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Committee on Natural Resources
United States House of Representatives

Oversight Hearing
on
"Water for Our Future and Job Creation: Examining Regulatory and Bureaucratic Barriers to New Storage Projects."

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

Thank you for the opportunity to appear before you to examine regulatory and bureaucratic challenges that delay or halt the development of new water supply enhancement projects in the Western United States. My name is Patrick O'Toole, and I serve as the president of the Family Farm Alliance. The 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.

Water users represented by the Family Farm Alliance use a combination of surface and groundwater supplies, managed through a variety of local, state, and federal arrangements. For the most part, however, our members receive their primary irrigation water supplies from the Bureau of Reclamation (Reclamation). In essence, we are Reclamation's customers. 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 certainty provided by water stored and delivered by Reclamation projects.

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 currently serve on the Advisory Committee for AGree, a new initiative that brings together a diverse group of interests to transform U.S. food and agriculture policy so that we can meet the challenges of the future. I also served over the past two years on a Blue Ribbon Panel intended to provide leadership for a project to support the development of the Natural Resource Conservation Service's (NRCS) Program and Policy Statement as a part of the process mandated by the Resource Conservation Act (RCA).

The topic of this oversight hearing is not only tremendously important to the Family Farm Alliance, it also is immediately relevant to me and other Wyoming 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 acknowledge the environmental impacts that can accompany new storage projects, but also 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– particularly the Bureau of Reclamation – when it comes to participating in new storage projects in these cash-strapped times.

Western Family Farmers and Ranchers Support Water Supply Enhancement Projects

Family Farm Alliance members rely on traditional water and power infrastructure to deliver irrigation supplies. Our membership has been advocating for new storage for over twenty years, 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, our members believe 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 and groundwater supplies should be encouraged.

The Board of Directors of the Family Farm Alliance in 2005 launched an aggressive and forward looking project that pulled together a master data base of potential water supply enhancement projects from throughout the West. Our goal was to gather together ideas from around the West and put them into one master data base. The types of projects contained in the resulting Western Water Supply Enhancement Study database are not imposing dams like China's Three Gorges project. Instead, they are supply enhancement projects that range from canal lining and piping, to reconstruction of existing dams, to integrated resource plans. There are also some very feasible new surface storage projects. 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.

Along with basic information included on a CD-ROM, the database that was generated from the compilation of the survey has a Global Information System (GIS) element and includes pictures, maps and a description of up to 500 words for each project or proposal. GIS format technology is embedded that permits viewers to see a map of 17 Western states and then "drill down" to see map details of a project area.

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.

Right now, we are in danger of losing a generation of farmers.

Nationally, the median age of active farmers in America has never been higher, with the percentage of farmers under 50-years-old continuing to plummet. More than half of today's farmers are aged between 45 and 64, and only 6 percent of our farmers are younger than 35.

Further, the number of farms is declining throughout the West. USDA attributes the decline in the number of farms and land in farms to a continuing consolidation in farming operations and diversion of agricultural land to nonagricultural uses.

Meanwhile, Americans are paying a substantially lower amount of their disposable income on food. According to the World Bank, families in 28 other high-income countries pay 10.2 percent of their disposable income on food compared to 6.2 percent for families living in the United States. For the average American that's a difference of $3,820 per year and represents real dollars that are available to purchase consumer goods other than food. A 2011 report by Cardno-ENTRIX examined the relative affordability of food in the U.S. as compared to 28 other high-income countries. That report found, on a percentage basis, other high-income countries spend about 64 percent more in disposable income on food and non-alcoholic beverages compared to the U.S.

At a time when average Americans are feeling the pinch in their pocket books, the foundation of our country's ability to provide safe and affordable food and fiber is at risk. Ironically, it is because Western irrigated agriculture has been so adaptive and successful at providing plentiful, safe and affordable food that it is now jeopardized – nobody believes there can be a problem. The last Americans to experience food shortages are members of the Greatest Generation and their parents. For the most part, they have left us, taking with them the memories of empty supermarket shelves. When the issue has never been personalized, it's easy to be complacent.

The U.S. needs a stable domestic food supply, just as it needs a stable energy supply. The post 9/11 world of terrorist threats makes the stability of domestic food supply even more pressing. Outgoing Secretary of Health and Human Services Tommy Thompson put it bluntly when he said, "I cannot understand why the terrorists have not attacked our food supply, because it is so easy to do." Further, Thompson said he worries "every single night" about threats to the American food supply.

This isn't just a matter of domestic security; it's also a global concern. Last year, 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.

When water tied to domestic agricultural lands is transferred elsewhere, those lands will no longer be as productive. Policy makers need to understand how this limits our ability to feed the world.

The Argument for Emphasizing New Infrastructure, Not More Water Transfers

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 major report released last year 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.

There is growing recognition that states and local governments must consider the impacts of continued growth that relies on water transfers from agriculture and rural areas and to identify feasible alternatives to those transfers. For example, a 2006 report released by the Western States Governors Association (WGA) states "there is understandable support for the notion of allowing markets to operate to facilitate transfers from agricultural to municipal and urban use as a means to accommodate the needs of a growing population. While such transfers have much to commend them, third party impacts should be taken into account, including adverse effects on rural communities and environmental values. Alternatives that could reasonably avoid such adverse impacts should be identified."

The Family Farm Alliance is working with Western Governors Association and the Western States Water Council to develop a report on successful and unsuccessful agricultural-to-urban water transfers to determine how transfers can be accomplished in a manner that avoids or at least mitigates damage to agricultural economies and environmental values, while at the same time avoiding infringement on private property rights.

There will be nothing done with water in the West without there being winners and losers. Cities may expect to buy water from farms, but that is not a long term solution as global food shortages make farming a crucial national need.

A multitude of unique solutions exist for Western communities wrestling with growing urban water use. The Northern Colorado Water Conservation District is currently seeking to develop new offstream storage to protect agriculture as urbanization sweeps into Northern's traditional service area. Farmers in the Klamath Irrigation Project (CALIFORNIA / OREGON) are paid

through an environmental water bank to temporarily fallow land or pump groundwater in place of using Klamath River water. On the other hand, unsuccessful implementation of Central Valley Project Improvement Act water transfer provisions in California suggests that water markets cannot be legislated.

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.

Improved conveyance and storage projects provide the best flexibility to manage and move water in the West. The retention of existing water supplies and the development of critically needed new supplies are of the utmost importance. Drought and population growth have accelerated the arrival of inevitable water shortages. Supplies are already inadequate for the growing demands, but very few plans exist to develop supplies to meet increasing needs. At the federal level, we are told that the big dam-building era is over. This may indeed be true, but it is also plainly and painfully true that there isn't enough water to meet the needs of agriculture, urban growth and the environment. Increased 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.

Demand Management vs. Supply Enhancement

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, from installation of high technology drip irrigation systems in California's Central Valley, to tens of millions of dollars spent on improving on-farm water use efficiency in the Klamath Basin. 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 – which will be discussed in more detail by some of my fellow witnesses – 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 Resources[1] shows that the value of California farm products doubled during the 40-year period from 1967

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

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.

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.

Environmental Impacts of Storage Projects

Obviously, there will be environmental concerns associated with any new surface water storage projects. However, we believe it is possible to address those issues and move forward with storage projects that will ultimately have broad support from a number of different stakeholders. Individual surface storage proposals must be evaluated and the associated benefits and risks must be viewed in a net, comprehensive manner. While some storage critics focus on perceived negative impacts associated with new facility construction (e.g. loss of habitat, disruption of "natural" stream flow patterns, and potential evaporative losses), these perceived impacts must also be compared to the wide range of multi-purpose benefits that storage projects can provide. Also, although water is lost to evaporation in surface reservoirs that serve agricultural, environmental and urban uses, there is very little "wasted water" associated with moving and applying irrigation water. Water not directly consumed through evapo-transpiration often serves other purposes, such as replenishing groundwater, buffering soil salinity and supporting riparian vegetation.

Properly designed and constructed surface storage projects provide additional water management flexibility to better meet downstream urban, industrial and agricultural water needs, improve

flood control, generate clean hydropower, provide recreation opportunities, and – create additional flows that can benefit downstream fish and wildlife species.

Some people and organizations oppose dams and Reclamation's proud history of dam construction as a matter of dogma. They have no flexibility in their position when it comes to surface storage. But experience teaches us that solving complex problems requires a great deal of flexibility. It also requires the collective efforts of reasonable, well intentioned people who may come at the problem from entirely difference perspectives. Surface storage isn't the solution in all cases, but dismissing it out of hand serves no good purpose by eliminating potential solutions to some vexing water supply issues.

Creative, successful solutions can be found by motivated, unthreatened parties. The holders of water rights approach the Western water supply problem with much at risk, and with much to offer in the form of practical experience managing the resource on a daily basis. Incentives that create reasons to succeed will do more good for the environment in a shorter period of time than actions that rely on threats of government intervention.

Political Support for New Water Projects

Colorado State University (CSU) in 2009 completed a West-wide (17 states) 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.

This new information flies 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

The federal government should 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 interests have shown enormous creativity in designing creative water development

projects; my fellow witnesses on this panel will provide you the best sense of the range of creativity that can be generated at the local level. While onstream storage should not be seen as unacceptable, offstream storage, groundwater banking, and countless other forms of water development should be encouraged as a matter of federal policy and law. Local problems call for local solutions.

The existing procedures for developing additional supplies should also 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 and reduce the costs to the project applicant.

The example of the permitting history of the Little Snake River Irrigation Water Supply Project, High Savery Dam and Reservoir – attached to this testimony – best illustrates this matter.

In addition, the current mitigation procedure for federal agencies should be reviewed to determine the feasibility of clarifying and standardizing mitigation requirements. Currently, requirements for one project become the standard for all subsequent projects. Since no two projects are the same, federal agencies tend to impose increasingly severe mitigation requirements on new projects. The end result is that applicants end up spending tremendous amounts of money for potentially uncertain mitigation.

The example of the city of Buffalo, Wyoming, - attached to this testimony - illustrates the point. For 8.8 acres of wetlands impacts, the cost of mitigation amounted to approximately $1 million. This is in excess of $100,000 per acre. The primary reason for these costs was that the United States Army Corps of Engineers required a 5:1 ratio for wetland mitigation. The 5:1 ratio is not a scientifically based figure, but rather an arbitrary figure developed by the agency. After 3 years and significant expense, the city finally was forced to accept this ratio in order to proceed with the project.

Another possible solution is the creation of mitigation banking. 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 use of public and private mitigation banks.

1. <u>The Bureau of Reclamation's Recent Role Relative to Advancing New Storage Projects</u>

The Bureau of Reclamation's 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.

Shortly after the Alliance's data base was released (and submitted to the Congressional record in April 2005), the Bureau of Reclamation did submit a report to Congress that identified nearly one thousand potential hydroelectric and water supply projects in the Western United States that have been studied, but not constructed. The report was required by the Energy Act of 2005. 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.

2. Why the Bureau of Reclamation and Other Federal Agencies Need to Improve Regulations and Streamline Permitting of New Projects

The Family Farm Alliance believes that without new sources of water, increasing urban and environmental demands will deplete existing agricultural supplies and seriously threaten the future of Western irrigated agriculture. 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 improve the regulatory process.

3. Future Federal Funding of New Water Supply Enhancement Projects

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.

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.

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.

Local and state interests have shown enormous creativity in designing creative water development projects. For example, my home State of Wyoming has initiated its Dam and Reservoir Program, where proposed new dams with storage capacity of 2,000 acre feet or more and proposed expansions of existing dams of 1,000 acre feet or more qualify for state funding. Wyoming water managers and policy makers recognize that dams and reservoirs typically provide opportunities for many potential uses. While water supply is emphasized in the Wyoming program, recreation, environmental enhancement, flood control, erosion control and hydropower uses are also explored as secondary purposes.

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.

Conclusion

Family farmers and ranchers require certain water supplies as a base condition of their existence. We cannot continue to wish away the reality that there is not enough water to meet our needs in drought years, and 20 years from now, if something is not done, every year will essentially be a drought year. We cannot continue long-term hypothetical processes that focus primarily on continued conservation and downsizing of Western agriculture.

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 Family Farm Alliance wants to work with this Administration, Congress, and other interested parties to build a consensus for improving the regulatory process. The real reason the Alliance continues 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.

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. New infrastructure is one such way; the construction of additional water supply 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.

Attachment List:

1. **Permitting History of the Little Snake River Irrigation Water Supply Project, High Savery Dam and Reservoir**
2. **City of Buffalo, Wyoming Case Study**

Attachment 1: Permitting History
of the Little Snake River Irrigation Water Supply Project
High Savery Dam and Reservoir

Introduction

Permitting is a major step in any project that requires federal agency action; it can be the most perplexing and confusing step in project development. Projects requiring federal actions must go through the National Environmental Policy Act (NEPA) assessment process, which in itself is not a permitting process but is of utmost importance concerning whether required permits will eventually be issued. Due to extensive/thorough NEPA screening requirements and alternative evaluations, projects often lose direction and focus during this process.

NEPA was enacted in 1969 to promote informed decisions and public disclosure of federal actions. Through NEPA assessments other laws such as the Endangered Species Act, Clean Water Act, Fish and Wildlife Coordination Act, and the National Historic Preservation Act come into play. These laws and acts require permits or clearances from a number of agencies, and make coordination of the NEPA process the driving force for project permitting. This was especially true for the Little Snake River Irrigation Supplemental Water Supply Project.

The following sections discuss major events that occurred during permitting of the Little Snake River Irrigation Water Supply Project and present conclusions and lessons learned from this process. The history and conclusions presented are a compilation of information from legislative reports, project studies and personal recollections.

History

The Little Snake Irrigation Water Supply Project began as the Sandstone Dam Project and now is commonly referred to as the High Savery Dam and Reservoir Project. The Sandstone Dam Project began as mitigation for the Cheyenne Stage I, II and III projects and to provide additional water storage for industrial development. The Wyoming Legislature authorized the Cheyenne Stage I and II projects in 1979 and 1980 and also instructed the Wyoming Water Development Commission (WWDC) to look at the feasibility of developing storage in the Little Snake River Basin to address in-basin agricultural, recreational and municipal needs.

Studies were initiated to evaluate dam and reservoir sites in the basin and the Sandstone site was selected as the preferred site. In 1984, the legislature authorized a project in the Little Snake River Basin to mitigate and alleviate any water supply shortages caused by the Cheyenne Stage I and II projects. Sandstone Dam was to impound 52,000 acre-feet of water behind a 200-foot high structure. The reservoir would have had a 32,000 acre-foot annual yield with 12,000 acre-feet allocated for irrigation and 20,000 acre-feet allocated for future industrial development.

After several years of study, the permitting process for the Sandstone Project was initiated in 1986. An application for a Clean Water Act, Section 404 Permit (404 Permit) was filed with the U.S. Army Corps of Engineers (Corps), which initiated the NEPA assessment process. The project was of a scale that an environmental impact statement (EIS) was necessary; the Corps was the lead agency for the NEPA review and for preparation of the EIS. The draft EIS and

biological assessment (for assessment of impacts to endangered species) were published in January 1988. Six action alternatives and the no action alternative were evaluated. The six action alternatives included four reservoirs, a ground water development alternative and a water conservation alternative. The preferred alternative, for the state and the sponsor, was the Sandstone Dam and Reservoir Project. All of the alternatives were sized to allow storage of 12,000 acre-feet of irrigation water and 20,000 acre-feet for future industrial development. A supplement to the Draft EIS was published in April 1989 to support need for storage of 20,000 acre-feet for future industrial use. Work continued on the EIS process during 1989 and 1990.

On December 14, 1990, the WWDC received notice from the Corps' Omaha District Office that they were recommending denial of the 404 Permit for the Sandstone Project. Their denial was based upon the lack of an acceptable federal "purpose and need" for the 20,000 acre-feet of water reserved for industrial purposes. The WWDC and then Governor Sullivan disagreed with the decision and requested that the permit be issued. The decision was elevated to the Corps Division Engineer. In 1991, the WWDC was notified that the Division Engineer upheld the District Engineer's recommendation that the 404 Permit be denied for the 52,000 acre-foot project. However, the Corps noted that it would be prepared to reopen consideration of the application if use of the reservoir yield could be clearly defined.

During 1991, the Little Snake River Basin Planning Study was authorized by the WWDC and legislature. This study was completed in October 1992. One task of the study was to evaluate potential reservoir sites to determine whether any were capable of meeting the supplemental irrigation water needs in the Little Snake River Basin. At the request of the Savery-Little Snake Water Conservancy District (District), a downsized version of the Sandstone Project was included among the alternatives.

The Commission recommended construction funding for a smaller Sandstone Dam and Reservoir project; this downsized version would possess a water storage capacity of 23,000 acre-feet, which would yield 12,000 acre-feet per year of supplemental irrigation water. Legislation was approved during the 1993 session to provide $30,000,000 to construct the project. The project purpose, as defined by the legislature, was to serve as an agricultural, municipal and domestic water supply; the project was to also increase recreational opportunities, provide environmental enhancements, and serve as mitigation water for shortages caused by the Cheyenne Stage I, II, and III trans-basin diversion water supply projects.

Additional studies were conducted in 1993 to determine the suitability of the Sandstone site. The report concluded dam construction at the Sandstone site was technically feasible. In 1994, the WWDC began the permitting process for construction of a smaller project, including a downsized Sandstone Dam and Reservoir project and several other potential alternatives. The downsized Sandstone Dam was the preferred alternative. Since the scope of the project had changed, the results of the draft EIS published in 1988 could not be used. The WWDC entered into an agreement with the Corps and contracted with Burns and McDonnell to complete a new third party EIS.

The Corps advised the WWDC, District and valley residents in January 1995 that a 404 Permit could be issued only for the least environmentally damaging alternative. That summer the Corps indicated that the least damaging practicable alternative was a combination of two alternative reservoirs (Dutch Joe and Big Gulch); therefore, a 404 Permit would not be issued for the

Sandstone Dam alternative. The Corps had narrowly defined the purpose and need for the project as supplemental late season irrigation water supply. The Corps' definition conflicted with the Wyoming legislation that authorized funding for the project; the Wyoming Legislature stipulated that recreation, environmental enhancement, municipal water supply, supplemental irrigation, and mitigation for past and future trans-basin water projects were all legitimate purposes for the project.

In August 1995, the WWDC director and project manager explained to the WWDC and Select Water Committee of the Wyoming Legislature reasons why the EIS was stalled, which was largely attributable to the lack of support for alternatives other than the Sandstone site. The WWDC and the Select Water Committee concluded that alternatives to the Sandstone Dam and Reservoir should be considered if there was a clear consensus of support for other alternatives. Public meetings were held in the Little Snake Valley in August, October and December 1995 for the purposes of discussing project alternatives. It was apparent that a majority of those attending the meetings preferred the construction of Sandstone Dam, since they believed that the Sandstone site would provide more multiple use benefits than the other alternatives. This majority also disagreed with the Corps decision not to include other project purposes, which were mandated by the legislature, within the Corps' purpose and need analysis.

The WWDC supported the position expressed by a majority of the Little Snake Valley residents and directed the WWDC staff to further pursue changing the purpose and need section of the EIS to include state legislature's mandated purposes, particularly recreation. The lack of agreement between the state and the Corps, concerning the project's purpose and need, resulted in further delay of the project.

In 1996, The WWDC contracted with Burns and McDonnell to complete an analysis of need for additional flat-water recreation in the Baggs, Wyoming area. The study concluded that there wasn't a need for additional flat-water recreation in the area. Other studies were commissioned to keep the project moving forward; but study results also did not support the Sandstone alternative. The Corps reaffirmed their position that the project purpose could only be for supplemental irrigation water supply. Further, the Corps indicated verbally and in writing that the project should provide 12,000 acre-feet of water on a firm basis 8 out of 10 years. The Savery-Little Snake River Water Conservancy District had requested a firm 12,000 acre-foot yield 10 out of 10 years.

Adding to other problems, the Sandstone Dam alternative was the most costly project (about $48 million). The Dutch Joe alternative was nearly $10 million less costly. The High Savery alternative was the least costly at about $30 million. Environmental impacts were greatest at Sandstone but appeared to be significant at the Dutch Joe and High Savery sites as well. A meeting to discuss the project, attended by representatives of the Corps, other federal agencies, several state agencies, the Governor's office, representatives from the District, other representatives from Carbon County, the WWDC, and the Select Water Committee, was held on November 19, 1996. The Corps stated that given the available data, the Sandstone site could not be permitted because the Dutch Joe site was the least environmentally damaging alternative. They indicated that the High Savery Project might be permitted if it could be shown that impacts to big game winter range at Dutch Joe were more environmentally damaging than the wetland and stream channel impacts at High Savery. A meeting was held in Baggs on December 5, 1996 and the irrigators and Little Snake Valley residents supported a motion to change the project

name from Sandstone to the Little Snake Water Supply Project. Work completed in 1995 and 1996 resulted in a delay to the project but set the stage for the eventual construction of the High Savery Dam and Reservoir alternative.

The permitting process was put back on track in 1997 and three alternatives were selected that would meet the specified need for the project, which was to supply 12,000 acre-feet of supplemental irrigation water to the users in the Little Snake River Valley 8 out of 10 years. The alternatives studied were a downsized Sandstone Dam and Reservoir, Dutch Joe Dam and Reservoir, and High Savery Dam and Reservoir. High Savery became the preferred alternative. The final studies were completed during 1997 and 1998 and the Draft EIS was published in August 1998. The Fish and Wildlife Coordination Act report was also released in August 1998.

Public meetings were held and comments were taken on the draft EIS in the fall of 1998. Disagreements between the WWDC, the WGFD, the U.S. Fish and Wildlife Service and the Corps on how best to address the DEIS comments delayed the completion of the Final EIS until October 1999. The U.S. Fish and Wildlife Service issued the Biological Opinion in July 1999 to satisfy the consultation requirements of Section 7 of the Endangered Species Act. In order that a Record of Decision (ROD) could be issued, work began in earnest in 1999 to mitigate the project's adverse environmental impacts. Numerous meetings were held with the Wyoming Game and Fish Department, WWDC, USFWS, Savery-Little Snake Water Conservancy District and Corps to resolve differences and finalize the plan.

The Final EIS, completed in October 1999, identified the High Savery Project as the preferred alternative. Several comments were received but none were significant. These few comments were eventually addressed in the Corps' Record of Decision (ROD). However, the project was further delayed because the Corps was concerned about issuing the ROD and 404 Permit before cultural resource preservation and management issues were resolved.

Efforts to comply with the National Historic Preservation Act, which protects cultural resources, were also underway at this time. A number of site visits, conference calls, and meetings were conducted to discuss cultural resource issues with interested Native American Tribes, the Wyoming State Historic Preservation Office (SHPO), WWDC and the Corps. There were a variety of tasks undertaken to satisfy the requirements of the Tribes and SHPO. Several cultural sites had to be evaluated and protection plans developed. One site required excavation and interpretation. This work was conducted during 1999 and 2000. A final Programmatic Agreement to protect and manage cultural resources on the High Savery Site, which took over a year to negotiate, was eventually signed in early December 2000.

The plan to mitigate the adverse impacts to wetlands, uplands and riparian areas proved to be extremely controversial, which further delayed the project. Three drafts of the plan were completed and debated by all parties involved. In October 2000 a final draft plan was presented to the Corps by WWDC. This plan was finally approved in December 2000 after a meeting with the Corps at their District headquarters in Omaha, Nebraska.

The ROD was issued December 14, 2000, approximately one-year and two months after the final EIS was released. The 404 Permit for High Savery Dam and Reservoir was signed December 20, 2000. These steps completed the permitting portion of the project and advanced the High Savery Project toward construction.

Conclusions and Lessons Learned

It could be concluded from the Little Snake Supplemental Irrigation Supply Project (High Savery Project) history that 14 or more years might be required for permitting reservoir projects. However, that may not be correct. During the time the High Savery Project was being permitted several other reservoir projects within Wyoming were designed, permitted and constructed. Sulfur Creek Reservoir Enlargement near Evanston was initiated in 1984 and constructed in 1986. Design of the Twin Lakes Enlargement for the Sheridan water supply was started in 1988, permitting was begun in 1992, and construction started in 1996 and was completed in 1998. A 404 Permit application was submitted for the Tie Hack Dam and Reservoir Project above Buffalo in February 1994, the permit was issued in March 1996 and the project was completed in 1997. A 404 Permit application was filed in November 1996 for the Greybull Valley Dam and Reservoir. The permit was issued in June 1998 and the project was completed in 2000.

We often learn more from mistakes than we do from successes; in this regard there are a number of lessons that can be gained from the Sandstone/Little Snake Supplemental Irrigation Water Supply Project/High Savery Dam and Reservoir permitting process. The determination of purpose and need under federal guidelines restricts planning opportunities and purposes for which a project may be permitted. The state's acceptance of a project that yields less than a firm supply should be questioned. This acceptance results in less utility for the state and for the project's beneficiaries. A better approach would be to maximize the basin's available hydrology or at least meet the firm-yield requirements of the sponsor. If the basin hydrology cannot provide the firm yield, the decision to construct the project should rest with the state and sponsor and should not become a reason for permit denial by the Corps. Further, the state should encourage its Congressional delegation to sponsor legislation that would allow the state's legislative and planning process to be considered in establishing purpose and need for construction of dam and reservoir projects.

If Congress is unwilling to expand the state's role in establishing the purpose or need for a project, the project sponsor and the state must work within existing guidelines to maximize opportunities. Working within either existing or expanded federal guidelines would facilitate the NEPA analysis, from which all other permitting processes will tier. The 20,000 acre-feet of water storage for future industrial development that couldn't be definitively described in the early Sandstone Project was a permitting problem. There was no specific purpose or need described for the 20,000 acre-feet of industrial water. Therefore, the Corps felt that justification for building a reservoir having this extra capacity and additional adverse environmental impact was unwarranted. However, it is incumbent on the state and potential project sponsors not to lose sight of future demands for water that may only be addressed by constructing new dam and reservoir projects. The challenge will be to convince regulators, during the permitting process, that the benefits of constructing a proposed future project outweigh the adversities; consequently, there is a justifiable "purpose and need" for the project.

Developing a reasonable range of alternatives is also very important in project planning and the NEPA process. Alternatives must meet the need and purpose for the project and must be capable of being implemented. It is important to use the NEPA process to help determine the most appropriate alternative from the set of reasonable alternatives. Although the Sandstone Project started with a set of alternatives the one seriously considered was the Sandstone Dam and

Reservoir alternative. When the Corps determined that the Sandstone alternative could not be permitted, the permitting process stalled because other alternatives had not been seriously considered. Even after the project was downsized to match the need, the State, District, and valley residents wanted to maintain the Sandstone alternative as the preferred alternative. This caused permitting delays.

The permitting process did not proceed until a reasonable range of alternatives was developed. Once a reasonable range of alternatives, including the High Savery alternative, was developed, the project moved forward to a conclusion within an acceptable timeframe. In other words, the alternative site and project evaluations undertaken in 1996 put permitting back on track in 1997. The state successfully secured the permit to construct High Savery in December 2000.

Cooperative efforts are important for moving projects through the NEPA and permitting processes. The WWDC and local sponsors should become cooperating agencies in the NEPA process if possible and if not, should be allowed to serve on the project EIS interdisciplinary team. The Corps wasted a great deal of time making decisions on the project and at times seemed unable to make decisions. These delays not only postponed the project, they resulted in wasted money. Disagreements at the state and local level also contributed to delays, and led to additional costly studies and analyses.

Establishing working relationships with the agencies involved in the NEPA process and permitting is important to keep the project on schedule and to avoid costly delays and disagreements. It is impossible to eliminate all problems associated with permitting dam and reservoir projects, but good cooperation and communications between agencies and groups, with an understanding of each participant's expectations, will help in problem resolution.

Dam and reservoir projects are complex and often controversial, a dedicated local sponsor or project proponent and a documented "purpose and need" are minimum requirements for success. The primary reason the High Savery Dam was permitted and constructed is the persistence and perseverance of the Savery-Little Snake Water Conservancy District and the residents of the valley. The sponsor's and the state's staying power prevailed in the end.

Attachment 2: City of Buffalo, Wyoming Case Study

The example of the city of Buffalo illustrates the enormous difficulties and expense associated with obtaining federal regulatory clearance requisite for constructing even small and non-controversial water projects. The mitigation associated with this project illustrates the unreasonable approaches being taken by federal agencies as a condition of obtaining needed federal permits. Within Wyoming there are rarely two projects which have the same or equivalent mitigation imposed on them. Rather, it appears that as time passes, each new project has more severe mitigation imposed on it that then becomes the standard for all subsequent projects. This mitigation "ratcheting" creates enormous costs and tremendous uncertainty as has been the city of Buffalo's experience.

The Buffalo Municipal Reservoir Project is developing a small municipal supply storage reservoir in the Clear Creek Basin west of Buffalo. Buffalo's existing water supply is diverted from Clear Creek about 6 miles west of the city. After project completion, releases from the reservoir will supplement Clear Creek flow when the direct flow cannot fulfill Buffalo's water supply requirements. The project is being funded in part by the Wyoming Water Development Commission, a state agency.

A Level 11 - Phase I report was completed in March 1989. The report concluded that the preferred development option included a dam and reservoir at the Lower Tie Hack site on South Clear Creek, a tributary of Clear Creek. The recommended reservoir size is 2,425 acre- feet and the estimated cost of the dam and reservoir is $10,650,000. The reservoir will inundate approximately 60 acres in total, including 8.8 acres of wetlands. In addition, the report indicated that installation of a $975.000 hydropower generation unit at the downstream end of the city's water supply pipeline could be economically advantageous. The hydropower unit is addressed as a separate project, but construction of both components is required if the total project is to be economically feasible. The report also noted that the feasibility of the project would depend on the successful transfer of Buffalo's existing 1933 water right filing for 1,640 acre-feet from Little Sourdough Creek to the dam site. This transfer was accomplished in 1990.

The process of permitting this facility began in the early summer of 1992. The arduous and expensive process of obtaining final permits was not completed for nearly 4 years. The Forest Service special use permit was issued on February 23, 1996, and the U.S. Army Corps of Engineers Section 404 permit was issued on March 5, 1996. During the course of the nearly 4-year long ordeal, nearly $1 million was spent in efforts directly related to obtaining the necessary federal permits.

The mitigation for the 8.8 acres of wetlands has cost in excess of $1 million. The primary reason the costs for mitigation to the City of Buffalo were so high is that the US Army Corps of Engineers required a 5:1 ratio for wetland mitigation. The 5:1 ratio is not a scientifically based figure, but rather an arbitrary figure developed by an individual within the agency. The City agreed to accept the ratio so that they might proceed with their project.