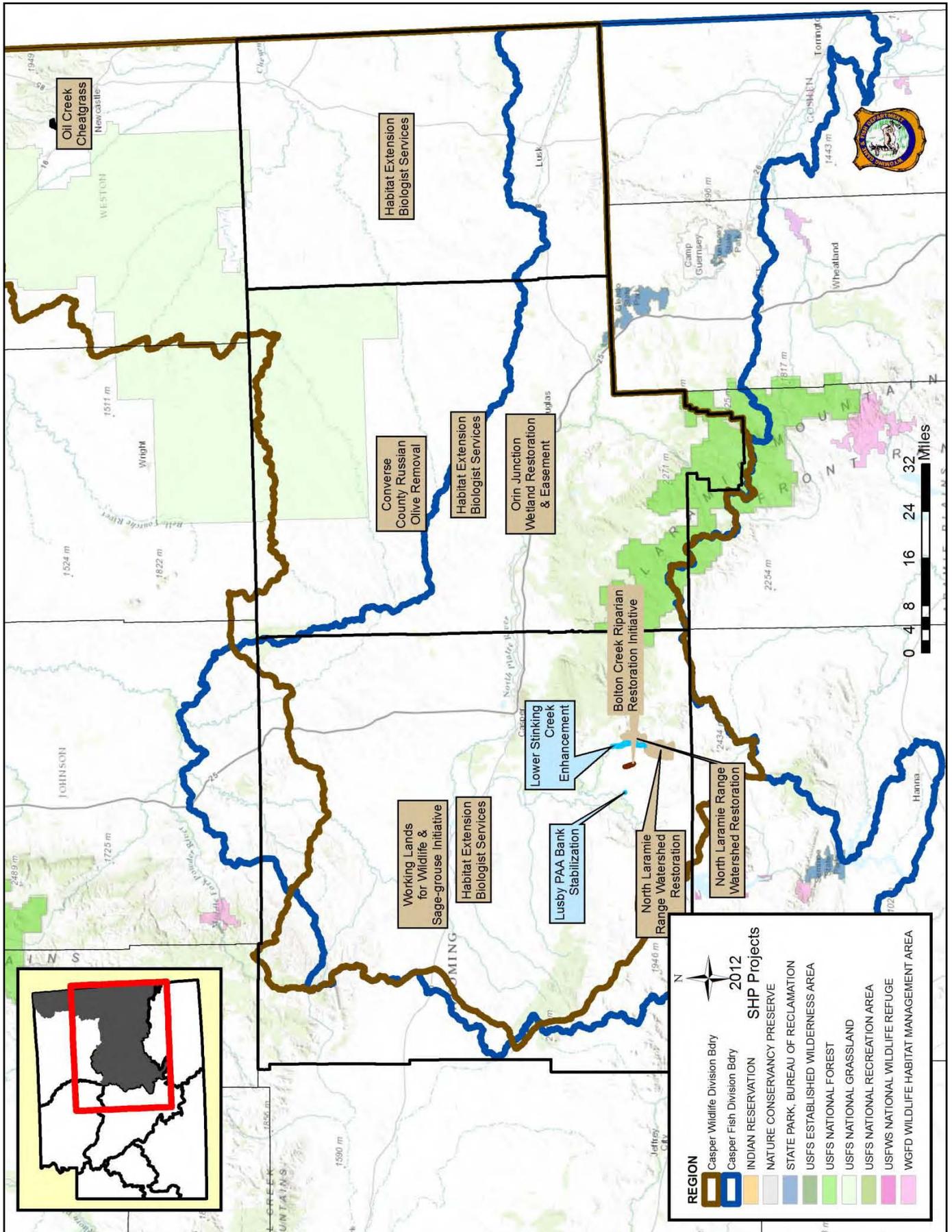


# CASPER REGION



## CASPER REGION HIGHLIGHTS

- Four grade control structures were installed along Stinking Creek.
- The eroding stream bank at the Lusby PAA was fixed.
- 7,243 acres of cheatgrass were treated with herbicides.
- Nearly 7 acres of Russian olive were removed from PAAs along the North Platte River.
- Over 300 Russian olive trees were removed from the North Platte River riparian areas in Converse County.
- Over 350 children and adults attended various habitat presentations in the area during 2012.
- 75,000 lbs of aspen were air lifted and deposited in Bolton Creek for dam building material use by beavers.

### Habitat Extension Services (Goal 2) and Information and Education (Goal 4) – Todd Caltrider



Figure 1. Aspen stand restoration on Miller Creek, Crook County.

Monitoring was conducted on an Environmental Quality Incentives Program (EQIP) project focused on mountain mahogany restoration to evaluate potential effects of conifer removal treatments. Review and comments were made on 25 different farm bill applications including EQIP, Sage Grouse Initiative (SGI), and Wetland Reserve Program (WRP). A grazing seminar focused on grazing and livestock management during drought was held in the Sundance high school auditorium. The seminar featured presentations from Roy Roath, Colorado State University Range Extension Specialist, Dallas Mount, and Brian Sebade, both University of Wyoming (UW) Agricultural Extension Specialists, and Julie Wheeler, USFS Range Specialist (Figure 2).

In 2012, habitat extension services were provided to seven different entities including private landowners, NRCS, and the Crook County Conservation District. Direct technical services provided included recommendations on land management practices for aspen restoration and range plantings among other wildlife habitat consultations (Figure 1).

**Grazing Workshop in Sundance**

**DROUGHT & RANCHING**  
Economic and Land Management Strategies for Livestock Producers in the Face of Drought

Date: 08/17/2012  
Time: 10:00 AM  
Sundance High School Auditorium

Questions?  
Call Todd Caltrider at 307-283-2870

Brought to you by:

- Dr. Roy Roath, a CSU Range Extension Specialist
- Dallas Mount, Platte County UW Extension Educator
- Brian Sebade, UW Crook County Extension Educator
- Julie Wheeler, USFS Range Conservationist
- Keela Deaton, NRCS District Conservationist
- Todd Caltrider, WGFD Habitat Extension Biologist

Free Lunch!!!  
Provided by Pinnacle Bank

Door Prizes!!!  
Provided By JOHN DEERE NAPA CASSIDY'S SEED & FEED

Figure 2. Flyer for grazing seminar held in Sundance.

## Lower Stinking Creek Enhancement (Goal 2) – Colin Tierney

In fall 2012 WGFD implemented the first stage of a seven mile-long enhancement within the Stinking Creek watershed aiming to enhance riparian habitat and reduce the sediment load

coming from Stinking Creek, a tributary to Bates Creek (Figure 3). In cooperation with Garrett Ranch Company a plan was developed for 14 sheet-piling grade control structures, four of which were installed in September and October on State of Wyoming lands. The structures act as sediment and water catchments, thereby encouraging the development of native riparian plant communities. The benefitting riparian plant species will help stabilize the channel and limit sediment transport. The project mimics work performed on nearby Lawn Creek in 2000 by WGFD. WGFD and the BLM are currently coordinating on National Environmental Policy Act (NEPA) permitting for the remaining 10 structures. Likewise, WGFD is coordinating with the SEO to ensure all water rights and the North Platte decrees are honored.

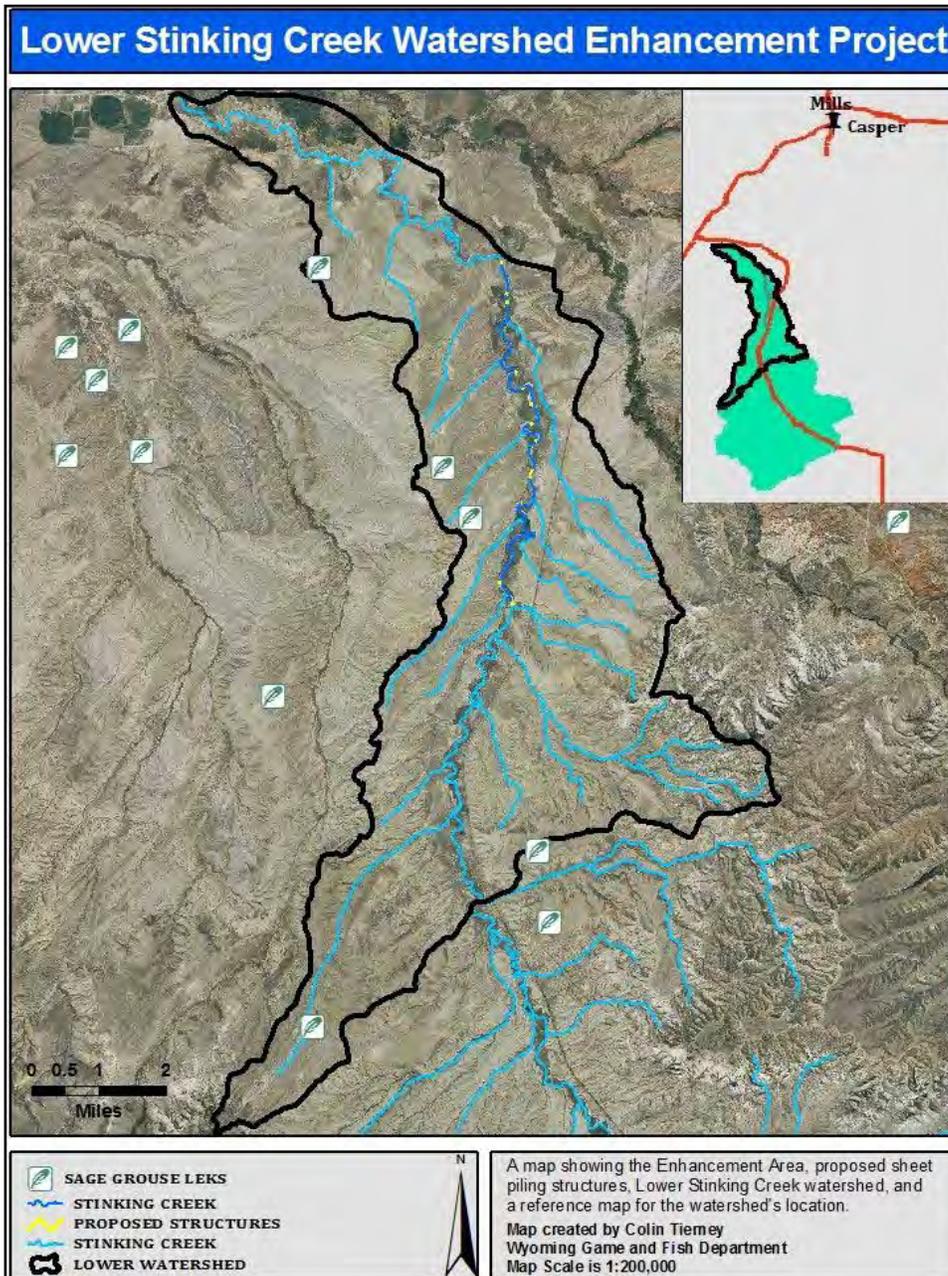


Figure 3. The lower Stinking Creek watershed enhancement area.

piling to complete the four structures. The structures start out between six and ten feet deep in the middle of the channel and gradually taper in depth as they leave the channel and extend onto the banks (Figure 4). Likewise, the above ground portion starts about six inches above the natural streambed, tapering up as they get closer to the bank, where they tie in and are then cut flush with the terrace. The areas surrounding these structures were lined with geotextile fabric, atop which granite riprap was placed. These splash aprons dissipate the flowing water's energy, reducing scour. Riparian woody plants including buffalo berry, cottonwood, and willow will be planted this spring on these four sites. Photographic monitoring will be used to document how water passes over these structures and monitor grazing pressure. If necessary, some or all of these plantings will be fenced.

Five individuals placed approximately 300 cubic yards of riprap and 2,400 square feet of vinyl sheet



**Figure 4. A pre-treated site (left) and installed sheet piling (right).**

The Bates Hole area was designated as crucial to aquatic habitat because sediment loading from these basins diminishes spawning habitat in the North Platte River, a distinctive, productive, and economically significant fishery resource in the Casper Region. This project is intended to improve habitat for a variety of wildlife species by retaining water in a riparian corridor that has shown the potential for response to grazing species management and other improvements. Funding partners include WWNRT and Mule Deer Foundation (MDF). Remaining structures will be installed in fall 2013, and will be re-vegetated the following spring.

**Mule Deer Legume Seeding (Goal 2) - Todd Caltrider**

Thirty-two acres of alfalfa are scheduled to be planted on the Hunter Ranch and thirty acres on the Blacktail Canyon Ranch during the spring of 2013. The planting is intended to provide high quality forage for mule deer. This project will be paid for by WGF Trust Fund dollars dedicated annually toward legume seeding.

**North Laramie Range Watershed Restoration – Phase 2012 (Goal 2) - Keith Schoup**

During 2012, Wyoming Helicopters applied Plateau® herbicide to control 7,234 acres of cheatgrass within infested big sagebrush communities (Figure 5). Since the fall of 2007, we have treated a total of 23,675 acres of cheatgrass infested big sagebrush communities. Field observations have indicated cheatgrass control will average 90 percent over all treated areas within five years of treatments. These control efforts have reduced cheatgrass density and allowed native grasses, forbs, and shrubs to increase. In addition, overall rangeland health has



**Figure 5. Wyoming Helicopters, LLC applying Plateau® herbicide.**

improved and there is less risk of large wildfires which contributes to improved habitat conditions for big game, sage grouse and other sagebrush obligates. Grants have been executed with four

landowners and the funding is obligated for this project. This task took 268 hours of coordination with private landowners, federal land management agency personnel, and WGFD personnel.

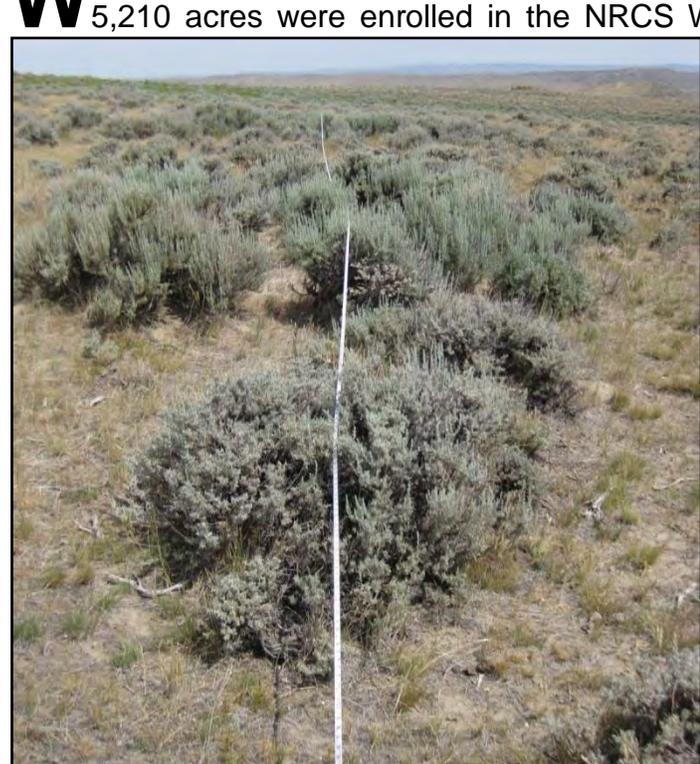
### **Orin Junction Wetland Restoration and Easement (Goal 2) – Willow Hibbs**

The NRCS is funding a 100 acre permanent wetland easement and restoration under its WRP in Converse County, near Orin Junction (Figure 6). The area includes approximately 25 acres of wetland on Shawnee Creek, with the remaining acreage classified as upland. Project work thus far has included ranking, cost-estimation, development of preliminary wetland restoration designs, coordination with NRCS engineers, planning for upland habitat restoration, and overall habitat management. Pending easement closure in 2013, restoration designs and management plans will be finalized for on-the-ground implementation beginning in fall 2013. The easement will protect the area in perpetuity for wildlife and the restoration will provide permanent wetlands and adjacent upland habitat. A host of wildlife species will be benefited including waterfowl, shorebirds, amphibians, and mule and white-tailed deer.



Figure 6. Wetland restoration area near Orin Junction.

### **Working Lands for Wildlife and Sage Grouse Initiative (Goal 2) – Willow Hibbs**



5,210 acres were enrolled in the NRCS Working Lands for Wildlife program with ranking, planning and cost-estimation assistance provided to NRCS and the landowner (Figure 7). Additionally, approximately 37,000 acres were inventoried for grazing and wildlife habitat management plans in 2012 for the program. Planning, follow-up, landowner coordination, and project implementation were conducted on approximately 49,500 acres of existing SGI contracts in Natrona County. Additionally, extensive outreach was implemented to extend the benefits of SGI to landowners who have contracts set to expire. The primary goals are to restore and enhance sagebrush habitats for sage grouse and other species dependent upon sagebrush communities. This should result in quality wildlife projects well into the future.

Figure 7. Sagebrush canopy cover measurement on lands enrolled in SGI.

## **Habitat Extension Services (Goal 4) - Willow Hibbs**

A grazing management workshop was conducted as part of an annual invasive grass workshop for Northeastern Wyoming. Two grazing management on-site workshops were conducted in Natrona County with Dr. Roy Roath. A wildlife habitat workshop was conducted in Glenrock as part of a small acreage landowner workshop put on by UW Extension Services. A stream/riparian habitat learning event was conducted as part of the Converse County Conservation District Conservation Day Camp event for children. Review and commenting occurred on over 60 new NRCS Farm Bill projects and 100 existing management practices.

## **Shrub Production (Goal 2) - Keith Schoup**

Bates Hole big sagebrush production has been measured since 1993 and 2012 was the second least productive year during this timeframe. This level of production is 0.64 inches below the average. We have measured true mountain mahogany since 2001, and the 2012 level was the same as the level in 2002 and 1.06 inches below the average.

South Big Horn curleaf mountain mahogany production has been measured since 2001, and the 2012 level is 0.67 inches below the average. This amount of production is similar to 2002, which was documented at 0.43 inches.

## **Bolton Creek Riparian Restoration Initiative (Goal 2) – Keith Schoup**

In August 2012, we deposited 75,000 pounds of aspen. Field observations in November 2012 showed beaver continue to use the aspen for dam building activities, and the construction of two lodges (Figure 8). Furthermore, we have documented 13 new dams with other dam building activity occurring along the creek. In addition, we live trapped and relocated one beaver into the area where we have focused the aspen drops. This beaver was fitted with a transmitter that will allow us to track its movements (Figure 9). The overall goals of this project are to: 1) restore connectivity between Bolton Creek and its floodplain; 2) attenuate sediment and flood energy following extreme precipitation events; 3) reduce bank erosion and vertical channel adjustment; 4) reduce fine sediment inputs into the North Platte River; and 5) raise the water table allowing for expansion of riparian vegetation. Field observation indicated we are meeting these goals. A presentation on the project and results documented to date was made to the Osher Lifelong Learning Institute. Project planning and coordination with the private landowner and WGFD personnel took 25 hours during 2012.



Figure 8. Beaver lodge constructed using relocated aspen.

Figure 9. Beaver fitted with transmitter.

## **O**il Creek Cheatgrass Control (Goal 2) – Todd Caltrider

During the summer of 2012, a large wildfire ran through the Oil Creek drainage near Newcastle, and many natural resource agencies and private landowners were concerned about invasion of cheatgrass, especially in the southern part of the burned area. Plans are underway to aerially treat 2,418 acres of cheatgrass during 2013, with Imazapic (Plateau®) herbicide in the Oil Creek drainage. Treatments are scheduled to occur on five different ranches, state, and BLM lands. Following treatment, the landowners have agreed to defer grazing for two growing seasons to allow perennial grass and forb recovery and reduce the risk of future large wildfires. The enhancement of overall rangeland and habitat health will increase forage and browse quantity and quality for big game species as well as livestock. Funding is being sought from participating private landowners, Weston County Weed and Pest, Rocky Mountain Elk Foundation (RMEF), WWNRT, MDF, WGBGLC, and WGFD.

## **L**usby PAA Bank Stabilization (Goal 2) – Colin Tierney

A cooperative Aquatic Habitat/Habitat and Access project was completed in May 2012. The project aimed to stabilize 210 yards of streambank erosion threatening the access road along the North Platte River at Lusby PAA (Figure 10). In the spring and summer of 2011, a previous attempt (2010) to stabilize the streambank failed, taking with it another 15-20 feet of the stream bank and much of the armoring. The installation of Lusby streambank stabilization enhancement took three people approximately two weeks to complete. The contractor installed 70 concrete “Lego-style” blocks in the North Platte River; topped with 350 cubic yards of 36 inch bank riprap. Non-woven geotextile material was used below the riprap and landscaping fabric was placed above the riprap.



**Figure 10. The eroding Lusby Easement in April 2012 (left) and July 2012 (right). Note the difference in slope, even with the high water notable in the right picture.**

In one day, 7-8 WGFD personnel planted this area with approximately 500-750 harvested coyote willows cuttings with the use of a waterjet stinger. The landowner agreed to water these weekly using a drip system we provided. The willows within the watered area saw growth success upwards of 95%, while those outside the watering system area saw success levels closer to 50-60%. This project is anticipated to improve migration routes and spawning habitat for fish in the North Platte River by stabilizing and adding stream habitat. These structures will help prevent stream bank erosion, provide habitat for spawning and migrating fish, provide shade to insulate the water, and reduce sediment deposited in the river (Figure 11).



Figure 11. “Lego-block” placement (left) and the subsequent riprap placement (right). These photographs are taken from approximately the same point, giving the viewer a sense of how much material was needed to create the proper slope.

### **C**onverse County Russian Olive Removal (Goal 2) – Willow Hibbs

With collaboration and funding from Converse County Weed and Pest District and Converse County Conservation District, over 300 Russian olive trees were removed on over one mile of the North Platte River (Figures 12 and 13). An additional two miles were identified for removal in early 2013, with extensive landowner outreach and coordination conducted to expand the project. Draft plans for the Dave Johnston Power Plant Russian olive removal and native tree plantings were also developed for future implementation.



Figure 12. Russian olive before removal.



Figure 13. Project area post Russian olive removal.

### **S**echrist and Bixby Public Access Areas (Goal 3) - Matt Pollock

The WGFD contracted with BOSS Reclamation to remove 6.75 acres of Russian olive along riparian areas of the North Platte River at Sechrist and Bixby PAAs. The contractor used a root crown extraction process in which an excavator pulled the Russian olive trees, and their entire tap root systems, out of the ground using an open-backed extraction tool without breaking the tree above ground, or severing the root system away from the tree trunk below ground. The contractor lifted the extracted trees, and their root systems, straight up out of the ground, then shook the extracted tree to remove excess dirt from the root ball, and strategically placed the extracted trees into piles for future burning or grinding. We will treat re-sprouts with herbicide in August 2013 and 2014 (Figures 14 and 15).



Figure 14. Sechrist PPA before treatment.



Figure 15. Sechrist PAA after treatment.

### **C**asper Regional Information and Education (Goal 4) - Robin Kepple

In the Casper Region, I&E Specialist Robin Kepple produced numerous news releases and other media involving habitat. She also conducted educational programs to increase understanding about the importance of habitat to Wyoming's wildlife. These efforts are summarized below:

- Coordinated with Casper College to plan a non-credit community education class on sage-grouse habitat. Wrote a news release on winter habitat conditions and the outlook for big game populations.
- Conducted a media interview on winter impacts on wildlife habitat. Provided Boy Scout Troop 167 with information on wildlife habitat needs.
- Wrote a news release and provided media interviews on the spring flushing flow and its importance to fish habitat.
- Worked with Audubon Wyoming on a script for a video on sagebrush ecosystems. Taught a class on sage grouse habitat at Casper College through the Osher Lifelong Learning Institute (OLLI) program; 14 adults attended. Taught a session on stream health and ecology for 27 3<sup>rd</sup> and 4<sup>th</sup> graders.
- Presented a habitat program to 37 third- and fourth-grade students at Oregon Trail Elementary School. Presented a program on WGFD projects and programs for 26 eighth-graders attending Casper Mountain Science School. Provided citizens with information on backyard habitats. Assisted with planting willows along riverbank at Lusby PPA to prevent erosion. Provided media with information on drought and wildlife habitat.
- Taught a session on stream health to 119 children through the Converse County Conservation District's summer day camp.

- Taught a session on forest habitats at a Youth Conservation Camp. Teamed up with the BLM to teach a family program on riparian habitats to seven adults and children. Did a media interview on current drought conditions and impacts to big game animals.
- Presented a program on aquatic habitats to 57 students from Natrona County High School. Did a media interview on fire impacts and benefits on wildlife habitat.
- Coordinated with Casper College to plan a community education class about wetlands and riparian areas for spring 2013. Wrote a news release on removal of Russian olive trees at Sechrist and Bixby PAAs.
- Presented a program on wildlife habitat for 34 seventh-graders.

**Habitat Extension Biologist Services (Goal 1) - Willow Hibbs**

A rangeland inventory was conducted on an 18,000 acre ranch near Lance Creek to assist a landowner with grazing, habitat management, and monitoring plans (Figure 16). Target wildlife species to benefit are mule deer and turkey. Wildlife use was documented on a 600 acre State Acres for Wildlife Enhancement (SAFE) CRP in Niobrara County as an on-going measure of success of the project (Figure 17). Additionally, vegetative monitoring was conducted on three past projects that occurred in Natrona County which included two 2010 prescribed burns (Figures 18 and 19), and a riparian enclosure (Figure 20).



Figure 16. Rangeland inventory with landowner near Lance Creek.



Figure 17. Pronghorns using SAFE CRP lands in Niobrara County.



Figure 18. Photograph taken in 2012 showing vegetative response to a 2010 prescribed burn.



Figure 19. Photograph taken in 2012 showing vegetative response to a 2010 prescribed burn.

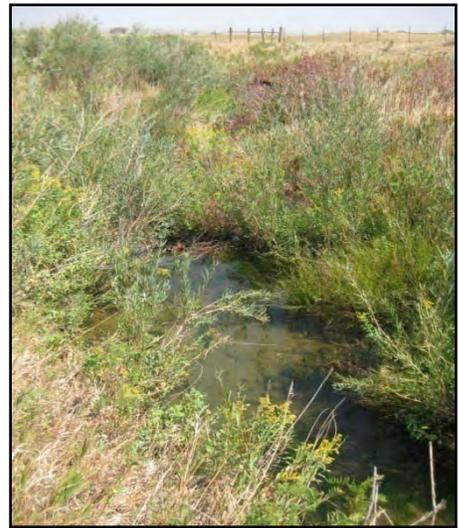


Figure 20. Vegetation response within a riparian enclosure in Natrona County.