaster if infrastructure is important.

The arguments in the report impact directly on the issue before this committee, providing for the water resource needs of our western states. Lack of adequate resources will impact cities, farms, and industry, which will have a tremendous effect on the economic vitality of the region.

What I have outlined here is a conflict between increased need for infrastructure and federal fiscal limitations that make it virtually impossible to fund projects the way we have in the past. There are no easy answers to this dilemma.

Engineers are known as problem solvers for their clients. The American Consulting Engineers Council has set some of its finest problem solvers on this issue. Let me take a few minutes to share their recommendations with you. Not all of these solutions fall within the jurisdiction of this Committee, this is a problem that requires a comprehensive solution.

Privatization

As the federal source of infrastructure funding decreases others must pick up the slack. One place to turn is the states. They too, however, are grappling with tight budgets and do not have the means to carry the full burden.

The states, counties and municipalities are now turning to the private sector to help them achieve their mission of assuring there is adequate infrastructure to protect the health and safety of their constituents. Drinking water, waste water treatment, prisons, highways and airports are all being privatized under a number of schemes. In some cases, the asset is actually sold to the private sector. In most cases, particularly waste water treatment, the facility is leased to the private sector for a length of time, which saves considerable amounts of money for the municipality. While the practice is not yet widespread, there are enough examples to show that privatization is not only economically feasible, but can provide substantial savings to government.

KPMG notes in a recent edition of Public Works Financing Newsletter that $80 billion in assets were privatized in the United States last year. "We estimate that privatization in the U.S. has increased 43% at the local level during the past decade." According to Laurence Belinsky the company's national director for Government Enterprise, the average city in this country contracts out approximately 25% of its standard services.

While privatization seems to have gained a toehold in the United States, it enjoys widespread acceptance and encouragement around the world. Belinsky says that more than $535 billion in assets around the world have been transferred from public to private ownership during the last decade. According to a recent survey by the Project Finance International newsletter, the world market for financing capital projects increased by 86% in 1996.

Funding Mechanisms

Clearly, with this emerging trend there is hope for infrastructure in an era of declining government budgets. However, government must keep pace with change.

Over the years, well-intentioned regulations have been issued to protect the public's interest. Unfortunately, they are having the opposite effect by limiting the ability of government to use innovative financing, or partnering with the private sector, to deliver infrastructure. I urge you to work with your colleagues on the Ways and Means Committee to address issues such as "change-in-use", which requires that existing bonds be redeemed if a facility is shifted to private-sector operation. This requirement creates a tremendous disincentive to privatization.

Another disincentive is Revenue Procedure 97-13, which limits the ability of the government owner of a tax-exempt financed facility to include performance-based

compensation for a private-sector operator. These contract provisions create an incentive for the private company to maximize the savings for the government.

The other major federal impediment on infrastructure investment is in limitations on private activity bonds, many of which were placed in the 1986 tax act. State volume caps and private business tests are just some of the impediments to increasing private investment in public facilities.

Finally, the Congress should explore ways to create opportunities for pension funds to invest in infrastructure. Under our current tax scheme there is no way to tap these significant resources to invest in infrastructure.

It has been difficult for the Congress to sell off certain assets. However, transferring assets to state and local government would enable the private sector to reduce the operational costs of these assets for client agencies.

Government Competition

I have shared with you a number of ways to use the private sector to help the government and this Subcommittee achieve their goals of providing for the water-resource needs of the nation. The important question to answer now is how to use the private sector and what is the role of the government in delivering infrastructure.

ACEC believes that there are inherently governmental and inherently commercial functions. There have been times in the history of our country when the government has taken on projects because there was no reservoir of expertise or capacity in the commercial sector. In time, the private sector then develops the needed expertise and the government can focus on other areas or issues.

There may have been a time in this country when the Bureau of Reclamation needed to do in-house engineering to meet a specific need. This is no longer the case. Unfortunately, not only does the Bureau of Reclamation maintain a significant in-house capability, it is marketing that capability in competition with the private sector. I have attached a copy of a marketing brochure used by the Bureau that has been provided by our Washington State affiliate. ACEC has also received complaints from our members in Montana and other western states that the Bureau of Reclamation is competing with them for design of state, local, and tribal projects. They are not only competing with us domestically, but internationally. In addition, the marketing brochure indicates that the Bureau is willing to do work for the private sector.

Some may ask, why not let the Bureau of Reclamation do this work, particularly if they can do it cheaper? Setting aside the fact that this country has an historic commitment to using the private sector, the truth is government can't do it cheaper. Government can

make it look cheaper by hiding the true costs of performing the design, but government can't do it cheaper.

It is rare that we get an opportunity to measure the true cost of government design, but an opportunity has presented itself. State departments of transportation must keep data on their cost of design and construction to report to the Federal Highway Administration. ACEC has compiled that data with the help of Mr. William Fanning, of Professional Services Management Journal. Mr. Chairman, I have included a copy of that study with my testimony and ask that it too be included in the record.

The study shows that transportation departments that contract out the majority of their engineering are the most efficient, and thereby have the lowest design costs. Does this translate to the type of design that the Bureau is doing? Absolutely! We see no significant differences between transportation design and the types of design done by the Bureau of Reclamation that undermine the lessons learned from this study.

I hope that the relevance of this report to the issues we are discussing today is clear. This Subcommittee can stretch its project resources further by assuring that the Bureau of Reclamation contract out to the maximum extent practicable. This does not mean that ACEC is advocating the demise of the Bureau. Contract oversight is an inherently governmental function. We even recognize that agencies that have expertise in design and construction projects can play a valuable role for other federal agencies and even state and local governments as contract managers. They contract out the work to the private sector and assure that quality design and construction take place. ACEC believes that the Army Corps of Engineers, particularly its military construction program, is a model of how such an agency should operate.

The Bureau of Reclamation is not alone in competing with the private sector. Other federal agencies are performing a variety of commercial functions that should be contracted to the private sector. Even quasi-federal agencies are competing with us. For example, Bonneville Power Authority has increased the size of its internal engineering resources and begun marketing them to clients in competition with consulting engineers.

Conclusion

Mr. Chairman and members of the Subcommittee, ACEC stands prepared to assist you to achieve your goal of assuring that the water resource needs of this country are met as efficiently as possible. We would like to work with you and your staff on ways to develop innovative financing of projects and to assure efficient and quality design through the use of the private sector.

Again, thank you for this opportunity to testify before the Subcommittee. I look forward to answering your questions.

AMERICAN CONSULTING
ENGINEERS COUNCIL

Eric L. Flicker, Vice President, 1996-98

Mr. Flicker is Vice President of Pennoni Associates, Inc., in Camp Hill, PA.

He has served as an ACEC Director at Large, Chairman of the Government Affairs Committee, and as a member of the Business Practices, Public Relations, and Government Affairs Committees of CEC/Pennsylvania. He also served as the Chairman of the Hazardous Waste Action Coalition and Planning Cabinet. He also served on the Peer Review, Budget, Business Practices and Meetings Task Force Committees.

He has been named PSPE Reading, PA Chapter, Engineer of the Year, ENR Marksman and has received a Dedicated Service Award from PSPE. He holds a B.S. in Civil engineering and an MBA in Business Administration from Lehigh University. He and his wife Gerry Ann have four children: Michael, Scott, Andrea and Kimberly.

BUREAU OF RECLAMATION

ENGINEERING SERVICES
WATER AND WASTEWATER TREATMENT SYSTEMS
CAPABILITIES STATEMENT

Technical Service Center
DENVER, COLORADO

The Bureau of Reclamation has expanded its traditional role by developing expertise in the environmental fields of water treatment systems, wastewater treatment systems, environmental restoration, and remediation of water containing hazardous constituents. To meet this expanded role, Reclamation has created the Water Treatment Engineering Team, located at the Technical Service Center in Denver, to assist our clients in the environmental arena.

Reclamation places an emphasis on sharing this expertise with other Interior agencies, departments, governments, and the private sector. Currently, Reclamation serves other agencies in a technical advisory capacity and provides technical engineering services to other agencies and other departments.

We have the following capabilities:

NEEDS ASSESSMENTS

- Conduct site visits of existing water treatment plants and wastewater treatment facilities to review the performance and capabilities of the plants in meeting their intended or required use.
- Review design data for proposed water treatment and wastewater systems and determine potential treatment processes needed to meet regulatory requirements.
- Analyze water distribution pipe networks by computer modeling to determine the capability of existing systems and determine problem areas.
- Generate Needs Assessment reports that describe existing conditions, identify problems, describe required remedies, and provide cost analysis for proposed solutions.

PLANNING

- Prepare appraisal level engineering evaluations.
- Conduct investigation and feasibility studies.
- Generate treated wastewater reuse studies.

DESIGN REVIEW

- Provide independent reviews of A/E designs and Operation and Maintenance manuals for water and wastewater treatment plants.

DESIGN

- Prepare feasibility and final designs.
- Collect design data and generate detailed designs.
- Prepare specifications for construction contracts for new water and/or wastewater treatment facilities and retrofitting existing facilities.
- Generate construction cost estimates.

PROCUREMENT

- Provide contract administration.

(over)

CONSTRUCTION

- Provide construction management and construction inspection services.

OPERATION AND MAINTENANCE

- Provide initial start-up, operation, and maintenance services.
- Generate long term operation, maintenance, and equipment replacement schedules.
- Prepare preventative maintenance programs.
- Perform comprehensive audits of out-of-compliance treatment plants.

TRAINING/EDUCATION

- Assist in classroom and field training for water and wastewater system operators.
- Provide schedules for plant start-up, operation, and maintenance.
- Provide information on Safe Drinking Water Act compliance.
- Provide information on Clean Water Act compliance.

WATER ANALYSIS, BENCH SCALE TESTING, AND PILOT SCALE INVESTIGATIONS

- Field sampling and testing.
- Provide expertise in the field of desalting technology.
- Provide a Mobile Treatment Plant (MTP) to demonstrate site/water specific treatment processes.

FUNDING

- For FY96 there is limited funding available from the Native American Affairs Office to cost-share Needs Assessments pertaining to water treatment systems for native American communities.
- All other work will be cost reimbursable and will require a Service Agreement before work can begin.

PROJECT DESCRIPTIONS

Some examples of projects completed include:

- Yuma Desalting Plant, Yuma Arizona
  72 MGD, Surface Water Source, Pretreatment/ Reverse Osmosis
- Leadville Mine Tunnel Treatment Plant, Leadville Colorado
  2.5 MGD , Mine Discharge, Chemical Precipitation
- Roosevelt Lake Potable Water Treatment Plant, Arizona
  .22 MGD, Surface Water Source, Chemical Precipitation
- Roosevelt Lake Wastewater Treatment Plant, Arizona
  .14 MGD, Advanced Wastewater Treatment Plant
- Lake Pleasant Outdoor Education Center, Maricopa County, Arizona
  wastewater systems including conveyance, treatment, and disposal and a calcium hypochlorination water treatment system
- Water/Wastewater Engineering Appraisal Report, Harrison County, Texas
  appraisals of existing water and wastewater systems

Reclamation is dedicated to providing consistent, high quality, cost effective technical services and products in a timely manner.

For further information on any of the above services or project summaries of completed work contact:

Mr. Glenn L. Howard, Jr., P.E.
Mr. Harry T. Jong, P.E.
Water Treatment, Engineering and Research Group
P.O. Box 25007, Code D-8230
Denver Colorado 80225-0007
303-236-6203 (x228 and x233, respectively)

MTP Features, Capabilities, and Treatment Systems

- Equipped with both conventional and advanced water treatment processes.
- Water treatment systems are easily transported within the MTP trailer to field locations
- Flexibility in system configuration to allow various treatment train combinations
- External pumping and storage capacity
- Compliance with OSHA and DOT regulations
- Electrical power generator for remote sites
- Water treatment capacity ranging from 4 to 6 gal./min.

Physical Operations

- Rapid Mixing
- Flocculation
- Sedimentation
- Cyclone Separator
- Filtration
  - Gravity/Pressure
  - Cartridge
  - Slow Sand
  - Dual Media

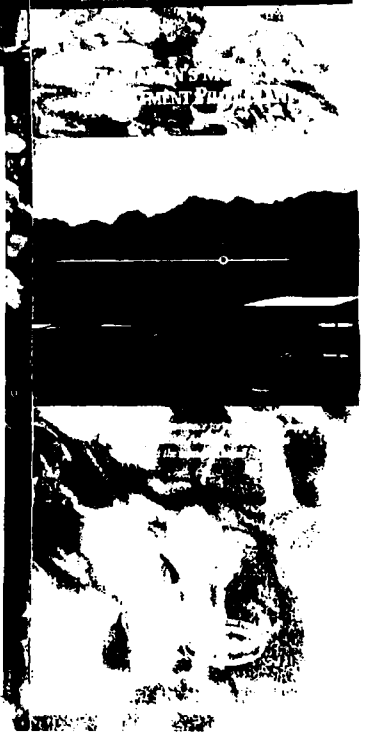
Chemical Processes

- Oxidation
- Precipitation
- Activated Carbon
- Ion Exchange
- Disinfection
  - Chlorine
  - Ozone
  - UV Radiation

Membrane Processes

- Reverse Osmosis
- Ultrafiltration
- Nanofiltration
- Electrodialysis

For information, contact
Stan Hightower
Bureau of Reclamation
PO Box 25007 (D-8230)
Denver CO 80225
(303) 236-6203 ext. 235



Overview— Many communities in the United States rely on potable water supplies which contain high levels of dissolved salts and/or other contaminants. These water supplies may pose health risks and do not comply with the Safe Drinking Water Act. As part of Reclamation's Water Treatment Technology Program, the Mobile Water Treatment Pilot Plant (MTP) was conceived to provide technical assistance to small and Native American communities which lack financial resources to remove the health risks from their water supply and meet increasingly stringent water quality regulations.

The overall objective of the MTP is to determine the optimum water treatment process which achieves the desired product water quality. For qualified communities, the MTP and supporting staff of engineers and technicians will address water treatment problems and recommend solutions on a 50-50 cost share basis.

Services Provided

- Evaluation of existing water resources, water quality, and water treatment
- Development of a pilot-scale testing program to investigate water treatment options.
- Field deployment of the MTP and staff to perform pilot-scale water treatment studies.
- A written report of results, analyses, and recommendations including a feasibility level design and cost estimate for the optimum water treatment scheme.

Water Quality Contaminants Treated by the MTP Include the Following:

- Turbidity
- Salinity
- Hardness
- Phosphorous
- Nitrate
- Arsenic
- pH
- Manganese
- Heavy Metals
- Silica
- COD
- BOD
- Color
- Odor
- Bacteria
- Iron

Federal Investment in Infrastructure as % of GDP

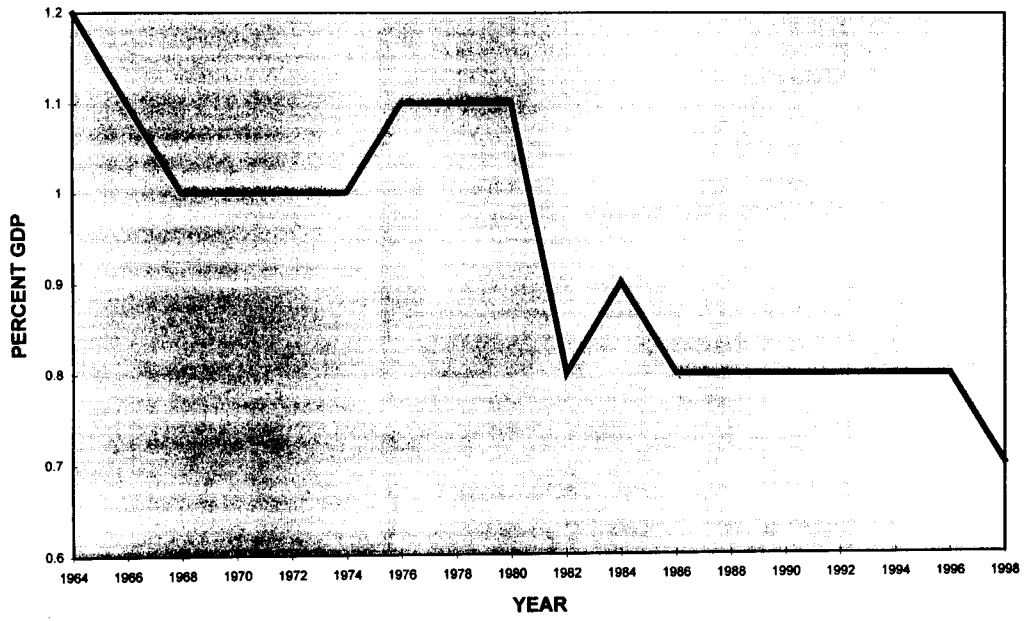


TABLE 1

AMERICAN CONSULTING ENGINEERS COUNCIL
1015 FIFTEENTH STREET, N.W., WASHINGTON, D.C. 20005 202-347-7474

August 11, 1992

Contact: Tom Dobbins
(202) 347-7474

FHWA Data Shows Contracting Out Is Cost Effective

Atlanta, GA -- The attached study of the cost effectiveness of contracting out state transportation engineering work to private consulting firms was prepared by William F. Fanning, Director of Research for the Professional Services Managemnent Journal (PSMJ). The study updates and expands upon Fanning's ongoing study of state transportation costs.

What does the data show? One factor clearly stands out. State transportation departments that contract out between 50% and 70% of their total engineering work to private consultants achieve the lowest total engineering costs as a percent of construction. The data also indicates that states that contract out 20% or less of their engineering work spend approximately twice as much for engineering per construction dollar as states that contract out between 50% and 70% of their engineering work. The costs are even higher in the few states which have historically not contracted out any work or contracted out very little.

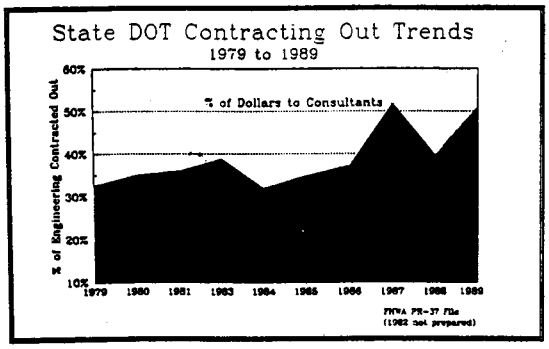
Over the years, there has been considerable debate on whether it is more cost effective for state governments to contract out highway and bridge engineering work to private companies versus hiring a permanent civil service staff to perform this work. Until now, the debate has been inconclusive. Fanning's study, however, provides the most comprehensive information on this issue because it analyzes eleven years of Federal Highway Administration data on state transportation spending that was supplied directly to FHWA by each of the fifty states. The study also has authority because it analyzes this data based on the most well accepted method for comparing costs, i.e. the cost of engineering as a percent of construction costs. This means that the study focuses on what portion of the total cost of a completed transportation project was attributable to just the engineering design work. Inherent in this method is a recognition of not only expenditures, but productivity as well -something many cost comparisons do not address.

ACEC recognizes that differences exist from state to state in the cost data submitted to FHwA. Keeping in mind the natural differences between states, the study found that the variable "percent of engineering contracted out" was the only variable (among many) which correlated with the cost effectiveness of each state's expenditures for transportation engineering. Other variables analyzed by Fanning (which did not correlate with the cost effectiveness of contracting out) included a comparison of large states vs. small states, different construction methods between states, differing geographic or environmental considerations, and traffic density and highway miles per capita.

(more)

- ✔ States contracting out a significant portion of their engineering work have seen a more stable relationship of engineering costs to construction. States with limited contracting out have seen engineering costs rise at a rate more than five times as great when construction funding declines by 10% or more.
- ✔ Contracting out less than 10% of engineering results in the highest increase in engineering cost as a % of construction when construction spending declines.

The trends in contracting out of engineering services reflect a recognition that contracting out is cost effective.



- ✔ Overall contracting out has risen from 30% to almost 50% over the past decade.
- ✔ The number of states contracting out less than 20% of their engineering work has declined from 15 to 5 over the past decade.
- ✔ A survey of all fifty states indicates 10 states are planning to increase their contracting out in the future.

Actual state spending for engineering is sending a very clear message. Contracting out of engineering services is a cost effective way to prudently use taxpayer money.

A decade of actual cost experience on an overall program basis is the best measure to use in assessing cost effectiveness. No estimates, no educated guesses, no what ifs and no partial views - actual total experience.

Contracting out engineering services will reduce the costs of engineering.

Sources of information:
Federal Highway Statistics, published annually by the Department of Transportation.
Engineering costs are from table SF-4C of the annual report, data on Preliminary and Construction Engineering and Construction.
Federal Highway Statistics are compiled from reports by state and local governments on Form FHWA-532.
Data on contracting out from PR-37 file prepared by FHWA from information on federal aid spending from each state.
Per FHWA definitions, Preliminary and Construction Engineering includes: field engineering and inspections, surveys, material testing, and boring; preparation of plans, surveys, and engineering (PS & E); and traffic and related studies.

For further information contact PSMJ's Director of Research Bill Fanning at 404 971-7586.

The study also indicates that construction funding levels are highly variable due to budget cutbacks or growth (in excess of inflation). During times of fluctuating funding, states have been better able to control engineering costs when more than 50% of engineering work is contracted out to private sector firms.

The FHWA data covers an eleven year period which provides a statistically reliable sample. A multi-year analysis is important because engineering costs that are attributable to a given year may not show up as completed construction costs in the same year. Thus, what appears as fluctuations from one year to the next may be the result of the lag between the year when engineering costs are reported to FHWA and the year when construction costs are reported.

In addition to serving as Director of Research for PSMJ, Fanning is editor of Government Design Business Report, the only newsletter specifically devoted to contracting issues between all levels of government and engineering and architectural firms. Funding for this expanded analysis of Fanning's ongoing study of transportation costs was provided by the California Council of Civil Engineers and Land Surveyors and the Coalition for Project Delivery.

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PSMJ
Professional Services Management Journal ■ 271 Cross Gate Drive ■ Marietta, GA 30067 ■ 404-971-7586

Contracting Out Engineering Services is Cost Effective

U. S. Government Data Shows Contracting Out Saves Money

The issue of cost effectiveness in contracting out engineering services has long been a concern of transportation officials and legislators throughout the nation.

What does actual experience show?

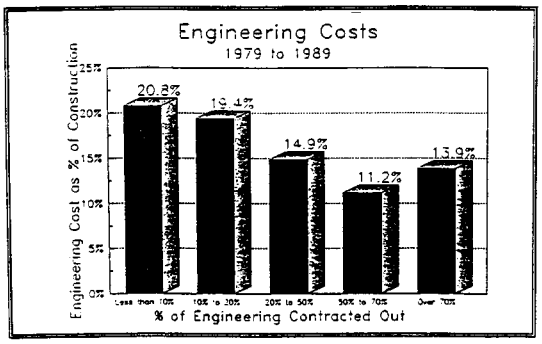
All state and local governments annually submit information on actual transportation spending to the Federal Highway Administration (FHWA). This data shows clearly that based on actual experience, contracting out a significant (50% to 70%) portion of preliminary and construction engineering (PCE) results in the lowest total overall engineering costs.

Several facts about this conclusion:

- ✔ The information includes eleven years of actual experience by all 50 states.
- ✔ The information was submitted by the states under the standard guidelines of FHWA.

The conclusions drawn from this study of FHWA data are conclusive as to the cost effectiveness of contracting out, and the reduced cost states see for engineering when contracting out is increased.

Ele 1 years of FHWA transportation spending reports clearly show a correlation between contracting out and total cost effectiveness.

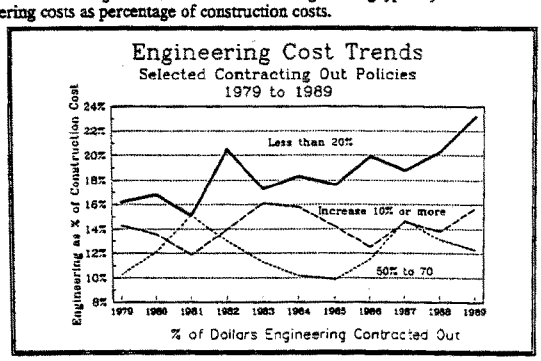


- ✔ Cost effectiveness of engineering is usually expressed with engineering costs as a percentage of construction costs.
- ✔ States that contract out less than 20% of their engineering work have the highest engineering costs in relation to construction spending.

- ✔ States that contract out between 50% and 70% of their engineering work have achieved the lowest cost for engineering over the eleven year period.
- ✔ PCE spending levels only show a correlation when compared to the level of contracting out. Tests based on mileage, traffic density, coastal or mountain terrain and the size of the construction program produce no correlation to engineering costs.

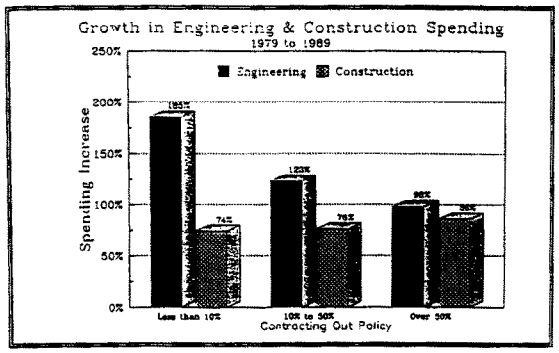
What is the effect on engineering costs when contracting out is increased?

- ✔ Only states increasing their contracting out of engineering have been able to hold PCE costs at stable levels.
- ✔ States contracting out less than 10% of their engineering work have seen the largest increase in engineering costs as a percentage of construction.
- ✔ States contracting out 50% to 70% of their engineering typically have seen the lowest engineering costs as percentage of construction costs.

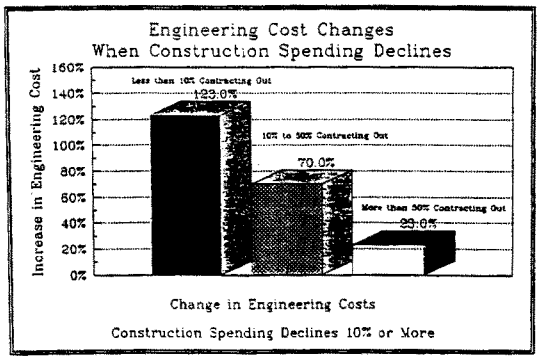


Engineering costs have been rising. Increased environmental concerns, stricter safety standards and more community involvement have all added to the demands on engineers, resulting in higher cost levels. How is contracting out affecting the costs for engineering?

- ✔ Almost every state has seen an increase of more than 10% in year to year construction funding.
- ✔ States contracting out over 50% of their engineering work are the states that have the lowest increase in engineering costs as a percentage of construction when construction spending increases.
- ✔ States are able to increase construction spending faster when contracting out is used extensively.
- ✔ States increasing their construction spending have been able to actually build faster, at a lower engineering cost when they contract out over 50% of their engineering work.
- ✔ States contracting out more than 50% of their engineering work have been able to increase construction spending in a shorter time.



Construction funding is not a stable area of government spending. Deficit pressures or the ending of special building programs frequently create decreases in construction spending. Special programs may also create increases in construction spending over a relatively short period of time and then spending returns to lower levels. How does contracting out affect engineering costs when construction funding levels decline?



- ✔ Almost every state has experienced at least one year with reduced construction funding. Half of all states have had at least one year-to-year decline of at least 20% in construction funding.
- ✔ PCE costs are better controlled by states when construction funding is reduced when they contract out a large portion of their PCE work.

FHWA DATA

The following data is from FHWA. The primary data source is the annual Highway Statistics publication.

This report is complied, annually, from data submitted by state and local governments. Three important points regarding this data:

1. The data is for actual spending on a calendar year basis. Thus, the data will vary from either state budget/appropriation figures or reports prepared on the basis of a state's fiscal year.
2. The data is gathered on the basis of FHWA definitions that may be somewhat different than state/local definitions for particular spending categories.
3. FHWA staff review the data for consistency and conformity with their guidelines to verify the data for all states is consistent.

From our discussions with FHWA staff, their belief is all data submitted by the states is accurate, including the spending data used in this study. These personnel expressed some doubt as to the completeness of local spending data. These doubts were not about the accuracy of data submitted, but about its completeness as they are uncertain if every local government unit submits data.

Accordingly, this study relies primarily on state level data.

The spending categories used in this study are defined by FHWA as follows:[1]

> Item A.1.b. Preliminary and construction engineering.-Include the following expenditures: field engineering and inspections; surveys, material testing, and borings; preparation of plans, surveys, and engineering (PS &E); and traffic and related studies.
>
> Item A.1.c. Construction of highways.-Include the following classes of expenditures for construction, 3R/4R, (resurfacing, restoration, rehabilitation and reconstruction), restoration of failed components, additions and betterments:
>
> - Construction of roads includes roadway earth work and grading; drainage and related protective structures; base and surface or resurfacing; shoulder and approach surfac-

1 Text from FHWA Notice N 5600.9, January 7, 1991, page 8-8, instructions for completing form FHWA-532

ing, including turnouts, interchanges, frontage roads, climbing lanes and parking areas; utility relocation; and environmentally related improvements.

- Construction of major structures includes: bridges; viaducts; grade separation structures, overpasses and underpasses; vehicular tunnels and subways; sewer and drainage systems, walls and roads over dams; and ferries and landings.
- Installation of traffic service facilities includes the cost of building or installing specialized facilities designed to aid, direct, regulate or control vehicle use of the highways. (Report costs of weighing, inspections and highway patrol facilities in item A.5.)

Note these categories do not include any costs associated with right of way acquisition, including administration of right of way costs.

FHWA also tracks state costs for engineering of federal aid projects in the PR-37 data file. This data is accumulated for both total reimbursed costs and for contracted out costs. The PR-37 data was used to determine the state volume of work contracted out.

The PR-37 data file was not prepared for 1982 (current staff contacts with FWHA could not explin why this was not done).

The survey of all fifty states conducted for this survey included verification of state contracting out volume. Both the PR-37 data and the adjusted contracting out volume produced the same findings as to the cost effectiveness of contracting out.

The state survey was conducted in March of 1991, and is of 90-91 values, and was conducted to place each state in one of the contracting out percentage groupings for the purposes of this study, and thus did not attempt to precisely quantify contracting out volume.

This study resulted in four states being moved to higher contracting out groupings and four to lower contracting out brakets, with no overall signifiagant impact on the data analysis.

Additional Highway Statistics data used for testing the cost of engineering included mileage, vehicle miles and administration costs.

FHWA PR-37 File
State Averages Contracting Out

State	Overall Average	Average 79-82	Average 87-89	Change 82-89	Survey Response*
Alabama	6.0%	4.5%	3.9%	-0.6%	6.0%
Alaska	12.0%	12.7%	15.9%	3.2%	12.0%
Arizona	55.3%	52.0%	53.2%	1.2%	70.0%
Arkansas	24.0%	21.8%	6.6%	-15.2%	24.0%
California	0.2%	0.4%	0.0%	-0.4%	10.0%
Colorado	10.8%	0.4%	25.9%	25.5%	10.8%
Connecticut	28.8%	43.9%	32.5%	-11.4%	28.8%
Delaware	49.5%	55.6%	33.1%	-22.5%	49.5%
Florida	60.9%	42.7%	83.0%	40.3%	60.9%
Georgia	23.9%	1.8%	39.4%	37.7%	5.0%
Hawaii	46.4%	56.4%	46.3%	-10.1%	80.0%
Idaho	40.3%	33.7%	35.2%	1.5%	40.3%
Illinois	75.6%	74.8%	77.5%	2.7%	75.6%
Indiana	74.2%	57.5%	91.5%	34.0%	60.0%
Iowa	57.9%	44.5%	84.4%	39.9%	30.0%
Kansas	14.6%	23.3%	6.6%	-16.7%	50.0%
Kentucky	14.9%	16.8%	24.0%	7.1%	8.8%
Louisiana	96.3%	99.7%	95.4%	-4.3%	80.0%
Maine	3.1%	3.0%	2.8%	-0.2%	10.0%
Maryland	57.8%	49.8%	72.4%	22.6%	57.8%
Massachusetts	81.3%	74.9%	74.6%	-0.4%	60.0%
Michigan	3.9%	1.7%	3.6%	1.8%	40.0%
Minnesota	40.4%	45.5%	43.5%	-2.0%	25.0%
Mississippi	9.2%	9.5%	14.8%	5.2%	9.2%
Missouri	35.9%	6.6%	63.8%	57.2%	35.9%
Montana	5.9%	11.6%	0.7%	-10.8%	5.9%
Nebraska	44.5%	32.0%	72.2%	40.2%	10.0%
Nevada	27.2%	24.7%	34.5%	9.8%	27.2%
New Hampshire	48.8%	50.8%	29.4%	-21.5%	80.0%
New Jersey	62.7%	59.2%	66.1%	6.9%	80.0%
New Mexico	24.4%	35.3%	0.0%	-35.3%	10.0%
New York	65.4%	61.4%	68.4%	7.0%	65.4%
North Carolina	14.8%	0.0%	49.4%	49.4%	25.0%
North Dakota	0.9%	2.2%	0.0%	-2.2%	10.0%
Ohio	62.1%	59.6%	55.6%	-4.0%	62.1%
Oklahoma	59.9%	0.0%	93.1%	93.1%	59.9%
Oregon	4.5%	0.9%	11.3%	10.4%	4.5%
Pennsylvania	63.6%	52.5%	74.1%	21.6%	63.6%
Rhode Island	70.1%	58.3%	90.6%	32.3%	85.0%
South Carolina	49.5%	35.3%	60.0%	24.7%	20.0%
South Dakota	27.2%	17.3%	43.4%	26.1%	27.2%
Tennessee	29.5%	38.4%	29.7%	-8.7%	29.5%
Texas	22.3%	0.1%	59.7%	59.6%	22.3%
Utah	16.5%	0.3%	54.4%	54.1%	25.0%
Vermont	7.3%	0.0%	21.0%	21.0%	7.3%
Virginia	6.0%	1.2%	6.6%	5.4%	20.0%
Washington	17.8%	4.8%	30.2%	25.4%	17.8%
West Virginia	45.1%	80.5%	25.1%	-35.4%	45.1%
Wisconsin	18.1%	13.5%	27.5%	14.0%	40.0%
Wyoming	5.2%	0.0%	17.0%	17.0%	10.0%

**-All fifty states were contacted during March of 1991 for this study and thus represent 1990 contracting out values. States that indicated their overall contracting out was equivevalent to PR-37 file data were unchanged. Values for contracting out as reported by states were tested to the 87-89 PCE data as it is felt the less exacting standard of calculating out volumes would not be accurate for periods prior to 1987.*

Contracting Out

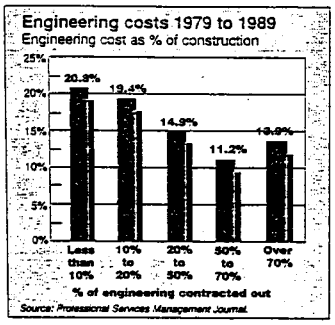
News Article

TRANSPORTATION

Consultants lower costs

A new study throws light on an age-old controversy—is it more economical for highway departments to engage consultants or use their own staff for engineering work? The answer: It depends on how much work you contract out.

In general terms, the more work a department assigns to consultants the lower its overall engineering costs will be (see chart). The American Consulting Engineers Council (ACEC) claims that its just-released study represents the most complete statistical analysis ever made on the issue. The research was compiled for ACEC by the research office of the *Professional Services Management Journal* using data provided to the Federal Highway Administration by all 50 state highway departments.



Source: Professional Services Management Journal

ACEC plans to use the study's results to lobby state legislators for more contracting out to the private sector. "It enables us to put a figure with our hunch that contracting out is more cost-effective," says Julie Noufer, ACEC's assistant director of legislative programs. "Our industry is not looking for 100% contracting out, but we want legislators to know that taxpayers get more for their money this way."

The study found that contracting out is on the rise among highway departments. In aggregate, it rose from 30% in 1979 to just under 50% in 1989, the last year data was available, says William F. Fanning, research director for *PSMJ*. The number of states contracting out less than 20% of their engineering work has declined from 15 to 5 during that time.

States that contract out a significant portion of their highway design work are also better able to adapt to yearly fluctuations in construction budgets, says Fanning. When yearly budgets rose by more than 10%, design costs rose least on a percentage basis for states that contracted out more than 30% of design work.

Conversely, with declining budgets, design costs rose sharply for states performing most of their design work in-house. Engineering costs increased five times more for states contracting less than 10% of their work than for states contracting out more than 50% of their work. ■

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Leroy Goodson

STATEMENT

of

Thomas F. Donnelly
Executive Vice President

of the

National Water Resources Association

before the

Subcommittee on Water and Power Resources
Committee on Resources
United States House of Representatives

on

Future Program and Funding Options
for
Bureau of Reclamation
Water Project Construction

May 6, 1997

3800 North Fairfax Drive, Suite #4, Arlington, Virginia 22203, (703) 524-1544, FAX (703) 524-1548
E-mail: nwra @dgs.dgsys.com HomePage: http://www.nwra.org

Mr. Chairman, members of the Committee, my name is Thomas F. Donnelly and I am the Executive Vice President of the National Water Resources Association. On behalf of the membership of the Association, it is my privilege to present this testimony on the important issue of the future scope and funding options for the Bureau of Reclamation's water project construction, enhancement, rehabilitation and mitigation program.

The National Water Resources Association (NWRA) is a nonprofit federation of associations and individuals dedicated to the conservation, enhancement, and efficient management of our Nation's most precious natural resource, WATER. The NWRA is the oldest and most active national association concerned with water resources policy and development. Its strength is a reflection of the tremendous "grassroots" participation it has generated on virtually every national issue affecting western water conservation, management, and development.

The nation as a whole has come to take for granted the benefits that flow from the omniscience and vision of the policy-makers who, at the beginning of this century created the federal/non-federal partnership that settled the West -- The Reclamation Program.

Reclamation projects authorized by Congress provided numerous and substantial benefits for the entire United States. Among those benefits are: (1) flood prevention and protection totaling in the tens of billions of dollars; (2) generation of substantial amounts of hydroelectric energy using water as renewable, no-cost fuel source; (3) delivery of irrigation water to hundreds of thousands of acres of farmland in semiarid and arid regions that has increased and stabilized agricultural production in those regions; (4) water-based outdoor recreation facilities that provide recreation for millions of visitors annually; (5) municipal and rural domestic water supplies for over 30 million people; (6) recharge of underground aquifers and water supplies; (7) fish and wildlife habitat including new fisheries, wildlife management areas, and hundreds of thousands of acres of habitat and marshes throughout project distribution systems and facilities; and (8) major surface water transportation.

Scope and Direction of Future Development

In the West, water infrastructure is every bit as important as transportation infrastructure. It is essential to the continued economic growth and development of the region. Water infrastructure needs continue to exist. However, on the whole, they are quite different from those of the past.

No one envisions a future infrastructure development program and financing arrangements like the Reclamation program which facilitated the development and economic growth of the West during much of this century. It is time to recognize and address a new generation of infrastucture development needs and financing realities.

Future projects are more likely to feature non-structural solutions, environmental enhancement, proven best management practices, innovative approaches to water quality/quantity concerns and greater levels of non-federal financing. However, the Bureau of Reclamation must continue to maintain and improve upon their existing projects and programs for agricultural and municipal water supply and native American water supply needs.

An essential element, which is currently missing from the planning equation, is a basin by basin infrastructure needs assessment. Such an assessment cannot be developed without the active involvement and, perhaps, leadership of the Western governors, water resources professionals, and state and local officials. NWRA will soon be undertaking a future water resources needs assessment and would be happy to share our findings with the Committee.

Over the years, several Bureau of Reclamation, Corps of Engineers and other federal agency projects have been authorized by the Congress but remain unfunded. These projects should be reviewed to determine if they still meet the needs they were authorized to address. These projects should be prioritized on a state and regional (watershed) basis and Congress should determine what project benefits are in the federal interest for funding purposes.

Reclamation Projects Currently Under Construction

The Bureau of Reclamation recently published its draft Strategic Plan for 1997-2002 in compliance with the Government Performance and Results Act. The draft Plan calls for the Bureau to complete construction of all sixteen water and energy supply projects which are currently under construction. We strongly support this approach. These projects should be completed as rapidly as possible in an effort to minimize cost and keep faith with the States and project beneficiaries involved. Congress should not allow special interests to continue to unnecessarily delay these projects until the cost to complete the project has undermined the current federal investment.

Of the sixteen projects under construction, one project deserves particular attention. The Garrison Diversion Project in North Dakota serves as a case study in the failure of Congress and the federal government to live up to its commitments.

In 1986, the Congress passed and the President signed the Garrison Diversion Unit Reformulation Act of 1986. The Reformulation Agreement represented a recommitment of Congress, the Administration, the State of North Dakota and environmental groups to a project that was environmentally sound and met some of the commitments made by the Federal Government in 1944. The State of North Dakota has lived up to its part of the agreement.

I recognize that the North Dakota Congressional Delegation, the Governor and the State legislative leadership are currently engaged in negotiations with the National Wildlife Federation, National Audubon Society, ND Wildlife Society and others in an attempt to reach agreement on appropriate amendments to the 1986 Act which will provide for completion of the Project. We urge the parties involved to complete those negotiations in a timely manner and work closely with you and the members of this committee as well as those in the Senate to assure that the legitimate water needs of the State are met.

In his 1989 Inaugural Address, President Bush said it more eloquently than I ever could, "Great nations like great men must keep their word. When America says something, America means it, whether a treaty, or an agreement or a vow made on marble steps." We agree, it is past time to make good on the promises made by countless previous Administrations to the people of North Dakota. Approximately, $550 million has been spent to date on the project and, as yet, not a drop of water has been delivered. Construction of a 22 mile-long pipeline is all that remains to be constructed in order to make the project functional. The State and the project beneficiaries have lived up to their part of the reformulation agreement. If current negotiations drag on any longer, it is time for Congress to step in and mandate the expedited completion of this project.

Along the same lines, Congress has historically recognized its moral obligation to support water development on Indian reservation. In fact, the documents creating certain Indian reservations establish a special federal responsibility to construct irrigation projects. Congress should take a more aggressive role to ensure that projects which facilitate the settlement of long-standing native American water right claims against the federal government are funded and completed expeditiously.

Existing Program Needs

There are urgent needs in existing programs that are not being completely met and must not be ignored. These include the Colorado River Salinity Control program, operation and maintenance, native American water rights settlements, rehabilitation and betterment, and Small Reclamation Loan Program projects.

Colorado River Salinity Control

The Colorado River provides important water supplies for 18 million Americans in the seven basin states of Arizona, California, Colorado, Nevada, New Mexico, Utah and Wyoming. These people live in the most arid portion of the United States and rely heavily upon the Colorado River for municipal and industrial water supplies, as well as for irrigation for 1.7 million acres of prime agricultural land. In

addition, the Colorado River supplies water for half a million people and half a million acres of irrigated farm lands in the Republic of Mexico.

The seven Colorado River basin states and their water users have been working with Congress, the Executive Branch of the federal government, and the courts for many years to assure a fair and effective allocation of the river's water supply. Salinity levels in the Colorado have become a major issue with which the Colorado River Basin states have had to deal. Without implementation of salinity control measurers, Colorado River salinity levels are projected to increase to about 1,000 mg/L by the year 2010. The economic damages currently experienced by municipal, industrial and agricultural users of Colorado River water in the United States alone amount to about $500 million per year and are expected to double by the end of the century.

I would also like to point out that under the 1996 Farm bill, the Department of Agriculture will carry out their Colorado Salinity Program work under the new EQIP section of that bill as part of the overall $200 million authorization provided for environmental quality initiatives. Given the competition for other program funding needs under that section, there is a need to ensure that the Department of Agriculture, and for that matter, the Department of the Interior, maintain the necessary funding levels to meet the needs of the Colorado Salinity Program.

In 1974, Congress enacted the Colorado River Basin Salinity Control Act (PL 93-320) to implement a 1973 salinity agreement with Mexico as well as a program for controlling Colorado River salinity level within the United States. The seven Colorado River basin states adopted, and EPA approved, numeric salinity criteria for the river and a plan for implementing salinity control measurers to maintain that criteria, while the basin states continue to develop their respective shares of Colorado River water. In 1984, PL 93-320 was amended to provide additional salinity control activities including a new voluntary, costs-shared, on farm salinity control program by the Department of Agriculture as well as a larger percentage of nonfederal cost sharing for Department of Interior programs so that the numeric criteria can be maintained in a cost-effective manner. In 1995, the law was amended to increase the Bureau of Reclamation's appropriations ceiling for construction of new salinity control projects. The amendment also authorizes Reclamation to implement new measures basin-wide.

Congress and the Administration must continue to support adequate funding and additional improvements for this important program.

Operations and Maintenance

For years, the Office of Management and Budget has recommended annual budgets that have failed to provide the level of funding required to adequately operate and maintain existing projects. Severe fiscal constraints have caused important Bureau maintenance items to be deferred. The process of prioritizing work and deciding which items are to be deferred is rather simple. A judgment is made on the basis of the consequences for not accomplishing the identified work. After several cycles of this decision and prioritization process, the available fiscal resources gradually come to bear on crisis situations and the Bureau finds itself responding to emergency and breakdown maintenance.

When the problem became acute in the late 1980's, then Assistant Secretary of the Interior James W. Ziglar aggressively pursued substantial increases in the Bureau of Reclamation's annual operation and maintenance (O&M) budget. The Bureau was successful for a short period in reducing a significant amount of the maintenance backlog and thereby temporarily averting a crisis situation.

Without an adequate annual operations and maintenance budget, the question simply becomes, how many balls can you keep in the air at one time? Given the fact that Bureau of Reclamation project water users are required by law to reimburse the Federal Government for operation and maintenance expenditures on an annual basis, there seems to be little justification for annual O&M budgets that require deferred maintenance to occur and accumulate to a crisis level.

The following are but a few past examples of how the Bureau has had to deal with deferred maintenance associated with constrained budget appropriations:

- Replace Folsom Dam transformer- Several years ago, a transformer at Folsom Dam exploded contaminating a large area with toxic PCBs. The cleanup and replacement cost the Federal government over $300,000. The unit had been designated for replacement two years earlier at a cost of $25,000.

- Rewind Keswick Powerplant generating units- Keswick powerplant is over 40 years old and a few years ago experienced a failure in one of its generating units. Earlier maintenance tests indicated deterioration of generator's insulation. A rewind program could have prevented a failure and reduced the long outage time and subsequent loss of generating revenue.

- Replace voltage regulators at Folsom Powerplant- Due to the age of the existing equipment, repair parts and technical support are unavailable from the original contractor. The existing voltage regulators are contributing to the instability of the electrical system and the plant is being operated at reduced efficiency. (old example: situation may have been corrected)

Both the Reagan and Bush Administrations sent legislation to the Congress calling for the establishment of a Reclamation Operation and Maintenance (OM&R) Revolving Fund. The National Water Resources Association strongly supported that legislation. We still believe that a similar fund would greatly improve the operation and maintenance of major project facilities Westwide and over time represent a huge savings to both the federal government and water users. A "revolving fund" concept would provide the flexibility and financial certainty needed for the efficient operation of projects, continued operational readiness, and dependability of the water and power systems which are the cornerstone of economic stability in much of the West.

Small Reclamation Projects Program

Generally, throughout the federal government, small project programs provide "the most bang for the buck." Nowhere has this been truer than the Bureau of Reclamation's Small Reclamation Projects Program.

The Small Reclamation Projects Act of 1956, as amended, established a program under which certain types of organizations, including the Native American community, located in the 17 contiguous Western States and Hawaii can obtain loans for development of small reclamation projects and grants for those portions of the projects that are nonreimbursable as a matter of national policy.

Congress last reviewed and reauthorized this program in 1986 (P.L. 99-546) in part because the original $600 million cost-ceiling for the program had been used up. Important changes were made at that time, including financial and environmental changes, that culminated in the legislation being supported by the Administration, the water community and the national environmental community.

Currently there are eight (8) projects under construction or close to completion in Arizona, California, Colorado, Oregon, and soon in Utah.

The program also provides small rural and Native American agencies the ability to obtain funding for project development which would not be available from the private sector. The program also provides the opportunity to undertake technology transfer, such as the development of multipurpose constructed wetlands for water treatment, wildlife enhancement and groundwater replenishment. NWRA believes this program has provided the appropriate partnerships that need to exist between the Federal and State government and local agencies if we are going to continue to address Western water problems in an appropriate manner.

If the West is to address water supply and quality changes confronting it, the Small Reclamation Loan Program is one of the best tools in the water resources tool chest to meet those challenges.

NWRA believes the changes to the SRPA program that were incorporated into H.R. 3041 in the last Congress make this program more financially viable and businesslike. It also recognizes that there continues to be a need for projects to be built in this size category, not just the size and dollar amount that

we are suggesting under title II in H.R. 3041. We are hopeful that legislation similar to H.R. 3041 will be considered in this Congress and your hearing today should be helpful toward that effort. The following are specific comments on that legislation and ideas we have been working on. That legislation:

A. recognizes and reflects the need to leverage the limited amount of Federal money that is available for water resources in this country. By only increasing the ceiling for half of what is provided for under existing law, an area that we might be willing to further adjust, and by limiting the amount of Federal exposure to no more than $30 million under title one of the bill more work can be undertaken and more oversight can take place.

B. Though the Department of the Interior may no longer wish to be in the loan business, that legislation would have made a very business like change in the repayment period. Existing law allows for repayment of a loan in forty years. H.R. 3041 would reduce that time down to 25 years and more likely we would see repayment contracts negotiated at 15 years.

C. Another example of the business-like approach taken in the legislation is the requirement of a minimum of twenty-five percent cost sharing and a maximum of 40 percent. We believe such an approach provides the necessary means test on whether a project proposal is worthy of the investment of scarce Federal dollars.

D. H.R. 3041 also reflects the current philosophy in Congress that every program should be examined. This legislation would only provide funding for ten years. We support that approach. This would provide the opportunity for the program to come back to Congress, make the case that it should continue and see how well it has worked and whether additional changes are needed.

E. The 104th Congress and the 105th Congress has been looking at the whole issue of regulatory review and how well the Federal bureaucracy works. That proposal would have gotten rid of needless layers of bureaucracy, stipulate the time frame for Administrative decision making so a project applicant is not hung out to dry for years, with their problems getting worse while waiting for the Federal government to act on their idea.

We believe Title II of the legislation would have provided the necessary innovative funding source that water districts often find themselves in need of small short term projects.

This title would establish a partnership program for water conservation, fish and wildlife enhancement, public safety, public outdoor recreation, environmental education, integrated resource planning, watershed management, research, and non structural flood control activities.

Having such a small amount of money available for such discreet, yet necessary public purposes, and the decisions being made down a the Regional Director level in partnership with the water user on what is needed, we believe, reflects the type of role that the Federal government should be playing in the West.

We also believe that such a program, through the relatively small revolving loan program that would be established, is the type of experimental policy innovation that should be taking place. We believe that rather than have the bureaucrats in Washington, D.C. wasting valuable time on such minor, yet user important matters, reflects the political realities of the 1990's.

I would like to provide some brief comments on loan guarantees. NWRA has committed to the proponents of the idea to sitting down and attempting to work out a title three to our proposed legislative ideas to revamp the Small Reclamation Loan Program. We would like to get that done in May so legislation could be introduced and hearings possible held in June of this year.

We do not have a problem with the concept of loan guarantees. However, until we learn more about how such guarantees would work our position remains only to support if they are made to governmental entities, local water districts or agencies and with certain condition. We believe that nongovernmental entities are first interested in making money, and secondarily there to address the water improvement needed.

Until we better understand the loan guarantee concept, we would be of the belief that nongovernmental entities wanting to construct projects should be able to arrange for nongovernmental financing if the project is that viable to begin with. A concern would be that this could lead to a situation where you would be encouraging private control of a publicly regulated resource and possibly lead to speculative ventures if not properly conditioned

If this concept is to go forward, we would recommend it be a limited demonstration program and that it have a stipulation that loan guarantees only go to completely U.S. owned nongovernmental entities if the U.S. Government is being asked to provide the guarantee.

As we understand the present ideas on loan guarantees there is nothing to prevent the entire loan guarantee going to just one large project. That could limit the availability of future guarantee's for endless years.

We are also concerned that a project could be built without any local cost-sharing involved by the project sponsor.

It might also be useful to consider shortening the repayment period if a loan guarantee is used.

We also believe there should be a limitation on loan guarantees to just the seventeen Western states. We would argue to those that would have this program be nationwide that we do not understand the rationale of having the Secretary of the Interior use the Small Reclamation Loan Program as the Guarantor for water projects outside the 17 Western states.

Another concern we have is how such a loan guarantee program would possibly be used to meet the needs of Native Americans. I would like to quote the FY 97 Budget Justification document for the Bureau of Reclamation. "Many areas of the West -- particularly Indian communities -- have water supplies that are inadequate for daily use, substandard, and/or unsafe". The current loan program has been a useful tool for helping address these Native American needs. We are not sure it is a good idea for nonfederal interests to undertake an effort to meet the trust responsibilities of the Federal Government through a loan guarantee program approach.

Some might ask the question, "can't we do both - a loan guarantee and a regular SRPA program?" We believe that both can take place with some limiting conditions. We feel having the SRPA program continue and legislation pass this Congress with a limited loan guarantee demonstration program, is the most important and appropriate course to take at this time. As you can see from the list of notices of intent, there is interest out there, problems that need to addressed and a belief that the SRPA program is one of the best vehicles to use to get us the water resources we need.

This program works. It is well known and has been widely used in the 17 Western states. It also acknowledges today's fiscal realities. It provides agencies large and small with a Federal program that addresses their infrastructure needs in a timely, cost-effective manner. These approaches will carry us into the 21st century with the confidence that we, as public agencies or as partners in public private partnerships have been provided with the essential tools to mange our water resources.

Future Project Financing

There is no question that the financing of future project development will be necessarily different than in the past. Times have changed and the national goals accomplished through the Reclamation Program are satisfied. Equally significant is the sad fact that the federal government no longer has the decretionary funding resources to devote to such programs.

A significantly higher percentage of the cost of future development must be borne by State and local government and the project beneficiaries. However, other important sources of revenue must continue to be utilized.

As we have previously indicated, there is also a need to recognize that as Congress and the Administration attempt to reduce the budget deficit, that future water infrastructure needs not be neglected. Power revenues in particular must continue to be made available as a funding source for water resources development.

Project Repayment and Development: Power's Financial Role

Power revenues have been essential to multi-purpose project development, particularly in the West. Congress has long recognized the principle underlying the success of the reclamation development in the West. This principle is the partnership between water development and revenues obtained from hydroelectric facilities constructed in conjunction with water projects. Generally, hydroelectric revenues have been applied to assist in the repayment of water projects primarily irrigation, beyond the water users "ability to pay." That ability to pay determination is established by the Bureau of Reclamation for each project. By congressional authority hydroelectric users have served as the "cash register" to assist in the repayment of these projects.

Many Reclamation projects such as the Pick-Sloan Missouri Basin Project and the Colorado River Storage Project were authorized as ongoing, continuing programs of development of water resource projects for beneficial purposes. The full development of these and many other projects has not been realized in several areas, particularly irrigation development.

This pooling of revenues to repay project costs has been attacked by environmentalists seeking to stop water development and economists who ignore the general benefits of water development. Specifically, the audit report for the Pick-Sloan Missouri Basin Project attacked what is known in that Basin as the "ultimate development concept." The development in the Missouri Basin occurred as a result of the significant damage inflicted by frequent floods in the downstream states of the Missouri Basin. As a result, the 1944 Flood Control Act authorized construction of flood control dams in North and South Dakota to add to the then existing Fort Peck Dam in Montana. The trade-off for creating a permanent flood in the Dakotas and Montana to minimize downstream flooding was to provide for hydroelectric development as part of the dams. The revenues from this hydropower would assist in the development of future irrigation projects, thus the term "ultimate development" to "repay" these three states which permanently flooded 1.6-million acres to eliminate downstream flooding.

The trade-off of flood control for future irrigation was borne with the assurance that hydroelectric revenues would be available to assist in that repayment. Abandoning the guarantee of power revenue repayment assistance for future water projects, as recommended by the audit, will effectively mean the end to further water project development in the Missouri Basin. Such a move would also be one step closer to removing power revenue assistance to any water project present or future.

The National Water Resources Association strongly supports the repayment principles that have made possible Reclamation development in the western United States and the benefits thereof, and specifically recognizes for certain projects the unique circumstances that led to the commitments for future irrigation development with the assurance of hydroelectric assistance in the repayment of those projects.

Power revenues can and should be considered as a viable and necessary source of funding for future development.

Transfer of Reclamation Project Facilities

The National Water Resources Association strongly supports the position that title and operational control should be expeditiously transferred to reclamation project beneficiaries in those instances where the project is paid out or the beneficiary has prepaid its financial obligation to the federal government and the contracting entity is willing and able to assume full responsibility for the project.

The transfer of title to project facilities presents a broad range and variety of complex and, in some cases, controversial issues; smaller, single-purpose projects provide immediate and clear-cut opportunities for

transfer while certain multi-purpose intrastate and interstate projects and systems may necessitate some continued federal presence; however, there is no reason that any project should be "off the table".

We understand that each project is different and a myriad of issues must be addressed before title can be transferred, but, little progress has been made over the last two years on even the simplest of projects.

In order to concentrate on its future goals and objectives, the Bureau of Reclamation should be anxious to transfer those projects that can be operated and maintained more efficiently by local beneficiaries. If significant progress is not forthcoming soon, Congress should take the appropriate steps to facilitate transfers that make sense from a financial and public policy perspective.

Project Specific Regulation

Opponents of infrastructure development who find themselves unable to prevent needed improvements by invoking procedures under state law or under general federal regulatory programs such as those required by the Clean Water Act, FLPMA, or other federal laws are turning to project specific legislation aimed at creating new layers of federal regulatory requirements which would be uniquely applicable to specific projects. The onerous burden of complying with the full spectrum of presently existing federal regulatory programs that are generally applicable to the development of water supply projects provides ample protection for all legitimate federal interests likely to be impacted by such developments. Experience has shown that the creation of additional, new regulatory programs is not necessary to achieve those goals.

Unless new legislation is specifically requested and supported by all the project sponsors, the use of such project specific tactics not only subverts regularly established water project authorization and development procedures, but could well result in a proliferation of special, unique federal regulatory processes which may also be inconsistent with state law. As a result, the practice represents bad public policy.

Summary of Recommendations

1. Congress should support the Bureau of Reclamation strategy goal to complete, as expeditiously as possible, the construction of the sixteen (16) Bureau of Reclamation projects currently under construction.

2. Congress should consider the establishment of a water projects review panel/commission to make recommendations to the House and Senate authorizing committees on the state and regional needs for future water infrastructure development and improvements.

3. Congress should reaffirm the historic guarantee of power revenue repayment assistance for future water infrastructure projects, particularly, in light of the current debate regarding deregulation of the power industry.

4. Congress should continue to support water project development which settle native American water right claims and satisfy the federal government's trust responsibilities. Congress should take a more aggressive role to ensure that projects which facilitate the settlement of long-standing Indian water right claims against the federal government are funded and completed expeditiously.

5. Congress should support as aggressively as possible the urgent need to maintain the ongoing ability of the Bureau of Reclamation to meet the goals of the Colorado River Salinity Control Program.

6. Congress should consider the establishment of a "revolving fund" for Bureau of Reclamation operation and maintanance that provides the flexibility and financial certainty needed for the efficient operation of projects, continued operational readiness, and dependability of the water and power systems which are the cornerstone of economic stability in much of the West.

7. Congress should support changes to the SRPA program, which make the program more financially viable and businesslike, similar to those incorporated in H.R. 3041 in the last Congress.

8. Congress should continue to made power revenues available as a funding source for future water resources development.

9. Congress should take the appropriate steps to facilitate transfers that make sense from a financial and public policy perspective.

10. Congress should reject any proposal for federal legislation which would subject a specific water project to unique and special federal regulatory conditions that are inconsistent with state law.

Testimony of Mr. David C. McCollom
of the
Olivenhain Municipal Water District
Encinitas, California

May 6, 1997

INTRODUCTION AND BACKGROUND:

Thank you Mr. Chairman and Members of the Subcommittee on Water and Power Resources for this opportunity to testify before you today with regard to certain programs under the jurisdiction of the Bureau of Reclamation.

My name is David McCollom and I am the General Manager of the Olivenhain Municipal Water District in Encinitas, California. The Olivenhain District, which was formed 1959, provides water service to portions of the cities of Encinitas, Carlsbad, San Diego, Solana Beach, San Marcos, and the communities of Olivenhain, Leucadia, Rancho Santa Fe, Fairbanks Ranch and 4S Ranch. Through the Olivenhain District, I am also a member of a number of western water-related organizations, including the National Water Resource Association, the Association of California Water Agencies, and the WateReuse Association of California. While my testimony regarding Bureau programs may refer to my experiences at the Olivenhain District, I believe they are indicative of situations facing many western water utilities.

My service area in Northern San Diego County, like many areas in the western United States, faces significant water supply problems. In Northern San Diego County, we are almost exclusively dependent on imported water to meet our residential, industrial, agricultural and horticultural water needs. As you well know, Mr. Chairman, the ultimate source of that imported water is Northern California through the State Water Project, and the Colorado River through the Colorado River Aqueduct. Necessary habitat and environmental protections, weather conditions, and government regulations all contribute to a limited and often unreliable supply of water for San Diego County. Additionally, all of the imported water pipelines into San Diego County cross directly over major earthquake fault lines. A major earthquake along the Elsinore, San Andreas or San Jacinto faults could cut of water supplies to San Diego County for months!

Clearly, water supply issues are of paramount importance to western water managers such as myself. It is also clear that the Bureau of Reclamation still plays a major role in managing limited western resources, many of which are federally regulated. However, in these times of strict budgeting, the federal government, like my own water district, is being forced to carefully evaluate its use of public funds and resources in order to develop the most cost-effective programs to achieve its goals.

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ROLE OF THE BUREAU OF RECLAMATION:

I think the majority of people in the West, as well as in Washington, DC, see a changing role for the Bureau of Reclamation in western water policy. The Bureau of Reclamation made possible the settlement and growth of the West. Through the Bureau, the federal government constructed a vast network of dams, reservoirs and canals in order to insure that water and power would be available in the West when and where they were needed. Now, however, the major infrastructure that was necessary to support the growing population of the West has been constructed and the Bureau must focus its efforts on helping the West manage its finite water resources while supporting an economy upon which the entire nation is dependent.

The Olivenhain Municipal Water District envisions working together with the Bureau of Reclamation on a number of initiatives that will further the Bureau's mission to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public, while allowing the District to provide safe, reliable water to its service area without restricting economic growth through dramatic rate increases. Importantly, however, we believe that the Bureau should not be seen as a cash source from which water districts can expect money to flow with little or no local commitment. Instead, the Olivenhain District wants to work with the Bureau as a partner, using Bureau programs to facilitate long-term solutions to regional water problems. The two programs through which the Olivenhain District expects to work with the Bureau, the Loan Guarantee program and the Title XVI program, are excellent examples of how the Bureau can leverage its limited resources to allow communities the opportunity to develop local solutions with regional and national benefits.

LOAN GUARANTEE PROPOSAL:

Despite the restrictions on water supplies mentioned above, demand for water continues to increase, along with the price for imported water in San Diego County. Wholesale water rates for imported water have increased by $276 per acre-foot since 1990. This increase of nearly 55% translates into about $15 more each month on the typical household's water bill. The economic pressures to keep water rates at an affordable level, combined with a limited local government borrowing capacity, are further mandating that the Olivenhain District consider the most cost-effective methods to finance and build an emergency water storage project.

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Under the authorization that would be provided by H.R.134, legislation introduced earlier this year by Congressman Duke Cunningham, the Olivenhain District plans to demonstrate the viability of a Bureau of Reclamation program that would provide a federal loan guarantee for the construction of the Olivenhain Water Storage Project. This $61 million project will provide emergency and operational water storage and drought protection to nearly 1 million residents of Northern San Diego County.

The Olivenhain District is considering the possibility of utilizing a public-private partnership for the development of the Olivenhain Water Storage Project. Under this scenario, the District would competitively select a private partner to build and finance the project, which would then be leased back to the District. No federal taxpayer funds would be expended in the financing of the project, and the local ratepayers would benefit from the cost-efficient construction and management of the project. I understand that this hearing is not meant to focus on any one particular project, but I would be happy to describe the Olivenhain Water Storage Project and the financing alternatives under consideration in greater detail should you have any specific questions.

Congressman Cunningham's proposed loan guarantee program reflects needed changes in the federal government's role in developing water projects in the West. The loan guarantee program allows the federal government to leverage its limited funds to allow for cost-effective private financing alternatives and encourages public-private partnerships in the building and operation of the project. This limited federal participation in the financing of water infrastructure projects allows the project developers to secure private loans at rates that are competitive with municipal tax-exempt financing while preserving the limited bonding capacity of local governments for other crucial community needs like public safety and schools.

According to the Environmental Protection Agency (EPA), the costs of complying with federal regulations mandated by the Safe Drinking Water Act and the Clean Water Act will approach $200 BILLION in the next twenty years. Neither local governments nor the federal government have the unlimited resources necessary to cover these costs. However, through the loan guarantee program, limited federal resources can be the catalyst for infusions of private capital needed to meet these public needs.

TITLE XVI PROGRAM:

The Bureau of Reclamation's Title XVI program is an example of a cost-efficient use of limited federal resources to allow local agencies to help the Bureau meet its mission to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public. Through the Title XVI program, municipal and regional water agencies across the western United States have the opportunity to incorporate water reclamation and reuse projects into the management of limited water supplies, much of which are federally regulated.

In the West, water recycling is playing an increasingly critical role in the effort to meet water supply demands in a cost-effective and environmentally beneficial manner. Water recycling projects allow for the reclamation, treatment and reuse of municipal, industrial, domestic and agricultural wastewater for certain non-potable applications. Until recently, the majority of potable water supplies were used only once, treated and discharged. Projects constructed under the Title XVI program allow for the re-capturing and further treatment of normally discharged effluent, enabling it to be used for a variety of non-potable applications. The list of such applications includes industrial uses and the irrigating of golf courses, playgrounds, schoolyards and highway medians.

Every gallon of recycled water used for non-potable applications directly reduces the demand for potable water supplies. California Governor Pete Wilson has identified water recycling as the only significant new water supply in California, and water recycling will continue to play a central part in reducing the demand for water from California's environmentally sensitive San Francisco/San Joaquin Bay-Delta. Water recycling can offer the same benefits to other environmentally sensitive sources of water supply, while other in other areas, damage to depleted or naturally impaired groundwater basins can be slowed or halted due to the reduced demand for groundwater pumping.

The Title XVI program was originally authorized as part of the Reclamation Projects Authorization and Adjustment Act of 1992 (Public Law 102-575) and was amended by the Reclamation Recycling and Water Conservation Act of 1996 (Public Law 104-266). This program provides for an initial federal investment in the early stages of water recycling projects of up to 25% of the total cost of planning, design and construction. Many local government agencies would be unable to afford the up-front costs of constructing water reuse treatment and distribution facilities without the federal cost-sharing authorized by Title XVI.

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In addition to the economic and environmental value from projects authorized to receive federal assistance under the Title XVI program, the finite and quantifiable nature of the program make it a model for similar federal assistance programs. Importantly, under Title XVI, no federal funds are authorized to be spent on the operation and maintenance of any facilities developed under this program. Instead, water recycling projects in the Title XVI program are meant to be self-sustaining once constructed. Under this program, a short-term, finite federal commitment helps achieve a long-term, ongoing resolution to regional water supply problems. The creation of new water supply is also a measurable solution. As such, the federal government can see exactly what its investment yields.

The Water and Power Resources Subcommittee last year approved legislation introduced by Congressman Hansen that authorized several new projects to receive federal financial assistance under the Title XVI program. Included in that legislation were several new considerations to be used in determining eligibility for projects to receive funding under the Title XVI program. Additionally, the Bureau of Reclamation is in the process of developing standard guidelines to help them evaluate water recycling projects. All of these efforts indicate that water recycling projects will continue to play a central role in the management of western water resources.

SUMMARY:

Again, I thank the Subcommittee for providing me with this opportunity to testify on these important Bureau of Reclamation programs. Obviously, there are many varied opinions regarding the Bureau in the western United States. I have benefited from the expertise in the Bureau's regional office in Boulder City and the Southern California Area office in Temecula, and I appreciate the willingness that those offices have shown to work together with me and the Olivenhain District on a number of issues. As this Subcommittee continues to evaluate the Bureau and its programs, I hope that it considers the value of leveraging the Bureau's limited financial resources through the Title XVI program and Congressman Cunningham's loan guarantee proposal.

TESTIMONY FOR THE RECORD
House Subcommittee on Water and Power Resources
May 6, 1997

by Warren L. Jamison, Manager
Garrison Diversion Conservancy District

Chairman Doolittle:

I would like to submit this statement for the record at the Subcommittee hearing on financing and cost sharing policies for the Bureau of Reclamation's water resources program. The Garrison Diversion Unit of the Pick Sloan Missouri Basin Program (PSMBP) has a unique status in the program and, as such, serves as an example of the complex nature of at least one set of financing considerations for water projects.

The Garrison Diversion Unit was included in the original Pick Sloan legislation as a multipurpose project but with the primary focus being over one million acres of irrigation. Garrison was one of many units with irrigation plans, totaling over five million acres in the Missouri River Basin. The significance of the irrigation plans and their impact on the design and cost of the main stem dams and powerplants cannot be understated. Seven dams and powerplants in the eastern division of the program were built with provisions for irrigation development. In some cases the dams were designed with specifics of the plans in mind. For example, the Garrison Dam in North Dakota was constructed to an elevation that would facilitate the diversion of water from Lake Sakakawea and the delivery of these waters by gravity flow to the eastern half of the state.

Accordingly, certain costs of the main stem dams and powerplants were allocated and provisions made in the marketing arrangements for the power which recognized the ultimate development of the full irrigation acreage as well as the three other main functions, which were flood control, navigation, and power. Subsequently, a small number of the projects were reauthorized and actually built. Another group of the irrigation projects were reauthorized but partially built. The two major projects in the latter category are the Oahe project in South Dakota and the Garrison Diversion Project in North Dakota. Garrison was reauthorized as a multistage project with 250,000 acres in the first stage in 1965. In 1986 the Garrison Project was reformulated by legislative action and all but 130,000 acres of the original acreage were deauthorized. In effect, over 800,000 acres of irrigation were partially taken off the books.

The costs associated with the construction of the power facilities needed to serve the deauthorized Garrison acreage were reallocated to the power function as well as a portion of the joint reservoir costs that were associated with irrigation following the 1986 legislative action. These costs are now included in the power repayment study conducted annually by Western Area Power Administration as interest-bearing power investments. The study is the basis for determining the power rates charged to the power customers. However, this is only part of the issue. For example, the power rates must also include a component for the aid to irrigation costs. Each of the irrigation projects carry with them a component of power assistance promised to help pay the cost of irrigation, which is beyond the irrigators ability to repay. This component is called

aid to irrigation. It is a significant amount of money and, in the case of the PSMBP, amounts to nearly $4.5 billion for all of the irrigation projects planned in the 1944 plan, plus subsequent reauthorizations. Ironically, no irrigation assistance is included in the Western Area Power Administration power repayment studies for the Garrison Diversion Unit.

In addition the power repayment studies also assume a decrease in the amount of hydro power available to market over time. This decrease is directly tied to the anticipated water diversions for the planned irrigation projects. In the case of the current power repayment studies, the revenue associated with the anticipated diversions for the unbuilt projects is approximately $40 million each year.

And, finally, the power facilities are obligated to provide the energy necessary to operate the major pumps and relift pumps associated with each project. The cost of such power is set at 2.5 mils/kwh. Until such time as the irrigation project actually comes online, the power that is set aside for the irrigation pumping is sold at the current preference customer firm power rate which is currently set at 14.23 mils. The difference eventually amounts to nearly $7 million annually in the power rate studies.

These elements of the PSMBP financial operation represent the stake that water interests have in the overall program in order to compensate for the major flooding of rich bottomland by the large reservoirs. To my knowledge, no water organization within the basin has proposed an adjustment of these costs in order to initiate a power rate hike. The Garrison Diversion Conservancy District has been consistently opposed to penalizing the power users for the lack of irrigation development. We have, however, also opposed redirecting these power revenues to programs outside of the states for which they were originally intended. The major reservoirs for the PSMBP are all in the four upper basin states, including Montana, Wyoming, and North and South Dakota.

I hope this information is instructive and helpful to the committee as you consider the financing and cost sharing policies for water projects in the PSMBP.

TESTIMONY FOR THE RECORD
HOUSE OF REPRESENTATIVES COMMITTEE ON RESOURCES
SUBCOMMITTEE ON WATER AND POWER RESOURCES
MAY 6, 1997

BY LARRY LIBEU
DEPUTY ASSISTANT GENERAL MANAGER
EASTERN MUNICIPAL WATER DISTRICT

Mr. Chairman and Members of the Subcommittee:

I am Larry Libeu, Assistant General Manager for the Eastern Municipal Water District (EMWD) in San Jacinto, California. EMWD was formed in 1950 under California statutes as a municipal water district and joined as a Member Agency of the Metropolitan Water District of Southern California a year later to augment its local supplies with recently available imported water. The EMWD service area is 542 square miles and has a population that totals approximately 480,000. The District is a past and present participant in the Bureau of Reclamation's Small Reclamation Program (SRPA).

I would like to offer comments on how our District has used the SRPA program on three different occasions so your Subcommittee understands the benefits of the program and the financial options we used to meet the water needs in our service area. I understand the National Water Resources Association is providing testimony on the SRPA program and the new changes to that program that I, as the Chair of their Water Resources Management Committee, have been actively pursuing these past several years with the help of our membership. Rather than cover the benefits of the SRPA program, I would like to focus my comments on our three projects.

1960 - Perris Valley Project

Four years after the authorization of the SRPA program by Congress, EMWD applied for and received a loan to provide supplemental irrigation water for the Perris Valley region of our District. The cost of the project was $6.24 million dollars, of which we received a loan under the program for $4.98 million. Because of groundwater depletion in the Perris Valley, there was a need to provide supplemental water to 43,000 irrigable acres to maintain the economic base in that area. Because the District's bonding capacity was almost depleted, we had only $4.3 million left in our legally set bond ceiling, we felt the SRPA program was the best tool available to meeting those needs. That system is still in place and as a result of changing demographics in our area is now primarily relied upon to meet municipal and industrial water supply. This is an example of a traditional Small Reclamation project which required an irrigation component in order to be eligible for a loan. NWRA is proposing to make a contemporary change to that requirement and no longer require it to be a project purpose and if it is, to have interest charged on the agricultural irrigation component.

1980 - Northern California Water Integration Project

In 1980, as a result of state and Federal water quality requirements, the District received a loan under SRPA for $17.7 million to 1) meet groundwater basin quality requirements and 2) recharge the San Jacinto Basin to sustain the areas groundwater quality. An important consideration in pursuing the loan from the Federal government was the District being faced with water quality compliance problems because the imported water we were receiving had too high a total dissolved solids (T.D.S.), i.e. salinity was increasing. The ability to address water quality problems is an important consideration/ project purpose under SRPA..

The total cost of the project was $24 million with the loan portion being $17.7 million. We were still in that era where irrigation was a required project purpose. As a result, 32,160 acres of dry land farming was converted to irrigated agriculture. This allowed the ability of farmers in the area to continue to grow more food crops and the water supply system to carry additional water supply. Another way to look at the benefit of this loan was the capability of the system to import high quality, low T.D.S. state project water which provided for the integration of the District's high T.D.S existing system for delivering agriculture and municipal and industrial water.

We would also point out that during the time frame for the consideration of pursuing this particular loan that given the interest rate/economic climate in the project area that such a loan was an attractive alternative given the alternatives.

1991 - Reclaimed Water System Project

The last loan which the District received under the SRPA program was a result of pursuing cutting edge public benefits and technology to solve a critical need in the District. The project cost was $46.4 million with the loan portion being $24.3 million. The purpose of the loan was to construct a reclaimed water system. This system will result in a preservation of groundwater supplies through groundwater recharge, a water conservation benefit and at the same time provide for wildlife enhancement and wetlands development through the construction of wetlands that will bring about the ability to treat water in a non-traditional manner. This will benefit the local Hemet-San Jacinto Treatment Plant through improved treatment capabilities. Because of existing program requirements, we will also irrigate 26,000 acres which is presently in dryland farming.

The SRPA has been a successful program. I gave three (3) examples of how our District used the flexibility of this program. This is a program all water agencies in the West can utilize, whether large or small.

NWRA's legislative proposal introduced during the 104th Congress, H.R. 3041, addressed the need to meet more contemporary and business-like issues. A major change in NWRA's proposal is to eliminate irrigated agriculture as a project requirement. As we look to

the 21st Century, we need to realize that this program will have more applicability, especially to smaller districts if agricultural irrigation is not a requirement; H.R. 3041 does exactly that.

This program has been frequently utilized by the Native American Community, in part because Bureau of Indian Affairs (B.I.A.) Discretionary funding is normally encumbered with other projects such as schools and medical facilities. Native Americans have been able to use the program for agricultural and M&I systems. H.R. 3041 still provides this element.

Repayment under the existing SRPA is 40 years. H.R. 3041 proposes a maximum of 25 years payback with as low as 15 years, a more business-like approach, that even small districts can handle. Cost sharing has always been a plus for the smaller public agencies. Traditionally, the cost share ratios is Federal Government 75% and sponsor 25%. We at Eastern support H.R. 3041's new potential higher level cost share ratio's. However, we are opposed to a reverse ratio, i.e. 75% sponsor, 25% U.S. government.

Conclusion

All three projects that I identified earlier were made possible by using SRPA. As you can see, the elements of the SRPA program were different in each case. The Perris Valley project needed supplemental water for irrigation. Local wells were going dry, the District was beyond bonding capacity, and the SRPA program provided for construction dollars to help a local agricultural community survive.

The second project was regulatory focused. Groundwater management and basin plans had now been established which set limits on T.D.S. The historical supply of water for the District was Colorado River water which was increasing in salinity. Northern California water - via the State Water project - was much lower in T.D.S. The ability to integrate (blend) District water with that water proved to be the best solution to meeting the basin plan for T.D.S. objectives. Agriculture was also addressed with water demands for domestic food crops increasing, this project provided water to what was historically dry land farming for food crops.

The third project, provided groundwater recharge for the Hemet-San Jacinto Basin. With State water very close in T.D. S. to local groundwater, recharge was made available through the Loan to meet those concerns.

The SRPA program has provide the most useful tools, the quickest solution and the most appropriate financial solution at the time to meeting our needs. As a result of travels, meetings and seeing first hand the benefits of this program in addressing the here-and-now needs of other districts such as ours, I would strongly encourage the Congress to continue this vital and important program with the changes that NWRA is suggesting so we have a clear path to meeting the needs of the West into the 21st century.

Submitted by Betsy Cody, CRS
For the Record - May 6, 1997

Reclamation Projects Authorized or Modified since 1979 and Repayment Allocations

	PROJECT TYPE				
	MULTI-PURPOSE /IRRIGATION PROJECT MODIFICATION	RURAL WATER SUPPLY	RECLAMATION WASTEWATER REUSE /RECYCLING[c]	WATER QUALITY/FISH & WILDLIFE/ CONSERVATION	INDIAN WATER RIGHTS SETTLEMENT
GREAT PLAINS REGION					
Project Name *Public Law,* (Non-reimbursable /Reimbursable)	Garrison Diversion Unit, *P.L. 89-108, P.L. 98-360, P.L. 99-294, and P.L. 102-575, title XVII,* (36% / 64%)[a]	WEB Rural Water Development *P.L. 96-355,* (75% / 25%)		Leadville Mine Drainage Tunnel *P.L. 94-423, Title VI, and P.L. 102-575, Title VII,* (100% / 0%)	
	Buffalo Bill Dam Modification *P.L. 97-293, Title I, and P.L. 102-575, Title I,* (30% / 70%)[a]	Mid-Dakota Rural Water System *P.L. 92-575, Title XIX,* (85% / 15%)			
	Belle Fourche Project Modification *P.L. 98-157 and P.L. 103-434, Title IX,* (7% / 93%)[a]	Fort Peck Rural Water Supply *P.L. 104-300* (75% / 25%)[a]			

	PROJECT TYPE				
	MULTI-PURPOSE /IRRIGATION PROJECT MODIFICATION	RURAL WATER SUPPLY	RECLAMATION WASTEWATER REUSE /RECYCLING[a]	WATER QUALITY/FISH & WILDLIFE/ CONSERVATION	INDIAN WATER RIGHTS SETTLEMENT
GREAT PLAINS REGION (cont.)					
	McGee Creek Project *P.L. 94-423, Title VII,* (10% / 90%)				
	Mountain Park Project Modification *P.L. 103-434, Title IV,* (32% / 68%) (100% / 0% on environmental portion)[b]	Mni Wiconi Project *P.L. 100-516 and P.L. 103-434, Title VIII,* (20% / 80% for non-Indian portion;[a] 100% / 0% for Indian portion)			
PACIFIC NORTHWEST					
Project Name *Public Law,* (Non-reimbursable /Reimbursable)				Umatilla Basin Project *P.L. 100-557, Title II and P.L. 104-206,* (100% / 0%)	

	PROJECT TYPE				
	MULTI-PURPOSE /IRRIGATION PROJECT MODIFICATION	RURAL WATER SUPPLY	RECLAMATION WASTEWATER REUSE /RECYCLING[a]	WATER QUALITY/FISH & WILDLIFE/ CONSERVATION	INDIAN WATER RIGHTS SETTLEMENT
PACIFIC NORTHWEST (cont.)					
				Yakima River Basin Water Enhancement Project *P.L. 103-434, Title XII* (100% / 0%)[a]	
MID-PACIFIC					
Project Name *Public Law,* (Non-reimbursable /Reimbursable)			San Jose Water Reclamation and Reuse, *P.L. 102-575,* (25% / 75%)	Trinity River Restoration Program *P.L. 98-541,* (35% / 65%)[c]	Truckee-Carson-Pyramid Lake Water Rights Settlement *P.L. 101-618, Title II,* (100% / 0%)
			Watsonville Area Water Recycling Project, *P.L. 104-266,* (25% / 75%)	Shasta Temperature Control Device *P.L. 102-575,* (37.5% / 62.5)[d]	

	PROJECT TYPE				
	MULTI-PURPOSE /IRRIGATION PROJECT MODIFICATION	RURAL WATER SUPPLY	RECLAMATION WASTEWATER REUSE /RECYCLING[a]	WATER QUALITY/FISH & WILDLIFE/ CONSERVATION	INDIAN WATER RIGHTS SETTLEMENT
MID-PACIFIC (cont.)					
			San Joaquin Water Reclamation and Reuse *P.L. 104-266*, (25% / 75%)		
LOWER COLORADO					
Project Name *Public Law*, (Non-reimbursable /Reimbursable)	Gila River Channel Improvement *P.L. 96-367*, (100% / 0)		San Diego Area Water Reclamation Program *P.L. 102-575, Title 16*, (25% / 75%)	Colorado River Basin Salinity Control Act amendments *P.L. 96-336*, (100% / 0%)	Southern Arizona Water Rights Settlement *P.L. 97-293*, (100% / 0%)
	Colorado River Basin Project Act, amendments *P.L. 97-373*, (0% / 100%)[a]		Los Angeles Area Water Reclamation and Reuse Project *P.L. 102-575, Title 16*, (25% / 75%)	All-American Canal Lining, *P.L. 100-675, Title II*, No federal funding	Ak Chin Indian Water Rights Settlement *P.L. 98-530*, (100% / 0%)[a]

	PROJECT TYPE				
	MULTI-PURPOSE /IRRIGATION PROJECT MODIFICATION	RURAL WATER SUPPLY	RECLAMATION WASTEWATER REUSE /RECYCLING[a]	WATER QUALITY/FISH & WILDLIFE/ CONSERVATION	INDIAN WATER RIGHTS SETTLEMENT
LOWER COLORADO (cont.)					
	Hoover Power Plant Act *P.L. 98-381*, (0% / 100%)		San Gabriel Basin Demonstration Project *P.L. 102-575, Title 16*, (25% / 75%)	Salton Sea Research Project *P.L. 102-575, Title XI*, (100% / 0%)[a]	Salt River Pima-Maricopa Indian Community Water Rights Settlement *P.L. 100-512*, (100% / %0)[a]
	Colorado River Floodway Protection Act *P.L. 99-450*, (100% / 0%)		Northern San Diego County Water Recycling Project *P.L. 104-266* (25% / 75%)		San Luis Rey Indian Water Rights Settlement *P.L. 100-675, Title I*, (100% / 0%)
	Lower Colorado Water Supply Act, *P.L. 99-655*, (0% / 100/%)		Calleguas Municipal Water District Recycling Project *P.L. 104-266* (25% / 75%)		Fort McDowell Indian Community Water Rights Settlement *P.L. 101-628*, (100% / 0%), plus a small reclamation loan

	PROJECT TYPE				
	MULTI-PURPOSE /IRRIGATION PROJECT MODIFICATION	RURAL WATER SUPPLY	RECLAMATION WASTEWATER REUSE /RECYCLING*	WATER QUALITY/FISH & WILDLIFE/ CONSERVATION	INDIAN WATER RIGHTS SETTLEMENT
LOWER COLORADO (cont.)					
	Central Arizona Project Siphon Repair *P.L. 102-575, Title XXXIX,* (67% / 33%)		Nevada Water Recycling Project *P.L. 104-266* (25% / 75%)		San Carlos Apache Water Rights Settlement *P.L. 102-575, Title XXXVII,* (100% / 0%)
			El Paso Water Reuse and Recycling Project *P.L. 104-266* (25% / 75%)		
			Pasadena Reclaimed Water *P.L. 104-266* (25% / 75%)		
			Orange County Regional Water Reclamation Project *P.L. 104-266* (25% / 75%)		

	PROJECT TYPE				
	MULTI-PURPOSE /IRRIGATION PROJECT MODIFICATION	RURAL WATER SUPPLY	RECLAMATION WASTEWATER REUSE /RECYCLING*	WATER QUALITY/FISH & WILDLIFE/ CONSERVATION	INDIAN WATER RIGHTS SETTLEMENT
LOWER COLORADO (cont.)					
			Hi-Desert/Yucca Valley Wastewater Collection and Reuse Project *P.L. 104-266* (25% / 75%)		
			Mission Basin Groundwater Desalting Project *P.L. 104-266* (25% / 75%)		
			Los Angeles/ Longbeach Effluent Treatment - Reuse Project *P.L. 104-266* (25% / 75%)		

	PROJECT TYPE				
	MULTI-PURPOSE /IRRIGATION PROJECT MODIFICATION	RURAL WATER SUPPLY	RECLAMATION WASTEWATER REUSE /RECYCLING*	WATER QUALITY/FISH & WILDLIFE/ CONSERVATION	INDIAN WATER RIGHTS SETTLEMENT
LOWER COLORADO (cont.)					
			Longbeach Desalting Plant *P.L. 104-266* (50% / 50%)		
			St. George Area Water Recycling Project *P.L. 104-266* (25% / 75%)		
UPPER COLORADO					
Project Name *Public Law,* (Non-reimbursable /Reimbursable)	Central Utah Project - Bonneville Unit *P.L. 99591, and P.L. 102-575, Title II,* (42% / 58%)		Central Valley Water Recycling Project *P.L. 104-266* (25% / 75%)	Velarde Community Ditch Rehabilitation *P.L. 98-50,* (100% / 0%)	

	PROJECT TYPE				
	MULTI-PURPOSE /IRRIGATION PROJECT MODIFICATION	RURAL WATER SUPPLY	RECLAMATION WASTEWATER REUSE /RECYCLING[a]	WATER QUALITY/FISH & WILDLIFE/ CONSERVATION	INDIAN WATER RIGHTS SETTLEMENT
UPPER COLORADO (cont.)					
	Animas La Plata *P.L. 90-537 and P.L. 100-585,* (12% / 88%)[f]		El Paso Water Reclamation and Reuse Project *P.L. 104-266,* (25% / 75%)	Central Utah Project - Jensen Unit *P.L. 102-575, Title II,* (90.5% / 9.5%)[a]	Colorado Ute Indian Water Rights Settlement Act of 1988 *P.L. 100-585,* (100% / 0%)
			City of West Jordan Water Reuse Project *P.L. 104-266* (25% / 75%)		
			Toole Wastewater Treatment and Reuse Project *P.L. 104-266* (25% / 75%)		
TOTAL, 55 projects (percentage of total)	13 (24%)	4 (7%)	20 (36%)	10 (18%)	8 (15%)

[a] State and/or local cost-share is also required.

[b] According to the Bureau of Reclamation, P.L. 103-434 reauthorized the project by allowing for non-reimbursable environmental quality activities, thus reducing the amount of the original assigned repayment by the Mountain Park Master Conservancy District.

[c] Fifteen percent is to be repaid by Humboldt and Trinity Counties, and the State of California (based on shares mutually agreed upon).

[d] The reimbursable costs are split among the state, counties, and project power users. Title 34 also authorized 15 other fish and wildlife and environmental restoration, mitigation, and enhancement projects; however, the Shasta Dam temperature control device is the only major construction project. Of the 15 other projects, 7 are 37.5% non-reimbursable and 62.5% reimbursable (with the State paying at least 25% of the reimbursable costs); 5 are 50% non-reimbursable and 50% reimbursable, with the State picking up a portion of the reimbursable costs; and, 3 are 75% non-reimbursable and 25% reimbursable, with the state paying the reimbursable costs instead of project users.

[e] Title XVI of the Reclamation Projects Authorization and Adjustment Act (P.L. 102-575) authorized the Bureau to participate in the planning, design, and construction of 4 water recycling and reuse projects in California and Arizona and the Reclamation Recycling and Water Conservation Act (P.L. 104-266) authorized participation in 16 additional reclamation and reuse construction projects. P.L. 104-266 also caps the federal share for reclamation water and reuse projects at $20 million per project. Additionally, both bills authorized several studies; however, only authorized construction projects are included in this analysis.

[f] Animas La Plata repayment shares are based on current repayment configuration as reported in the Bureau of Reclamation's FY1998 budget justifications documents. Cost-sharing is also required.