Senate Committee on Energy and Natural Resources
Subcommittee on Water and Power

Water Infrastructure for the 21st Century:
The viability of incorporating Natural Infrastructure in Bureau of Reclamation Water Management Systems
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Witness Testimony of Troy Larson
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Good afternoon. I am Troy Larson, Executive Director of the Lewis & Clark Regional Water System (Lewis & Clark). Thank you, Mister Chairman and Madam Ranking Member, for allowing me to testify before the Committee today.

Lewis & Clark is a tristate drinking water project that when completed will benefit over 350,000 individuals in southeast South Dakota, northwest Iowa, and southwest Minnesota. This water project involves the partnership of the federal government, three states, 15 cities, and five rural water systems. I appreciate the interest of the Committee in examining the Bureau of Reclamation and how their current programs guide the building of important infrastructure projects like the Lewis & Clark Regional Water System.

The Bureau of Reclamation (Reclamation) provides construction oversight for our project and has been an important partner since the project was incorporated in 1990 and later authorized by Congress in 2000. Construction began in 2004, and we are approximately 86% complete. In today's dollars, the estimated cost of the project is $618 million. At current funding levels, we unfortunately still have about 10 years to go.

I have served as the Executive Director of the Lewis & Clark Regional Water System for 18 years. Over the past 18 years, I have seen the critical oversight role Reclamation fills with our project. Their engineers are involved in every level of construction to ensure projects are being constructed in the most efficient and cost-effective manner possible, as well as ensuring all existing environmental rules and regulations are being followed. For example, they have held Value-Engineering studies of certain larger aspects of our project, such as the water treatment plant. They have also hosted Inter-Agency Environmental Review Teams to get input from various federal and state agencies, as well as tribal officials, with regard to planned construction. Reclamation staff in Pierre, Bismarck, and Billings have been invaluable partners from a design, construction, environmental, and oversight standpoint.

Our project and four other projects are funded by Reclamation's Rural Water Program, and at this point the primary barrier to project completion for us is federal funding. The states and municipalities have fulfilled their financial obligations to the projects.

With construction roughly 86% complete, the goal of connecting all awaiting communities and rural water systems is within reach; however, this assumes that the construction requirements for our project from Reclamation do not significantly change in ways that would require spending financial resources to satisfy those new requirements.

I appreciate the goals that the Chairman has in exploring the viability of incorporating natural infrastructure in water management and policy. I have three concerns about this proposal to discuss today. However, I caveat my concerns with the statement that I am not aware of the full scope of the policy changes under consideration, so I raise concerns in an effort to bring issues to the attention of the Committee for your consideration as you continue to contemplate changes to how Reclamation operates.

First, I am concerned about the financial effects these new requirements could have and that they will delay completion of projects and require additional scarce funds to satisfy these goals. Second, I am concerned about one-size-fits all changes because not every Reclamation funded project is alike; and third, I am concerned that funding new natural infrastructure will take precedent over completing the Reclamation projects that are currently in process. I will discuss each in turn.

First, for projects like ours, the sooner our project is complete, the less of a burden we are to the federal government because once complete, Lewis & Clark is fully self-sustaining with water rates covering all operation and management expenses. We are grateful for what Congress appropriates every year, and we hold fast to our goal of being self-sufficient, but that cannot occur until we have received the funds necessary to complete construction. Adding new requirements that might make our project more expensive only further delays our ability to become self-sufficient, which was the vision Congress laid out for our project when we were authorized over 20 years ago.

In the course of my 18 years and our close partnership with the Reclamation, there have been countless times when we have had to ensure compliance with various environmental parameters. One example from 2008 is particularly important to consider as you weigh the impact of changes the Committee is discussing today.

Our source of water is a series of wells adjacent to the Missouri River. To protect the wells from erosion we need to construct bank stabilization. Our original plan was to bury large rocks a short distance inland, and when natural erosion affected the shore and reach the buried rocks, the rocks would eventually tumble down the river bank. This would stabilize the riverbank from further erosion. At the request of the National Park Service and the Army Corps of Engineers, we instead used a "modified stone toe revetment with root wads." I would be happy to further provide an explanation of what this entailed, but to keep this short I will just say that it was deemed a more environmentally friendly and natural looking approach to bank stabilization even though the other approach would have also accomplished the exact same goal. We were forewarned it has been used on smaller streams, but not on one as large as the Missouri River. The bank stabilization project was completed in August 2008, and the total cost was $5.25

million. Our engineers conservatively estimate this approach added at least $1 million to the contract of the project; roughly a 20% increase. That is $1 million we could have used to put more pipeline in the ground and closer to completing the entire water system.

This additional cost for natural shoreline infrastructure did not necessarily come out of the pocket of the federal government, and it is possible that future requirements for natural infrastructure will not come out of the pocket of the federal government. That because of the hard cap of our federal funding ceiling. Reclamation knows that there is a maximum amount the federal government will pay for our project, so new additional costs, even if they are a result of policy directives coming from the federal level, will likely be borne by the municipalities and rural water systems in our project.

Second, should Congress consider natural infrastructure mandates, I am concerned that mandates on Reclamation to create one-size-fits natural infrastructure requirements may also have unintended consequences and result in inadvertent oversights. Lewis & Clark is unique in that Reclamation only operates in the 17 most western states, so this is the first time Iowa and Minnesota have benefited from a Reclamation project.

Landforms and topography vary significantly between our project on the plains and those of other Reclamation projects in more mountainous, arid, or rocky regions of the country. I am concerned that smaller projects like ours will simply be overlooked if the agency has to meet new mandates on natural infrastructure because what might work for natural infrastructure in Colorado, Utah, or other states in the west likely will not work for us on the plains. Further, with only 14% left in our project, depending how the new requirements are drafted and implemented, resources might have to be spent on engineering and compliance with any new natural infrastructure requirements, only further pushing out expected our completion date.

Finally, I am concerned that if Congress adds a new scope to Reclamation's mission, it will mean that long-standing projects like ours will take a back seat to funding for new natural infrastructure projects. For us, we originally thought it would take about 10 years to complete the water project. But here we are, 20 years after we were authorized, and we still are not complete, and at current funding levels, we anticipate another decade of work before we are complete. If Reclamation is suddenly trying to satisfy Congress' desire to have the agency focus on the new idea of natural infrastructure, what does that mean for projects like ours in terms of the commitment of the scare resources that Reclamation is appropriated every year? I fear it means it will take even more years than we expect to complete our project.

I close by reiterating that changes in the mission or scope of Reclamation and their expectations for how we complete our infrastructure project have the potential to significantly affect timelines for completion by reducing the amount of federal funds required for Reclamation-funded projects; one-size-fits-all natural infrastructure mandates won't work for all Reclamation projects; and an expansion of Reclamation's mission could mean existing projects are no longer prioritized for completion.

I want to thank the Chairman for holding this hearing today and the Ranking Member for inviting me to testify. I stand ready to continue to be a resource to the Committee as you explore what natural infrastructure requirements might mean to projects like ours.