



## **U.S. Department of the Interior**

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**REMARKS AS PREPARED FOR DELIVERY:  
COLORADO RIVER WATER USERS ASSOCIATION  
BY ANNE CASTLE,  
ASSISTANT SECRETARY OF THE INTERIOR  
FOR WATER AND SCIENCE  
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It is an honor to be here today with this group of people who care so much about the Colorado River Basin, which is also very dear to my heart. I'm very proud to represent the Department of the Interior and especially to be able to work with and for Secretary of the Interior Ken Salazar.

I appreciate his kind introduction. Talk about the best of the best--We are incredibly lucky to have Ken Salazar as our leader on water issues. He started his career as a water rights lawyer in Colorado, and went on to participate at the highest level in finding solutions to some of the toughest water challenges in the West, first as the director of the Colorado Department of Natural Resources, later as attorney general of Colorado and then in the U.S. Senate, and now as our Secretary of the Interior.

He knows the Colorado River and he takes his role as the water master of the lower river very seriously.

And I'm also very pleased that our team includes an unusually knowledgeable and skilled Reclamation Commissioner, Mike Connor, who will be speaking to you tomorrow morning. Mike is a wonderful asset, and has, in a very short time, gained the respect of all the people he works with.

Serving as the Assistant Secretary for Water and Science has provided me with an incredible opportunity to help the Secretary and the Obama Administration lead the way on the path to the sustainable water policy that America urgently needs. And nowhere is that more important than in the Colorado River Basin.

Relevance of Copenhagen to Colo. Riv. Basin Ken Salazar really wanted to be here in person today, but in the overall scheme of things, his participation at Copenhagen is even more critical to the Colorado River Basin. This Basin, already the driest portion of the nation, is ground zero for climate change. It is experiencing these changes much more rapidly than other areas. Compound that with population growth well above the national average, and we've got significant risk to our water supplies.

Mountain snowpack represents a substantial amount of annual water supply in the Colorado River Basin and throughout the West. But, as Secretary Salazar mentioned, snowmelt is coming earlier, we're having more rain and less snow, and climate change experts predict up to a 20% decrease in average water flow in the Colorado River.

As water users, managers and decision makers in the Colorado River Basin, we need to understand as much as we can about these changes in basin water supply and use if these trends continue.

A USGS study evaluated the viability of basin water operations under various scenarios of climate

change. The study used a hydrologic model and tree-ring based reconstructions of the Colorado River water supply for the past 500 years. It also used water supply data for the 20th century and scenarios of climate for the 21st century.

The results indicated that small increases in temperature, with no compensating increases in precipitation, could result in severe water shortages in the Colorado River Basin. And future warming could greatly increase the risk of failing to meet the various delivery obligations up and down the Colorado River. That's a risk we obviously all want to avoid.

Our water managers in Reclamation and in all of your organizations know that climate change isn't just a theoretical future possibility, it's real, it's happening, and we're dealing with it right now. We've been trying to make the point in the climate change discussions that water is on the front end of real impacts.

I want to emphasize two things.

First, when we talk about water and climate change, the impacts go beyond just agricultural or municipal or environmental concerns. Access to water and water scarcity resulting from climate change are security concerns, both domestic and global.

Second, the key to addressing these issues is partnerships.

Or, as Winston Churchill put it, "If we are together nothing is impossible. If we are divided all will fail."

In the face of climate change, we have to evolve, we have to adapt our operations to meet these multiple needs -- and to meet them under the Law of the River.

There is only one way to accomplish that goal: and that is through partnerships that bring multiple interests to the table and force agreements that work.

I challenge anyone to point to a significant accomplishment in the history of the Colorado River Basin that did not involve partnerships.

They all did, but that doesn't mean it's been easy . . .

### **2007 Record of Decision – Example of Partnerships and Successful Cooperation**

Over the decades there have been so many tensions within this basin that the Colorado River has earned its reputation as the world's most litigated river.

But, in recent years, we have seen a new spirit of partnership and collaboration. A recognition that we all get at least part of what we want, more reliably and more quickly, if we work together and compromise.

Many of you were engaged in the process that led to the 2007 Record of Decision for the Interim Guidelines.

But in 2005, as the drought was deepening and tensions were rising among the states, no one would have predicted that the states, the NGOs, and the federal government would have been able to craft such an important and creative set of agreements—agreements that encourage water conservation, coordinate the operations of Lake Powell and Lake Mead, and deal with shortages in the Lower Basin.

This past spring, Secretary Salazar celebrated the historic and successful outcome of that process with many of you at the Interior building in Washington. The Secretary literally stopped the proceedings to explain to those gathered there just how unique and unprecedented the agreements were.

As a water lawyer and a native Coloradan, the Secretary understood the the blood, sweat and tears that went into the 2007 Agreements, and the accomplishment they represent.

Two years after their adoption, these rules are providing clear benefits for the management of the Colorado River. Water conservation projects that could have been tied up for years in litigation are going forward. And these projects are providing flexibility to water users in Southern California who are experiencing significant reductions in other sources of water supplies.

### **Glen Canyon**

The Secretary's announcement concerning Glen Canyon Dam and a high flow experiment protocol is another example of a partnership that is working.

The operation of Glen Canyon Dam has been controversial over the years within a multitude of differing interests. We've had cooperation and we've had litigation. We've had threats, and setbacks, and battles.

But we've also put in place a comprehensive science program designed to figure out the complex processes at work downstream of Glen Canyon Dam, so that we can get better at managing the river for the benefit of all the various resources at stake. And through the process of scientific experimentation and adaptive management, we've learned that one of the best tools we have to benefit resources in the Grand Canyon is short duration high-flow releases.

We can make those types of releases without affecting the overall amounts of water required to be released from Lake Powell by the 2007 interim guidelines and the Law of the River. And these releases help rebuild sandbars and beaches, create backwater habitat, and provide sand for protection of archaeological sites.

We've now done high flow releases three times: In 1996, 2004, and 2008. And we've learned through all of these experiments, and particularly the latest one, that, if sediment conditions are favorable and we use the right triggers, we can really benefit the system.

But we also know that the benefits of new sand deposits and backwaters are eroded away over time. The next step in the experimentation process is to see whether, with repeated high flow releases when conditions are right, we can reverse the net sand depletion and work toward a more sustainable system.

The favorable sediment conditions occur infrequently enough that we'd be remiss if the sediment was present and the time was right, but we weren't able to take advantage of it.

That's why the Secretary has directed the development of a protocol that will establish appropriate triggers for repeated high flow experiments and allow us to take advantage of those times when the right conditions occur.

This concept has been discussed with all of the Glen Canyon Dam adaptive management group stakeholders. And I think we all agree that it's time to move forward with this next step of adaptive management.

We'll start the process of an environmental assessment on a high flow release protocol, and you'll see a Federal Register notice to that effect shortly. The USGS research on the 2008 high flow release will be completed next month, and that additional information can be incorporated into the development of the high flow protocol.

We'll tap into the tremendous knowledge base in the Adaptive Management Work Group and use that group's process to move this forward. I want to be clear that this high flow protocol is not intended to change the existing 5-year plan that's now in place. It will simply allow new high flow releases if the right conditions occur.

And, as the Secretary said, we also need to start thinking about a longer term experimental and management plan for Glen Canyon Dam. We need to build on the good science and experimentation that have been going on over the past 15 years, and put together a plan that incorporates that knowledge, but leaves flexibility for future adaptation. That's not going to be easy.

But as I've talked to the many different stakeholders about this process, I've found that there is great consensus that it's time to move forward.

We've learned a lot from our scientists and our experimentation, and while there's always more to learn, it's time to incorporate that knowledge and take the next steps.

And we're going to move forward in partnership with all the stakeholders. We're going to find a path that adheres to the Law of the River, respects the interests of the tribal nations for whom the Grand Canyon is a sacred site, and protects and preserves the resources in Grand Canyon National Park.

Again, this is an Adaptive Management Work Group process, not just a Department of the Interior process, and we need to take these steps as partners to make it work.

I want to talk about some other successful partnerships on the river.

### **Upper Colorado and San Juan**

Two of our current recovery efforts are poster children for the successes that result when all parties join together in good faith—the Upper Colorado River and San Juan Recovery Implementation Programs.

These Programs have become national models demonstrating that endangered species conservation and water development can be compatible.

There are multiple projects that are part of these Programs, but both include construction of fish passages structures that have opened up 10s and even 100s of miles of river to fish migration.

### **Lower Colorado River Multi-Species Conservation Program**

Turning to the Lower Basin we have the Multi-Species Conservation Program. This program is addressing current federal and state actions on the river, but also anticipates the effects of future activities that may occur over the next 47 years.

This program is unique in that it addresses not only the habitat needs of listed species but also the needs of 20 species that could become listed at some point in the future. It's proactive, not just reactive.

Environmental groups, states, Tribes, NGOs, and the Federal agencies have come together to make all three of these programs happen. These are wonderful examples of partnerships that work.

## **Other national policies related to water and climate change**

In addition to these regional projects, I'd also like to highlight some national policies that are related to climate change and water. Secretary Salazar already mentioned his Secretarial order on climate change, but we also have new national legislation directly addressing the impact of climate change on water supplies.

### **SECURE Water ACT**

The SECURE water legislation, contained in the Omnibus Public Lands Act of 2009, goes directly to this problem. It authorizes USGS's National Water Census and gives Reclamation a lead role in assessing risks to the country's water resources posed by climate change. Mike Connor will be talking more about Secure Water tomorrow and he's the world's expert on it.

### **INVESTMENT IN WATER INFRASTRUCTURE**

Another way in which the Interior Department is working to solve water supply challenges is through the American Recovery and Reinvestment Act.

Interior has invested \$1 billion of Recovery Act funding in America's water infrastructure.

More than \$72 million of that funding has gone to Colorado River Basin projects. 18 projects in the Lower Colorado River Basin and 6 projects in the Upper Basin. The largest is the San Carlos River Irrigation Project for the Gila River Indian Community with over \$36 million in Recovery Act funding.

### **WATER CONSERVATION INITIATIVE**

The Recovery Act funding also was also a jump start for the Interior Department's Water Conservation Initiative.

Reclamation's Title XVI program is probably the best known component of our water conservation efforts. Title XVI provides cost share grants to recycling and reuse projects that focus on wastewater and naturally impaired ground and surface water.

There was \$135 million in Recovery Act funding for Title XVI funds for 27 projects. Because these are cost share grants, that funding was leveraged into \$675 million of new projects.

The Water Conservation Initiative also includes Reclamation's Challenge Grant Program that provides cost share grants for projects that promote more efficient water use or improve water management or water banks that transfer water to meet critical needs.

And finally, we have Reclamation's Basin Study Program. This is another example of partnerships involving federal state and local interests, all focused on a particular river basin. The studies will include state-of-the-art projects of water demand and supply, factoring in the impacts of climate change.

The partners in the study will identify basin-wide water supply issues that could be resolved with changes to the operation of water supply systems, modifications to existing facilities or development of new facilities.

And, the final step is working with local stakeholders to develop collaborative solutions.

And, as most of you know, one of the first basin studies that is being done will focus on the Colorado River, with a kickoff in just a few days.

### **DOI WATER CONSERVATION INITIATIVE**

But, as a department, we want to do even more to promote water conservation. We want to provide federal leadership and assistance to the great work that is already being done across the county on conservation techniques and incentives.

Our Interior Conservation Project will build on the great work that's being done in recycling and reuse projects around the country. We'll:

- Be a clearinghouse for best conservation practices

- Provide cost/benefit analyses of existing and proposed conservation projects and

- Provide information on successful conservation incentives and land use policies that promote reduction in water demand

You'll be hearing more about Interior's new water conservation program very soon.

### **NEW SUCCESSES IN THE COLORADO RIVER BASIN**

Turning back to the Colorado River Basin, I want to acknowledge other significant efforts that states and water users have made recently, prompted by the drought and the prospect of decreasing water supplies.

One is the Yuma Desalting Plant. The Pilot Run of that Plant wouldn't be possible without the financial support of the Metropolitan Water District of Southern California, the Southern Nevada Water Authority, and the Central Arizona Water Conservation District.

As a result of their contributions, the Pilot Run is expected to generate 30,000 acre-feet of additional municipal supplies during the ongoing drought.

Another truly historic example is the bi-national negotiation with Mexico. These discussions have grown into a truly meaningful dialogue with the Republic of Mexico. With a broader group of stakeholders from both countries we're discussing river operations, storage, shortage sharing, and conservation and environmental restoration opportunities.

We've also had important contributions from Environmental Defense and its partners in Mexico. With those interests engaged, the two countries were able to find a way to preserve important habitat values during the YDP Pilot Run.

The agreement on the YDP represents the first bi-national agreement between the U.S. and Mexico in which the two countries have worked cooperatively to address each other's water interests in the Colorado River, while respecting important environmental needs.

I give particular credit to Reclamation's Regional Director Lorri Gray-Lee who has been leading this effort for Interior.

Mike Connor is also actively working with his counterparts in Mexico, along with U.S. and Mexican state and environmental organizations, to identify water management actions that could benefit both nations during times of plenty and times of shortage.

Secretary Salazar has given us a clear direction: work with Mexico as a true partner, with respect for our Mexican colleagues, and optimism that additional water agreements are within reach.

### **SUMMARY**

While the headlines focus on the water crisis in California, everyone here knows that the news tomorrow could be the crisis in the Colorado River basin.

Clearly, we have to adapt our water management strategies to address the possibility of shrinking water supplies and more frequent and extended droughts.

Today's Glen Canyon Dam announcement is just one example of how the Bureau of Reclamation has embraced significant environmental responsibilities in addition to fulfilling water delivery obligations and generating clean hydro electric power.

Our stewardship responsibility must be addressed while meeting increased water needs, honoring tribal settlements, and respecting the agricultural base.

Even though Department of the Interior agencies involved in the Colorado River —the National Park Service, Bureau of Reclamation, Fish and Wildlife Service, USGS, and Bureau of Indian Affairs—have different missions, we promise they will work as partners with each other and with stakeholders.

Everyone here has different responsibilities and needs from the Colorado River. That is why working as partners under the Law of the River is so important.

Our children and grandchildren are going to judge the success of this generation of water managers on the Colorado River by how well we've provided for a sustainable supply of clean water for them to use and enjoy.

The only way to achieve sustainability is integrating our water supply structure with environmental stewardship and conservation.

And the only way we can do that is by continuing to work together.

If we're together, nothing is impossible.

If we're divided, all will fail.

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