

**Pat O'Toole  
President  
Family Farm Alliance**

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

**Oversight Hearing  
on  
The Role of Surface and Groundwater Storage in Providing Reliable Water and  
Power Supplies and Reducing Drought's Impacts**

**April 13, 2005**

Chairman Radanovich and Members of the Subcommittee:

Thank you for the opportunity to appear before you to discuss the role of surface and groundwater storage in providing reliable water and power supplies and reducing drought's impacts. 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.

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 small communities all over the West.

### **Overview**

The retention of existing water supplies and the development of critically needed new supplies are of the utmost importance throughout the West. 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.

### **The Importance of Certainty in Western Water Policy**

The goal of certainty is perhaps the most important aspect of Western water policy. Billions of public and private dollars have been invested in existing water supply systems. This infrastructure relies on legal priorities protecting the use of the water supplies provided by these systems. Without certainty, those investments in water supply facilities will be less efficient, and otherwise beneficial investments will not be made because of the fear that water supplies will be taken away. Other investments will be made, but wasted, because the expected water supply is

reallocated to other purposes. The loss of supplies will have a significant, if not devastating, economic effect on those who lose the benefit of their investment.

In addition, if the certainty that is intended to be provided under existing laws is eroded, the unavoidable consequences follow:

1. An increase in conflict between stakeholders;
2. Development of replacement and future supplies in a manner which minimizes any federal nexus, which often means that irrigated agriculture is "dried up" to obtain water for urban growth;
3. The loss of irrigated agriculture surrounding urban areas, which often means that the most effective mechanism for preserving open space is eliminated. Experience shows us that when the water is taken off of irrigated lands in close proximity to urban areas, the land is soon subdivided for development;
4. Destabilization of the market in water rights, which inhibits voluntary transfers to the highest and best use of the resource; and
5. Impairment of local economies that are largely dependent on irrigated agriculture and secondary adverse impacts to businesses, local governments and schools.

There is an important place for environmental benefits within the realm of western water project operations or goals. However, "demand management" strategies that are merely re-allocation/taking mechanisms in disguise will not lead to true resolution of conflicts over water use in the West. To merely swing the policy pendulum for the benefit of one interest at the expense of, or risk to, others-particularly without first establishing a credible foundation for that interest's alleged needs-does not lead to the attainment of the goal of a "positive sum" game where all interests benefit from the new approach.

### **Demand Management vs. Supply Management**

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.

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. Conserved water cannot 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. Moreover, 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. I have included as an attachment to this written testimony two photos illustrating an example of a streambank restoration project completed on my ranch. 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.

The reality is that in the western United States, “drought happens”. Before the West’s growing demand outstrips available water supplies (which is already happening in some areas), we need to take responsibility for modernizing our aging infrastructure and facilitating opportunities to enhance water supplies. Strict conservation measures, which represent one of a suite of actions that can be taken to help during drought periods, cannot be the sole answer. Flexibility is the key to addressing drought, and the more the system is “hardened”, the more flexibility that is taken away from water managers.

### **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.

### **Funding**

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. The fact that water rights reside in state law must always be taken into account.

For example, 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. Entities like California’s Bay Delta Authority, which is responsible for investing billions of dollars of state and local funds in a program to achieve water supply and environmental goals, should be provided with appropriate assurances after compliance with all permitting requirements that the regulatory goal line will be moved only in the most extraordinary circumstances and not just because a GS-9 biologist has new data or a new theory.

### **The Western Water Supply Enhancement Study**

The Board of Directors of the Family Farm Alliance in the past year launched an aggressive and forward looking project that pulled together a master data base of potential water supply enhancement projects from throughout the West. The "Western Water Supply Enhancement Study" is the Alliance's response to Interior Secretary Gale Norton's Water 2025 process, introduced in 2003.

The Alliance believes Water 2025 was an outstanding opportunity for Western water interests to enter into a conversation with the public about the future of irrigated agriculture in the West. However, Water 2025 did not include a supply enhancement component, which is absolutely necessary if it is going to be successful in addressing the future water needs of the fast growing western population.

Our goal was to gather together water supply enhancement ideas from around the West and put them into one master data base. We went to the people closest to the ground, at the forefront of Western resources conflicts. We asked them: What are your ideas? Are you aware of water supply enhancement projects in your region that have been proposed, and possibly even designed, but that remain on a bookshelf in some government office? How are you solving water supply conflicts?

What this initiative provides is a sophisticated data base that is essentially a 21<sup>st</sup> century “book of ideas”. What it is not is a list of supply enhancement projects recommended for implementation by the Family Farm Alliance. Instead, it is intended to catalyze discussions on the need to improve Western Water supplies, to encourage other Westerners to submit additional ideas to the Alliance, and to form the basis for further evaluation as to why many of these projects have never been implemented.

In an age where more dams are being torn down than being constructed – even though Western water demands are growing every year - many people shudder when the “D” word is uttered. However, the types of projects contained in the Western Water Supply Enhancement Study database are not monstrous 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.

Along with basic information, 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. New 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 Initiative should show that, in most areas of the West, water resources are available and waiting to be developed. However, the policies of the federal government make development of that water nearly impossible. Water wars are being fought throughout the West simply because we have not had the vision to develop new, environmentally sound, sources of water.

We believe this report will help catalyze the discussion on future water supply enhancement throughout the arid West. Today, we are making copies of the CD-ROM available to congressional committees, agricultural interests, and conservation groups for their review. We welcome all constructive comments.

## **Conclusion**

Urbanization and competition for water supplies are driving Western farmers off the land at a time when American food production in general is following other industries “off-shore” in search of lower costs. Traditional farms and ranches are disappearing, and next year this country will become a net importer of food for the first time in our history. Are there any dangers in this? Victor Davis Hanson, a classicist and historian at the Hoover Institution, Stanford University, may have the best answer:

“At first glance, no. Shoppers have more food, season round, at cheaper prices than ever. Obesity, not famine, is America’s problem. Despite questionable farming practices abroad and fears of agro-terrorism, so far our imported food supply is surprisingly safe. Dependency on foreign food has not yet meant that a hungry America – in the manner of its oil addiction – is at the mercy of illiberal producers.

Yet there is an insidious cultural cost to the end of agrarianism that we hardly appreciate. The family on its own land, using craft to work with nature, was a model practical steward of the environment.

In short, sober American farmers were a calming antidote to almost everything that makes us uneasy with popular culture, from gangsta rap and Martha Stewart to Enron and the hyped trial of Scott Peterson.

No, we will not starve without these crusty farmers, but we sure will miss them.”

However, more pressing arguments exist. The United States needs a stable domestic food supply, just as it needs a stable energy supply. Europe aggressively protects its farmers and its food production capability because its residents have starved within memory. 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.

Crusty farmers may well be an American icon, but in fact our citizens could starve without them. For farmers to survive; for food to be produced in America; a stable water supply must be available to grow plants.

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.

In summary, while on-stream storage should not be seen as unacceptable, off-stream storage, groundwater banking, and countless other forms of water development should be encouraged as a matter of federal policy and law. The construction of additional water supply infrastructure may allow more efficient management and enable greater cooperation between traditional and non-traditional water users. Federal agencies have a role to play in infrastructure development, but interference with or duplication of state authorities must be minimized.

Family farmers and ranchers, like me, need you to tell us that you want us to keep doing what we are doing. Do you really want farmers and ranchers to continue to work the land? If not, we can

disengage from our fight to try to build the water supply certainty we need to keep us in business. If so – please help us strengthen federal water policy to provide certainty to all water users; agricultural, tribal, municipal, industrial and environmental, who are dependent on commitments made by the government. Western irrigated agriculture is a strategic national resource, and the role of the federal government in the 21<sup>st</sup> Century should be to protect and enhance that resource.

Thank you.

**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**
- 3. Figure 1: Example of Family Farm Alliance Database Presentation**
- 4. Figures 2 and 3: “Before” and “After” Photographs of Battle Creek restoration work undertaken by Wyoming rancher Patrick O’Toole.**

## **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 Governors' 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**

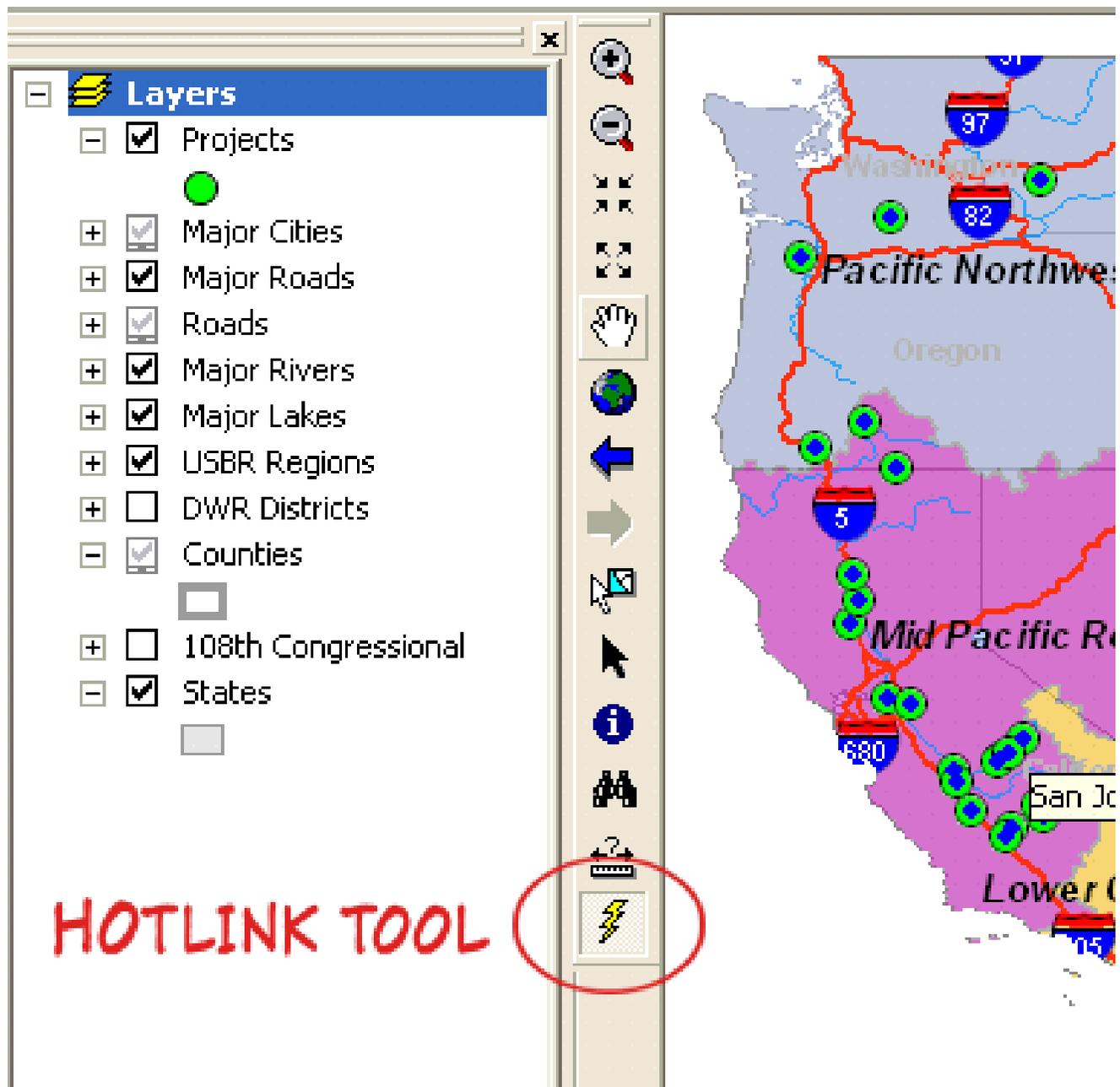
The example of the city of Buffalo illustrates the enormous difficulties and expense associated with obtaining federal regulatory clearance requisite for constructing even small and non-controversial water projects. The mitigation associated with this project illustrates the unreasonable approaches being 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.



Attachment 3: Figure 1 - Example of Family Farm Alliance Data Base Presentation





**Attachment 4: Figures 2 and 3: “Before” and “After” photos of Battle Creek Restoration project, Undertaken by Wyoming Rancher Patrick O’Toole.**