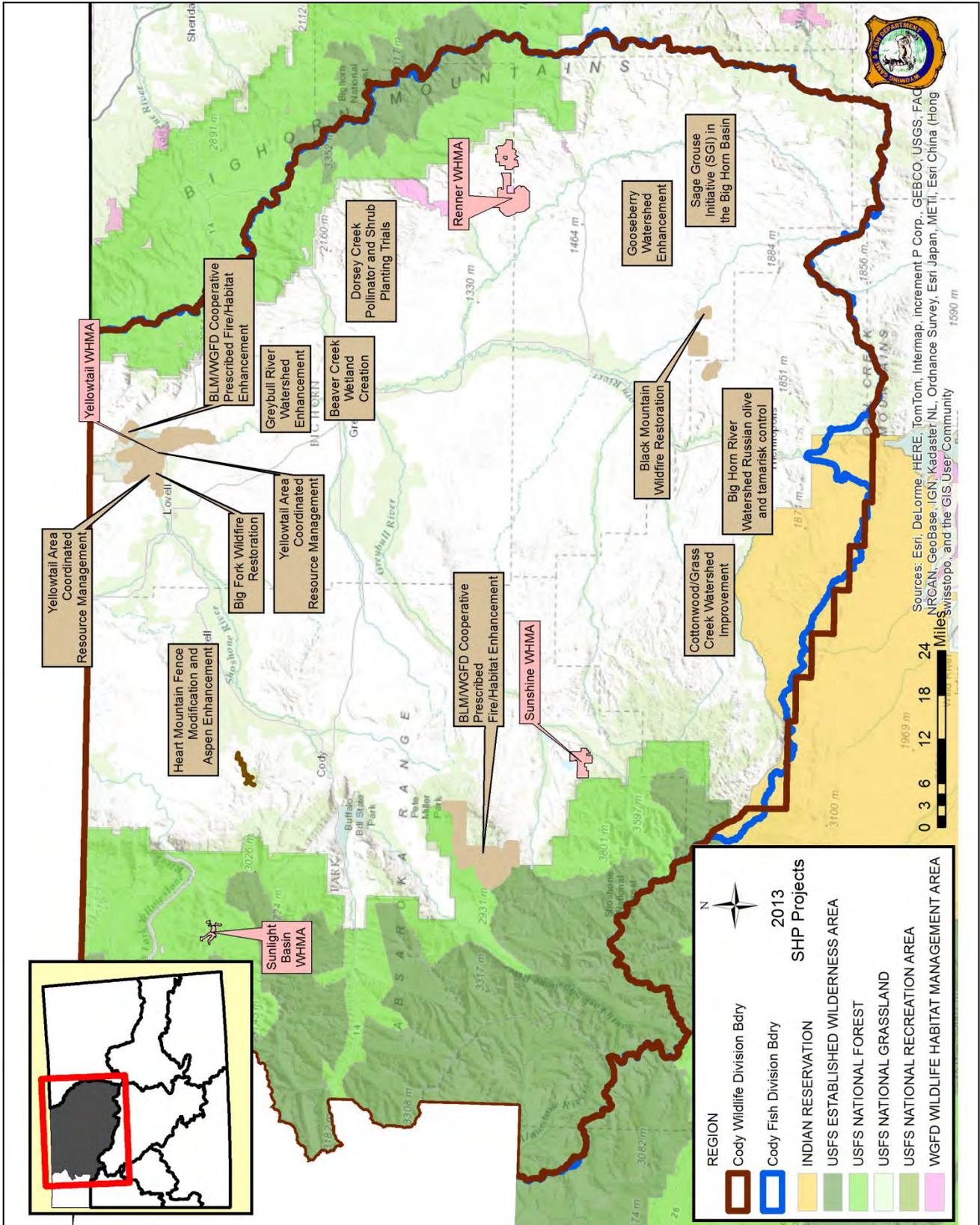


# CODY REGION



### **Cottonwood/Grass Creek Watershed Improvement (Goal 2) – Amy Anderson**

In August of 2007 work began to control the tamarisk and Russian olive invasion on Cottonwood Creek. A CRM/WID (Watershed Improvement District) has been in place since 2005 on the 270,000 acre watershed. A Weed Management Area has been in effect on Grass Creek since 2005, and is highly effective at finding and treating infestations of all weed species on the Grass Creek portion of the watershed (Figure 30 & 31).



Figure 30 – Before tamarisk control.

Within the Cottonwood/Grass Creek Watershed there are six active CCRP contracts totaling 70 acres that protect springs while providing off-site water sources for livestock. These have shown great progress since their installation, as well as active use by mule deer, elk, and migratory birds.

### **Greybull River Watershed Enhancement (Goal 2) – Amy Anderson**

Greybull River Russian olive and tamarisk control began in 2008. This is a large scale project, with Russian olive and tamarisk heavily invading the riparian areas from Meeteetse to Greybull. In 2013, 894 acres of Russian olive and tamarisk have been treated; 5,055 acres have been treated since 2008. In the fall of 2013, 200 willow cuttings were planted on one property to begin replacing the Russian olive and tamarisk. Total cost for work completed on the Greybull River since 2008 is \$1,605,295. NRCS AMA has been the major funding source along with WWNRT.



Figure 31 – After tamarisk control.

To date, 1,930 acres along Cottonwood Creek have been treated to remove tamarisk and Russian olive. In 2013, using a combination of WWNRT, BLM, and Weed and Pest funds, 100% of the 1,930 acres received follow-up chemical treatments. Demonstrated success is occurring with most areas showing less than 30% re-sprouting of tamarisk compared to past treatments where very little control was achieved. Every landowner with property adjacent to Cottonwood Creek has taken part in the project to control tamarisk and Russian olive.

## **Big Horn River Watershed Russian olive and tamarisk control (Goal 2) – Amy Anderson**

Russian olive and tamarisk control work in Hot Springs County started on the Big Horn River and Lower Owl Creek during the winter of 2010-2011. During 2013, 458 acres of mechanical and chemical treatments were completed along the Big Horn River and Lower Owl Creek (Figure 32 & 33).



Figure 32 – Before Russian olive control.

replace noxious vegetation. Willow poles were planted in the spring and fall to see which season survival is the highest (Figure 34). Several different grass mixes are being tried in areas with more disturbances to see which species grows best in the conditions found along the Big Horn River. With several years of chemical spot spraying necessary to get full control of Russian olive and

tamarisk re-sprouts and other invasive weeds, it is difficult to begin full-scale restoration plantings of trees, shrubs and forb species. The Plant Materials Center in Bridger, Montana has agreed to grow cottonwood cuttings, harvested locally along the Big Horn River, in deep pots (36" deep). These cuttings will be planted in two trial locations to see if deep pot plantings of cottonwoods will improve establishment of younger generation cottonwood trees along a controlled river. If high survival is achieved (as has been the case in other trial areas in Montana), local FFA students are willing to try growing deep potted cottonwoods for planting along the Big Horn River. If the method proves successful, there is the possibility of planting other native trees and shrubs in deep pots, such as silver buffaloberry, golden currant, and skunkbush sumac.

Russian olive and tamarisk have become a major component of the riparian corridor along much of the Big Horn River and the removal has sparked concern that wildlife habitat is being jeopardized by the efforts. As a result, the WGFD, NRCS and Weed and Pest Districts are all working together to test several different procedures to plant native trees and shrubs to



Figure 33 – After Russian olive control, also notice tree protectors on willow, currant, and cottonwood plantings.



This is a cooperative effort between NRCS, Hot Springs County Weed and Pest, WGFD, and private landowners. \$207,165 has been spent on the Big Horn River Project to date, with nearly 600 acres completed since 2010.

Figure 34 – Fall planting willow poles along the Big Horn River to help stabilize banks and replace cover after Russian olive and tamarisk control.

### **Wildlife Habitat Management Areas (Goals 1&2) – Steve Ronne, Craig Swanson, Eric Shorma**

- Five test plots consisting of five different species of plants were implemented. Plot sizes range from one-half-acre to one acre in size. The plot sites were mowed and chemically treated three times with Glyphos aquatic in an attempt to eliminate/reduce smooth brome (*Bromus inermis*). Sainfoin (*Onobrychis viciaefolia*) was planted in a one-acre plot, slender wheatgrass (*Agropyron trachycaulum*) and mountain brome (*Bromus marginatus*) were planted in three-fourths-acre plots, American vetch (*Vicia Americana*) mixed with mountain brome was planted in a one-half-acre plot, and alpine fescue (*Festuca brachyphylla*) was planted in a one-half-acre plot. Species will be evaluated in 2015 for viability and establishment to replace areas of smooth brome in the future (Figure 35).



Figure 35 – Sunlight Basin test plot locations.

- 900 feet of dilapidated four-wire boundary fence was removed and replaced with a two-wire, pole-top fence in Beam Gulch. The pole-top fence gives big game animals a visual aid for fence crossing (Figure 36).
- 240 acres of meadow was irrigated to provide crucial elk winter range.
- 15 miles of USFS boundary fence was maintained to prevent cattle trespass.
- Noxious weeds were treated on six acres.



Figure 36 – New pole top fence.

### **Medicine Lodge, Renner, and Sunshine WHMAs (Common Goals)**

- Grazing monitoring sites were set up for future data collection.
- Eight acres of white top (hoary cress) was chemically treated at **Renner WHMA**.
- In Park county ~75 acres of WGF areas were treated for noxious weeds, including Russian olive retreatment work.
- 810 feet of irrigation pipe was purchased for **Medicine Lodge WHMA** hay meadows.
- **Sunshine WHMA** livestock grazing of 963 AUMs were used to stimulate plant re-growth for wildlife.

### **Yellowtail WHMA (Common Goals)**

- Two hundred acres at **Yellowtail WHMA** were planted and irrigated for permanent cover fields. Crops planted include: Bavarian field peas, buckwheat, oats, barley, sainfoin, annual rye grass and sorghum.



Figure 37 – Big Fork Wildfire.

- Approximately two and a half miles of interior stock wire fence was removed to ease wildlife movement following the Big Fork Fire on Yellowtail WHMA. Only 1,800 feet of stock fence will be rebuilt. One thousand acres north of the Shoshone River burned in the wildfire. The fire was started by ditch burning on a neighboring farm (Figure 37).

### **Sage Grouse Initiative (SGI) in the Big Horn Basin (Goal 2) – Amy Anderson**

In 2013, assistance was provided in Park, Hot Springs, and Washakie Counties with monitoring and inventories for Sage Grouse Initiative projects (Figure 38). Eight ranches were either monitored or inventoried totaling 154,600 acres, including installing permanent transects for future monitoring. Technical assistance was provided for cheatgrass control, juniper removal, spring development and protection, prescribed grazing and riparian improvement to benefit sage grouse.



Figure 38 – Park County Sage Grouse Initiative Project where a rotational grazing system is being implemented to improve habitat for sage grouse.

### **Public access areas (Goal 3) – Steve Ronne, Craig Swanson, Eric Shorma**

- Ten acres of Russian olive re-sprouts were treated on North Cody Shoshone River access area.
- Over thirty acres of Russian olive trees were removed along Bighorn River access easements.

## **Gooseberry Creek Wetland Enhancement (Goal 2) – Amy Anderson**

A project initiated in the fall of 2013 to improve a spring and associated wetlands along Gooseberry Creek will be completed during the summer of 2014. A landowner is interested in



Figure 39 – Current condition - small pond adjacent to Gooseberry Creek. When completed, The wetland will increase to 7 acres in size, noxious weeds will be removed and beneficial trees and shrubs will be planted.

restoring and enhancing a small pond and associated spring and wetland to benefit wildlife on his property (Figure 39). The area is frequented by mule deer, pronghorn, sage grouse and migratory birds. The existing pond has breached its dike, and is currently surrounded by Russian olive and tamarisk. The producer will develop the spring that feeds the wetland, remove noxious and invasive weeds, expand the wetland acreage from less than one acre to approximately seven acres, and fence the entire area with wildlife friendly fencing to protect the spring and wetland from livestock (Figure 40). The fence will be marked to decrease the chances for wildlife collisions with the fence. The wetland is being designed by NRCS engineers. Funding is being applied for through WWNRT, USFWS Partners Program, and NRCS.



Figure 40 – Downstream view of the area to be expanded along Gooseberry Creek.

## **Beaver Creek Wetland Creation (Goal 2) – Amy Anderson**



Figure 41 – Location of proposed 14 acre wetland project along Beaver Creek in Big Horn County

The landowner would like to convert a 14-acre hayfield into a series of wetlands (Figure 41). His goals are to create a large pond and 3-4 shallow wetlands to entice waterfowl, shorebirds, and migratory birds. NRCS engineers are providing designs for the wetlands. Beaver Creek provides a native riparian corridor with an abundance of native trees and shrubs along the lower end of the hayfield. Funding is being sought through WWNRT, USFWS Partners Program, and the private landowner who will provide the labor and machinery to build the wetlands.

## **Dorsey Creek Pollinator and Shrub Planting Trials (Goal 2) – Amy Anderson**

There is a strong need within the Big Horn Basin to develop a protocol for planting native trees, shrubs, grasses and forbs following Russian olive and tamarisk control. A private landowner along Dorsey Creek has volunteered to help develop a process that will ensure plant survival in an extremely arid environment, receiving approximately 6" of precipitation/yr (Figure 42). Russian olive and tamarisk were removed from this site three years ago. Approximately 200 acres of private land will be developed for the benefit of wildlife. With four wetland areas in place, (Figure 43) he would like to plant a variety of trees and shrubs that will be irrigated from the wetlands. The landowner will use a drip system to irrigate the trees and shrubs, use weed barrier fabric to decrease competition, and test fertilizers to see if the trees benefit from fertilization.



Figure 42 – Before photo where a wetland was created for wildlife along Dorsey Creek.



Figure 43 – The wetland created along Dorsey Creek. Trees will be planted adjacent to this wetland and irrigated using this water.

Working with the Bridger Plant Materials Center, a pollinator seeding trial will be conducted on this same property to test different varieties of grasses, forbs and shrubs for salinity tolerance. This planting will be put in place by May 2014 and is being funded by the Bridger Plant Materials Center, Pheasants Forever, the private landowner and the WGFD Trust Statewide Shrub account.

#### **Information and Education (Goal 4) – Tara Teaschner and Amy Anderson**

A variety of presentations and educational programs occurred in the Cody region including:

- Coordinated WGFD involvement with
- “Spring into Yellowstone,” a public event in Cody that offers wildlife and birding tours in May. Bart Kroger conducted a tour titled, “Flora and Fauna of the Greybull River” and Steve Ronne conducted tours of Yellowtail Wildlife Habitat Management Area.
- Presented native plant information to Lovell Elementary School to help students choose plants for their outdoor classroom.
- Participated in the WGFD Worland 5<sup>th</sup> grade Outdoor Education Day.
- Coordinated WGFD involvement with Wild West River Fest, a festival in Cody highlighting the importance of riparian habitats and rivers. Educational programs related to riparian habitat, macro invertebrate identification, and invasive weed identification were conducted and a fish migration obstacle course was set up.
- Assisted The Nature Conservancy with an outdoor education day for Cody 6<sup>th</sup> graders at Heart Mountain.
- Worked with Medicine Lodge State Park to redesign two interpretative cabins at the Medicine Lodge Wildlife Habitat Management Area. Themes for Cabin 1 will focus on habitat and themes for Cabin 2 will focus on elk management and habitat.
- Assisted the Hot Springs Conservation District in conducting a 4<sup>th</sup> grade outdoor education field day on Kirby Creek with help from Jim and Terry Wilson.
- Prepared a news release about the effects of the wildfire that occurred on Yellowtail in Spring 2013.
- Conducted other educational programs related to wildlife and habitat including:
  - Attended a field trip for Powell High School students to view bighorn sheep. Habitat needs and challenges were emphasized.
  - Conducted wildlife/fish presentations for ~200 elementary school students at the Worland Outdoor Day and Paintrock Hunter Mentor Day.
  - WGFD staff presented multiple wildlife/fish programs as part of Natural History Days for 6<sup>th</sup> grade students from Cody Middle School.
  - Conducted a wildlife tracking and habitat activity for Cody Middle School students in preparation for a field trip to Yellowstone.