

Tom Barcellos
On Behalf of Barcellos Farms, Lower Tule River Irrigation District
and the Family Farm Alliance

Testimony Before the Subcommittee on Water and Power
Committee on Natural Resources
United States House of Representatives

Oversight Hearing
on

“A Roadmap for Increasing our Water and Hydropower Supplies: The Need for New and Expanded Multi-Purpose Surface Storage Facilities”

October 29, 2013

Chairman McClintock, Ranking Member Napolitano and Members of the Subcommittee:

Thank you for the opportunity to appear before you to discuss the need for new water storage projects and examine regulatory and bureaucratic challenges that delay or halt the development of new water supply enhancement projects in California's Central Valley and the rest of the Western United States. My name is Tom Barcellos, and I am the owner of Barcellos Farms and T-Bar Dairy in Tipton, California and a partner in White Gold Dairy and LGT Harvesting. My dairy operation and custom farming business employs two of my son-in-laws in the family operations.

I serve on the board of directors for the Lower Tule River Irrigation District, who I am representing here today. I am also an alternate director on the board of the Friant Water Users Authority. Both the District and the Authority are members of the Family Farm Alliance, who I am also representing at today's hearing.

The Family Alliance advocates for family farmers, ranchers, irrigation districts, and allied industries in seventeen Western states. The Alliance is focused on one mission – To ensure the availability of reliable, affordable irrigation water supplies to Western farmers and ranchers.

Many of in Western agriculture have a strong water, soil and land conservation ethic. In fact, in 2006, I was named the 2006 Conservation Tillage Farmer Innovator by the University of California and USDA Natural Resources Conservation Service Conservation Tillage Workgroup. However, those of us familiar with water management know that increased water conservation and efficiency can help, but they are only part -- a small part -- of the solution. And buying and bullying water away from farmers isn't the solution either. Meeting the current and future water needs of the West will require a thoughtful combination of means, not the least of which is the creation of new storage.

Like many water users represented by the Family Farm Alliance, I rely upon a combination of surface and groundwater supplies, managed through a variety of local, state, and federal arrangements. Like me, many Western family farms and ranches of the semi-arid and arid West-- as well as the communities that they are intertwined with -- owe their existence, in large part, to the flood control safety and certainty provided by water stored and delivered by Bureau of Reclamation (Reclamation) and Corps of Engineers (Corps) projects.

The topic of this oversight hearing is tremendously important and immediately relevant to me and other California water users, and to farmers, ranchers and rural communities all over the West. I would like to start my testimony with an overview of the big-picture challenges Western farmers and ranchers face as they strive to feed our country and the appetite of a rapidly expanding world population. I will explain why it is preferable to develop new water infrastructure to protect our diminishing farm population over policies that encourage competing demands to transfer water away from agriculture. Certainty in Western Water policy is essential to the farmers and ranchers I represent, and that is why a suite of conservation, water transfers and other demand reduction mechanisms must be balanced with proactive and responsible development of new water infrastructure. This testimony will point out that typical Westerners

are strongly supportive of new projects, especially if those projects can minimize moving water away from farmers and ranchers. And finally, I will conclude with a discussion that suggests the proper role for the federal government to play when it comes to participating in new storage projects in these cash-strapped times.

Western Family Farmers and Ranchers Support Water Supply Enhancement Projects

Central Valley farmers and ranchers and others throughout the West rely on traditional water and power infrastructure to deliver irrigation supplies. Many of us have been advocating for new storage for decades, and we have provided specific recommendations to Congress and the White House on how to streamline restrictive federal regulations to make these projects happen. Water conservation and water transfers are important tools for improving management of increasingly scarce water resources. However, these demand-management actions must be balanced with supply enhancement measures that provide the proper mix of solutions for the varying specific circumstances in the West.

Supply enhancement should include rehabilitation of existing facilities and construction of new infrastructure. Rehabilitation measures should focus on maximizing the conservation effort through increased delivery efficiencies, construction of re-regulation reservoirs to minimize operational waste, and construction of new dams and reservoirs in watersheds with inadequate storage capacity to increase beneficial use and provide operational flexibility. Additional groundwater supplies should also be developed, but in a manner where groundwater use falls within the safe yield or recharge parameters of the aquifer. Conjunctive management of surface water and groundwater - a key component of water management where I live - should be encouraged.

We know there are opportunities to develop new projects in the Central Valley and elsewhere. The Family Farm Alliance in 2005 launched a project that pulled together a master data base of potential water supply enhancement projects from throughout the West. The Alliance's goal was to gather together ideas from around the West and put them into one master data base. That effort showed there are some very feasible new surface storage projects, in the Central Valley and elsewhere. The benefits from these projects include providing certainty for rural family farms and ranches, additional flows and habitat for fish, and cleaner water and energy. That same year, the Bureau of Reclamation submitted a report to Congress that identified nearly one thousand potential hydroelectric and water supply projects in the Western U.S. that have been studied, but not constructed. The 2005 Alliance and Reclamation efforts show that, in most areas of the West, water resources are available to be developed. Environmentally-safe and cost-effective projects exist. They await the vision and leadership needed to move them to implementation.

The Uncertain Nature of California's Central Valley Water Deliveries

The increasingly complex federal regulatory structure, and the increasingly expensive and protracted processes which this structure encourages, makes obtaining and sustaining water supplies increasingly difficult on both agricultural and municipal users alike. For the farmer or

rancher, the current water allocation and reallocation schemes often create economic conditions, a sense of disillusionment and resignation, and uncertainty. Nowhere is the uncertainty of water supplies greater than where I live, in California's San Joaquin Valley.

Severe water shortages caused by the combination of federal fisheries restrictions and drought on water supplies to the western side of the Valley forced hundreds of thousands of farmland to be fallowed in 2009. University of California experts estimate that the combined effects of these restrictions on the water supply have cost Central Valley agriculture nearly \$1 billion in lost income and more than 20,000 lost jobs. In 2009, water users that depend on the federal Central Valley Project (CVP) received only 10 percent of the water they contracted to receive, the lowest allocation in the history of the project. Without these federal restrictions, the allocation would have been 30 percent. The U.S. Department of the Interior provided allocation of water for south-of-Delta CVP agricultural water service contractors in 2010 to a whopping 25 percent of their contract. This year, that same allocation was 20 percent of their contract. Next year, even with average hydrologic conditions this winter, those water users face a ZERO allocation, and implementation of federal laws such as the Endangered Species Act and Clean Water Act is a primary reason for this grim scenario.

The Importance of Protecting and Enhancing Reliable Agricultural Water Supplies

Agriculture holds the most senior water rights in the West and is considered a likely source of water to meet growing municipal and environmental demands. Unfortunately, severing water from agricultural land makes the land less productive. Period. Policy makers should be wary of putting additional, focused emphasis on agricultural water transfers, particularly in the context of growing domestic and global food security and scarcity concerns.

Two years ago, the Global Harvest Initiative (GHI) released its Global Agricultural Productivity (GAP) Report, which measures ongoing progress in achieving the goal of sustainably doubling agricultural output by 2050. For the first time, the GAP Report quantifies the difference between the current rate of agricultural productivity growth and the pace required to meet future world food needs. The report predicts that doubling agricultural output by 2050 requires increasing the rate of productivity growth to at least 1.75 percent annually from the current 1.4 percent growth rate, a 25 percent annual increase.

The Family Farm Alliance and the Irrigation Association recently completed a white paper that was specifically drafted to be read by policy makers seeking to better understand the economic impact of Western irrigated agriculture. This report stems from an earlier effort, prompted in 2012 to address strategic policy questions about water resources economics raised by senior staff from the U.S. Environmental Protection Agency. The White Paper -which was peer-reviewed by the Farm Foundation - summarizes basic economic information current to irrigated agriculture and quantifies what many policy makers view as a critical indicator of economic significance - irrigated agriculture's impact to annual household income in the Western U.S. The full magnitude of the *Irrigated Agriculture Industry's* contribution to the economy is rarely, if ever, quantified in terms of total household income for the Western region. Real household income is

the contribution to actual dollars in the pocket. It takes the form of wages, salaries, and products sold, both directly and indirectly.

According to the Paper, the annual direct household income derived from the irrigated agriculture industry - which is made up of direct irrigated crop production, agricultural services, and the food processing and packaging sectors - is estimated at \$64 billion in the western U.S. region. After further analysis of the total direct, indirect and deduced impacts, researchers determined the total household income impact to be an estimated \$156 billion annually (based on 2011 commodity prices). The report also clearly shows that the affordability of U.S. household food purchases affecting discretionary income, over time, have contributed substantially to the national economy, since it allows more household income to be devoted to consumer goods and services.

These issues and other growing domestic and global food security and scarcity concerns must be considered as federal water policies are developed and implemented. We cannot continue to downplay or ignore the negative implications of reallocating more agricultural water supplies to meet new urban, energy, and environmental water demands. It is clear that greater recognition should be given to Western irrigated agriculture's direct contribution to the U.S. economy, and that water policy actions are integral to the broader economy's well-being. America's low-cost access to safe, high-quality food and fiber is critically important and is made available in large part by Western irrigated agriculture.

We can find solutions to water conflicts that protect our ability to feed ourselves, export food to others, and continue to lead the world in agricultural production, all the while finding ways to accommodate the water supply needs of continued urban growth, energy needs, recreational demands, and environmental requirements. Fair, balanced, and long lasting solutions will not come easily. They will require visionary leadership and a firm commitment to a sensible, workable policy. And that policy must include an emphasis on developing new storage projects.

Demand Management vs. Supply Enhancement

We often see bold general statements of water transfer proponents about the potential for agricultural water use efficiency to free up water that can be used for in-stream flows. However, those statements are usually followed up by a list of the factors that make it a difficult proposition. Those include re-use deficiencies when water is removed upstream in the system, water rights that protect water users from water being taken away if they conserve water, and transactions that move water between presumably willing buyers and willing sellers, but have the effect of taking land out of production. All of those issues are dealt with directly in a report developed by the Center for Irrigation Technology (CIT) at Fresno State. The report, "Agricultural Water Use in California: A 2011 Update", refutes some long-standing beliefs about agricultural water usage and confirms others. The full report is available at <http://www.californiawater.org>. The CIT report and others have reached a similar conclusion: the only large potential for moving water from agriculture to other uses will come from fallowing large swaths of farmland.

If we don't find a way to restore water supply reliability for irrigated agriculture through a combination of new infrastructure, other supply enhancement efforts, and demand management – our country's ability to feed and clothe itself and the world will be jeopardized.

Water conservation (i.e. “demand management”) is often seen as the solution to water supply issues. In fact, in the past fifteen years, tremendous agricultural conservation efforts have been undertaken throughout the West, including widespread installation of high technology drip irrigation systems in the Central Valley, where I farm. On the other hand, relatively little progress has been made on the “supply management” end of things. While development has occurred on conjunctive management and groundwater banking projects, development of new surface storage projects have virtually ground to a halt in the past 30 years, especially if any sort of federal nexus exists for proposed projects.

Western farmers and ranchers have long taken a progressive approach to water management. Farmers are already investing in upgraded irrigation systems. For example, between 2003 and 2010 San Joaquin Valley farmers invested almost \$2.2 billion in upgraded irrigation systems on over 1.8 million acres of farmland. Those investments helped improve water use efficiency and food production and helped fuel portions of the rural economy at a time when water supply cuts were increasing unemployment. And, these sorts of efficient farm practices have led to increased economic value and production. A report by the California Department of Water Resources¹ shows that the value of California farm products doubled during the 40-year period from 1967 and 2007 while at the same time, applied water decreased by 14 percent. Other research by the California Farm Water Coalition showed that the volume of farm production between 1967 and 2000 rose approximately 89 percent with only a two percent increase in applied water per acre. These indicators support assertions that farmers in general are improving water use efficiency in significant ways over time.

While conservation is surely a tool that can assist in overcoming water supply problems, it cannot be viewed as the single answer to water shortages. For example, conserved water cannot always realistically be applied to instream uses, as it will more likely be put to beneficial use by the next downstream appropriator or held in carryover storage for the following irrigation season. Also, in urban areas, further tightening of water conservation measures, in essence, “hardens” those urban demands. Some degree of flexibility must be embedded in urban water conservation programs to allow these areas to employ more restrictive water conservation measures during drought periods. Without having the ability to save water during drought periods via drought conservation measures, the resulting hardened demand will force urban water managers to more quickly look to secure water from other areas; namely, agriculture and the environment. So, clearly, mandated or "one size fits all" conservation programs are doomed to failure in light of the drastically different circumstances of water users across the West.

¹ The DWR report is available at: www.farmwater.org/DWR_Econ_Efficiency.pdf

Farmers and ranchers will continue to do all they can to save water. However, water saving cannot be expanded indefinitely without reducing acreage in production. At some point, the growing water demands of the West – coupled with the omnipresent possibility of drought – must be met. The members of the Subcommittee must understand that in the West, the water needed to meet these demands will either come from developing new water supplies....or it will be taken from agriculture.

Political Support for New Water Projects

Colorado State University (CSU) in 2009 completed a West-wide (17 states) survey that found – throughout the West - strong citizen support for water going to farmers and also strong support for building new water infrastructure. The report provides very interesting findings that underscore Western householders support for water storage projects and irrigation over environmental and recreational water needs in times of shortage. Three focus groups were used to develop a multi-faceted questionnaire. An Email invitation to an internet survey yielded 6,250 municipal household respondents in 17 Western states. Among Western respondents to the CSU poll, the most popular strategies for meeting long-term needs are to build reservoirs and reuse water, whether it is on private lawns or public landscapes. The least popular alternative is to buy water from farmers. When addressing long-term scarcity, respondents preferred reservoir construction and reuse systems over other acquisitions and, in particular, are not in favor of water transfers from agriculture.

These findings fly in the face of arguments made by some environmental activist groups and editorial boards of certain Western urban newspapers, who insist that the public shares their view that dams are outdated, monstrous aberrations that should be destroyed. The findings in this report should further convince our political leaders to ignore the naysayers and stand up for farming and new water supply enhancement projects.

Appropriate Role of the Federal Government in These Endeavors

Federal water agencies' (like the Bureau of Reclamation) once active role in building new dams and reservoirs has diminished significantly over the last three decades. Construction of large dams, in general, has become virtually impossible in recent decades due to new societal environmental priorities, and related passage of numerous federal laws that create litigious uncertainty and tremendous regulatory obstacles for proponents of new dams. Given this current political reality, the federal government should instead adopt a policy of supporting new efforts to enhance water supplies and encouraging state and local interests to take the lead in the formulation of those efforts. Local problems call for local solutions, and local interests have shown enormous creativity in designing creative water development projects, as I will discuss later in this testimony.

Even before the advent of the challenging economic times we now live in, we witnessed a progressive cutback in federal water supply funding. We understand that those who benefit from new water supply infrastructure should help pay for that infrastructure. However, policy makers

need to understand that, for the most part, new water supplies are not being proposed to meet the expanding needs of agriculture. On the contrary, we are seeing a move in the opposite direction, where agricultural lands are going out of production and being lost to expanding urban development. Water that was originally established for agriculture and the communities it supports is now being reallocated to meet new growing urban and environmental water demands. The growing number of urban water users in the West and the public interest served through improved environmental water supplies should naturally be part of equitable financing schemes.

The President and Congress will prioritize whatever federal funds are available to meet existing and future needs. As for the rest of the capital, it must come either from state and local governments or from the private sector. If the federal government cannot fund the required investments, it should take meaningful steps to provide incentives for non-federal entities to fill the void, and remove barriers to the new ways of doing business that will be required. In this time of tight budgets and huge overseas spending, the federal government must adopt a policy of supporting new projects to enhance water supplies while encouraging state and local interests to take the lead in the implementation of those projects.

Problems with Existing Regulations and Permitting of New Projects

The often slow and cumbersome federal regulatory process is a major obstacle to realization of projects and actions that could enhance Western water supplies. Here are just a few reasons why Reclamation and other federal agencies (particularly fisheries agencies) need to find ways to streamline regulations and permitting requirements:

- ☛ Planning opportunities and purposes for which a project may be permitted are restricted, which narrows the planning horizon, and makes it impossible to plan for projects with long-term benefits;
- ☛ The alternatives proposed for assessment by the National Environmental Protection Act regulators are frequently inappropriate, unrealistic, difficult-to-implement, and often in conflict with state law. The permitting process stalls, and costs increase to the project applicant;
- ☛ Federal regulators take a long time making decisions on projects, and at times they seem unable to even make decisions. As a result, projects are postponed and money is wasted as additional studies and analyses are conducted;
- ☛ Applicants end up spending tremendous amounts of money for potentially uncertain mitigation;
- ☛ Rather than doing things concurrently, conflicting agency permit requirements can add time to the project planning and implementation process and increases greatly the potential for last-minute surprises that could endanger the proposal or require significant additional work.

We pledge to continue our work with federal agencies and other interested parties to build a consensus for improving the regulatory process.

Three General Recommendations

It is clear that the existing procedures for developing additional supplies need to be revised to make project approval less burdensome. By the time project applicants approach federal agencies for authorization to construct multi-million dollar projects, they have already invested extensive resources toward analyzing project alternatives to determine which project is best suited to their budgetary constraints. However, current procedure dictates that federal agencies formulate another list of project alternatives which the applicant must assess, comparing potential impacts with the preferred alternative. These alternatives often conflict with state law. Opportunities should be explored to expedite this process -perhaps through a “one-stop permitting shop” approach - and reduce the costs to the project applicant.

Improved and accessible mitigation banking would also help matters in some areas. Under such an approach, applicants faced with excessive mitigation costs would be allowed to pay a reasonable sum per acre to a regional mitigation bank or set aside mitigation lands as a condition to implementation of their project. The federal government should encourage the creation and more widespread use of public and private mitigation banks.

Most water supply entities are willing to make investments to meet human and environmental needs, but they need to know up front that the federal government will honor its part of the bargain. This means that the federal government should enter into meaningful contracts that protect the expectations of the non-federal parties, and concepts like the “No Surprises Rule” under the Endangered Species Act must be validated and expanded.

Benefits of New Storage in the San Joaquin Valley

Local and state interests have shown enormous creativity in designing creative water development projects. For example, the Tule River Success Reservoir Enlargement Project (SREP) is a Corps of Engineers flood control project that involves the raising of the existing spillway of Success Dam 10 feet and lengthening the spillway 165 feet to obtain 28,000 acre-feet of additional flood control and water conservation storage space. The enlargement project increases the storage space in Success Reservoir by 34 percent. The additional storage space improves the flood protection for the City of Porterville (45,000 population) and the highly developed agricultural lands from a return period flood event occurring once in 47 years to a return period flood event occurring once in 100 years. In other words, the proposed project more than doubles the flood protection for the City of Porterville and downstream lands.

The Preconstruction Engineering and Design (PED) phase of the SREP by the Corps of Engineers, at a cost of \$2 million, was scheduled to be complete in 2003, but remains in progress as of this date. The Congress and California State Legislature have appropriated funds for construction of this project in the past decade. The local non-federal sponsors, composed of the City of Porterville, the Tule River Association, the Tulare Flood Control District, the County of Kings and the Tulare Lake Basin Water Storage District, have agreed upon an apportionment of

the local non-federal cost share and provide the funds as required for the design and construction of the SREP.

If SREP were in place now, we would have a valuable management tool that would better help us address the water resources challenges we face in the southern San Joaquin Valley. The conjunctive management of surface and groundwater - in its broadest definition, the coordinated and combined use of surface water and groundwater to increase the available water supply of a region and improve the reliability of that supply - is an essential component of water use where I farm. Storage of surface water is a vital part of utilizing water conjunctively; you cannot manage water conjunctively with groundwater recharge basins, alone. In recent years, farmers in the Valley have been forced to do more with less water, in large part due to recent reallocations of water away from agriculture and towards the perceived needs of fish protected by the Endangered Species Act (ESA). Having the enhanced ability to store surplus water derived in wet years for use in dry years and those times when environmental demands further restrict our available supplies provides additional management flexibility and multiple benefits.

No better example of what new storage capacity provides can be seen in the watershed directly north of where I farm, where the Lake Kaweah Enlargement/Terminus Dam Spillway has already demonstrated its effectiveness. Lake Kaweah was originally created in 1962 with the completion of Terminus Dam. Built by the U.S. Army Corp of Engineers in cooperation with local sponsors, the main Dam is 250 feet high, 2,375 feet long and was designed to provide a 60-year level of flood protection. After tremendous flooding in 1955 wreaked over \$20 million in flood damage to downstream areas, the cost/benefit ratio of building a dam became too great to ignore any longer. The dam was built for approximately \$24 million. Ever since, Lake Kaweah has been a key to the urban and agricultural development that has occurred in the Kaweah Basin area. Its three main functions include:

- Flood control for over 300,000 citizens & approx. 500,000 acres of land.
- Storage that provides irrigation water for much of one the most important agricultural counties in the country.
- Improved water conservation options in a basin where the groundwater is severely over-drafted.

Even though the dam has been extremely beneficial, over ten additional flooding events have occurred since 1962, which led to the planning and eventual construction of the new Terminus Dam Spillway. This construction raised the lake level by 21 feet, increasing the storage capacity by about 1/3 to store a total of 185,600 acre-feet. The enlargement project has had a ripple effect, as well. Not only does it provide for more flood control and increased water storage, but it also has benefitted numerous road and bridge improvements in the vicinity of the lake. Further, this project has generated many environmental benefits, including flora and fauna areas that cover over 5,700 acres.

It is very important to note that this project took over 20 years to complete, and that was without any environmental opposition. That should provide the Subcommittee with a sense of what a

huge undertaking such a project like this is. What made this project possible was the incredible support - via coordination and financial resources - between the federal, state and local entities who participated in this. It is difficult to envision a project getting built today without it. Success simply will not occur if all three levels - local, state and federal - do not step-up and commit to the long haul.

Local interests believe that completion of SREP will provide similar, measurable benefits to many sectors. We continue to work with the Corps of Engineers to collaboratively address dam overtopping, seismic and seepage concerns and move this project forward to construction.

Conclusion

We believe that it is possible to meet the needs of cities and the environment in a changing climate without sacrificing Western irrigated agriculture. To achieve that goal, we must expand the water supply in the West. There must be more water stored and available to farms and cities. Maintaining the status quo simply isn't sustainable in the face of unstoppable population growth, diminishing snow pack, increased water consumption to support domestic energy, and increased environmental demands. Modern, integrated water storage and distribution systems can provide tremendous physical and economic flexibility to address climate transformation and population growth. However, this flexibility is limited by legal, regulatory, or other institutional constraints, which can take longer to address than actually constructing the physical infrastructure.

The organizations I represent want to work with the Administration, Congress, and other interested parties to build a consensus for improving the regulatory process. The real reason we continue to push for improved water storage and conveyance infrastructure is not to support continued expansion of agricultural water demand (which is NOT happening in most places). Instead, we seek to mitigate for the water that has been reallocated away from agriculture towards growing urban, power, environmental and recreational demands in recent decades. If we don't find a way to restore water supply reliability for irrigated agriculture through a combination of new infrastructure, other supply enhancement efforts, and demand management – our country's ability to feed and clothe itself and the world will be jeopardized.

I close this testimony with a final reference to the dire situation that is facing California's San Joaquin Valley now, and the potential disaster it faces next year. With normal hydrology this winter, and with minimal to moderate water being dedicated to ESA-"protected" fish, water managers are expecting a 0-10% water allocation for 2014 under the existing ESA paradigm that has been imposed on the California Bay-Delta. That translates to 300,000-500,000 acres of prime Central Valley Project irrigated farm land - the fruit and vegetable basket of America - laying fallow next year.

My fellow farmers and I in the San Joaquin Valley are businessmen, and those of us that grow permanent crops must make 30-year decisions to plan for land use, plantings, debt, and infrastructure in order to help produce food for a global exploding population. The uncertainty to their water supply - in large part caused by litigation and federal implementation of antiquated

laws - makes long-term planning impossible, as they try their best to stay in business. And, remarkably, the water cutbacks that have already occurred are not increasing the populations of salmon and smelt. Further cutbacks will only serve to harm agriculture and other water users. San Joaquin Valley farmers cannot afford any more cutbacks in their water deliveries, which will also add to unemployment that already has reached Depression-era levels in agricultural towns up and down the Valley.

There is actually considerable discretion in HOW federal laws like the ESA are implemented. Given the significant scientific uncertainty with many of these species and the ecosystems in which they reside and the failure of the ESA regulators to look at the host of stressors affecting them, the agencies need to step back and rethink the consequences of their actions. Even though the ESA does not require the human consequences of their decisions to be considered, it does not prohibit such consideration. We need to clearly determine how much new water is needed for new uses, and then find ways to support those uses in a sustainable way that doesn't hurt irrigated agriculture. Certainly, the proper use of discretion by federal agencies as they administer federal laws is critical towards this end. However, new infrastructure is another such way; the construction of additional water supply and conveyance infrastructure may allow more efficient management and enable greater cooperation between traditional and non-traditional water users.

Western irrigated agriculture is a strategic national resource, and the role of the federal government in the 21st Century should be to protect and enhance that resource. Federal agencies have a role to play in infrastructure development, but interference with or duplication of state authorities must be minimized.

Thank you for this opportunity to present my testimony today.