

5.c. – Colorado River Operations

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Reclamation Completes Successful Pilot Run of the Yuma Desalting Plant

Yuma, AZ – An idled desalination plant demonstrated the potential to augment Lower Colorado River supplies during a pilot run over the past year, officials with the Bureau of Reclamation and cooperating water agencies announced today. Concluding ahead of schedule and under budget, Reclamation’s Yuma Area Office successfully implemented the pilot run of the Yuma Desalting Plant (YDP).

In collaboration with The Metropolitan Water District of Southern California, Central Arizona Water Conservation District and Southern Nevada Water Authority, Reclamation’s Lower Colorado River Region this month completed a year-long operation of the YDP. In return for co-funding, the agencies received water credits in proportion to the water produced during the pilot run and each of their funding contributions.

Last spring Reclamation began operating the plant to gather cost and performance data needed to consider potential future operation of the plant. Reclamation and the sponsoring water agencies will review the results from the pilot run to evaluate the potential for long-term and sustained operation of the desalting plant.

“Throughout the operation, the YDP performed above expectations,” said Lorri Gray-Lee, Regional Director of Reclamation’s Lower Colorado Region. “The YDP recycled about 30,000 acre-feet of irrigation return flow water which was included in Colorado River water deliveries to Mexico. This resulted in the same amount of water conserved in Lake Mead and available to the sponsoring water agencies when needed in the future.”

Over the entire pilot run, the plant operated effectively and efficiently with no substantial equipment problems or any accidents. With an acre-foot of water measuring 325,851 gallons of water, the pilot run produced approximately the amount of water used by about 116,000 people in a year.

“We’re proud to have partnered with Reclamation in making this pilot run a reality,” said Jeffrey Kightlinger, Metropolitan Water District general manager. “The run demonstrates innovative ways to increase water supplies as we and other Colorado River water users thoughtfully consider how to meet our long-term water supply needs.”

With the Lower Colorado River Basin in the midst of an 11-year drought, David Modeer, general manager of the Central Arizona Water Conservation District said the agency was pleased with the outcome of the pilot run. “We are hopeful that Reclamation, in cooperation with interested water users and stakeholders, will use the cost and performance data gathered, along with the research and environmental monitoring information, to prepare plans for the long-term operation of the plant,” said Mr. Modeer. “As demonstrated by the pilot operations,

water recycling and conservation are important tools to stretch our precious Colorado River water supplies.”

Patricia Mulroy, general manager of the Southern Nevada Water Authority, said, “Beyond what we’ve learned about the Yuma Desalting Plant, the pilot run also demonstrated how the federal government, water users, environmental groups, and our neighbors to the south in Mexico can find common ground and collectively craft solutions.”

The pilot run was part of an international agreement between the U.S. and Mexico governments as well as environmental groups on both sides of the border. In addition to the pilot run, the pact calls for actions to monitor the Cienega de Santa Clara, a wetland in Mexico maintained by agricultural drainage.

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New Colorado River projection good news for CAP water supply

Posted: Thursday, March 31, 2011 8:30 pm. Updated: 7:52 am, Thu Mar 31, 2011.

EDITORIAL:

Central Arizona Project operators and planners keep a close watch on conditions in the Colorado River watershed. The status of those watersheds helps illuminate the near-term future of our Colorado River water supplies.

According to the Bureau of Reclamation, current conditions on the Colorado River indicate a 97 percent probability that more than 2.5 million acre-feet (more than 850 billion gallons) of additional river water will flow from Lake Powell into Lake Mead in 2011. The higher than normal release from Powell would raise water levels in Lake Mead about 25 feet, and delay a potential shortage for several years.

"Compared to where we were a few months ago," stated CAP General Manager David Modeer, "this is really welcome news. We were looking at the possibility of a shortage as early as 2012, which would have caused CAP to lose access to nearly 20 percent of our Colorado River supply. With the larger projected release in 2011, it is highly unlikely we would see a shortage before at least 2016."

The primary driver of the Bureau's prediction is the better than average snowpack in the Rocky Mountains. Currently, snowpack in the Colorado River watershed above Lake Powell is about 112 percent of the historical average. The National Weather Service anticipates runoff into Lake Powell will be 16 percent higher than normal this summer.

"We certainly hope that the extra water is released into Lake Mead," commented CAP Board President Pam Pickard. "In the meantime, CAP will continue its efforts to prepare for the future by recharging excess water, working with partners to protect water levels in Lake Mead, and pursuing additional water resources."

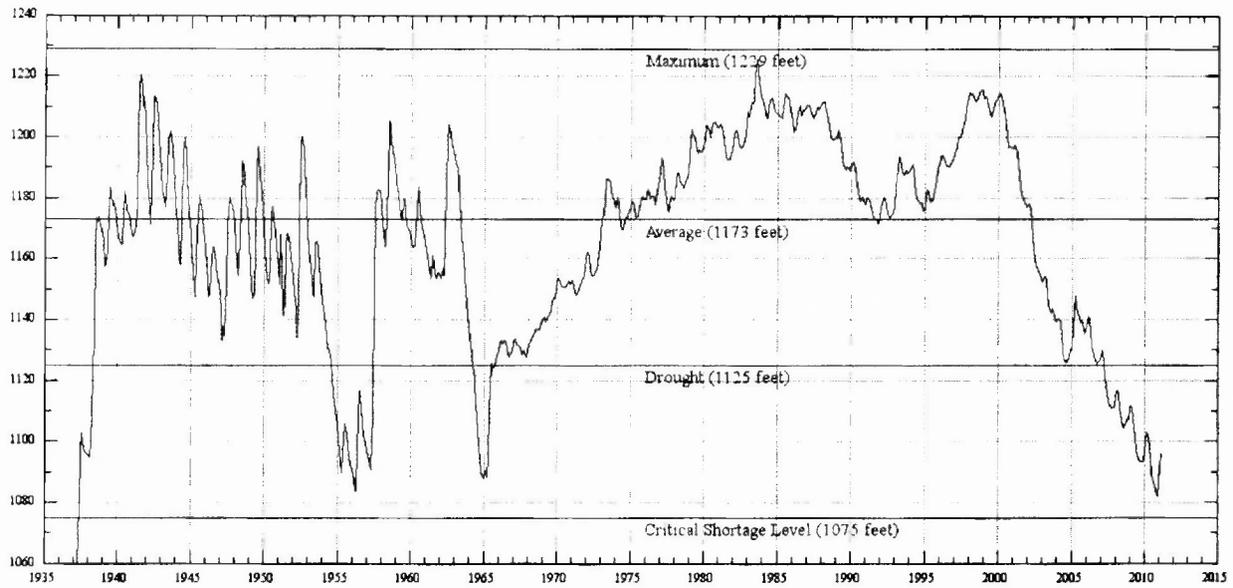
CAP is the steward of central Arizona's Colorado River water entitlement and a collaborative leader in Arizona's water community. The 336-mile-long CAP system brings about 1.6 million acre-feet of renewable Colorado River water to its customers -- cities, businesses, agriculture and Indian communities -- in Pima, Pinal and Maricopa counties. An acre-foot of water is about 326,000 gallons.

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Lake Mead Levels on the rise

March 22, 2011

Source: USGS



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Lake Mead levels on the rise

Posted: Mar 22, 2011 5:10 AM PST

Updated: Mar 22, 2011 7:11 AM PST

By Erin Jordan - [bio](#) | [email](#) | [Facebook](#) | [Twitter](#)

TUCSON, AZ (KOLD) - La Niña came through!

While [Southeast Arizona](#) remains in a drought, the major water supply for the state, the Colorado River, is looking much more promising.

The headwaters of the Colorado River start in Colorado, high in the Rocky Mountains. Tributaries extend as far north as Wyoming.

Higher snowpack near the headwaters ensures a better water supply for all the states that use water from the Colorado River - Arizona, California, Nevada, New Mexico, Utah, Colorado, and Wyoming.

La Niña has an influence on the winter snowpack in the watershed of the Colorado River.

La Niña is defined as cooler than average sea surface temperatures in the equatorial East Pacific.

Here in the western United States, La Niña generally drives the winter storm track north, dumping more snow than average on the northern Rocky Mountains, while producing drought in the Desert Southwest.

This is good for Colorado River flow with slow spring snowmelt raising the water level at the headwaters. Of course this all flows downstream, raising water levels in the entire river.

The [March snowpack](#) near the headwaters measured mostly near or above average.

Above Lake Powell, upstream of Lake Mead, the average snowpack for the Colorado River watershed is 112% of average.

As the snow melts, it's expected to raise water levels in Lake Powell, which will then allow an increased release of water downstream into Lake Mead.

The Bureau of Reclamation forecasts a 97 percent probability that more than 2.5 million acre-feet (more than 850 billion gallons) of additional river water will be released from Lake Powell into Lake Mead this year.

The above average release from Lake Powell will raise water levels in Lake Mead about 25 feet.

Currently Lake Mead is just above the Critical Shortage Level, which if reached would trigger emergency measures, including rationing, for the seven states that use Colorado River water.

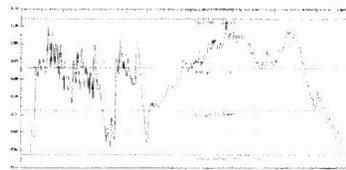
A third of all water used in Arizona comes from the Colorado River.

The additional water release should hold the threat of emergency measures off until at least 2016.

However, the situation will never be stabilized until water withdrawal out of the Colorado River is reduced.

This problem first began back when the seven western states divvied up the Colorado River water flow.

This was done based on average river flow over about 10 years in the early 20th century.



Source: USGS

 [Click image to enlarge](#)

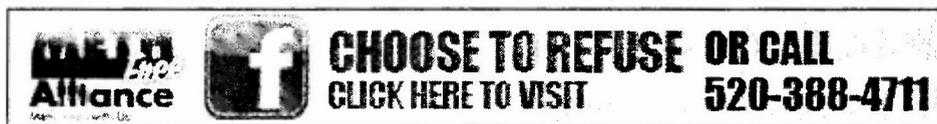
This flow was well above average flow over the long term according to [paleoclimatic data](#).

The reconstructions of ancient river flows was mainly done by tree ring researchers at the University of Arizona.

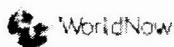
At present, the overdraft out of Lake Mead is over 1 million acre feet per year.

That means any year above average flows in the river will hold off emergency measures temporarily.

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Workshop on

Remote Sensing Applications for U.S.- Mexico Border Water Management

June 8-9, 2011

Doubletree Hotel San Diego Downtown

Sponsored by:

*California Department of Water Resources
National Aeronautics and Space Administration (NASA)
Water Education Foundation*

The purpose of this day-and-a-half workshop is to provide water managers on both sides of the border with an overview of remote sensing data and tools that could be applied to binational water management issues, building on experience gained from NASA's recent research project (funded by the American Recovery and Reinvestment Act of 2009) to demonstrate potential use of existing remote sensing data sets for water resources applications in California.

Common threads in border water management are the need to better prepare for droughts and the need for improved data collection and monitoring to support decision-making. Remote sensing's ability to integrate information over large geographic areas and to interpolate between scarce ground-based observations make it uniquely suited for border-area applications.

Specific topics to be covered at the workshop include:

- ▶ Remote sensing data applicable to border region
- ▶ Capabilities for estimating crop water use and vegetation conditions
- ▶ Mapping wetlands
- ▶ Enhancing irrigation scheduling information to improve agricultural water use efficiency
- ▶ Hydrologic monitoring capabilities
- ▶ Ciénega de Santa Clara case study
- ▶ Funding and institutional support for remote sensing applications

Place: Doubletree Hotel San Diego Downtown, 1646 Front St. San Diego, Ca. 92101

Time: Wednesday, June 8: check-in at noon; opening remarks at 1 p.m. and evening reception.
Thursday, June 9: the program begins at 8:30 a.m. and will adjourn at 4:30 p.m.

Registration: \$125; fee includes the Wednesday reception, Thursday lunch and background materials. **Online registration at www.watereducation.org.**

Hotel Reservations: We have secured a limited number of rooms at a special rate of \$119, plus tax, per night. To reserve a room, call the Doubletree San Diego Downtown Hotel directly at (619) 239-6800 and ask for the Water Education Foundation block rate.

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TODD YOUNG
CHIEF OF STAFF

U.S. House of Representatives
Committee on Natural Resources
Washington, DC 20515

Opening Statement by
The Honorable Tom McClintock
Chairman

House Water and Power Subcommittee
Oversight Hearing on

"Creating Abundant Water and Power Supplies and Job Growth
by Restoring Common Sense to Federal Regulations"

April 5, 2011

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JEFFREY DUNCAN
DEMOCRATIC STAFF DIRECTOR

Today's hearing is conducted pursuant to House Resolution 72 which directs all committees of the House to identify current and pending regulations that threaten existing jobs or impede the creation of new ones.

This sub-committee, with jurisdiction over water and hydro-electric resources administered by the Bureau of Reclamation, will have its hands full in meeting this obligation.

In Southern Oregon, regulators have devastated Klamath Valley agriculture and now threaten to squander \$700 million of ratepayer and taxpayer funds to destroy four hydroelectric dams capable of producing 155 megawatts of clean and cheap electricity – and to shut down operation of the Iron Gate Fish Hatchery that produces five million salmon smolt annually.

Last year, this government diverted 200 billion gallons of water away from Central Valley farms in California to dump into the Pacific Ocean for "habitat restoration," destroying a quarter million acres of the most productive farmland in the nation, throwing tens of thousands of farm families into unemployment and contributing to unemployment rates in the Central Valley exceeding 40 percent in some communities.

Even today, with snowpack at 165 percent of normal for the season – the wettest year in the last 16 – San Joaquin Valley farmers have only been guaranteed 65 percent of their contracted allotments.

Family farms on the Rio Grande in New Mexico faced extinction to provide nicer accommodations for silvery minnows until its delegation found the political will to act a few years ago. Just over the horizon, the Santa Ana sucker fish in southern California could have devastating impacts on residents seeking to protect local water supplies.

Across the nation, the EPA has waged an assault on rural America by imposing greenhouse gas regulations that will destroy small livestock operations, creating unjustified

buffer zones on pesticide applications and opposing surface storage projects like the Two Forks reservoir in Colorado.

The great irony, of course, is that the very projects that have made sustained year-round water flows possible and that have lowered water temperatures to the benefit of fish populations annually are precisely those under attack by the radical policies of the environmental left.

Not only have these water projects stabilized water flows and lowered water temperatures, the employment of ample fish hatcheries can provide for unparalleled abundance of salmon and other species. Yet the federal government-refuses to recognize fish-hatchery salmon as part of endangered fish counts and refuses to recognize the contribution that hatcheries can make to thriving fisheries

For many years, the central objective of our water and power policy was to create abundance – to make the desert bloom as the Bureau of Reclamation's Founders put it.

But this original mission seems to have been lost to a radical and retrograde ideology that seeks to create, maintain and ration government-induced shortages. And that is the policy cross-road where we have now arrived.

It is true that with enough government force, fines, lawsuits, edicts, regulations and bureaucracies we can restore plant and animal populations to their original prehistoric conditions by restoring the human population to its original pre-historic conditions.

Or we can return abundance as the central objective of our water and power policy – by providing abundant water, clean and cheap hydroelectricity, new recreational centers, desperately needed flood protection, burgeoning fisheries, re-invigorated farms – not to mention lower electricity, water and flood insurance bills for American families.

It is toward that brighter and more prosperous future that this majority seeks to proceed. It is my hope that the testimony today will assist the House in identifying those changes in law necessary to get there.

**Dan Keppen
Executive Director
Family Farm Alliance**

**Testimony Before the U.S. House of Representatives
Water and Power Subcommittee
Oversight Hearing on
“Creating Abundant Water and Power Supplies and Job Growth
by Restoring Common Sense to Federal Regulations”
April 5, 2011**

Good afternoon, Chairman McClintock, Ranking Member Napolitano, and Members of the Subcommittee. My name is Dan Keppen, and I serve as the Executive Director of the Family Farm Alliance (Alliance).

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

This oversight hearing could not have come at a more opportune time. We are in danger of losing a generation of young farmers, and productive farmlands and Western agriculture’s traditional water supplies are disappearing as urban, environmental and energy demands increase. This is all happening at a time when the United Nations projects that the world will need to produce 70 percent more food by 2050 to keep pace with world population growth and increased demand for calories.

Today, our own Western farmers and ranchers are currently being subjected to potentially restrictive and duplicative federal regulations on everything from another added layer of water quality protections to air quality requirements that would significantly increase the cost of their water supplies. These farmers are facing potentially ruinous recommendations from a federally-sanctioned committee that could impose additional expensive but unfunded safety standards to their irrigation canals and ditches. The related uncertainty that comes with all of this increased regulatory scrutiny will make it much harder for these farmers to survive in such a harsh economy. Putting just a few of these farmers out of work could impart huge limitations on our future ability to feed our country and the world.

I should emphasize that all these regulations in particular hit the small family farmer the hardest, as they are the least equipped to deal with the maze of sometimes overlapping requirements. We fear that we may be approaching a point where only the larger farm operators will be able to economically deal with these issues, and even they will face significant challenges and hardship.

The rural West faces challenges today that demand strong citizen engagement and aggressive, outspoken leadership by our elected officials. As Western producers of food and fiber continue to disappear, the ripple effect will extend far beyond their rural communities. As a country, we have nearly become complacent as food production has been taken for granted for far too long.

The United States for nearly four decades helped defeat world hunger through its massive productive output of affordable food. Western family farmers and ranchers will continue this campaign, but they need to be shown – through leadership and development of common sense agriculture and water policy priorities – that what they do really does matter to this country.

Fortunately, policy leaders like the Members of this Subcommittee are beginning to recognize the economic and social burdens caused by layers of regulations and bureaucracy. President Obama publicly noted in a recent *Wall Street Journal* Op Ed article that some federal regulations have gotten out of balance, placing unreasonable burdens on business—“burdens that have stifled innovation and have had a chilling effect on growth and jobs.” We were pleased to see the president issue his Executive Order that requires federal agencies ensure that regulations protect safety, health and the environment while promoting economic growth. That order also directs a government-wide review of the rules already on the books to remove outdated regulations that stifle job creation and make our economy less competitive. The President’s actions, in our view, could provide an opportunity for a bipartisan marriage of interests leading to real beneficial change in the way the federal government adopts and implements rules and regulations that impact peoples’ lives, and livelihoods. We will remain hopeful but vigilant, and watch what the regulatory agencies actually do on this front, instead of only what they say.

While the Family Farm Alliance strongly affirms the original goals of well-intended laws like the Endangered Species Act (ESA), Clean Water Act (CWA) and National Environmental Policy Act (NEPA), some of these laws are nearly 40 years old, and some targeted reforms may be needed, including common-sense changes to make them work better, minimize confusion, and discourage unnecessary litigation. The Family Farm Alliance has a proven track record of providing solution-oriented recommendations along these lines. For example, we have previously testified before this subcommittee and provided recommendations for legislation that would require the establishment of quality standards for scientific and commercial data that are used to make decisions under the ESA and other important regulatory laws. We believe that greater weight should be given to data that have been field-tested or peer-reviewed. We support peer review of ESA listing decisions and ESA section 7 consultations by a disinterested scientific panel, and we believe legislation can be crafted to create procedures for that process.

IRRIGATED AGRICULTURE IS AN IMPORTANT COG IN OUR NATION’S ECONOMIC ENGINE

The development of Western water resources over the past one hundred years is one of the great success stories of the modern era. Millions of acres of arid Western desert have been transformed into one of the most efficient and productive agricultural systems in the world. The Bureau of Reclamation (Reclamation) is the largest supplier and manager of water in the 17 Western states west of the Mississippi. It maintains 480 dams and 348 reservoirs with the capacity to store 245 million acre-feet of water. These facilities deliver water to one in every five western farmers to irrigate about ten million acres of land, and provide water to over 31 million people for municipal and industrial (M&I) uses as well as other non-agricultural uses. Reclamation is also the Nation’s second largest producer of hydroelectric power, generating 44 billion kilowatt hours of energy each year from 58 power plants. In addition, Reclamation’s facilities provide substantial flood control benefits, recreational

opportunities, and extensive fish and wildlife habitat. All of this has been accomplished with a total federal investment of only \$11 billion, according to the Bureau of Reclamation.

In early 2010, Secretary of the Interior Ken Salazar released a first-of-its-kind report, *Economic Impact of the Department of the Interior's Programs and Activities*, as an analysis of the job creation and economic growth benefits associated with a wide range of Departmental activities, including those related to Reclamation's irrigation and hydroelectric projects in the West. The report estimates that Reclamation's total estimated economic impact in 2008 was \$39.5 billion, impacting an estimated 261,200 jobs. Of this total, Reclamation's irrigation activities generated an estimated 193,000 jobs and an economic impact of \$25.3 billion, almost double the combined economic impacts (\$14.2 billion, 68,200 jobs) associated with Reclamation's hydropower, municipal and industrial water, and recreation functions.

A LOST GENERATION OF FARMERS?

One of the most troubling aspects of the on-going farm crisis is the decline in the number of young farmers entering the field. More than half of today's farmers are between the ages of 45 and 64, and only six percent of our farmers are younger than 35 (www.farmaid.org). Fewer than one million Americans list farming as their primary occupation and among those, 40 percent are age 55 or older. In my home state of Oregon, according to a State Board of Agriculture report released earlier this year only 4 percent of farmers are between 25 and 34 years old and 8 percent are between 35 and 44 years old, and 39 percent are older than 65.

Both statistically and anecdotally, for the first time in many generations we see sons and daughters of farmers opting to leave the family farm because of uncertainty about agriculture as a career.

Meanwhile, Western irrigators continue to grow more food and fiber using less water and land. For example, the California Farm Bureau Federation reports that, between 1980 and 2000, water use and irrigated acreage in California decreased, yet crop production still rose 35 percent. And, according to USDA's Economic Research Service statistics, Americans are spending, on average, 9.7 percent of their disposable income on food. To put this into perspective, consider what citizens living in other countries pay. For example, in Brazil, 22.7% of annual household expenditures go for food, and in some underdeveloped countries these levels have reached 75%. Consider the following:

<u>Country</u>	<u>% of Annual Income Spent on Food</u>
Mexico	26.6%
Argentina	32.8%
Lithuania	40.4%
Indonesia	50.6%
Vietnam	64.7%
Tanzania	73.2%

At a time when average Americans are feeling the pinch of the economic recession in their pocket books, the foundation of our country's ability to provide safe and affordable food and fiber is also now 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 in a fight for its future existence – and

nobody believes there is 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, WWII Victory Gardens, the Dust Bowl, and other times of significant hardship and shortage. Their personal experiences helped build today's American agricultural successes, but when the issue has never been personalized, it's easy to become complacent.

WESTERN FARMERS & RANCHERS ARE NEEDED TO FEED A HUNGRY WORLD – NOW MORE THAN EVER BEFORE

Earlier this year, the Global Harvest Initiative 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 a doubling of agricultural output by 2050 will be needed to meet future world requirements for food. This would require 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 in the productivity growth rate.

Other signs point to the hard truth of a very real food crisis in the world today. The Food and Agriculture Organization of the United Nations (FAO) in June 2009 reported that over 1 billion people world-wide go hungry every day. The world's population is growing by 79 million people each year. The FAO estimates that the world needs to produce 70 percent more food by 2050 to keep pace with population growth and increased demand for calories.

The G-8 agricultural ministers committed at a summit last year to increase international assistance for agricultural development to \$20 billion over the next three years. We believe a similar focus must be placed here in the United States closer to home, where less than two percent of the nation's population produces food for our country and the rest of the world.

Agriculture Secretary Vilsack said at a recent hearing that one of his top priorities will be making sure farmers have access to capital and credit - and that there is a next generation of farmers. Yet we have not heard of any initiatives to reduce or eliminate redundant regulations impacting agriculture that add burdensome paperwork and additional restrictions on everything from critical irrigation water supplies to the use of necessary farm inputs, all of which impact all farmers, young and old, who want to stay in agriculture.

Congress can help by closely examining how current and proposed rules and guidance regulating air and water quality protections are or are not working, identifying the economic impacts, costs and benefits associated with their implementation, and directing legislation that corrects deficiencies and streamlines and modernizes their on-the-ground implementation. Farmers and ranchers are exposed to overlapping and inconsistent mandates from different regulatory agencies that continue to be piled on year after year. Harry Cline in 2008 addressed this point well in an article published in *The Capital Press* newspaper, underscoring the point that pressure is building on farmers to give up the lifestyle and preserve the remaining equity in their property for their families, or to do the unthinkable – move

farming operations to other countries where labor is plentiful, environmental concerns relaxed and economic development is welcomed.

THE DISCONNECT BETWEEN ENVIRONMENTAL AND AGRICULTURAL POLICY

The Family Farm Alliance has long worked on finding ways to streamline the regulatory process, and worked closely with past administrations and Congress towards that end. In the past two years, our members have become increasingly concerned about the number of environmental policies that are currently being re-written either as guidance or in the rulemaking process by this Administration.

Currently, water and environmental policies seem to be considered separately from foreign and domestic agricultural goals and objectives. In the past year, federal agencies have steadily re-written numerous environmental policies that - if left unchecked – could carry the risk of real potential harm for Western agricultural producers. The list of new rulemaking and other potentially burdensome, duplicative, or even unattainable regulations and agency guidance that will impact the availability of Western water supplies continue to grow, and includes the following specific actions:

- Economic and Environmental Principles & Guidelines for Water and Related Resources Studies. The White House Council on Environmental Quality (CEQ) has drafted new standards for federal water projects that for the first time put environmental goals on the same plane as economic development concerns. These proposed changes may have a significant impact on new water project planning and federal funding in the future;
- More stringent EPA pesticide restrictions, which increases costs, liabilities, and risk of crop damage to Western producers. Family Farm Alliance Advisory Committee member Norm Semanko will testify to this in more detail at today's hearing;
- USFWS consideration of wide-ranging policy revisions to ESA administration that could lead to greater legal exposure to water users with ties to federal projects;
- USFWS revisions to designations and critical habitat associated with ESA-protected species, including Western bull trout, the California red-legged frog, Greater Sage Grouse, and Pacific smelt which could lead to even more restrictions on western lands and water users, including family farmers and ranchers;
- CEQ intent to “modernize and reinvigorate” the National Environmental Policy Act (NEPA). Based on our review of the guidance, it appears CEQ would place more emphasis on monitoring and reporting requirements for NEPA activities associated with categorical exclusions and the use of “frontloaded” environmental mitigation where these exclusions have traditionally been used. Western water managers often use these legal NEPA mechanisms in conjunction with recurring actions associated with annual operations and maintenance activities on ditches or major rehabilitation and repair projects on existing dams. If implemented as written, the CEQ directives would definitely impact Western water users by adding additional costs to formerly cost-effective NEPA activities and analyses. Western irrigators and others in the regulated community fear that the net result of these changes will be more expense, delay and bureaucratic red tape in pursuing

federal actions as simple as the ongoing operation and maintenance of existing water management facilities;

- EPA's Strategic Plan for 2011-2016, which strongly indicates that EPA will place more emphasis on regulating greenhouse gases, setting nutrient standards for water bodies, environmental cleanup, chemical regulation, and enforcing environmental laws through "vigorous and targeted civil and criminal enforcement" actions;
- EPA emissions upgrades that may be mandated for the Navajo Generating Station (NGS) in Arizona. The emission requirements being considered by EPA are intended to satisfy unique visibility criteria driven in part by the proximity of NGS to Grand Canyon National Park, and they carry with them a heavy cost to local farmers and ranchers. Family Farm Alliance Advisory Committee member Paul Orme will testify to this matter in greater detail at today's hearing;
- Recent guidance from EPA regional offices which demonstrates a clear bias against the planning and construction of any new water storage projects, which appears to prejudge potential projects without consideration of important civic, economic and environmental needs;
- The Obama administration reconsideration of a 2008 EPA rule recently upheld in the 11th Circuit Court of Appeals that allows water transfers from one water body to another without requiring a Clean Water Act (CWA) NPDES permit. This new level of regulation, permitting and certain litigation would hamstring the economies of states like Arizona, California and Colorado, where millions of acre-feet of water are transferred from one river basin to another every year;
- EPA's failure to establish clear procedures for its pesticide effects determinations and subsequent actions in the Pacific Northwest consistent with 1988 amendments to the Endangered Species Act (ESA). This has resulted in unnecessary restrictions on the use of agricultural pesticides without any indication that Pacific Northwest salmon will benefit and puts producers along the West coast at a competitive disadvantage;
- EPA has launched an effort to develop their "Green Book", a project to ensure all EPA policies are driven by "sustainability". EPA's current policies and regulations are driven by statutes that oversee individual issues, such as pesticides, air pollution and drinking water contaminants. But this new project, undertaken at EPA's direction by the National Academy of Science, will develop a framework for the EPA to link all environmental issues and ensure its policies rely on sustainable use of energy, water, land and other resources. There is much speculation of the impacts to agriculture and other resource-dependent industries arising from the outcome of this effort.
- EPA late last year issued a memorandum that has the effect of regulating air quality under the Clean Water Act (CWA) based on the theory that air is tributary to waters of the United States. The memorandum directs states to designate waters bodies as impaired if they do not meet water quality standards because of acidification caused by air pollution. In other words, States or EPA could now regulate CO₂ and other pollutant emissions under the CWA.

- In recent months, Western water managers have become aware of and are becoming increasingly concerned with actions undertaken by the National Committee on Levee Safety (NCLS). This group, authorized and created in the Water Resources Development Act of 2007, includes the U.S. Army Corps of Engineers (Corps) and FEMA as the only federal agencies represented on the Committee. The Committee was established to deal with post- Katrina flood risk issues, with an emphasis on Corps levees. However, the Committee has developed a plan that essentially could apply Corps-level engineering specifications and standards to both levees and water supply canal embankments throughout the country, with little to no coordination with the Bureau of Reclamation and Western water managers. The Committee is now considering draft legislative language that could be used to create a National Levee Safety Program to implement this plan, and thus far, concerns raised by Reclamation and Western irrigation interests do not appear to be gaining traction with the Corps and FEMA. We believe Congress did not intend for water delivery canals that are not part of a flood control system to be subjected to new requirements administered by the Army Corps of Engineers. Wade Noble, President of the National Water Resources Association and a member of the Family Farm Alliance Advisory Committee, will focus solely on this troubling development in his testimony today.

The above federal water resources policy actions and regulatory practices could potentially undermine the economic foundations of rural communities in the arid West by making farming and ranching increasingly difficult and costly. American family farmers and ranchers for generations have grown food and fiber for the world, and we will have to muster even more innovation and resolve to meet this critical challenge. That innovation must be encouraged rather than stifled with new federal regulations and uncertainty over water supplies for irrigated farms and ranches in the rural West.

The Family Farm Alliance hopes that the Administration will give significant consideration to the concerns of agricultural organizations. We pledge to work with the Administration, Congress, and other interested parties to build a consensus for improving the regulatory processes associated with improving water management, water quality, and our environment. At a minimum, federal policies on these and various other water-related issues (Clean Water Act, aging water infrastructure, climate change, land-use, to name a few) should be informed and guided by the goals of preserving our domestic agricultural production capacity and the vitality of rural western communities.

ESA IMPLEMENTATION BY FEDERAL AGENCIES A MAJOR CONCERN

A growing concern to Western irrigators is the employment of the ESA by the federal agencies as a means of protecting single species by focusing on one narrow stressor to fish: irrigation diversions. For the second time in a decade, Congress directed that the National Academy of Sciences (NAS) convene a high-level, independent scientific review of federal restrictions on water deliveries affecting thousands of Western farmers and ranchers. In 2009, those restrictions – based in large part on ESA biological opinions in the Sacramento-San Joaquin Delta (Delta) - were a primary cause for the water cutbacks and rationing afflicting hundreds of communities throughout California and the resulting economic devastation in the San Joaquin Valley. Last year, south-of-Delta water managers estimate that over 1 million acre-feet of water that would normally be diverted to supply San Joaquin Valley farms and Southern California communities were lost to the Pacific Ocean during a five-month period due to the requirements for Delta

pumping restrictions of the biological opinions rendered by federal fisheries agencies to protect endangered fish species.

A similar decision to focus exclusively on one stressor – a federal irrigation project - was made by federal agencies in the Klamath Basin in 2001, and that decision, and the science used by federal fish agencies to support the decision, was criticized later in a review conducted by the NAS.

Unfortunately, agency biologists apparently continue to cling to their belief that the only “switch” that can be pulled to “protect” Klamath River fisheries is to reduce Klamath Project water supplies, because there is no other perceived immediate fix. True solutions to this complicated challenge cannot happen overnight, they are long-term in scope, and all stakeholders must be at the table to contribute to long-lasting success for all interests in this important watershed. We encourage federal agencies to work collaboratively with local interests to find realistic solutions that benefit fisheries in a way that avoids economic hardship to family farmers and ranchers in the Klamath Basin.

The California and Klamath stories are very similar. The NAS stepped in after Klamath Irrigation Project supplies from Upper Klamath Lake were cut off by federal biological opinions under the ESA in 2001. The Academies’ objective scientific review concluded that there was insufficient evidence to support these biological opinions in restricting agricultural diversions from the river, which had led to the near-collapse of the local agricultural community. In Klamath, the federal regulators looked at only one of the stressors contributing to the fisheries’ decline and they focused on only one solution – cutting off water supplies to agriculture.

Likewise, in California today, the same federal agencies have refused to assess the impacts of the many stressors affecting the health of the Delta. And for fifteen years, they have been restricting or cutting off water deliveries, even though their experience during those fifteen years have conclusively demonstrated that these restrictions have done little to prevent the fisheries’ decline in the Delta.

As in California, the effects of the Klamath restrictions were immediate and far-reaching– not just losses to the economy but also the wildlife benefits that were lost with the water diversions to farms and ranches (and a federal wildlife refuge). And yet, the federal regulators failed to perform any environmental impact analysis before they ordered cutbacks in California and Klamath.

Last year, U.S. District Judge Oliver Wanger handed a victory to agricultural water users who were seeking to maintain pumping levels in the Sacramento-San Joaquin Delta. In separate decisions involving threatened delta smelt and endangered salmon, Judge Wanger found that the federal government must consider humans along with the fish in limiting use of the delta for irrigation. He also found that water users made convincing arguments that the federal government's science didn't prove that increased pumping from the delta imperiled the smelt.

Among the reasoning for the ruling offered by the court:

- The federal agencies failed to undertake any quantitative analysis to determine how many smelt there are;
- As a result, the agencies' claims with respect to the detrimental impact of water pumping on the overall smelt population were not supported;
- The agencies moreover failed to establish the significance of pumping operations on smelt abundance in relation to all of the other factors affecting the smelt; and .
- The court further found that the federal agencies failed to address alternative approaches to avoid jeopardy to the smelt.

Judge Wanger has directed the USFWS and the NMFS to revise the biological opinions for smelt and for salmon. He has found that the agencies have failed to meet the standards for scientific integrity that the ESA requires. And he has determined that both agencies violated the National Environmental Policy Act as well. As a result, in developing these new biological opinions, the government will finally be required to take into account the impact of these regulations on the human environment. And for the first time, they will be required to take public comment before imposing a new set of regulatory restrictions on the two water systems that serve two-thirds of California's population.

IMPEDIMENTS TO ON-FARM ENERGY OPPORTUNITIES

Farmers and ranchers also face difficulties when they seek to develop new sources of clean, emission-free power using existing infrastructure. A 2010 USDA survey focusing on the 20,000 American farms using methane digesters, solar panels and wind turbines is part of a larger effort from the Obama administration to promote rural energy production. However, there are also tens of thousands of opportunities in the West to install low-head hydroelectric power facilities in existing irrigation canals. Many of our members operate existing irrigation canals and ditch systems that may provide opportunities to develop in-canal, low-head hydroelectric projects that have tremendous potential for producing significant amounts of renewable energy with virtually no negative environmental impacts. Historic irrigation structures can be retained while the system is updated with modern clean-energy producing technologies. Increased revenues from the sale of this renewable energy could result in lower irrigation costs to farmers. And, importantly, irrigation water delivery services can continue while utilizing flows for clean, emissions-free "green" energy production.

Unfortunately, water users who seek to implement multiple low-head hydropower generation sites throughout their service area must undergo costly and time-consuming FERC licensing processes that sometimes impede their ability to implement these projects. Because there are virtually no environmental impacts associated with these easy-to build renewable projects, they should also be promoted and be accorded the same streamlined permitting as new solar and wind projects.

The Alliance supports the "Small-Scale Hydropower Enhancement Act of 2011" – co-sponsored by Congressmen Adrian Smith and Jim Costa – which intends to exempt any conduit-type hydropower project generating less than 1.5 megawatts from FERC jurisdiction. This limited exemption would promote the development of small-scale hydropower while still protecting the environment. This

would help stimulate the economy of rural America, empower local irrigation districts to generate revenue and decrease reliance on fossil fuels – all at no cost to taxpayers.

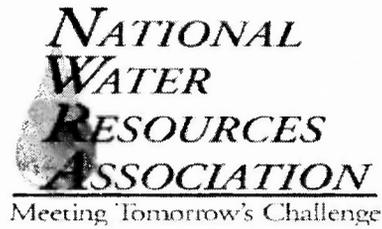
CONCLUSIONS AND RECOMMENDATIONS

From the standpoint of the Western American farmer, it can be bewildering, daunting and frustrating to view the specter of new rules, regulations, and guidance that are currently under development by federal regulatory agencies. Unfortunately, the very real impacts that existing laws and regulations exert on agricultural producers have already been felt, and those rules do not appear to be going away any time soon. Admittedly, it is simple enough to document these efforts to the best of our abilities and register our complaints. While it is much more difficult to propose constructive solutions that can make existing laws work better, the Family Farm Alliance prides itself in employing this very philosophy. The Alliance and many other organizations representing American producers have developed detailed recommendations over the past decade on how the negative effects of existing environmental regulations can be corrected and improved. We would be happy to provide a compilation of those efforts and make them available to the subcommittee.

Our farmers and ranchers are increasingly subjected to duplicative and expensive federal regulations and their related uncertainty of increased costs, lost critical farm inputs, and reduced water supplies, making it harder to survive in a harsh economy. And forcing farmers out of business and taking farmland out of production so that water supplies can be redirected to new environmental demands will impart huge limitations on our future ability to feed our country and the world.

With the right combination of tools and incentives – the latter, in part, in the form of modernized, streamlined regulations - as well as both public and private sector investments in water management infrastructure for the future, Western irrigated agriculture will be poised to help close the global productivity gap and sustainably meet this Nation's and the world's food and fiber needs in 2050 and beyond.

Thank you for this opportunity to present testimony to you.



Before the Natural Resources Subcommittee on Water and Power

Hearing to consider Creating Abundant Water and
Power Supplies and Job Growth by Restoring Common Sense to Federal Regulations

April 5, 2011

2:00 p.m.

1324 Longworth House Office Building

Comments of

Wade Noble

President

National Water Resources Association

Submitted on behalf of

The National Water Resources Association

Good afternoon Chairman McClintock, Ranking Member Napolitano and Members of the Subcommittee, my name is Wade Noble and I am here on behalf of the National Water Resources Association (NWRA). I am the President of the Association and also an attorney in Yuma, Arizona.

NWRA is a federation of state water associations representing agricultural and municipal water providers in the seventeen Western Reclamation states. Its strength is due to "grassroots" participation on virtually every national issue affecting western water and power resources conservation, management, and development.

We appreciate the opportunity to comment on federal regulations impacts on water and power supplies. NWRA unequivocally supports *common sense* federal regulations. We are increasingly concerned about duplicative and unnecessary regulations, many of which may have negative consequences for western water users. Specifically, I will address the direct impacts the recommendations of the National Committee on Levee Safety will have on Bureau of Reclamation projects and irrigators west wide.

Western water managers are progressively apprehensive with actions of the National Committee on Levee Safety (NCLS). The group, authorized in the Water Resources Development Act of 2007 (WRDA), includes the U.S. Army Corps of Engineers (Corps) and the Federal Emergency Management Agency (FEMA) as the only federal agencies. The Bureau of Reclamation, with thousands of miles of levees and canals, is not at the table.

The Committee, established to deal with post-Katrina flood risk issues emphasizing Corps levees, plans to apply Corps-level engineering specifications and standards to levees and canals. There will be little or no coordination with the Bureau of Reclamation and Western water managers. Thus far, concerns raised by Reclamation and Western irrigation interests do not appear to be gaining traction with the Corps and FEMA.

Congress created the NCLS to develop recommendations for a national levee safety program, including a strategic plan for implementation of the program. The NCLS began development of recommendations in October 2008. The result so far is twenty recommendations for creating a National Levee Safety Program which were in a January 15, 2009 draft report, *Recommendations for a National Levee Safety Program: A Report to Congress from the National Committee on Levee Safety*.

The recommendations for a National Levee Safety Program (NLSP) are grouped into three concepts: (1) the need for leadership via a National Levee Safety Commission which would - support state delegated programs, provide national technical standards and risk communication, and coordinate environmental and safety concerns; (2) the building of strong levee safety programs in all states which would - provide oversight, regulation, and critical levee safety processes; and (3) a foundation of well aligned federal agency programs.

Federal legislation will be necessary to implement 12 of the 20 recommendations. The Corps and FEMA are working within existing authorities and funding to implement several recommendations addressing the basics of communication and outreach, use of common

language and refinement of their existing programs. The nonfederal members of the NCLS have drafted a NLSP addressing areas where NCLS foresees needed implementation legislation. The Corps is considering NCLS recommendations in development of levee safety standards and risk assessment and communication methodologies.

NWRA supports NCLS efforts applicable to Corps facilities. It is, however, not appropriate to apply similar standards and methodologies to water delivery facilities operated by the Bureau of Reclamation and its local partners.

Bureau of Reclamation Position on NLSP Applicability to Reclamation Facilities

Prior to the release of the draft Report, the Bureau of Reclamation circulated an internal memo regarding (non-) applicability of the Levee Safety Act ("Act") to Bureau of Reclamation canals. The memo noted that the Corps' interpretation of the Act included Reclamation canals.

Reclamation consulted the Interior Department Solicitor's Office and was told the provisions of the Act do not apply to Reclamation. The Solicitor determined the Act applies to levees defined as embankments providing protection relating to seasonal high water and other weather events. In contrast, Reclamation canals are designed to deliver water.

Additionally, the Act does not include inspection of Reclamation canals among the responsibilities of the Secretary of the Army. The test of agency jurisdiction assertion over another agency requires a clear congressional statement of intent that one agency have jurisdiction over another.

In this case, there is no clear statement of intent that the Secretary of the Army have jurisdiction over Reclamation regarding levees or canals. Further, there is no indication in the Act that Congress intended to subject Reclamation to the jurisdiction of the Secretary of the Army.

We agree with the Department of the Interior's and Reclamation's position.

Concerns of Western Water Users

There is a need to address deterioration of aging flood control facilities and preventing failures like the one which occurred in New Orleans. It should be an immediate national priority.

However, after reviewing the NCLS' recommendations in detail, we have critical concerns.

(1) The approach is overly broad.

(2) *It mandates new standards that would apply to existing Bureau of Reclamation water delivery facilities.*

(3) The focus should be on control facilities that pose actual risk to life or property in the flood plain.

(4) The Act was intended to deal with levees in and around New Orleans into which flood waters were pumped to be conveyed away from the low points in the city.

(5) Legislation should not define "levee" as used in the Act which created the NCLS.

(6) The legislation should only address a program for "levees" as that term is traditionally understood, with the embankment sections of water delivery canals and dams excluded.

Canals are designed and engineered different than levees. Applying flood control levee standards to water delivery canals is a non-sequitur. It will be expensive and for many, unaffordable. The nation-wide inspection program and new project condition and maintenance standards required in the legislative proposal would in most cases be duplicative and undermine existing operation and maintenance (O&M) standards and inspection procedures built into Reclamation contracts for both reserved and transferred facilities. The cost increase, both federal and non-federal, in almost every case would provide no increase in public safety.

There would be a potential for greater liability to water project operators because applying levee standards not meant for canal delivery structures would make compliance difficult, if not impossible, due to the excessive costs of rebuilding such structures. Although the draft legislation would authorize financial assistance to non-federal entities responsible for the maintenance of federally-owned facilities, it is not clear how or when that assistance would be realized.

Finally, and perhaps most important, Congress and this Committee recently provided new authority to Reclamation through *P.L. 111-11*, signed into law in March 2009. The law addresses aging canal systems in urbanized areas of the West. These authorities were proposed by Senate Majority Leader Harry Reid (D-NV) who in early 2008 introduced a bill (S. 2842) designed to make aging federally-owned canals safer across the West. Reclamation is inspecting urban area canals. This program for canal safety addresses the risk of canal failure in areas of highest risk. The NLSP should not duplicate or hinder this effort with more layers of federal bureaucracy.

The examples of the negative impact of the NLSP on irrigation projects with federally owned facilities in Arizona are:

1. Salt River Project, Maricopa County, Arizona
 - Reclamation project
 - 131 miles of canals
 - 30 miles of "urban" canals
 - Regular periodic inspections of canals
 - "Urban" canals have been inspected by Reclamation within the last year
2. Yuma County Water Users' Association, Yuma County, Arizona
 - Reclamation project
 - 60 miles of canals
 - 14 miles of "urban" canals

- Periodic canal inspection by Reclamation
 - “Urban” canals have been inspected by Reclamation within the last year
3. North Gila Valley Irrigation and Drainage District, Yuma County, Arizona
- 6,587 authorized irrigable acres
 - 2.5 employees
 - 20 miles of canals
 - 0 miles “urban” canals
 - Regularly safety inspected by Reclamation

Conclusion

In the American West, water supply systems are essential components of communities, farms, and the environment. These facilities are an integral part of the nation’s food-production system and their consistent operation helps ensure our farmers’ ability to provide a reliable and secure food supply for our own citizens and the rest of the world. Population growth, environmental demands and climate change are placing an unprecedented strain on aging water storage and conveyance systems designed primarily for agricultural use. The NCLS, with no membership or representation from Reclamation or Reclamation states in the West, represents a real and significant threat to the continued operation of the canals with no additional public safety benefit.

Our members have a long standing tradition of good working relationships with the Bureau of Reclamation and have supported updating Reclamation guidelines for analyzing projects to include considerations for urbanization and other effects that did not exist when these facilities were originally designed many decades ago. However, one-size still does not fit all, and blanket inspections and expensive, nonsensical standards for all Reclamation water delivery facilities are not appropriate or cost-effective. Further, many local districts do not have the financial capability to conduct required repairs or upgrades to their facilities to comply with a national levee standard on their canals, resulting in little or no commensurate increase in public safety. We believe this Committee and Reclamation have the appropriate knowledge and tools to develop strong safety standards for our water supply systems and should not be subjected to a “one size fits all” approach by the NCLS.

Paul Orme
General Counsel To
Central Arizona Irrigation and Drainage District
Maricopa – Stanfield Irrigation & Drainage District
New Magma Irrigation and Drainage District

Testimony Before the U.S. House of Representatives
Water and Power Subcommittee
Oversight Hearing on
“Creating Abundant Water and Power Supplies and Job Growth by Restoring Common Sense
To Federal Regulations”
April 5, 2011

My name is Paul Orme and I am an Arizona Attorney representing three irrigation districts which receive irrigation water through the Central Arizona Project. Combined these three districts total over 200,000 irrigable acres in Pinal County, Arizona and utilize approximately 60% of the agricultural water delivered annually through the CAP.

These remarks concern the Navajo Generating Station (NGS), located near Page, Arizona, and the emissions control options being considered for improving visibility in that area which includes the Grand Canyon National Park. The Environmental Protection Agency (EPA) is in the process of determining the Best Available Retrofit Technology (BART) to reduce nitrogen oxide (NO_x) emissions at NGS. Litigation has also been filed by a coalition of environmental groups on these same visibility standards, which may or may not be partially driving this process.

EPA’s ultimate BART decision will significantly impact the people and economies in and around Page, including the Hopi and Navajo Reservations. Their stories deserve to be heard and are being told by others. My focus will be the impact in the farm communities in Central Arizona.

NGS is the source of power needed to deliver the major share of Arizona’s entitlement of Colorado River water over 300 miles via the Central Arizona Project (CAP) aqueduct from Lake Havasu to Tucson. Twenty four percent of the output of the plant is held by the United States Bureau of Reclamation.

The majority of water delivered through the CAP aqueduct is used by farmers. In a typical year, non-Indian agriculture uses nearly 50% of the total water delivered through the CAP. Agriculture water for Indian use adds another 200,000 acre feet to the total. Vital to agriculture’s future in Arizona is access to a low cost and reliable supply of water. Some of the emission control options being considered by the EPA at the Navajo plant could render CAP water an uneconomical water resource option for agriculture. And for those farmers unable to access water resources other than CAP water, these regulatory requirements would put agriculture’s viability as a business in jeopardy. Family farmers, irrigation districts, associated farming and

agricultural businesses, and the local economies of several farming communities in Central Arizona face significant impact and economic hardship should the cost of emission controls at NGS render CAP water unaffordable for agricultural use.

Currently two emission control options are being considered: 1) low NO_x burners; and 2) selective catalytic reduction (SCR) with bag houses to collect particulates, options with a significant difference in associated costs, but with air visibility results imperceptible to the human eye. If the EPA selects the more costly option for BART, it is possible the existing owners of the plant will decide to shut it down, requiring CAP to find an alternative source of power resulting in water costs entirely beyond the capability of agriculture to pay. For a variety of reasons, a decision to shut down NGS would be the worst possible result for Arizona and the CAP.

CAP estimates that the impact to energy charges within the water rates to install the low NO_x burners at NGS are in the range of \$0.50 per acre-foot. This is a manageable increase in exchange for a significant reduction on NO_x emissions. Conversely, the SCR treatment is estimated to have an impact of over \$16.00 per acre-foot. An increase of \$16.00 per acre-foot will have a significant cascading negative impact on agriculture, the economy and environment of Central Arizona. Farmers will turn to increasing the use of non-renewable groundwater supplies and some will discontinue farming. Local businesses that support agriculture will suffer, aquifer levels will decline with related degradation of the water quality, and increased unemployment can be expected due to agriculture-related job losses during one of the worst recessions experience by our country.

The introduction of CAP water as a renewable water supply to Central Arizona has benefited the agricultural economy and the State of Arizona – by assisting the agricultural user in meeting regulatory objectives to reduce groundwater use, ensuring long term availability of groundwater resources as a resource for future drought conditions, and through a reliable water supply helping to sustain economic growth and vitality of the agricultural communities that depend upon agriculture for their livelihoods.

For example, one of my clients is the Maricopa-Stanfield Irrigation & Drainage District (MSIDD) located in Pinal County Arizona. That District pumped between 300,000 – 400,000 acre-feet of groundwater per year before the introduction of CAP water in the late 1980's. During calendar year 2010, MSIDD pumped a total of 81,000 acre-feet while providing irrigation water services to over 70,000 acres. CAP water during the same year constituted 70% of total water deliveries, or approximately 200,000 acre feet. Should water costs increase by \$16 per acre foot as predicted through the installation of the SCR technology and bag houses, irrigation districts such as MSIDD will resume groundwater pumping as a less costly option for the farmers served by this District. The 200,000 acre-feet of CAP water that was used by the District in 2010 will be partially replaced with less expensive groundwater.

To add further perspective, since 1987 MSIDD has delivered 3.8 million acre feet of renewable CAP water, essentially preserving a like amount of groundwater in District aquifers for drought purposes. Where historically during the 1970's and 1980's there was significant overdraft of the aquifer within MSIDD boundaries and regularly occurring subsidence, today the aquifers in

Central Arizona have stabilized or rebounded underlying those agricultural lands that have had access to CAP water. Should the CAP water become uneconomic to use due to NGS emission controls, aquifer overdraft and possible subsidence will return. The irony of the situation is that two epic and very successful Federal and State policies that were implemented in Central Arizona in the 1980's, the CAP Enabling Act and the Arizona Groundwater Management Act, originated to reduce groundwater overdraft and large scale pumping in Central Arizona. Now, if the EPA requires SCRs and bag houses on NGS, large scale groundwater pumping in central Arizona will return.

If the EPA restrictions are fully implemented, MSIDD estimates agricultural lands will shrink by 35-50% reaching upwards of 35,000 acres. With anticipated urban growth in the area over the next 50 years, water supply and water quality problems may be further exacerbated due to over-pumping in the near term.

For a typical farmer in Central Arizona, the cost of purchasing and delivering water is the single highest operating expense, comprising over 20% of the total expense to operate a farm. In order for the farmer to remain competitive, it is essential that all operational costs are managed closely. Cost increases not related to the agricultural market are difficult for the farmer to pass on to the consumer. With increased water costs, farmers will be forced to absorb those costs directly without the ability to pass on those cost increases. A \$16 per acre-foot increase in water costs equates to a cost increase of over \$50 per acre based on a farm using 4.5 acre feet per acre of water per year, and assuming 70% of the water is from the CAP. For a 1,000 acre farm, the total cost increase would be over \$50,000. Crops typically grown in this region are of the variety that competes on the world market. There is very little room to pass on any cost increases due to the nature of this highly competitive market. Furthermore, the \$16 per acre-foot will have the same impact on all the farmers in the CAP including the Native Americans sector.

The impacts to an irrigation district such as MSIDD are also substantial. MSIDD estimates that almost 75% of its entire budget is devoted to water costs, both CAP and groundwater. Of those costs, 95% is energy. Should EPA require the SCR control option be employed, MSIDD would be facing a budget increase of over \$3.0 million. It is this cost increase that is passed along to farmers. Should NGS be shuttered, CAP estimates that replacement energy costs would add \$30 - \$115 an acre foot to the price of water, or a 60 – 200% cost increase for MSIDD, and all CAP agricultural water users.

Arizona and western U.S. water policies are extremely complicated and interwoven throughout all water use sectors. In 2004, the Arizona Water Settlements Act was signed into law. This comprehensive act had several components associated with it in ensuring further certainty and reliability as it came to water resource management and planning in Arizona. One such component resolved a long standing dispute on determining the extent of the water rights associated with the Gila River Indian Community (GRIC). Substantial time and effort was spent by the federal government, Gila River Indian tribes, cities, and irrigation districts in negotiating a workable solution for all parties. The agricultural sector provided the largest allocation of water to settle the GRIC water claims. With the relinquishment of the long term CAP water allocations, the agricultural sector was to receive in turn an adequate and affordable supply of

CAP water through the year 2030. The Tribes received assurance of affordable CAP water in lieu of free Winters Rights water. Under the SCR emission control options proposed by the EPA, the principles associated with the assurance of affordable CAP water for agricultural use will be violated. Consequently, an uneconomical CAP water source will have far reaching impacts not only to the individual Indian and non-Indian farmers, but may also have the potential to undermine the water settlement agreement. It will certainly give potential parties to future water settlements pause, if one agency of the Federal government (EPA) can undo benefits agreed to by another agency (DOI) before the ink is barely dry on the settlement agreement.

Unplanned or unforeseen adverse economic impacts due to catastrophic natural events are well understood risks that farmers accept as a cost of doing business. Farmers, where possible, protect the business by insuring for such occurrences. Adverse economic impacts that are purposefully planned without consideration on a broader scale on how those actions impact others are careless and irresponsible. Farmers going out of business, irrigation district and farming related job loss, and local communities economies harmed as a result of the questionable emission control options currently being considered at NGS are major economic implications for Central Arizona. Pinal County's economy will be hit particularly hard, with some of the nation's most productive farmland going fallow. The EPA's emission control options will have real impacts directly on many people's livelihoods not only on the Hopi and Navajo Reservations in Northern Arizona and in the Town of Page, but also on the farm and tribal communities of Central Arizona.

We urge the House Water and Power subcommittee to recognize the damaging economic, social and environmental impacts these actions from the EPA may have on the agriculture industry in Central Arizona.

Thank you for the opportunity to provide the Subcommittee with this testimony.



Jon Scholl
President
American Farmland Trust

Testimony on “Creating Abundant Water and Power Supplies and Job Growth by
Restoring Common Sense to Federal Regulations”

To the
U.S. House of Representatives Committee on Natural Resources
Subcommittee on Water and Power

April 5, 2011

Good Afternoon,

Chairman McClintock, Ranking Member Napolitano and other Members of the Committee, thank you for inviting me to testify today. My name is Jon Scholl. I am the President of the American Farmland Trust headquartered in Washington, DC. I am a partner in a family farm in McLean County, Illinois.

American Farmland Trust is an organization that has for the last thirty years worked at the intersection of agriculture and the environment. We work to protect farmland and promote sound stewardship while also looking out for the economic viability of agriculture. Before joining American Farmland Trust, I had the privilege of serving for four years as the Counselor to the Administrator for Agricultural Policy at the United States Environmental Protection Agency during the Administration of George W. Bush. Before that, I worked at the Illinois Farm Bureau for 25 years in a variety of capacities.

As someone involved in my family’s farm operation, a former EPA agricultural appointee, and the President of American Farmland Trust, let me be the first to say that our Nation faces serious environmental problems and that agriculture is both a contributor and a big part of the solution to these challenges. Having spent my life in agriculture, I know that farmers and ranchers across this country feel increasing environmental pressure as a result of these challenges, especially with respect to water. This pressure is coming on many fronts. It’s not just coming from the federal government but also states, localities and increasingly corporations to whom we sell our products. I can appreciate why you have called this hearing and thank you for the opportunity to contribute to this discussion and the search for answers.

I. Defining the Challenge

I begin my testimony by acknowledging that there are legitimate environmental concerns associated with agricultural production. Let me give you just a few concrete examples using two recent reports published by the United States Department of Agriculture.

Last year USDA published the first report from their Conservation Effects Assessment Project for the 8 states encompassing the Upper Mississippi River Basin. In that report, USDA highlighted serious environmental concerns attributable to the agricultural sector. USDA found for example, 36 million acres (62 percent of cropped acres in the watershed) “are under-treated for one or more of sediment loss, nitrogen lost with surface runoff, nitrogen in subsurface flow, or total phosphorus loss,” of which 8.5 million acres (15 percent of cropped acres in the UMRB) are critically under-treated and are among the most vulnerable cropped acres in the region; most of these acres have either a high or moderately high soil runoff or leaching potential” (United States Dept of Agriculture, National Resources Conservation Service, *Summary of Findings of the Assessment of the Effects of Conservation Practices on Cultivated Cropland in the Upper Mississippi River Basin*, June 2010, page 7).

Likewise, USDA's report evaluating the Chesapeake Bay watershed shows that 19 percent of cropped acres have a high level of need for additional conservation treatment. “Acres with a high level of need consist of the most vulnerable acres with the least conservation treatment and the highest losses of sediment and nutrients.” (United States Dept of Agriculture, National Resources Conservation Service, *Summary of Findings of the Assessment of the Effects of Conservation Practices on Cultivated Cropland in the Chesapeake Bay Region*, March 2011, page 3). Using USDA's data, it is evident that agriculture has legitimate environmental concerns that require attention.

Interestingly, those same two reports also help point the way on how to move forward. Namely, both reports highlight the potential for substantial progress that agriculture could make in years to come. In the Upper Mississippi, for example, the report estimates that if we apply a combination of fairly common nutrient management and soil erosion prevention techniques onto the 36 million undertreated acres, compared to the baseline, runoff of sediment could be reduced by 21 percent, nitrogen by 44 percent, phosphorus by 27 percent and Atrazine by 18 percent. (United States Dept of Agriculture, National Resources Conservation Service, *Summary of Findings of the Assessment of the Effects of Conservation Practices on Cultivated Cropland in the Upper Mississippi River Basin*, June 2010, page 7.) These gains would be in addition to the significant record of accomplishment already evident in the region. Existing application and treatment of conservation practices has reduced sediment loads by 37 percent, nitrogen loads by 21 percent, phosphorus loads by 40 percent, and Atrazine loads by 51 percent (*Id.* at p. 4).

In the Chesapeake Bay, USDA reports that adoption of additional conservation practices on undertreated acres would, compared to the 2003–06 baseline, “further reduce edge-of-field sediment loss by 37 percent, losses of nitrogen with surface runoff by 27 percent,

losses of nitrogen in subsurface flows by 20 percent, and losses of phosphorus (sediment-attached and soluble) by 25 percent” (United States Dept of Agriculture, National Resources Conservation Service, *Summary of Findings of the Assessment of the Effects of Conservation Practices on Cultivated Cropland in the Chesapeake Bay Region*, March 2011, page 3). Again a focus on these acres would add to the impressive record of achievement that conservation has had on the landscape in which adoption of conservation practices has reduced edge-of-field sediment loss by 55 percent, losses of nitrogen with surface runoff by 42 percent, losses of nitrogen in subsurface flows by 31 percent, and losses of phosphorus (sediment attached and soluble) by 41 percent (*Id.*).

It strikes me that an important place to start in addressing agriculture’s contribution to environmental problems is to recognize and learn from the gains that agriculture has made.

II. What needs to be done?

So what then needs to be done to both address environmental concerns and reduce burdens on producers – burdens which in some cases lead to significant financial stress? I would suggest three general courses to follow:

1) Build a “culture of collaboration”

Farmers are pragmatic and they will acknowledge that the industry can and should do more to address environmental concerns. But they also need to be recognized for the progress they’ve made. Virtually every farmer will tell you that he or she wants to leave their farm in better shape for their children than it was when they got it. In the many years I spent working at EPA during the Bush Administration, I can attest to spending many hours talking about, explaining and working through concerns that staff had with agriculture. It was quickly evident to me that these “regulators” cared deeply about the environment and wanted to assure that appropriate actions were taken to achieve their worthy objectives. While we shared common objectives, our approach to solving problems and the language we used to communicate about them were very different. My time working with state government likewise informed me that we need a lot more effort to overcome the barriers to achieving common objectives if we are to assure a productive agriculture and a clean environment.

A more recent field example also helps illustrate what I mean. About 18 months ago, the staff in EPA Region III began a series of inspections on farms in Bay states to assess environmental performance and compliance with state and federal laws. When EPA inspectors arrived in the driveways of farms in the Watson Run watershed in Lancaster County, PA, not many doorbells were answered. After an inauspicious start, the head of the county conservation district suggested that he might help in arranging visits and accompany the inspection team. With this local assistance all 24 farms were visited in relatively short order. What did they find? Things weren’t perfect. Many of the farms did not have conservation and manure management plans required by Pennsylvania state law. But EPA staff also learned that conservation practices and stewardship

performance was significantly higher than what they expected, particularly in adoption of no till, soil testing and use of cover crops. In the end, what had started as a predictably contentious process that created ill will in the farming community turned into a more collaborative effort that showed that farmers are committed to good stewardship and the work yet to be done. An important outcome of all this is that the Lancaster County Conservation District is now implementing a program to ensure that farms are doing all they need to do, both in terms of practices and paperwork, using education, careful planning, follow-up, and, when necessary, compliance enforcement by the local district board. I believe this serves as a lesson in the value of collaborative action that can turn around an adversarial relationship to one of engagement. In the end, EPA needed local cooperation and guidance to do its job and local and state officials were able to use momentum created by the inspections to focus the attention of the community in a constructive manner.

2) Back up collaboration with action

I believe in that old adage that "actions speak louder than words." As a result not only do we need more talking, we need more action to create real collaboration.

One measure of action is the commitment the federal government applies to non-point sources under our water policies. Since 1988 the federal government has made a significant commitment to wastewater treatment and collectively has spent more than \$30 billion dollars of the Clean Water State Revolving Fund which has wastewater as a primary purpose (Environmental Protection Agency, *FY 2011 Budget in Brief*, page 86). Indeed, in FY10 the federal government spent more than \$2 billion in the CWSRF with large sums flowing to wastewater (Environmental Protection Agency, *FY 2012 Budget in Brief*, page 109). While that money no doubt is necessary, by comparison, EPA's section 319 non-point source funds measure in the millions, and in FY10 the federal government spent \$200 million, with most of this money directed towards planning, not implementing (*Id* at page 89). While money is not the only measure and it is a difficult resource to come by in a tough budget environment, this disparity points out that we haven't really put a priority on solving non-point problems, certainly as compared to what we have invested in point source pollution issues.

Another way to translate collaboration into action is to work to reduce farmers' and ranchers' fears. I can't tell you the number of times I talk to producers and I am told that he or she doesn't want to collect data, implement practices voluntarily or participate in EPA monitoring for fear their actions will subsequently lead to additional regulation. American Farmland Trust is currently working, for example, in the Ohio River watershed with the electric power industry to develop a region-wide water trading system. Utilities would pay farmers to reduce nitrogen runoff and, in turn, those reductions would satisfy EPA and state level water pollution standards. This is a classic win-win scenario in which producers earn income, utilities avoid costlier compliance obligations, and society gains cleaner water. Yet many farmers have said that while they are attracted to the concept, they fear that as soon as they begin implementing nitrogen reduction practices, those practices will be used against them as the basis for further regulation. This is one example

of many I could give, the point of which is we must create regulatory certainty for producers so when they step up to help, they don't feel as though they will be contributing to the establishment of a new regulatory standard that different farms, climate conditions or evolving technology might not find workable.

A strong emphasis on a classical regulatory approach to farm conservation issues causes many farmers to fear the expensive, unmanageable and tangled web in which they might get caught instead of focusing their energy and resources on a more appropriate and natural desire to strive for continuous improvement in their operations. Incentivizing good behavior draws people into action; the threat of regulations makes them hide.

Last year American Farmland Trust supported a bill (HR 5509) by Congressman Goodlatte from Virginia and Holden from Pennsylvania that created safe harbors for conservation practice adoption in the Chesapeake Bay. Under this approach producers would be responsible for undertaking certain conservation practices but doing so relieves them of regulatory burdens. I encourage this Committee to explore changes like that in order to create collaboration through certainty.

3) Overcome unnecessary barriers

In addition to creating a culture of collaboration, we need to break down silos that send dramatically mixed signals to those whose behavior we seek to influence. Since the Chairman and Ranking Member are both from California, I use an example from your state. As all of us know the State of California has created, with voter agreement, a carbon cap and trade system. Under that system, the California Air Resources Board has the power to create offsets. This means that farmers and ranchers could be paid to capture and sequester carbon. One well known technique to do that is by creating methane digesters that destroy harmful methane gas generated from livestock manure. The Air Resources Board has in fact acknowledged the high value of digesters by approving them as one of California's first offset types. Yet while one arm of ARB approved use of digesters, another arm of ARB refuses to issue permits to build digesters over a concern they may violate NOx standards.

Commonsense dictates that something is wrong here. I believe we should be trying to examine the net environmental benefits of carbon versus potential NOx emissions. I believe a culture of collaboration, one of thinking with the parties involved about how to get things done, would have the federal and state governments working together to explore this problem and resolve it so that those digesters can be built. In fact, at a recent meeting with the EPA, I asked them to do just that – work outside the box, break down silos and help ARB solve this obvious problem. I would note that in the world of water, that sort of federal and state breaking down of silos and looking for ways to overcome barriers has led to recent work in the Chesapeake Bay. USDA, the state departments of agriculture, state departments of environment and the EPA are all now working together in the Bay to tackle pressing environmental problems in which agriculture is part of the problem but also a key to their solution.

III. Finding a better way

I find the current level of contention between agriculture and those charged with protecting society's interest in a clean environment to be very sad. We share common objectives but we can't seem to get beyond classical means of dealing with pollution to creative and workable ways to engage each other. At American Farmland Trust, we know that there is a right way and a wrong way to work with farmers on environmental issues. The environmental challenges farmers and ranchers grapple with are complex, and difficult to identify and resolve. While we know that regulations have their place and indeed are sometimes necessary, we need to approach these issues differently because the classic 1970s-era regulatory approach to environmental clean-up is a poor fit for agriculture. Many of these laws, which have helped to clean our air and clean our water, were expressly designed to deal with industrial point source polluters. If we are entering a world in which non-industrial, non-point source pollution is now one of our central challenges then we must look to another approach.

It's critical to understand that protecting the environment is an important issue to farmers and ranchers. They feel the effects first, and often in their pocketbooks, if problems persist. They have a strong incentive to keep their land productive and clean. Building upon these natural and long standing realities of farm life while reaching out and seeking ways to build trust and cooperation are vital to the future success of our Nation's efforts to clean our air and water. We stand ready to assist in this worthy endeavor.