

**Testimony of Patrick O’Toole
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**Before the
Energy and Natural Resources Committee
United States Senate
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Regarding S. 2156, the SECURE Water Act of 2007

Introduction

Good afternoon, Chairman Bingaman, Ranking Member Domenici, and Committee Members. My name is Patrick O’Toole, and I serve as the president of the Family Farm Alliance (Alliance).

The Alliance is a grassroots organization of family farmers, ranchers, irrigation districts and allied industries in 16 Western states. The Alliance is focused on one mission: To ensure the availability of reliable, affordable irrigation water supplies to Western farmers and ranchers. We are also committed to the fundamental proposition that Western irrigated agriculture must be preserved and protected for a host of economic, sociological, environmental and national security reasons – many of which are often overlooked in the context of other policy decisions.

My family operates a cattle, sheep and hay ranch in the Little Snake River Valley on the Wyoming-Colorado border. I am a former member of Wyoming’s House of Representatives and I served on the federal government’s Western Water Policy Review Advisory Commission in the late 1990’s.

I am honored to be here today and grateful that Senators Bingaman, Domenici, Cantwell, and Johnson have introduced S. 2156, The SECURE Water Act. This legislation is not only important to the Alliance; it also is immediately relevant to me and other Wyoming water users, and to farmers, ranchers and small communities all over the West. We were pleased to see that this bill contains some provisions that are very close to recommendations we provided in my testimony before the Water and Power Subcommittee last June.

Alliance Involvement with Climate Change Issues

The Family Farm Alliance Board of Directors at its 19th Annual Meeting in Las Vegas last February established a subcommittee to develop a white paper that addresses the

important issue of climate change, its possible impact on Western water supplies and irrigated agriculture, and recommendations on how to plan and provide stewardship for this change. The report was prepared by a Family Farm Alliance climate change subcommittee, our Advisory Committee, and water resources experts from around the West. That document - titled "Water Supply in a Changing Climate: The Perspective of Family Farmers and Ranchers in the Irrigated West"- was released in early September. If you have not already received a copy of our report, we have additional copies that we can make available to you.

Our report shows that climate change could further strain fresh water supplies in the American West. We must begin to plan for that now, and not wait until we are forced to make decisions during a crisis.

S. 2156 Represents a Positive Step Towards Addressing Climate Change Impacts to Western Water Resources

Western water supplies are already inadequate to the demands of agriculture, urban growth and environmental enhancement. Global climate change, we're told, will further reduce those supplies. Working with farmers has made us incredibly sensitive to the big picture ramifications facing the future of Western agriculture, and the critical role reliable water supplies play in that big picture. We must immediately begin to address the critical challenges we face. A practical, prioritized approach to addressing these challenges is possible, and essential. We believe that S. 2156 takes a positive step towards addressing two of the Alliance's key recommendations.

1. S. 2156 will promote coordination of federal agencies and resources in assessing, monitoring, and planning for future water supply impacts and trends

In our view, S. 2156 will promote coordination of federal agencies and resources in assessing, monitoring, and planning for future water supply impacts and trends - an important first step in developing an adaptive approach to climate change and water. The Alliance supports this approach as embodied in S. 2156 because it provides additional authorities for federal agencies to offer grants and agreements for demonstration, research, or methodology development in this coordinative effort. Such partnerships with local water authorities, universities, and local governments are key to providing localized solutions to vexing water supply problems.

Our country has tremendous, but limited, resources available to fix our problems, so we must prioritize and sequence our actions, including those authorized or facilitated by S. 2156.

The Alliance recommends that an initial priority research item carried out under S. 2156 be a comprehensive quantification of West-wide changes in climate change-driven

streamflow. This should be followed by quantification of the amount of additional above- and below-ground reservoir storage, conservation targets, etc. required to re-regulate the anticipated hydrologic regime changes. To optimize water management for beneficial use, researchers should look at scenarios where storage is spaced through the drainage. Potential storage sites should be located at high and low elevations to regulate and subsequently re-regulate the water supply to maximize beneficial use. A study of this type would quickly illustrate to policy makers the need to start modernizing our water infrastructure.

The potential water impacts associated with use of alternative fuels must also be studied. Throughout the West, we are seeing proposals to build plants to make ethanol, another “answer” that may (or may not) lower greenhouse gas emissions. An April 2007 *Sacramento Bee* editorial provides a reality check on how much water it would take to grow all the corn required to meet California’s goal of producing a billion gallons of ethanol a year. According to the *Bee*’s calculations, that’s about 2.5 trillion gallons of water for 1 billion gallons of ethanol, which is more than all the water from the Sacramento-San Joaquin Delta that now goes to Southern California and valley farms. Because there is only so much water for agriculture in California and other Western states, this means that some other existing crops will not be grown, thus furthering our dependence on imported food sources.

Another growing demand that will be placed on Western water resources is driven by power requirements. The total water consumed by electric utilities accounts for 20 percent of all the nonfarm water consumed in the United States. By 2030, utilities could account for up to 60 percent of the nonfarm water, to meet the water needs required for cooling and pollutant scrubbing. This new demand will likely have the most serious impacts in fast-growing regions of the U.S., such as the Southwest. Even without warming climate conditions, continued growth in these regions will put the squeeze on both water and power use. When you throw in climate change considerations, the projections look worse.

Studies of these types of issues lend themselves well to a private-public partnership that would add non-governmental farming organizations, state agencies and academic institutions to a team of federal agencies including the expertise found within the Natural Resources Conservation Service, Bureau of Reclamation, and U.S. Geological Survey. For example, the Family Farm Alliance has partnered with Colorado State University and recently developed a proposal to the USDA for a project that would assess public attitudes and perceptions regarding agricultural water use in the West.

2. S. 2156 will provide water managers with highly beneficial “on-the-ground” solutions to infrastructure problems exacerbated by global climate change.

S. 2156 authorizes the Secretary of the Interior to provide cost-shared grants for planning, designing, or constructing improvements to water infrastructure that conserve water, provide management improvements, and promote increased efficiencies. These grants will provide water managers with highly beneficial “on-the-ground” solutions to infrastructure problems exacerbated by global climate change. These projects provide for improved water management, enhanced supplies, water conservation, and greater efficiencies, thereby stretching dwindling water supplies.

Temporary water transfers, conservation, recycling, and desalination efforts must continue. 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 actions should include rehabilitation of existing facilities and construction of new infrastructure. Many of the West’s Reclamation projects are nearly a century old and many are badly in need of repair and/or modernizing. 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 and groundwater supplies should be encouraged. Installation of additional stream gauges, water meters, groundwater recharge projects to employ during times of high surface flow, groundwater monitoring wells and better estimates of consumptive use are of paramount importance for the equitable management of available water supplies.

Many water projects are ready to be developed in the West (see Family Farm Alliance, 2005; also U.S. Bureau of Reclamation, 2005). While conservation and recycling programs have done a tremendous job of meeting new growth, only a small amount of new water storage capacity has been developed in the past 30 years. 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. It’s time to start implementing the water infrastructure needed to cope with a changing climate, meet the needs of a burgeoning population, and support a healthy agricultural base in the West.

3. S. 2156 will improve streamflow measurement and data collection efforts.

Improved understanding and knowledge of existing water supply inventories, the interrelationships between surface and groundwater resources, and the impacts of predicted climate change on watersheds will be critical to water managers and at the local, regional, state, and national levels in adapting to and managing for climate change.

Most of the recent reports and studies on climate change and water supply impacts suggest that federal agencies must focus on vulnerabilities and improve knowledge-based data collection activities. Current predictive models for future climate change scenarios, while useful in illustrating general areas of impact, are not particularly accurate at the local or regional scale. We support provisions in S. 2156 to improvement in streamflow measurement and data collection efforts. We also support the development of more cost-effective methodologies in accomplishing these goals.

Suggestions to Improve S. 2156

The membership of the Family Farm Alliance fully supports S. 2156, and encourages its enactment. The Alliance, however, believes that there are additional tools that are not included within the provisions of S. 2156 and that should be made available in order for western water managers and agricultural producers to adequately deal with the effects of global climate change.

1. S. 2156 Should Encourage the Federal Government to Partner with States on Groundwater Monitoring

S. 2156 directs the Secretary of the Interior to develop a systematic groundwater monitoring program for each major aquifer system located in the United States. We believe this can best be accomplished in partnership with the states and their respective water resource agencies. While we understand the utility of a national perspective in understanding the status of groundwater resources in the U.S. and in setting a standard criteria for comparative purposes, we also recognize the important work the states have already accomplished in characterizing these resources, and partnering with the states will ensure the federal government is not “reinventing the wheel” in implementing this provision of S. 2156. The bill only requires “consultation and coordination” with state and local water resource agencies. We believe a stronger bond between the states and the federal government through partnerships in this effort is a better approach and will result in a better product. Any “partnering” should rely heavily on the actual experience of those actively using groundwater supplies.

2. S. 2156 Should Strongly Encourage the Federal Government to Partner with States on Water Use and Availability Assessments

We have similar concerns with the provisions calling for the development of a water use and availability assessment program. Without the complete involvement of state water resource agencies, this program will not be successful. We are supportive of the grant authorities provided through S. 2156 for implementation of this program, but more assertive language with regard to Federal consultation is needed to attract state participation and cooperation.

We appreciate and support the provisions of S. 2156 requiring the federal agencies to comply with state water laws and compacts.

Other Needs

Outside the scope of S. 2156, we will continue to advocate for solutions that will mitigate for climate change impacts to Western water resources, as well as ensuring the availability of reliable, affordable irrigation supplies. Critical problems remain to be solved.

1. Create Flexible Financing Options to Help Water Managers Proactively Deal with Aging Infrastructure, Modernization and Climate Impacts to Western Water Supplies

Such tools include new, innovative, federally-enhanced financing instruments, such as expanded federal loan guarantees, tax-credit bonds, private equity bonds, and municipal bonds to finance aging federal and local infrastructure rehabilitation, modernization, and technological improvements – especially where such financial tools are currently not available.

Some of these financing options are already authorized and await implementation by the responsible agencies. In the last Congress, this Committee wrote rural water supply project legislation that authorized the Secretary of the Interior to provide federal loan guarantees to local water agencies to help them meet their obligations to pay for costs of rehabilitating and improving aging Bureau of Reclamation facilities. Congress enacted the Committee loan guarantee provisions, yet they have not been implemented. Congressional inquiry and oversight might be necessary in order to assist the responsible federal agencies in achieving the goals of the loan guarantee program and to help western water managers proactively deal with an aging water infrastructure and global climate impacts to western water supplies.

2. Streamline the Regulatory Permitting Process

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 often slow and cumbersome federal regulatory process is a major obstacle to realization of projects and actions that could enhance Western water supplies.

3. Make the U.S. Self-Sufficient in Food Production

Remarkably absent from the newly-ignited dialogue about food safety is a recognition of the importance of a secure and sustainable domestic food supply. While much is made of the need to end our reliance on foreign energy sources, nobody is talking about food independence. In the big picture, a national response to climate change should include as one of its goals self-sufficiency in food production. It is time for our national leaders to stand up and focus on improving the security, stability, and economic aspects of domestic food production so that our food remains readily available, ample, affordable, and safe.

4. Protect Farmland

New research suggests that irrigation has kept croplands cool, essentially countering rising temperatures caused by greenhouse gas emissions over the last half century. Crops also turn carbon dioxide into oxygen. In addition to a multitude of other benefits (economic, security, habitat and open spaces, to name a few), our diminishing farmland needs to be protected. Federal funds and other money should also be authorized to help local governments protect farmland, analyze ways to keep farmland in production, set up grant programs for local governments and provide technical assistance to farmers. Congress should consider the option to encourage states to lease development rights from farmers to buffer their farmland.

CONCLUSION

The impacts of climate change on sensitive Western water supplies, while not totally understood today, will significantly challenge all water users in the West – municipal, industrial, agricultural, and environmental – in the near future. Being prepared requires investment and adaptation in the management of Western water supplies. To meet these challenges our efforts need to begin today – before crises, before conflict, and before there are winners and losers. S. 2156 is a very positive step in the right direction, providing much needed opportunities for partnerships with federal agencies; providing direction for federal policymakers in dealing with the impacts of climate change on our precious water supplies; and providing some innovative new tools that will be necessary

in order for the federal government to proactively work with local and state water authorities on real solutions.

We stand ready to assist you, Mr. Chairman, and the Members of this Committee in improving upon, and enacting this legislation so important to all our communities in the face of such an uncertain and challenging future. We must emphasize, however, that we are facing water problems right now. Legislation, water transfers and data collection alone will not resolve these problems. The amount of water on the planet remains the same. Only the infrastructure to conserve, reuse, store, treat, manage and convey water to where and when it is needed, at the quality and quantity needed, will resolve these problems and avoid even more severe consequences that loom on the horizon.

Thank you for the opportunity to testify before this Committee today. I would be happy to answer any questions you might have.