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Views on Public Investment in Water Management and Supply Infrastructure to Stimulate the Economy of the United States

Introduction

Good morning Chairman Bingaman, Ranking Member Domenici, and Committee Members. My name is Mark Limbaugh, and I have served as the Assistant Secretary of the Interior for Water and Science, Deputy Commissioner for the Bureau of Reclamation, state watermaster for the Payette River Basin in Idaho and fourth-generation Idaho family farmer. I am here at the request of this Committee to give my personal thoughts on the need for further federal investment in water management and supply infrastructure as part of any proposed economic stimulus legislation.

First, I must disclose that I currently work as a natural resource consultant and lobbyist, with clients who are involved in the management and delivery of water in many areas of the country. While these clients and their communities would benefit from additional federal spending on water infrastructure, I am not representing them here today. My remarks today are my own, and have been derived from my 28-plus years of experience as a water user, water manager, and public servant.

I am prepared to offer my opinion on the immediate need for and subsequent economic benefits from further public investment in water infrastructure through proposed federal spending legislation to stimulate the U.S. economy. There currently is a pent-up demand for new and rehabilitated water infrastructure across the Nation. This includes new surface and ground-water storage facilities and more efficient water delivery mechanisms, as well as water management and conservation improvements that include the requisite water management infrastructure needed to take advantage of conserved water savings. Such infrastructure must be built in the future to meet the challenges and uncertainties of climate change and the growing competing demands for limited water resources to meet unmet needs. In this testimony, however, I have chosen to narrowly focus on five areas within the Bureau of Reclamation (Reclamation) programs and responsibilities – aging federal water facilities, rural water development, water conservation, recycling and reuse, environmental mitigation and restoration infrastructure, and water-related renewable energy sources. This narrowed approach is due to the immediate nature of projects in these areas that are ready to be constructed

within the next two years and the direct federal Reclamation nexus to providing support and funding for these projects through a federal economic stimulus spending package.

It appears obvious to me that the economy (both locally and on a national scale) benefits from increased investment in construction of projects by providing jobs and generating economic activity during the construction phase itself. A recent report by the Congressional Research Service estimates that each million dollars in new spending on infrastructure construction, direct and indirect employment is projected to increase by 8.1 to 12.6 jobs (depending on the model and assumptions used). However, looking at the broader picture, construction and reconstruction of water infrastructure provides not only the construction and related jobs and activities in the short term, these projects provide the basic component of any vibrant economy in the long term – a reliable source of clean, affordable water to communities, farms, and businesses. In my opinion, these investments are just as, if not more important to growing the economy in both the short and long terms as transportation and other public infrastructure projects, and not including such investments in water infrastructure in an economic stimulus package would be a regrettable oversight and a huge mistake.

Also, when these projects are built, they will be designed and constructed using the latest environmental engineering standards for water development and management – protecting important environmental values in water quality and conservation, fish and wildlife habitat, and providing many opportunities for new "green jobs" in the water sector of the economy.

Stimulus spending on water infrastructure should include a mix of direct appropriations, low-interest and no-interest loans, and other innovative financing tools that allow for limited federal funding to be leveraged for maximum impact on our economy. Loan guarantees and other federally-backed loan instruments, such as tax-credit bonds, are necessary to meet local requirements for workable public financing tools, mostly due to the current credit crisis which has all but dried up traditional municipal bond funding mechanisms. Attracting private capital to water project financing will continue to be a challenge and our economy will depend on these funds for financing public water infrastructure.

Aging Federal Infrastructure

Over the past 100 years, the Bureau of Reclamation has built important water management and delivery infrastructure still relied upon today for important water supplies and the economies built around those supplies. These federal water projects resulted in a massive migration to the West in the early 1900's (my relatives among them) and transformed the West by providing water for farms that now provide the nation with the multitude of fresh fruits, vegetables, nuts, dairy products, grains, and other staples too often taken for granted by consumers. Communities rose out of the sage, local economies were created and blossomed with the crops produced from these water sources. Today, these projects are more important than ever originally contemplated.

Water developed by Reclamation projects is now used to produce not only crops, but is also relied upon for recreation, for fish and wildlife, for hydroelectric power production, and for important municipal and industrial uses. Yet these important facilities are aging, and many are in need of rehabilitation to continue to reliably meet current and future demands for water and meet today's environmental standards. In most cases, Reclamation projects have been or are being repaid by project beneficiaries – the users of the water. Much like a mortgage on a house, repayment of the initial project construction costs were amortized over many years in order that these project users could afford to pay these costs back to the Federal government. These project beneficiaries also pay 100% of their allotted share of operation and maintenance costs, with the government paying the allotted federal share. As these projects continue to age, routine maintenance cannot possibly keep up with the demand for the major rehabilitation needed in order to extend their service life to meet the needs of present and future generations.

Reclamation has systematically planned such rehabilitation, and there are many large projects ready to be reconstructed, some requiring extensive construction activities to rebuild this large, complex water infrastructure. Reclamation's Safety of Dams program has continued to meet the construction needs to maintain the safety and security of large federal dams and infrastructure that fails to meet today's engineering standards. These projects are not rehabilitation, as only design flaws that impact project safety and security are repaired under this program. There are many projects in this program that are in need of additional federal appropriations in order to begin construction, and would be excellent candidates as economic stimulus projects. However, construction of the other rehabilitation projects has stalled, with the non-federal share of the huge costs associated with such construction activities simply added to the project beneficiaries' annual operation and maintenance bills, creating a financing crisis for project beneficiaries by exponentially increasing their non-federal annual costs. As an example, I recall one Reclamation water district annually paid O&M costs in the neighborhood of $500,000, only to be confronted with a three year rehabilitation project (still not started) that increased the water district's annual O&M costs to over ten million dollars with no financing program to extend repayment over a reasonable period of years. Even if Reclamation were appropriated additional dollars through a stimulus spending bill to fund these improvements, with no financing program or direction from the Congress, the agency would still require repayment from the non-federal project users in the year the funds were expended. The Omnibus Public Land Management Act considered in this Congress contains legislation that would provide Reclamation with additional authority to extend repayment of such costs, with interest, over a more reasonable timeframe based on the life of the rehabilitation project.

In addition to proposed stimulus spending, innovative financing tools are needed to assist with the updating and rehabilitation of water infrastructure. The 109th Congress provided Reclamation with authority to develop a loan guarantee program. While this program has yet to be offered to Reclamation customers, I believe it will provide a cost-effective financing program for such projects. Besides direct loans and loan guarantees, another innovative federal financing tool currently being considered for authorization is the tax-credit bond, where federal income tax credits are offered in lieu of interest payments on

private loans made to public agencies, financing their long-term water infrastructure needs interest-free and costing the federal government only a fraction of the total amount borrowed. Such financing instruments will be essential in leveraging limited federal funds to attract the private financial capital necessary to meet the needs of tomorrow's water infrastructure projects.

Rural Water

The need for a reliable source of clean, potable water is no more apparent than in many rural areas of this country. Many Tribes still deal with inadequate and unsafe water supplies on their reservations, and small communities across the Plains states and in the Southwest are in dire need of such infrastructure. There are currently about ten congressionally authorized rural water projects that Reclamation participates in providing federal funds for construction activities managed by local construction entities (both Tribal and non-Tribal entities). In my experience, there has not been adequate funding made available to the various local construction entities to meet the capacity to build these projects on an economical scale, with approximately $1.3 billion in funding needed to complete these projects. Additional funding provided in a stimulus spending bill to meet the construction capability of these entities would advance the construction phases of these authorized projects, providing additional construction jobs and vital economic activity in the process in both the short and long terms.

The Rural Water Supply Act of 2006, introduced by Senators Bingaman and Domenici, provided the authority for Reclamation to develop a rural water program that could ensure the best future rural water supply projects were advanced to Congress for authorization and construction funding. Reclamation recently released an interim rule to develop such a program and is currently seeking comments. Funding is authorized at $15 million annually to provide for appraisal and feasibility studies, as well as program administration. Such studies will be necessary to determine the viability of a project and provide recommendations to Congress for further authorization to construction. Funding provided in a stimulus package could help establish this program and provide additional projects that could be quickly ready to construct if authorized for federal funding. The Act also provided Reclamation with authority for a loan guarantee program to assist in financing a portion of construction costs for these projects, however the program has not been offered by Reclamation at this time. Congress may need to provide direction and guidance to Reclamation in developing a loan guarantee program to meet the financing needs of rural water and other water infrastructure projects in the future.

Water Conservation, Recycling and Reuse

Water conservation and improved water management has been at the forefront of meeting unmet needs in the West. There are many opportunities for new water conservation activities that could help stretch existing water supplies, but many of these projects must wait for available funding so they can be moved forward for construction. While at

Interior, I worked to establish the *Water 2025* challenge grant program, and we always received millions of dollars more in requests for grants than we had funding to award. Integrated regional water management planning, automated water control structures, SCADA systems, improved water measurement devices, system optimization planning analyses, canal and ditch lining and piping, and other water conservation measures are needed today and are ready to be installed at many locales across the Reclamation states, but local funding alone has not been adequate to meet the demand for such infrastructure. Additional federal funding for water conservation matching grants through Reclamation in an economic stimulus spending bill would assist these local and state entities in accelerating the construction and implementation of these projects, creating jobs and associated economic activity in the process. This water management infrastructure continues to be vitally important to the advancement of voluntary state-sanctioned water banks and transfers that allow water to flow to meet unmet needs for people and the environment while protecting the state-based water rights so important to Western water users, and providing a cost-effective, collaborative process in providing for unmet water supply needs.

Title XVI of P.L.102-575 provided Reclamation with the authority to develop a demonstration and grant program for water reuse and recycling projects. Currently there is a very large backlog of projects, requiring almost $600 million in federal cost share, which are ready to begin construction but are waiting for the federal funding necessary to finance these projects. These projects would provide new water supplies to communities in dire need of additional water sources. Many of these authorized projects are in the Southern California region, but there are some in other areas of the Southwest and West. As this Committee is very aware, California is experiencing court-ordered restrictions and other extreme pressures on their water supply as legal issues surrounding competing uses for water in the state are sorted out, with endangered species, environmental requirements, growing populations, and mounting drought conditions all contributing to the current state of affairs. Millions of people in Southern California rely on imported water from the Colorado River and from the Central Valley, and both of these sources have been reduced in the past several years. The need to develop in-basin water supplies in these areas has never been greater, and water reuse and recycling projects would dramatically help in this effort. There are other projects, either congressionally authorized or waiting for such authorization that could help divert flood flows into groundwater basins and desalinate water from impaired groundwater or the sea, and these projects need to be moved forward to construction as well. Again, innovative federal financing tools are needed to attract private funding for the non-federal share of these projects, as the municipal bond market have been severely restricted in the current credit crisis. Such financing programs should also be considered in an economic stimulus package to spur investment in constructing these important public works projects.

Environmental Mitigation and Restoration Infrastructure

As water has been developed in the West over the last century, our nation's environmental standards have evolved into new laws and standards that drive the need to

mitigate water-related impacts to the environment and restore habitat important to the survival of both endangered and threatened species, while preserving important fish and wildlife populations treasured by generations of Americans. The results of our successful water development and use in the West have also resulted in some negative impacts to our environment, and there are many infrastructure projects that have been designed to mitigate and restore natural systems while protecting the important use of water for people. Currently, there are many robust collaborative environmental restoration and protection programs that have infrastructure ready to construct, but are in need of additional federal dollars to implement these projects. Programs like the Upper Colorado River Recovery Implementation Program, the Platte River Recovery Program, the Middle Rio Grande Silvery Minnow Collaborative Program, the Lower Colorado River Multi-Species Conservation Program, the Columbia-Snake River Salmon Recovery Programs, the Grand Canyon Adaptive Management Program, and the fisheries restoration and passage improvement programs in Central Valley of California are all well established and would benefit from focused stimulus spending that would begin construction on shovel-ready projects that are needed for environmental restoration and fisheries habitat improvement. Projects such as fish screens on existing water diversions, integrated regional water management and conjunctive groundwater/surface water management projects, selective withdrawal temperature control devices, habitat restoration and mitigation projects, wetland water treatment facilities and green stormwater infrastructure are but some of the many projects in need of immediate federal funds and/or financing to begin construction. Most of these projects have substantial local and state funding committed and are ready to move forward as federal dollars become available, making them ideal candidates for economic stimulus spending.

Green Water-Related Energy Sources

Hydro-electric power sources do not produce greenhouse gases and are a reliable source of energy in the West. Yet there are many opportunities to improve existing or provide additional sources of hydropower across the West that are in need of immediate funding. Providing federal funding opportunities for new, smaller hydroelectric plants where local water delivery systems provide adequate conditions for operating these plants would increase the use of renewable sources of energy and take advantage of existing water infrastructure in developing these new sources of energy. Other renewable energy sources are available on some Western water projects include solar, geothermal and wind and with enhanced federal funding and financing opportunities, developing these “green” energy sources could be accelerated.

Conclusion

In conclusion, spending additional federal dollars on “shovel-ready” water infrastructure in these five areas will, in my opinion, not only meet the short term needs for jobs and economic growth, but will provide long-term returns on the federal investment by rehabilitating and upgrading existing water supply infrastructure, increasing the availability of water in areas experiencing shortages, improving the environment for

wildlife and fishery habitat, and providing “green” sources of water and energy for the future. Such investments will be necessary sooner rather than later, and using a portion of a federal economic stimulus package is an ideal opportunity to provide much needed federal funds to these important projects. Thank you for allowing me to provide my personal views to the Committee, and I would be happy to answer any questions you may have.

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