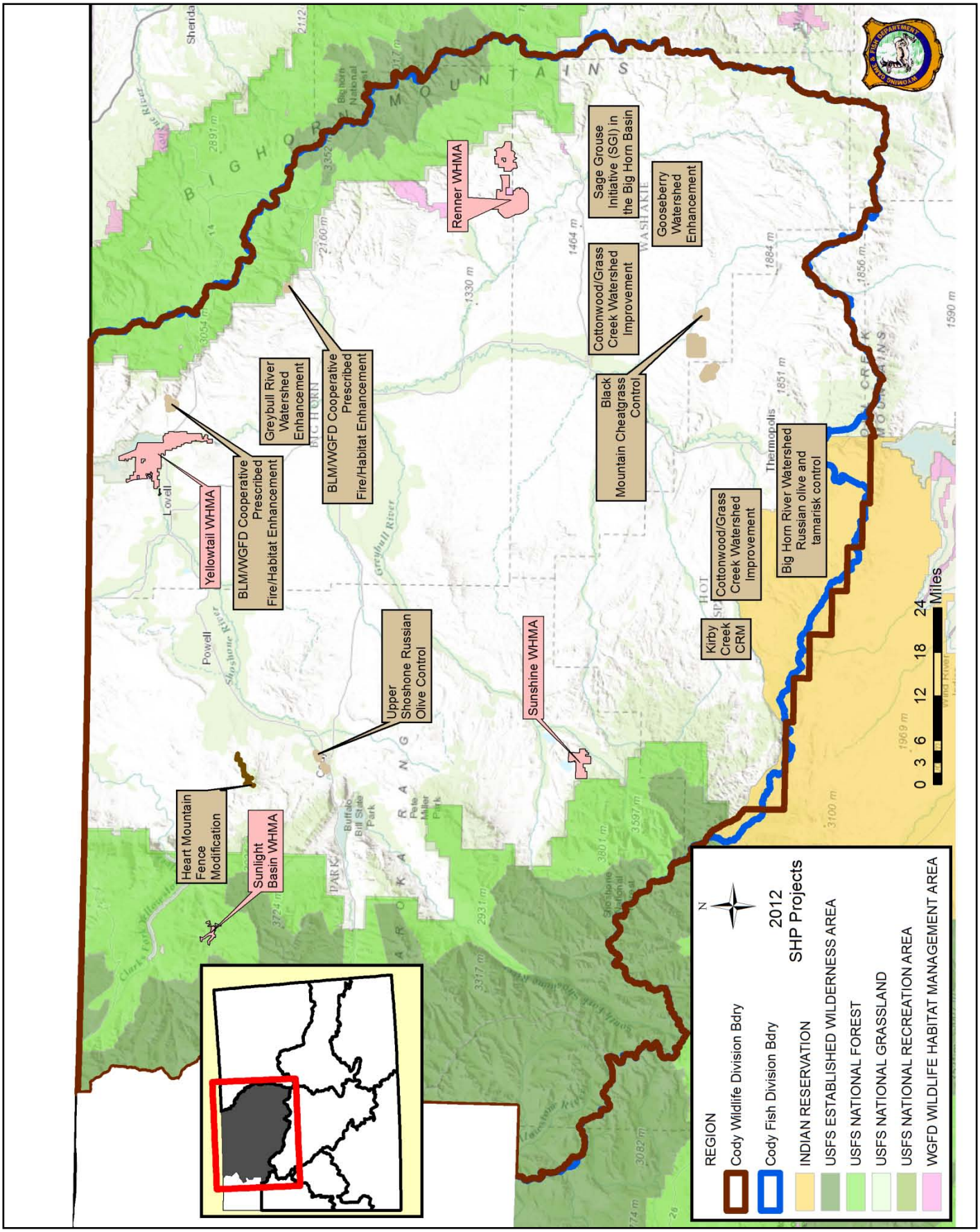
CODY REGION


Renner WHMA
Sage Grouse Initiative (SGI) in the Big Horn Basin
Gooseberry Watershed Enhancement
Cottonwood/Grass Creek Watershed Improvement
Black Mountain Cheatgrass Control
Greybull River Watershed Enhancement
BLM/WGFD Cooperative Prescribed Fire/Habitat Enhancement
BLM/WGFD Cooperative Prescribed Fire/Habitat Enhancement
Yellowtail WHMA
Upper Shoshone Russian Olive Control
Sunshine WHMA
Kirby Creek CRM
Cottonwood/Grass Creek Watershed Improvement
Big Horn River Watershed Russian olive and tamarisk control
Heart Mountain Fence Modification
Sunlight Basin WHMA
BIGHORN MOUNTAINS
ABSAROKA RANGE
Lovell
Powell
Thermopolis
Buffalo Bill State Park
Pete Miller Park
0 3 6 12 18 24 Miles
N
REGION
Cody Wildlife Division Bdry
Cody Fish Division Bdry
2012 SHP Projects
INDIAN RESERVATION
USFS ESTABLISHED WILDERNESS AREA
USFS NATIONAL FOREST
USFS NATIONAL GRASSLAND
USFS NATIONAL RECREATION AREA
WGFD WILDLIFE HABITAT MANAGEMENT AREA

CODY REGION HIGHLIGHTS

- 3,400 acres of cheatgrass treated with herbicide.
- 593 acres of Russian olive mechanically removed and treated with herbicide.
- 8 miles of fence modified to wildlife-friendly design.
- 580 acres of juniper encroachment treated with prescribed fire.
- A Russian olive removal news release was prepared for the Yellowtail WHMA.

Wildlife Habitat Management Areas - Steve Ronne, Craig Swanson, and Eric Shorma

Sunlight Basin (Goal 1)

- Forage production and utilization was measured (Figures 1, 2, 3, and 4).
- 240 acres of meadows were irrigated.
- Fifteen miles of crucial winter range fence was maintained.

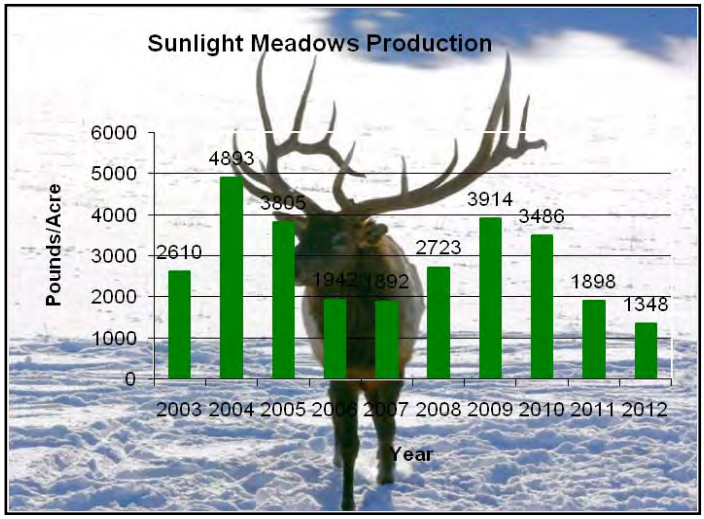


Figure 1. Sunlight Basin WHMA irrigated sites forage production.

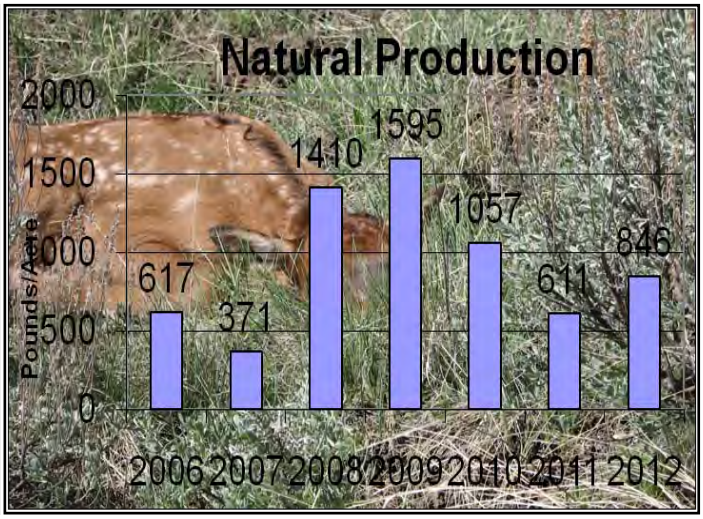


Figure 2. Sunlight Basin WHMA non-irrigated sites forage production.

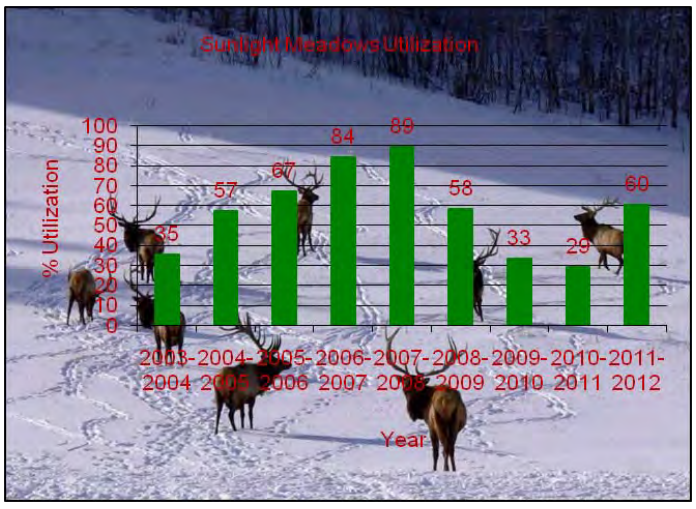


Figure 3. Sunlight Basin WHMA irrigated site forage utilization rates.

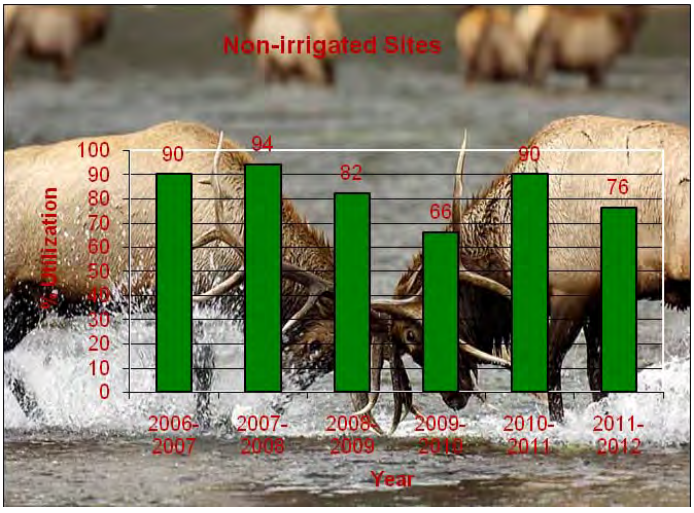


Figure 4. Sunlight Basin WHMA non- irrigated Site forage utilizations rates.

Yellowtail WHMA (Goal 2)

- Approximately 1,200 bare root native trees and shrubs were planted in a coordinated effort with Rocky Mountain Middle School and WGFD. Funding was provided by Bowhunters of Wyoming (BOW) and WWNRT. Students assisted in planting and monitoring survivorship of the trees and shrubs. The objective is to find native berry producing trees and shrubs to plant following Russian olive control (Figure 5).
- Approximately 20 acres were planted in sorghum/sudan grass hybrid, oats and millet (Figure 6).
- Over one hundred and thirty acres of farmland was irrigated for permanent cover fields providing nesting cover and food sources for a variety of game and non-game species.

Figure 5. Planting bare root native trees and shrubs.

Figure 6. Planted field of sorghum/sudan, oats and millet.

Public Access Areas (Goal 3)

- Bighorn River: 12 acres were chemically treated for Russian olive re-sprouts.
- Shoshone River, North Cody access: 70 acres of Russian olive were mechanically removed and chemically treated.
- North Fork Shoshone River: An access area and boat ramp was developed in coordination with the BLM and with assistance from the East Yellowstone Chapter TU.

Gooseberry Watershed Enhancement (Goal 2) – Amy Anderson

This is an ongoing project in the 500,000 acre Gooseberry Creek drainage to restore and enhance 2,000 acres of riparian habitat and stream form and function. No mechanical treatment of Russian olive and tamarisk occurred on Gooseberry Creek in 2012. Follow up chemical treatments were conducted by Washakie County Weed and Pest in the summer of 2012 on approximately 1,500 acres. The total cost for projects implemented in the calendar year 2012 was $39,430. The total project cost for the entire watershed thus far is $1,456,562.

There are seven active Continuous Conservation Reserve Program (CCRP) contracts on Gooseberry Creek that require follow-up. Height, structure and dense hiding cover are currently lacking in many areas of Gooseberry Creek, and continued restoration efforts post Russian olive, and tamarisk control are needed on these properties. NRCS Agricultural Management Assistance (AMA) funding has been the primary funding source thus far. Other funding sources include Farm Service Agency CCRP, WWNRT, NRCS EQIP, Washakie County and Hot Springs County Weed and Pest Districts, WGFD, BLM, Washakie County Conservation District, WGBGLC, State Lands, and private landowners.

Upper Shoshone Russian Olive Control (Goal 2) – Jerry Altermatt

The terrestrial habitat biologist and habitat and access supervisor contracted Russian olive removal on 70 acres of the WGFD North Cody Access and on adjoining City of Cody property. Hydro-bunchers with vertical shaft mulching heads (Figure 7) were used on 30 acres and chainsaw crews on 40 acres. The project is part of a larger effort, the Shoshone/Clark's Fork CRM. This CRM was initiated in 2009 to address invasive plant issues in the Shoshone and Clark's Fork watersheds in Park County. The group's focus is primarily on removing Russian olive and tamarisk on riparian areas and adjacent uplands of these two river systems.

Figure 7. Hydro-buncher with vertical-shaft mastication head.

Bighorn Basin Resource Management Plan (Goal 1) – Jerry Altermatt

The Cody Region terrestrial habitat biologist served as one of the WGFD leads on the BLM Bighorn Basin Resource Management Plan (RMP) revision. The BLM is revising land management plans for the old Grass Creek, Washakie, and Cody Resource Areas. Under the new BLM reorganization the Wind River/Big Horn Basin District was formed and is comprised of the Cody Field Office, Worland Field Office, and Lander Field Office. The Cody and Worland Field Offices are combining their RMP revision efforts to produce one plan (Bighorn Basin RMP) being analyzed under one Environmental Impact Statement (EIS) but with two NEPA decisions. WGFD personnel provided recommendations to BLM for inclusion in the Final Environmental Impact Statement to be released in late 2013 or early 2014.

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

In August of 2007 work began controlling 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.

1,930 acres of Cottonwood Creek have been treated to remove tamarisk and Russian olive. 100% of those acres received follow-up chemical treatments in 2012 using NRCS AMA, WWNRT, BLM, and Weed and Pest funds. There are two active CCRP contracts on Cottonwood Creek, and one CCRP contract on Grass Creek. WWNRT allocated an additional $200,000 to assist with re-treatment of tamarisk on Cottonwood and Grass Creeks. The treatments that work well on Russian olive do not appear to achieve the same control on tamarisk, therefore additional treatments are necessary.

There are also five active CCRP contracts totaling 50 acres within the Cottonwood/Grass Creek Watershed that are protecting 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.

One new CCRP within this watershed will protect approximately 20 acres of aspen and three riparian acres adjacent to Prospect Spring (Figure 8). The aspen will be thinned and conifers will be removed from the stand with a grant from TNC utilizing a Wyoming Conservation Corps crew during the summer of 2013. The conifers that are cut down will be left on site to protect young aspen seedlings from being over-utilized by wildlife (Figures 9 and 10).

Figure 8. Prospect Spring CCRP- showing Prospect Spring and aspen stand that will be protected from livestock by wildlife friendly 3-wire electric fencing. The aspen stand will be thinned and encroaching conifers removed.

Figure 9. Prospect Spring CCRP- showing use by mule deer.

Figure 10. Prospect Spring CCRP- showing use by elk.

Survival of the 2,000 willows planted since 2009 has been relatively low due to soil salinity, fluctuations in water tables, livestock and wildlife browsing, and hot, dry weather. Several practices will be initiated in the future to hopefully improve willow survival including willow clump plantings.

Currently, the largest funding source is the NRCS AMA Program followed by the WWNRT which has allocated $425,000. TNC obtained an additional $40,000 to assist, especially on BLM land bordering the project area. Every landowner with property adjacent to Cottonwood Creek has taken part in the project to control tamarisk and Russian olive.

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. 1,237 acres of Russian olive and tamarisk were treated in 2012, with 4,431 acres treated since 2008 (Figures 11 and 12). 200 willow cuttings were planted in the fall of 2012 on one property to replace the Russian olive and tamarisk. The WWNRT approved a grant of an additional $150,000 to assist landowners. Total cost for work completed on the Greybull River since 2008 is $1,253,282. NRCS AMA and WRP have been the major funding sources along with WWNRT.

Figure 11. Greybull River before Russian olive and tamarisk control.

Figure 12. Greybull River after Russian olive and tamarisk control. Notice the presence of native tree and shrub cover that will hopefully fill in with the absence of invasive woody species.

Forest Plan Revision for Shoshone National Forest (Goal 1) – Jerry Altermatt

The terrestrial habitat biologist assisted other regional personnel in reviewing and commenting on the revision of the forest plan for the Shoshone National Forest. A draft Environmental Impact Statement was released to the public in 2012 and a final EIS is scheduled to be released in the fall of 2013. The Shoshone National Forest includes portions of the Cody and Lander WGFD Regions.

Big Horn River Watershed Russian Olive and Tamarisk Control (Goal 2) – Amy Anderson

Russian olive and tamarisk control work started on the Big Horn River and Lower Owl Creek during the winter of 2010-2011 in Hot Springs County. 115 acres of mechanical and chemical treatments were completed on smaller acreages along the Big Horn River in 2012. Approximately 400 additional acres will be completed on the Big Horn River and Owl Creek in 2013. WWNRT has allocated $330,000 to this effort. This is a cooperative effort between NRCS, Hot Springs County Weed and Pest, WGFD, and private landowners.

Kirby Creek CRM (Goal 2) – Amy Anderson

The Kirby Creek CRM is continuing to work on large scale riparian improvements, rangeland management, and wildlife habitat enhancement. In 2012, the CRM was awarded national recognition by the BLM with a Rangeland Stewardship Award for their work in improving grazing systems and rangelands throughout the Kirby Creek Watershed.

Two new CCRP riparian buffers totaling 60 acres were installed in 2012 connecting other riparian buffers that have been in place for several years. There are over 30 stream miles of Kirby Creek protected under CCRP to stabilize incised stream areas through improved woody and herbaceous vegetation stands and reduced impacts from livestock trampling, and increased willow stands to provide habitat for the existing beaver population. The landowners in this watershed are extremely dedicated to improving the riparian areas along Kirby Creek (Figure 13).

Figure 13. Landowners planting willow pole cuttings. On Kirby Creek we have seen over 90% survival rates of willow cuttings, contrary to other locations in the Big Horn Basin with much lower survival rates.

Yellowtail Area Coordinated Resource Management (Goal 2) – Jerry Altermatt

The Yellowtail Area CRM team continued to manage invasive plants on agency and private lands in the Lower Shoshone and Bighorn River bottom lands near Lovell, Wyoming. The CRM consists of the four landowners on the Yellowtail WHMA (National Park Service, WGFD, BLM, and BOR), neighboring private landowners, the Bighorn County Weed and Pest, NRCS, Shoshone Conservation District, and other interested parties. The terrestrial habitat biologist serves as chairman of the CRM and has been responsible for project planning and implementation as well as writing and submitting grant applications. The project is nearing completion with a major accomplishment of removing Russian olive and salt cedar on over 2,000 acres of riparian area on the Shoshone River.

The following activities were accomplished on the CRM area in 2012:

- Conducted mechanical treatments on 523 acres of well established Russian olive and saltcedar using hydro-bunchers with vertical-shaft mastication heads (Figure 14).
- Conducted herbicide treatments on 767 acres of Russian olive re-sprouts and saltcedar using a spray crew with backpack sprayers and approximately 100 acres of white-top and Russian knapweed using spray trucks.
- Planted 500 buffaloberry shrubs and 90 cottonwood trees (Figure 15).
- Used 750 goats in a targeted grazing program to reduce Russian knapweed.
- Continued bio-control using *diarhobda elongata*, a leaf beetle that targets saltcedar plants.

Figure 14. Hydro-buncher mulching Russian olive.

Figure 15. Buffaloberry planting with browse protection and weed barrier.

Information and Education and Collaborative Habitat Management (Goal 4) – Amy Anderson

Many of the Russian olive and tamarisk control efforts involve CRM and a multitude of partners in a collaborative effort. The WGFD participation with these groups has greatly advanced overall wildlife habitat considerations. During 2012 over eight information and education presentations and opportunities were conducted to promote wildlife habitat. In addition, assistance is on-going with a WGFD - Worth the Watching grant to develop a school backyard wildlife habitat.

Black Mountain Cheatgrass Control (Goal 2) – Jerry Altermatt

Approximately 4,300 acres of cheatgrass-dominated rangeland within the 1996 Black Mountain and 2012 Zimmerman Butte wildfires were treated with an aerial application of Plateau® herbicide (Figure 16). The contractor, Wyoming Helicopters, Inc. of Boulder, conducted the treatment during September using a rate of 8 oz of herbicide per acre on the 1996 burn and 6 oz of herbicide on the 2012 burn. The treatment was part of a multi-year project that targets over 22,000 acres of cheatgrass-impacted mule deer and pronghorn winter range as well as sage grouse core area.

Figure 16. Aerial application of herbicide to cheatgrass on the Zimmerman Butte wildfire.

SGI in the Big Horn Basin (Goal 2) – Amy Anderson

In 2012, assistance was provided in Washakie County with monitoring and inventories for SGI projects. Three ranches were either monitored or inventoried totaling 8,200 acres, including installing permanent transects for future monitoring. Technical assistance was provided for cheatgrass control, juniper removal, spring development and protection, and riparian improvement to benefit sage grouse. In addition a grazing management system will be designed to enhance sage grouse habitat (Figure 17).

Figure 17. Nowater SGI application area where an improved grazing system will be designed to improve habitat for sage grouse.

BLM/WGFD Cooperative Prescribed Fire/Habitat Enhancement Projects (Goal 2) – Jerry Altermatt

Approximately 400 acres of juniper were treated with prescribed fire in the Willow Creek drainage on the west slope of the Bighorn Mountains east of Lovell (Figure 18). Approximately 180 acres were treated with prescribed fire in the Horse Creek drainage on the west slope of the Bighorn Mountains east of Greybull (Figure 19). The objectives of the treatments were to remove encroaching junipers from sagebrush communities within elk, mule deer and sage grouse habitat. The burns were conducted by the BLM Cody Field Office with assistance from WGFD.

Figure 18. Prescribed fire in Willow Creek.

Figure 19. Prescribed fire in Horse Creek.

Heart Mountain Fence Modification (Goal 2) – Jerry Altermatt

Figure 20. Elk calves attempting to pass through 6-wire fence on the Heart Mountain Ranch.

A fence modification project on TNC's Heart Mountain Ranch and the E&B Landmark Ranch north of Cody was conducted in 2012. Approximately eight miles of woven and barbed wire fence were removed and replaced with wildlife-friendly three-wire high tensile electric fence to reduce wildlife movement restriction, injury and mortality, and improve landowner relations (Figure 20). The terrestrial habitat biologist planned and secured funding for further fence modification and 40 acres of aspen enhancement on the Heart Mountain Ranch for 2013.

Production/Utilization Surveys (Goal 2) – Jerry Altermatt

Regional wildlife personnel collected production/utilization data from ten sagebrush transects during 2012. Annual leader production was below the 9-year average, reflecting the extremely dry growing season in 2012 throughout the Bighorn Basin (Figure 21). Utilization at all transects in spring 2012 was slightly above average but generally below the 35% utilization level considered to be the threshold for over-use (Figure 22). Light utilization may indicate that populations are in balance with the amount of winter forage, but may also reflect the fact that the Cody Region has experienced relatively mild winters with big game distributed more widely over winter ranges rather than concentrating animals on crucial winter ranges where utilization studies are located.

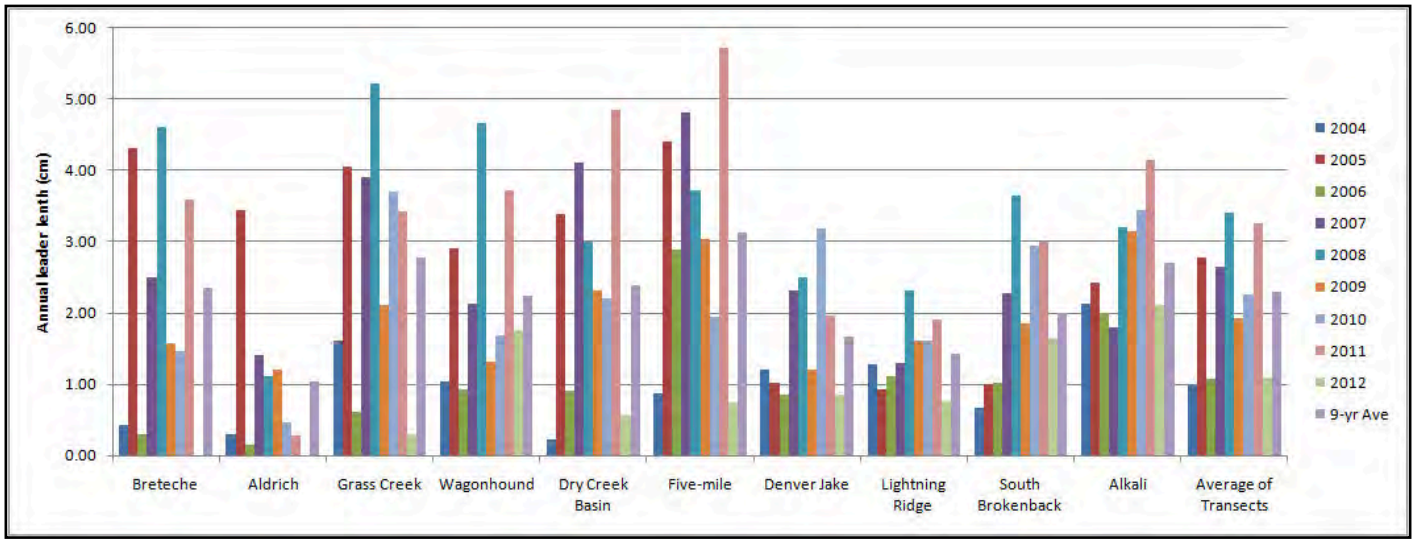


Figure 21. Annual production of sagebrush at ten locations in the Cody Region.

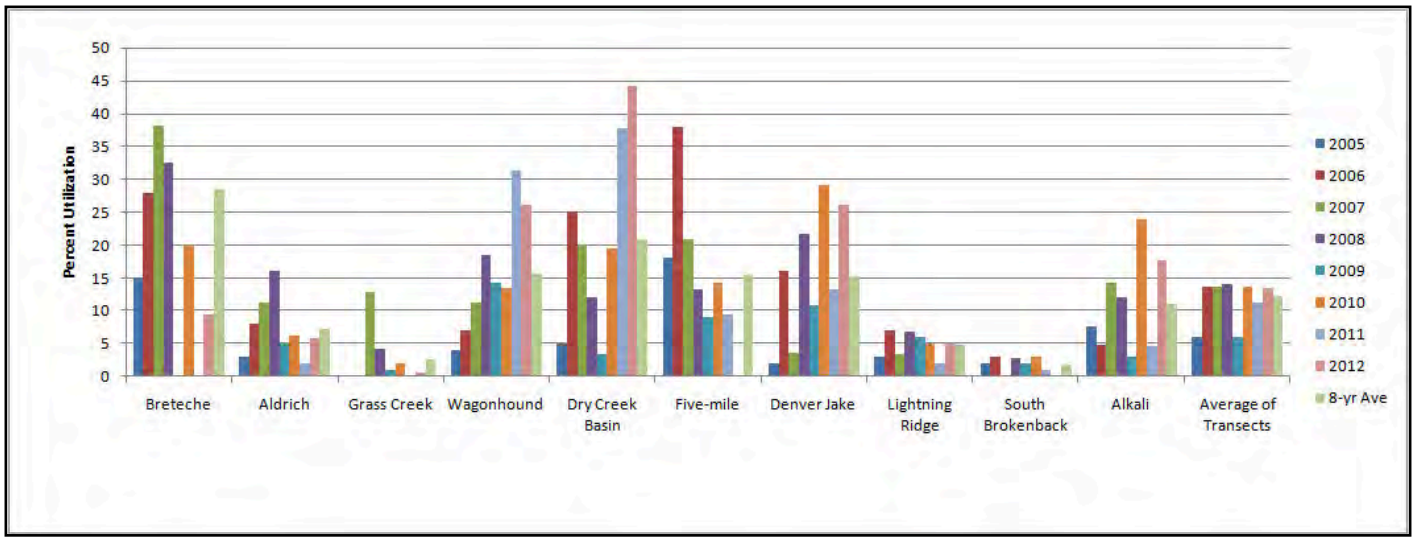


Figure 22. Utilization of sagebrush expressed as percent annual leaders browsed at ten locations in the Cody Region.

Herbaceous production and utilization was measured at seven sites on the Absaroka Front in areas where monitoring winter elk use is a priority. Production was below average on all sites as a result of poor growing season precipitation (Figure 23). Utilization by elk on winter ranges continues to be higher than acceptable in Sunlight Basin, averaging 65% and exceeding 80% at three sites (Figure 24).

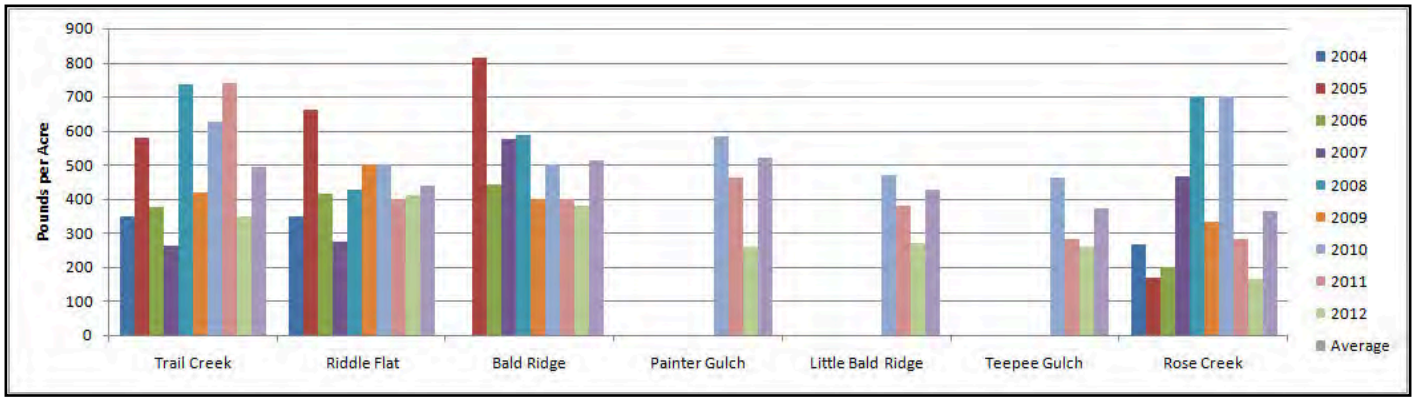


Figure 23. Annual production of herbaceous vegetation at seven locations in the Cody Region.

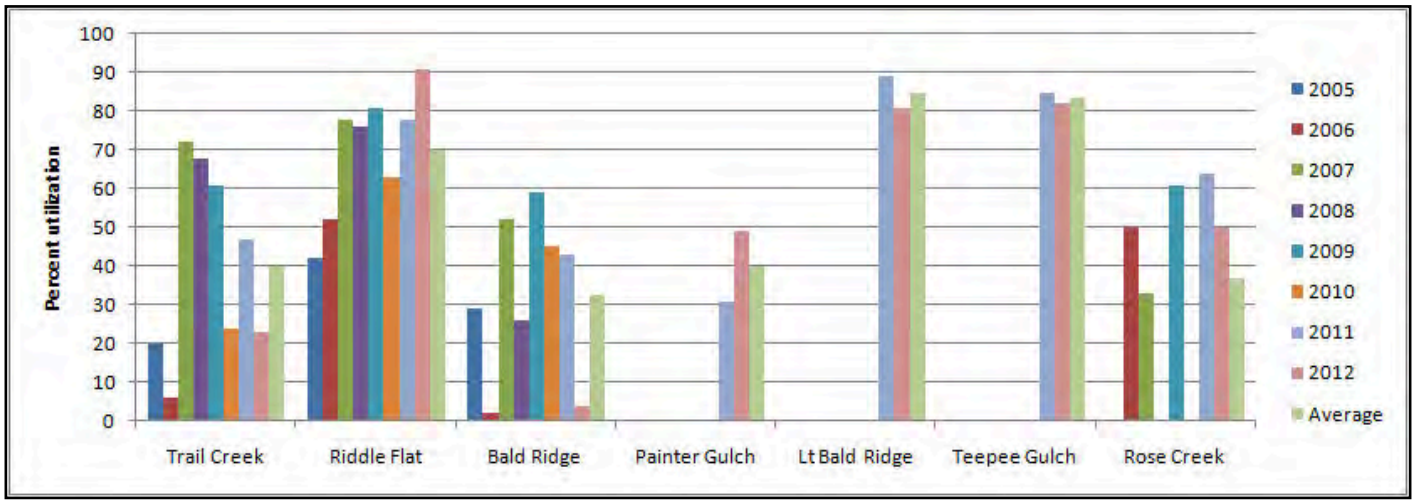


Figure 24. Utilization of herbaceous vegetation at seven locations in the Cody Region.

Cody Regional Information and Education (Goal 4) – Tara Teaschner

Cody Region I&E specialist Tara Teaschner prepared three news releases related to habitat on WHMAS and PAAs and a news release titled “Russian Olive Removal on Yellowtail” to promote the conservation benefits of removing Russian olive from riparian areas.

In addition, the Cody I&E specialist was successful in obtaining a Worth the Watching grant for an outdoor classroom featuring native habitat plots at Lovell Elementary School. The habitat plots will teach native plant identification and promote an appreciation and understanding of the role that habitat plays in the student’s world. The project fosters good land stewardship practices, raises awareness of habitat related issues, and stresses the importance of intact native habitats to wildlife and people.

The Cody I&E specialist also worked with Medicine Lodge State Archeological site to redesign two interpretative cabins at the site. The focus of cabin one is to convey the significance and importance of crucial winter range for elk and cabin two will focus on habitat in general and how animals and their habitats are connected.