

Conserving Water Through Partnerships Talking points for Dr. Tuggle

Law of the Rio Grande Conference
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Slide #1 - Logo and Title Slide

- Good Morning. I'm Dr. Benjamin Tuggle, the U.S. Fish and Wildlife Service's Southwest Regional Director and I'm honored to be here.
- Before I go into the importance of water and water conservation, I wanted to share a little about my agency and our mission.

Slide #2 - Mission Text

- **Mission:** The mission of the U.S. Fish and Wildlife Service is working with others to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the benefit of the American people.

Slide #3 – FWS is a leader in conservation

- We are leaders in fish and wildlife conservation, known for our scientific excellence, stewardship of lands and natural resources, dedicated professionals, and we are committed to public service.
- **Our Priorities** are to work with others for landscape conservation, fulfill our trust responsibilities, achieve recovery, prevent extinction of threatened and endangered species, and connect people with nature to ensure the future of conservation.

Slide #4 – Water: Precious resource - waterfowl & fish photo

- We believe that water is among our most precious natural resources. This is even more dramatically apparent here in the Southwest.
- Our responsibilities to conserve this resource cannot be taken lightly. But it is not possible to do it alone.

Slide #5 – Drought: Regional impacts

- This discussion is especially relevant during the ongoing drought situation in which we find ourselves and it has impacted our entire four-state region.
- **Arizona** – With the exception of the northern Gila County, which is only “abnormally dry,” the rest of the state is in drought status. No relief is expected.
- **Oklahoma** – the majority of Oklahoma is in extreme to severe stages of drought, with a portion of the state in exceptional status.
- **Texas** – Texas has been experiencing drought since October 2010. As of January 29, 2013, **90 percent of Texas** was in some form of drought conditions, and the state’s reservoirs were **only 66 percent full**.
- And here in New Mexico we’ve identified calendar year 2012 was the 2nd driest on record for our state and also the warmest year on record. Statewide average precipitation was only 60 percent of normal in 2012. This very dry year came on the heels of another dry year in 2011...the 8th driest on record. As a result, the two consecutive years (or 24 months) from 2011 through 2012 were the driest on record, nudging out 1955-1956.
- January 2013 saw some improvement in moisture across the state, but I emphasize the word *some*. Average statewide precipitation was 69 percent of normal, ranging from 94 percent in the Northwest Plateau to 35 percent of normal in the Rio Grande Valley.

Slide #6 – Drought cont.

- While we are pleased to see rain in April, we are not close to our average precipitation. We continue to be in drought status. This not only severely impacts our precious resources; it also has a wide-range impact on industry, municipalities, agriculture and private landowners.
- About sixty percent of the land in the United States is privately owned. We estimate that the Federal Government manages about 28 percent, mostly in the West. State and local governments own nearly 9 percent and Indian trust land accounts for over 2 percent.
- As the majority of land in the U.S. is privately owned, we need to work with others to achieve our mission.

- To increase our success, we are engaging our conservation partners, many of whom are private land owners. Together we are working to conserve our limited water and to find ways to use it more efficiently and effectively.

Slide #7 – Working with partners to protect aquatic resources

- Without strong partnerships, effectively conserving and protecting aquatic resources would be impossible, simply because there will never be enough money and there will never be enough water.
- A monopoly on conservation for aquatic resources by any public or private organization isn't realistic and if fails to build on what significant gains can be made by working collaboratively.
- Local, state, federal, tribal and private conservationists all make different and important contributions to conservation.

Slide # 8 – Tools, ESA and more

The Service has a variety of tools that we can use to work cooperatively with other public entities and private landowners to benefit wildlife and habitat:

- **The Endangered Species Act (ESA)**
- **Partners for Fish and Wildlife**
- **National Wildlife Refuges**
- **Tribal Trust Responsibilities**
- **Water Management Initiatives**

Let me share some illustrations of how each of these tools can contribute to private/public partnerships in water conservation.

Slide # 9 – More on ESA

- **The Endangered Species Act, or ESA**, provides for the conservation of ecosystems upon which threatened and endangered species of fish, wildlife, and plants depend.

Slide # 10 – Chiricahua Leopard Frog

- **The Chiricahua Leopard Frog** is a federally listed threatened species, and provides a wonderful example of how the ESA has been a tool for partnering to conserve the frog's habitat, much of which is located on private lands.
- A pond established in the mid-1990's by the Service and the Arizona Game and Fish Department at an Arizona high school as a safe haven for imperiled fish and frogs, had fallen into disrepair.

Slide # 11: Student: Mackenzie and frogs photo

- A local high school student, Mackenzie Kimbrough, led the way in restoring the pond, with the help of the Service and its partners.
- While the two endangered fish species in the pond appeared healthy, there were no frogs. The existing pond did contain a small ranarium, or a frog nursery, but it had been without frogs for years.
- Mackenzie and her mother found that the high school was slated to bulldoze the pond because it was costing the school so much money to maintain.
- The Service's staff at San Bernadino National Wildlife Refuge provided Mackenzie with some start-up equipment, and the restoration began.
- Using the fact that the frogs are a protected species under the ESA, MacKenzie also recruited the National Resource Conservation Service as a partner. They donated several tools for the project, including rocks and dirt, and native grass hay.
- Thanks to Mackenzie, her mom, and the partnerships she established, the ranarium has been landscaped, and is now home to adult Chiricahua leopard frogs and growing tadpoles provided from a neighboring ranch.
- Today, the threatened frogs are thriving in their newly renovated habitat, and it is all thanks to working with partners.

Slide #12 – Edwards Aquifer

- Texas - The Service approved the Edwards Aquifer Recovery Implementation Program's Habitat Conservation Plan and incidental take permit in February 2013.
- This 15-year partnership agreement enables the Edwards Aquifer Recovery Implementation Program to balance water and conservation, while meeting the needs of the 24th largest metropolitan and agricultural area in the United States.

Slide # 13 – population stats

- This area encompasses San Antonio Water Systems; the City of New Braunfels; the City of San Marcos; and Texas State University.
- The official 2011 U.S. Census estimate showed the metropolitan area's population at 2,194,927.

Slide # 14 – Group photo, Edwards Aquifer

- We anticipate the Edwards Aquifer Recovery Implementation Program will significantly contribute to the recovery of threatened and endangered species and their habitats in the Edwards Aquifer, as well as help meet the large demands for water by fast-growing metropolitan area.

Slide # 15 – Partners for Fish & Wildlife

- **The Services Partners for Fish and Wildlife Program** is another tool we use to achieve voluntary habitat restoration on private lands. This program provides financial and technical assistance to conserve water resources through voluntary partnerships with private landowners.
- Restoring wetland habitat and water resources for wildlife species is a priority for the Southwest Region.

Slide # 16 – Engage Partners

Our approach to working with private landowners through the Partnership Program is simple:

- **Engage willing landowners as partners;**
- **Provide incentives through direct financial and technical assistance to conserve and enhance fish and wildlife values on their property; and**
- **Benefit federal trust species.**

Slide # 17 – Partners project: Apache Grove

- One of my favorite Partners for Fish and Wildlife projects is our work at **Apache Grove**, where we collaborated with the Arizona Water Protection Fund – a state-funded program developed to restore riparian areas in Arizona – on a project with a rancher and farmer along the Gila River.
- This is a photo of the project before work began. The objectives were to restore the function of the floodplain and manage invasive salt cedar.

Slide # 18 – Apache Grove Surveys / erosion

- The Service’s Partners Program provided financial assistance by contributing plant materials, as well as technical assistance in conducting surveys for the federally-listed Southwestern willow flycatcher.
- The project addressed channel impairment caused by a 3,000 foot levee which confined the channel. The rancher was losing valuable cropland due to stream bank erosion.

Slide # 19 Apache Grove: Construction phase

- Project construction involved removing a 3,000 foot long levee and returning the stream bank to its natural grade to restore a functional floodplain.
- A series of vegetative “hedgerows” were planted on the agricultural fields to filter and slow the flow during over-bank flow, thus preventing erosion.
- Approximately 2,000 feet of the stream bank was actively eroding, so these re-sloped areas were treated with structural and bioengineering practices.

Slide # 20 Apache Grove: side-by-side comparison

- Native riparian vegetation was used to stabilize the upper portions of the stream banks, improving wildlife habitat.
- Construction for the project was completed January 2012. At its completion, the project had successfully reduced the floodplain area, increased stream flow velocities, and decreased erosion. Additionally, natural vegetation will use less water.
- The willow flycatcher surveys identified several pairs of flycatchers present in the riparian habitat. Information from the surveys was used to complete the ESA-required Section 7 Biological Opinion and the Section 404 permit with the Army Corps of Engineers.
- [Explain *Section 7* - Under Section 7, Federal agencies must consult with the U.S. Fish and Wildlife Service (Service) when any action the agency carries out, funds, or authorizes (such as through a 404 permit) *may affect* a listed endangered or threatened species. This process usually begins as informal consultation. A Federal agency, in the early stages of project planning, approaches the Service and requests informal consultation.]
- The Service is developing a Safe Harbor Agreement so this landowner as well as others can conduct restoration projects and not worry about additional regulatory burdens.

- A Safe Harbor Agreement. A Safe Harbor Agreement (SHA) is a voluntary agreement involving private or other non-Federal property owners whose actions contribute to the recovery of species listed as threatened or endangered under the ESA. In exchange for actions that contribute to the recovery of listed species on non-Federal lands, participating property owners receive formal assurances from the Service that if they fulfill the conditions of the SHA, the Service will not require any additional or different management activities by the participants without their consent.
- The left photo was taken in March 2012. The right photo was taken three months later in June 2012. It shows the amazing resiliency of riparian vegetation to reestablish after a disturbance.
- The total cost for this project was over \$800,000. The Partners Program provided only a limited amount of the funding for the entire project. However, our involvement with technical assistance allowed the private landowner to meet compliance requirements and complete the project as scheduled.
- All of the construction for this project employed local workers. Conservation projects such as this create jobs and help local economies.

Slide #: 21 Fencing photo with cow - final Apache grove

- This rancher is maintaining the fencing so that his cattle do not graze the riparian area. He was willing to work with the Service thanks to trust developed by our Partnership Program biologists and the motivation they provided for sustaining a functional riparian area. The Safe Harbor Agreement will continue to help his ranching and farming operation.

Slide # 22 – Refuge System

- **The National Wildlife Refuge System** has a number of tools at their disposal that promote the tenets of Cooperative Conservation.
- The refuge system is an anchor on the landscape, providing important hydrological and ecological functions.

The Refuge System has acquired many lands from willing sellers over the years, sustaining wildlife habitat and providing connectivity and islands of conservation – especially in the western United States where the highly diverse – or checkerboard – land ownership patterns can easily fragment habitat and water access. In addition to our National Wildlife Refuges, the Service recently also began establishing Conservation Areas to protect habitat and to preserve important water rights for conservation.

- In addition to our 47 National Wildlife Refuges in the Southwest, the Service has recently established several Conservation Areas. These Conservation Areas emphasize partnerships between the Service and other federal and state – as well as with private landowners – in an effort to achieve landscape-level conservation benefits.

Slide #23 – Rio Mora

- **Rio Mora-** New Mexico is home to one of the most recent Conservation Areas: the Rio Mora National Wildlife Refuge and Conservation Area. This refuge and conservation area in northern New Mexico was established just last fall.
- The refuge and conservation area was made possible through the donation of the Wind River Ranch in north central New Mexico in September 2012 from a private Foundation (Thaw Chari-table Trust).
- Upon acquisition of these lands, the Service formally established the 4,224-acre Rio Mora National Wildlife Refuge and a 300,000-acre watershed-level conservation area.
- In addition to the land (valued at \$5 million) the donation includes up to \$1.7million to support successful and on-going environmental education, research and habitat management on the former ranch.

Slide # 24 – Unique Features of Rio Mora

The unique features of this refuge and conservation area include:

- An environmental education program serving hundreds of students and teachers.
- The site of the original homestead of Senator [Octaviano Ambrosia] Larrazolo, the first U.S. Senator of Mexican-American heritage and second Hispanic Governor of New Mexico.
- A partnership-driven conservation area initiative that allows the Service to provide technical support to interested landowners throughout the Rio Mora watershed.
- The Rio Mora National Wildlife Refuge and Conservation Area is a watershed-level partnership effort featuring the 5,000-acre National Wildlife Refuge and construction of an Environmental Education Center.
- The combined refuge and conservation area is an example of the diverse approaches taken by President Obama and the Department of the Interior to protect lands for conservation benefits by pooling limited resources for maximum public benefit.
- Our Refuge System can also provide tools for private landowners to establish an easement complete a fee-title sale on private lands.
- Lands or water rights transferred through sale or donation into federal ownership assures private landowners can assure that the resources will be protected in perpetuity.

Slide # 25 – Storrie Lake partnership – Las Vegas, New Mexico

- The Storrie Project Water Users Association works together with the Service and other users to manage and store water in Storrie Lake Reservoir. This is an important source of water for the City of Las Vegas, New Mexico.

- In times of drought, the Association imposes an allotment use of less than the legal rights for all of the users. In recognition of our shared interest and need to conserve this precious water resource, the Service honors this agreement and continues to use significantly less than our legal right. We will continue to do so throughout the drought.

Slide # 26 – Las Vegas NWR: water rights / usage

- The Las Vegas National Wildlife Refuge has Junior Water Rights (granted in the early 1920s) for 7,500 acre feet in the Gallinas Basin.
- In 2011, the Refuge used 1,800 acre feet, and in 2012, used 1,100 acre feet, which is equal to 300 acre feet.

Slide # 27 – Las Vegas NWR: dry goose pond image

- Last year the Refuge only received 75 acre feet. (This is about 1% of our legal water right).
- Established for migratory birds traveling along the Central Flyway, the Las Vegas National Wildlife Refuge is comprised of 8,672 acres of native grasslands, croplands, marshes, ponds, timbered canyons and streams which provide important habitat for over 254 species of birds.
- Drought impacts our ability to manage resources for these migratory species as well as for native species and resources – this image is of goose pond, which as you can see is now dry.

Slide #28 – Valle de Oro

- Another good example of how Refuges work with our partners is our brand new **Valle de Oro National Wildlife Refuge**.
- With the help and generous support of our partners and members of the public, the U.S. Fish and Wildlife Service purchased 389-acres of former farm land in Albuquerque's South Valley on September 21, 2012.

- Acquisition of these lands formally established the Southwest Region's first urban National Wildlife Refuge, a distinction shared by only a handful of refuges nationwide. This action completes the first of two Valle de Oro Refuge acquisition phases, which will ultimately provide 570-acres of protected lands for public access, recreation and environmental education.
- The project is the result of close cooperation with Bernalillo County, the Trust for Public Lands and many other partners and public involvement. Community members were active advocates of establishing this refuge, and have already formed a *Friends of the Valle de Oro National Wildlife Refuge* group.

Slide # 29 – Valle de Oro: Unique Features

- This urban refuge is a demonstration of efficient use of Federal dollars for broad community benefit.
- Phase one includes an \$11.5M purchase of lands for protection under Federal jurisdiction, with \$3.75M in Federal funding. The remainder of funding has been provided by local agencies and national non-profits, including \$5 million from Bernalillo County.
- The selection of the name for this refuge is a result of a social media-driven public input process. This project is an example of the diverse approaches taken by the current administration to protect lands and water for conservation benefit.
- With convenient access from Albuquerque schools and other educational facilities within the State of New Mexico, this refuge will have an increased emphasis on recreation and education for urban youth.

Slide # 30 – Valle de Oro – image of bicyclist

- It also serves as a gateway to other outdoor venues in the area as well as other refuges within the state.
- We recently named Jennifer Owen-White as the refuge manager. She is looking forward to working with our partners as we move to Phase II.

- Our plan is to finalize phase II by July 2013. We need \$6.8 million to negotiate the final purchase of the remaining land and water rights.
- Currently we have set aside 1.5 million from our Land and Water Conservation Fund for this purchase. In a full show of support of this effort, the State of New Mexico has proposed legislation to bring another 1.1 million to the table. [We still need 4.2 million.]

Slide # 31 – Water rights flow into Rio Grande image

- The Bureau of Reclamation was one of our partners in establishing the refuge and provided some of the funding to secure some of the water rights. Senior water rights acquired with the establishment of the refuge will greatly benefit the public and endangered species, particularly the silvery minnow and riverine habitat in the middle Rio Grande.
- A portion of the refuge's water rights will contribute to the Rio Grande flows.

Slide # 32 – Bitter Lake

- **Bitter Lake National Wildlife Refuge**, which has restored over 12 river miles of the Pecos River in association with its lands, is another great example of how the Service works with its partners to achieve its conservation goals.
- Here was the Pecos River pre-restoration on the refuge. Note the salt cedar thickets and narrow channel.

Slide #33 – impact on native species

- This was poor habitat for the native fishes including the Pecos bluntnose shiner as well as other native species.
- The river is locked in place by salt cedar thickets. These thickets collect sediment and create natural levees that block the river from watering the floodplain. A connected floodplain is a benefit to both native fishes and native bird species.

- Partnerships were key to the success of this project. The NM Interstate Stream Commission, Bureau of Reclamation and World Wildlife Fund were primary partners. The project benefitted from letters of support sent in by Chaves County and the Carlsbad Irrigation District.
- Chaves County is supportive of the project since they are interested in the eco-tourism benefits. This project, along with the recent designation of the Roswell Artesian Wetlands as an area of international wetland importance under the Ramsar Treaty, increase tourism interest in the Roswell area. One cannot understate how such ecosystem improvements can benefit local economies.
- By having better fish habitat, the fish populations are much more resilient to drought impact. This is a benefit to Carlsbad Irrigation District, as well as the NM Interstate Stream Commission and Bureau of Reclamation, reducing the pressure of not meeting ESA-related regulatory obligations, especially during times of drought.
- Additionally this work involves converting salt cedar thickets to grasslands, which provides additional water on the order of thousands of acre feet per year, making it of interest to all partners involved in the project.

Slide #34 – restoration work

- This slide give you a window into what the restoration work involved: The work has involved the restoration of 12 river miles including the removal of close to 2000 acres of salt cedar thickets and...

Slide #35 – better habitat

- ...the lowering of bankline levees to better connect the floodplain to river flows.
- The work was started in 2008 and was completed in 2011. Today we are seeing the benefits of this restoration project, including better habitat for endangered species and a much more scenic river.

Slide #36 – Trust Responsibilities

Tribal Trust Responsibilities - As a representative of the federal government and a steward of our country's natural resources, the U.S. Fish and Wildlife Service has a trust responsibility to recognized tribes that entails managing natural resources in a way that:

- Reflects our Federal trust responsibility
- Acknowledges the treaty obligations of the United States toward tribes
- Uses our government-to-government relationship to invite input into decisions that may affect tribal resources, and cultural or religious practices, and
- Protects natural resources held in trust for tribes.

Slide # 37 - Santa Ana Safe Harbor Agreement

The Service works with the 84 federally recognized tribes in the Southwest to protect vital species and habitat.

- A great example of our successful partnerships with tribes Pueblo of Santa Ana Safe Harbor Agreement that focuses on protection of the Rio Grande silvery minnow and the Southwest willow flycatcher. Signed in 2004, this agreement has allowed the Pueblo to pursue river restoration projects without the threat of litigation.
- The Agreement provides a baseline population of threatened and endangered species on the Pueblo's lands and outlines a process of consultation in the event that local conditions changed. For these efforts, the Pueblo received an incidental take permit that does not expire until 2029.

Slide #38 – Santa Ana monitoring programs

- Funds have been provided to develop threatened and endangered monitoring programs for the Rio Grande silvery minnow as well as the Southwestern willow flycatcher along the 18-miles of Rio Grande corridor on the Pueblo.
- These grants provide the means to create and enhance habitats for both species, implement monitoring protocols, train employees in monitoring techniques and identification, and establish a baseline of data.

- Minnow monitoring occurs in conjunction with Fish and Wildlife Service staff, while flycatcher monitoring is conducted entirely by Pueblo staff. This long-term collaboration has led to the Pueblo's current monitoring grant with the Middle Rio Grande Endangered Species Collaborative Program, and has provided data to permit other restoration projects.

Slide #39 – Santa Ana: Partnership Grant & TWGs

- The Pueblo was awarded a Service Partnership Program grant in 2012 for stream bank and riparian woodland restoration, and was able to purchase cottonwood and willow poles – as well as containerized live plant material – to diversify the woody sub-canopy on 68 acres of Pueblo land. This work will be completed in the fall 2013.
- The Pueblo of Santa Ana has also received two Service-awarded Tribal Wildlife Grants. These grants have provided the Pueblo with the resources to restore wild turkey along the Rio Grande, and to collect baseline data on small mammals, birds, and herpetofauna within 1000 acres of the Pueblo's riparian woodland before and during salt cedar removal.

Slide # 40 – Water Management Initiatives

Water Management Initiatives

- In recent years a number of government and privately sponsored water management initiatives have provided additional opportunities to work in partnership and leverage budgetary, staffing and water rights resources to improve water conservation.
- As Federal Resource Managers we have responsibility to help inform water management decisions.
- I'm pleased to share that several of these initiatives have led to successful collaborative efforts. Specifically, I'd like to acknowledge the collaborative efforts of the New Mexico Strategic Water Reserve and the Middle Rio Grande Conservation Initiative, both of which benefit the Rio Grande.

Slide # 41 - New Mexico Strategic Water Reserve

- **The New Mexico Strategic Water Reserve** provides a mechanism for water rights to be beneficially used for environmental flows, and offers private water rights holders to apply their water rights towards ecosystem benefits through sale or easement.
- The U.S. Fish and Wildlife Service hopes to continue to assist the state with this effort, and supports the partnerships it encourages between the state, both public and private water rights owners, our National Wildlife Refuges and our endangered species conservation efforts in New Mexico.

Slide # 42 – Middle Rio Grande

- **The Middle Rio Grande Conservation Initiative** is another great example of a collaborative water management initiative. Established by former Interior Secretary Ken Salazar and supported by members of the state's Congressional delegation, the Middle Rio Grande Conservation Initiative is designed to support interagency ecosystem management through coordinated activities aimed at restoration and prudent use of the Middle Rio Grande.
- For this initiative, the Middle Rio Grande is defined as the 180-mile Rio Grande corridor within central New Mexico extending from Cochiti Dam to the headwaters of Elephant Butte Reservoir.
- The Middle Rio Grande is a region of profound importance to New Mexico. The Middle Rio Grande's natural and cultural resources are nationally and globally significant.
- Like many western river ecosystems, the Middle Rio Grande faces numerous challenges in balancing competing needs within a finite water supply and other resource constraints, not the least of which is long-term drought exacerbated by climate change.
- The needs of a growing populace must be met while still preserving natural systems, the traditional agrarian economy, and the cultural practices of the Pueblos and villages up and down the Middle Rio Grande valley.
- Numerous outstanding local, state, federal, tribal and private-sector programs are working together on the Middle Rio Grande Conservation Initiative. Together we are building upon current efforts and developing long-term strategies for managing the valued resources along the river while supporting existing communities and economies.

- The river is the life blood of our region and, and the Middle Rio Grande Conservation Initiative partners are working to improve sustainable agriculture and local food security, increase recreation and educational opportunities, and ultimately improve the quality of life and economy in the Middle Rio Grande. This comprehensive effort is supported by the many stakeholders, agencies and communities that care deeply about the Middle Rio Grande on both private and public lands.
- Regular and extensive citizen stakeholder and community input and engagement is fundamental to moving forward on all recommendations identified in this Middle Rio Grande Conservation Initiative Report completed in 2012. Public input received to date indicates tremendous support for initiating the bold actions necessary to maintain both ecological and community health for current and future generations.

Slide # 43 - Closing

- The Rio Grande is a nationally important resource. And while the river faces tremendous challenges, it also represents one the Service's greatest commitments to collaborative conservation based on partnerships between private and tribal land owners and public land managers. .
- Protecting water for species and habitat on federal lands means little if water on private property is contaminated, drained or otherwise used in ways that do not reflect shared water stewardship values. We need to learn to effectively conserve water for the benefit people and wildlife before it is too late.
- We know that the period of drought in which we find ourselves is likely to get worse as climate change impacts continue to grow. We all know, at some level, that there is not going to be enough water in the Southwest to meet all the needs of wildlife, agriculture, recreation, development and human consumption.

Final point – Begin series of images

- It is critical that we begin now to look at ways to cooperatively and innovatively leverage our public and private waters for mutual beneficial uses. We are all in this together -- our fish and wildlife, farmers and ranchers, anglers and boaters, and communities and families. We need to work smarter, we need to work as partners, and we need to start **now**.