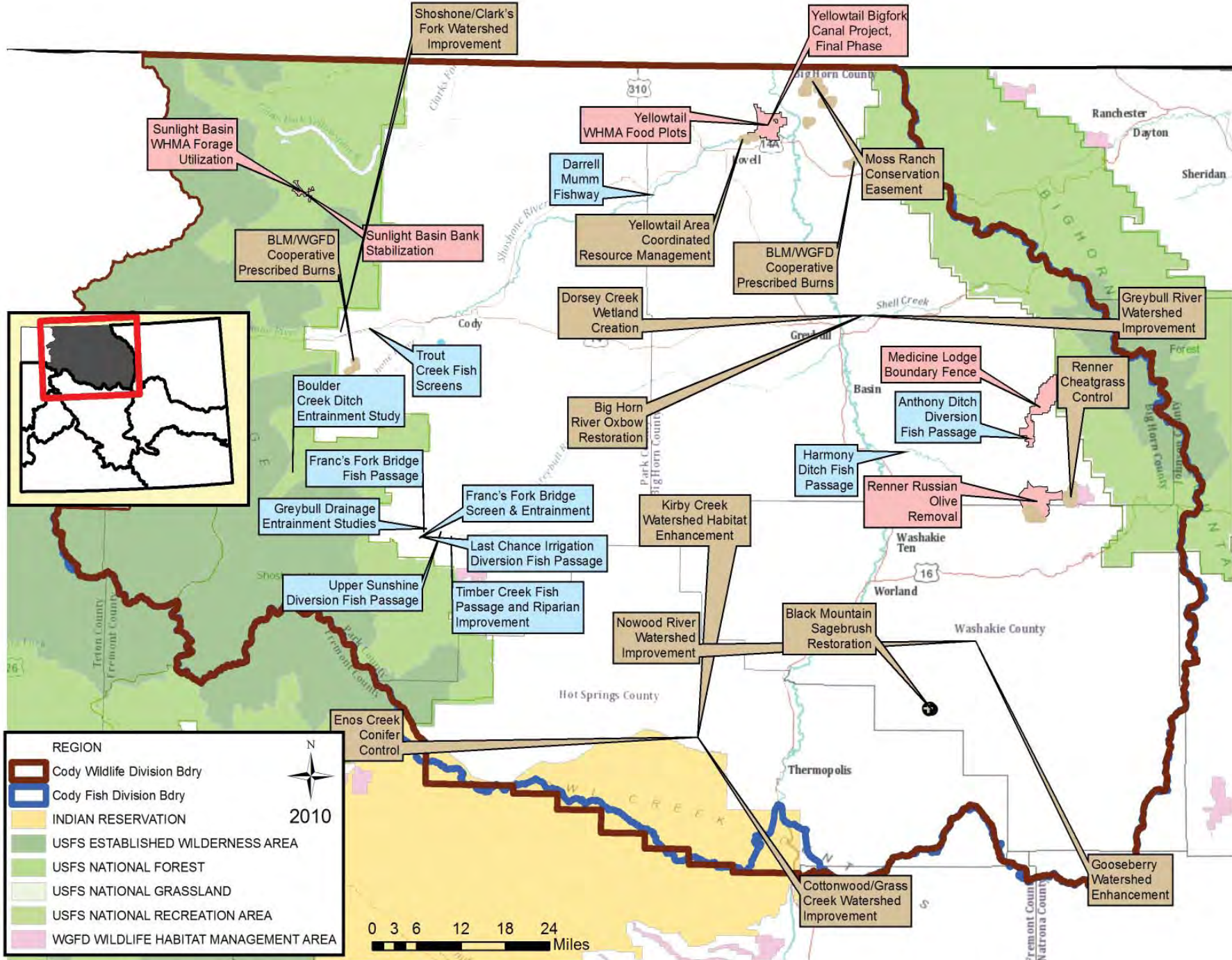


CODY REGION



CODY REGION HIGHLIGHTS

- 3,372 acres of Russian olive, tamarisk, and noxious weed mechanical and chemical control completed on 8 drainages in the Big Horn Basin
- 2,975 cottonwood and willow cuttings, plus 890 native bare root and potted trees and shrubs planted on 6 different streams to replace Russian olive and tamarisk
- 154 acres of new CCRP riparian buffer protection installed in 2010
- 677 acres of mechanical treatments to remove conifers
- 700 acres of prescribed fire treatments to remove conifers
- 4 new wetlands created constituting approximately 27 surface acres of wetland in Big Horn County
- 3 dam structures completed to divert Kirby Creek from its current incised course into historic channels
- 1,944 acres conserved under a conservation easement
- 59 irrigation diversions evaluated for fish passage and 80 diversion locations refined
- 5 fish passage projects initiated, plus 3 entrainment studies complete

Moss Ranch Conservation Easement (Goal 1) - Jerry Altermatt

The terrestrial habitat biologist worked with NRCS, TNC and the Moss Ranch to secure a conservation easement on a portion of the Moss Ranch located on the west slope of the Bighorn Mountains east of Lovell (Figure 1). The NRCS's Grassland Reserve Program provided \$874,800 to fund the 1,944 acre easement. An additional 5,200 acres of the ranch will be placed under easement in 2011. The ranch contains crucial habitat for elk, mule deer, and bighorn sheep and has streams containing Yellowstone cutthroat trout.



Figure 1. The Moss Ranch.

Big 6 Grazing and Vegetation Management EIS (Goal 1) - Jerry Altermatt

The Bighorn National Forest (BNF) prepared an Environmental Impact Statement (EIS) to determine reauthorization of domestic livestock grazing on 43 allotments in six geographic areas on the Forest. The NEPA analysis included proposed fuel management activities within a portion of those allotments. WGFD personnel met with BNF range, fire and wildlife specialists throughout the planning process to provide input and express concerns on a variety of issues including wild/domestic sheep interactions, habitat enhancements, and special winter range designations on a portion of one allotment. Official comments were submitted for the draft EIS.

Timber Creek Passage and Riparian Improvement (Goal 2) – Jason Burckhardt

A multi-culvert road crossing over Timber Creek (Figure 2) was replaced with a 23 foot wide, bottomless arch culvert (Figure 3) and 1.5 miles of riparian fence was installed on private ranch land. The new culvert not only removed a barrier to Yellowstone cutthroat trout but stream flows no longer flood the roadway during high flows. The fence will enhance riparian vegetation and stream stability and provide additional food and cover for both terrestrial wildlife and cutthroat trout. Partners include the private landowners, East Yellowstone Chapter of TU, TU Water Project, TU Embrace a Stream Program, WWNRT, Shoshone National Forest, and the USFWS.



Figure 2. Timber Creek road crossing culverts replaced in 2010 to eliminate a barrier to Yellowstone cutthroat trout.



Figure 3. Timber Creek bottomless arch culvert installed in 2010 to provide fish passage, better stream dynamics, and prevent road flooding.

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

The terrestrial habitat biologist served as one of the WGFD's leads on the 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 reorganization of the BLM a Wind River District was formed comprising of the Cody, Worland and Lander Field Offices. The Cody and Worland Field Offices are combining their RMP revision efforts to produce one plan (Bighorn Basin RMP) being analyzed with one EIS but with two NEPA decisions. WGFD personnel attended multi-day workshops and numerous other meetings with the BLM and other cooperating agencies to develop a preliminary draft EIS. The terrestrial habitat biologist also attended several field trips to discuss resource issues with the public (Figure 4). The BLM is expected to release the draft EIS in the spring of 2011.



Figure 4. BLM Resource Management Plan field trip to the Carter Mountain area.

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

The Yellowtail Area Coordinated Resource Management (CRM) team continued to manage invasive plants on agency and private lands in the Lower Shoshone and Bighorn River bottom lands. The CRM consists of the four landowners on the Yellowtail WHMA, (National Park Service (NPS), WGFD, BLM, and Bureau of Reclamation), neighboring private landowners, the Bighorn County Weed and Pest, NRCS, and other interested parties. The terrestrial habitat biologist serves as chairman of the CRM and has been responsible for writing

and submitting grant applications for the project, including WWNRT, National Fish and Wildlife Foundation, and N WTF.

The following activities were accomplished on the CRM area in 2010:

- **Conducted mechanical treatments on Russian olive and saltcedar using mulching machines.** Swaggert Enterprises, Ritter OR, was contracted to mechanically treat 245 acres of BLM lands within the Yellowtail WHMA and adjacent private lands on the Shoshone River riparian. The contractor used a Timbco Steep-slope Hydro-buncher with a Birdseye vertical-shaft mastication head (Figure 5).



Figure 5. Timbco Hydro-buncher with mastication head.

- **Utilized goats and cattle in prescribed grazing treatments.** Boer goats were used on the Bighorn River between April and September to control invasive plants in a continuing program that was initiated in 2004. Two areas totaling approximately 400 acres received the grazing treatment with 1,000 goats. The primary objective is to target Russian olive, salt cedar and Russian knapweed. In January, 230 head of cattle were used as part of a winter grazing program initiated in 2002. Cattle are confined with electric fence to small pastures strategically located throughout the Shoshone River bottom. Pastures are designed to be no wider than ¼ - ½ mile and stretch from the river to dry upland habitat. The primary objectives of the grazing program are to reduce the risk of wildfire by removing fine fuels prior to the spring wildfire threat, rejuvenate grass/forb communities, and create areas of higher quality brood-rearing habitat for upland birds. Ice jams and flooding of the Shoshone River precluded the use of all but one of the planned grazing pastures.

- **Conducted chemical treatments on noxious weeds using vehicle and backpack sprayers.** BLM fire crews applied herbicide to tamarisk and Russian olive resprouts on 215 acres that were mechanically treated in early 2010. Field Services, LLC from Cody was contracted to apply herbicide to tamarisk and Russian olive re-sprouts on 30 acres mechanically treated in 2010 and 320 acres of previous years' mechanical treatments (Figure 6). Big Horn County Weed and Pest District chemically treated approximately 170 acres of Russian knapweed, tamarisk and whitetop.



Figure 6. Field Services spraying Russian olive re-sprouts.

- **Continued education and public outreach efforts.**

The “CRM in the Classroom” program is an integrated, interdisciplinary program in which teachers and students participate in collaborative decision-making groups that are working on natural resource issues throughout the state. Lovell High School (LHS) entered into the program in 2005 and affiliated with the Yellowtail Area CRM. During the project period 30 LHS students were involved in the following CRM projects and activities:

- * Russian knapweed seed viability study. Students collected knapweed seeds from goat pellets and attempted to germinate them in the lab to determine seed viability.
- * Permanent vegetative trend study. Students annually read four rooted nested frequency transects to determine vegetative trend in areas grazed by cattle in the winter.
- * Chemical/mechanical treatment effectiveness monitoring. Students established and read transects to determine the percent mortality of chemically treated Russian olive and salt cedar including a six-trial study of different herbicide and application method combinations.

• **Planted shrubs and trees.** A waterjet stinger was used to plant over 200 cottonwood and willow cuttings in areas previously treated to remove Russian olive using volunteer labor from the CRM. Over 100 bare-root buffaloberry seedlings were planted by CRM volunteers, WGFD personnel and members of Pheasants Forever (Figure 7). Buffaloberry has been identified as a good native alternative to Russian olive as it provides similar cover and forage value without being invasive. Survival rates of buffaloberry plantings are being monitored, and, if successful, larger plantings will be planned for the future.



Figure 7. Planting buffaloberry into an area treated to remove Russian olive.

• **Continued biocontrol of salt cedar.**

The salt cedar biocontrol program in the Yellowtail CRM using the insect (*Diorhabda elongata*) continues to be monitored by the Agricultural Research Station (ARS). Insect populations in 2010 are still low after a dramatic decrease for unknown reasons in 2009.

• **Monitoring.** Vegetative responses in mechanical/chemical treatments are documented with photopoints and, in some cases, with belt or circular plot transects to collect Russian olive and tamarisk density and percent mortality data. Herbaceous response in areas where dense Russian olive canopy has been removed has been remarkable (Figures 8 - 10).



Figure 8. Before treatment.



Figure 9. Immediately following treatment.



Figure 10. Three years after Russian olive removal.

Sage Creek Weed Management Area (Goal 2) - Jerry Altermatt

A new Weed Management Area (WMA) was initiated to address Russian olive and tamarisk infestations on private lands in the Sage Creek watershed north of Lovell, WY. The Sage Creek WMA is an offshoot of the successful Yellowtail Area CRM. The project is being funded by the WWNRT, Big Horn County Weed and Pest District and private landowners. Treatments were planned on several private lands and work will begin in late winter 2011.

Gooseberry Watershed Enhancement (Goal 2) - Amy Anderson

This is an ongoing project in the 500,000-acre Gooseberry drainage to restore and enhance 2,000 acres of riparian habitat and stream form and function.

In the winter of 2010 a gyro track implement was used on one previously untreated private property totaling 50 acres, and 41.5 acres of state owned land. Follow up treatments were conducted by Washakie County Weed and Pest in the summer of 2010. The total cost for projects implemented in calendar year 2010 was \$117,140. The total project cost for the entire watershed thus far is \$1,354,234.

In May 2010, 1,175 willow cuttings were planted on acres enrolled in Continuous Conservation Reserve Program (CCRP) and on private property on Gooseberry Creek using the waterjet stinger.

There are 7 active CCRP contracts on Gooseberry Creek that require follow-up. Trees and willow cuttings were planted on four of these in the spring of 2010. Height structure and dense hiding cover are currently lacking in many areas of Gooseberry Creek, and continued restoration 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.

Nowood River Riparian Enhancement Project (Goal 2) - Amy Anderson

In November of 2007 a project was initiated to improve riparian areas within the Nowood River Watershed by removal of Russian olive and tamarisk. To date, a total of 2,708 acres have had a mechanical treatment and a follow-up chemical treatment. The primary funding source is USDA AMA funds. Additional funding was acquired through WWNRT in the amount of \$115,000.

Approximately 96.2 acres were mechanically and chemically treated in 2010. Many of the landowners on the Nowood have chosen to complete the work themselves rather than hire contractors. In doing so, they have taken full ownership and will likely put forth efforts to maintain the work they have completed.

To date, total expenditures has been is: \$705,578. Cooperators include: NRCS, WGFD, WWNRT, Washakie County Conservation District, Big Horn County Conservation District, Washakie County and Big Horn County Weed and Pest, and private landowners.

Greybull River Watershed Enhancement (Goal 2) - Amy Anderson

The Greybull River Russian olive and tamarisk control began in 2008. About 747 acres of Russian olive and tamarisk were treated in 2010. The WWNRT approved a grant of \$300,000 to assist landowners. Total expenditures are \$399,900, excluding individual landowner efforts and in-kind contributions. NRCS AMA and WRP have been the major funding sources along with WWNRT.

Kirby Creek Watershed Habitat Enhancement (Goal 2) - Amy Anderson

The Kirby Creek CRM group is continuing to plan and implement projects that focus on restoring ecological functions within the watershed. Existing CCRP projects on Kirby Creek are showing a tremendous vegetative response and are providing quality habitat for beaver, mule deer, sage grouse, and migratory songbirds (Figures 11 and 12).

In 2010, 800 willow cuttings were planted on two CCRP areas using the waterjet stinger, and even into September survival was very high. There are currently 9 active CCRP contracts on Kirby Creek. The 2 newest CCRP projects on Kirby Creek are currently underway. They were partially funded through the WGFD WyWHIP incentive program.



Figure 11. Kirby Creek before CCRP in May 2008.



Figure 12. Kirby Creek two years after CCRP installation in August 2010.

Kirby Creek Watershed activities have focused on removal of grazing pressure on riparian areas, extensive water development, removal of invasive Russian olive and salt cedar, and experimental weed control of white-top. In-stream structures have been installed to slow water velocity and decrease the massive erosion events that are occurring at Stan's Folly along Kirby Creek. Cooperators for all projects on Kirby Creek include WGFD, BLM, NRCS, DEQ, Wyoming Water Development, Hot Springs County Weed and Pest, Washakie and Hot Springs County Conservation Districts, and private landowners. Total cost for projects in this drainage thus far is \$1,941,207. The primary funding sources for Kirby Creek include DEQ 319 funds, Continuous CRP, WWNRT, Hot Springs County Weed and Pest, WGFD, NRCS-EQIP, WWDC, Private Grazing Lands Initiative, and private landowners.

Big Horn Basin Landcover Mapping (Goal 2) - Jerry Altermatt

A project contracted with Wyoming Geographic Information Science Center (WyGIS) to map habitat types using satellite imagery continued into a fifth year. Satellite imagery for the entire Bighorn Basin has been acquired and the Bighorn Basin has been divided into five geographic priority areas for completion of mapping. The first priority area, 2,420,262 acres of the Absaroka Front east of the Shoshone National Forest, was completed and a final map and report was released in March 2010. WyGIS field scientists, assisted by WGFD personnel collected 169 samples of vegetative cover data during the 2010 field season to provide data for the completion of priority areas two and three. It has been funded by WGFD trust fund, BLM, Big Horn Basin Sage-grouse Local Working Group, WGBGLC and SWG.

Black Mountain Sagebrush Restoration (Goal 2) - Jerry Altermatt

In November 2009, 4,000 sagebrush seedlings were planted within the 50,000 acre Black Mountain wildfire southeast of Worland. The wildfire burned large areas of Wyoming big sagebrush that served as pronghorn and mule deer winter range as well as breeding, nesting and winter range for sage-grouse. The objective is to establish seed sources within the burn by creating group plantings of sagebrush in select areas. Ten-inch tublings were planted in groups of approximately 80 plants and enclosed by 8 square foot cages to exclude browsing by livestock and wildlife. In half of the group plantings, weed barrier was used to reduce competition from cheatgrass. Sugar was spread on the remaining group plantings to inhibit cheatgrass growth by reducing the nitrogen/carbon balance. In 2010, plant survival was evaluated at each cage site. Both sugar and weed barrier treatments effectively reduced or eliminated cheatgrass competition around sagebrush seedlings, but weed barrier treatments allowed far more soil moisture retention and produced plants with more vigor (Figure 13 and Figure 14). Survival rate at weed barrier sites was 95%, while survival rate at sugar treatment sites was 81%. Funding was sought from the Sage-grouse Local Working Group and WGFD trust fund to plant an additional 4,000 seedlings in 2011.



Figure 13. Sagebrush seedlings with sugar treatments.



Figure 14. Sagebrush seedlings with weed barrier.

Shoshone/Clark's Fork Watershed Enhancement (Goal 2) - Amy Anderson and Jerry Altermatt

The Shoshone/Clark's Fork Russian olive and tamarisk control was initiated in the fall of 2008. The group's focus is primarily on removing Russian olive and tamarisk on riparian areas and adjacent uplands of these two river systems. The interest within the watershed has increased exponentially since that time, and it will continue to do so as more areas get cleared. WWNRT contributed \$300,000 and a group of very active landowners formed a CRM and took over the administration of these grant funds. To date, 968 acres have been treated using NRCS AMA and WRP funds, WWNRT funds, and private landowner contributions. The total cost thus far is \$208,830 for the Shoshone/Clark's Fork Project. NRCS AMA and WRP have been the major funding sources along with WWNRT.

Enos Creek Conifer Control (Goal 2) - Amy Anderson

The Enos Creek conifer control was initiated in late 2008 by the BLM Worland Field Office. Within the Enos Creek drainage, juniper and limber pine were encroaching into the riparian corridor, as well as into the upland deep soiled range sites that would normally contain big sagebrush stands. Nearly all of the big sagebrush stands in the drainage exhibit active juniper encroachment typical of the Bighorn Basin. In the summer of 2010, a BLM fuels crew worked using chainsaws and a timber-axe implement mounted on a skid steer to clear 677 acres of juniper, limber pine, and decadent sagebrush plants from the riparian area and the secondary terrace along Enos Creek. The WWNRT contributed \$100,000 to this effort, and a NRCS WHIP contract was initiated to assist with follow-up riparian enhancement practices such as small check dams to improve hydrology. WGFD fisheries personnel stocked Enos Creek in 5 of the last 10 years.

Production/Utilization Surveys (Goal 2) - Jerry Altermatt

Regional wildlife personnel collected production utilization data at nine sagebrush transects during 2010 (Figure 15).

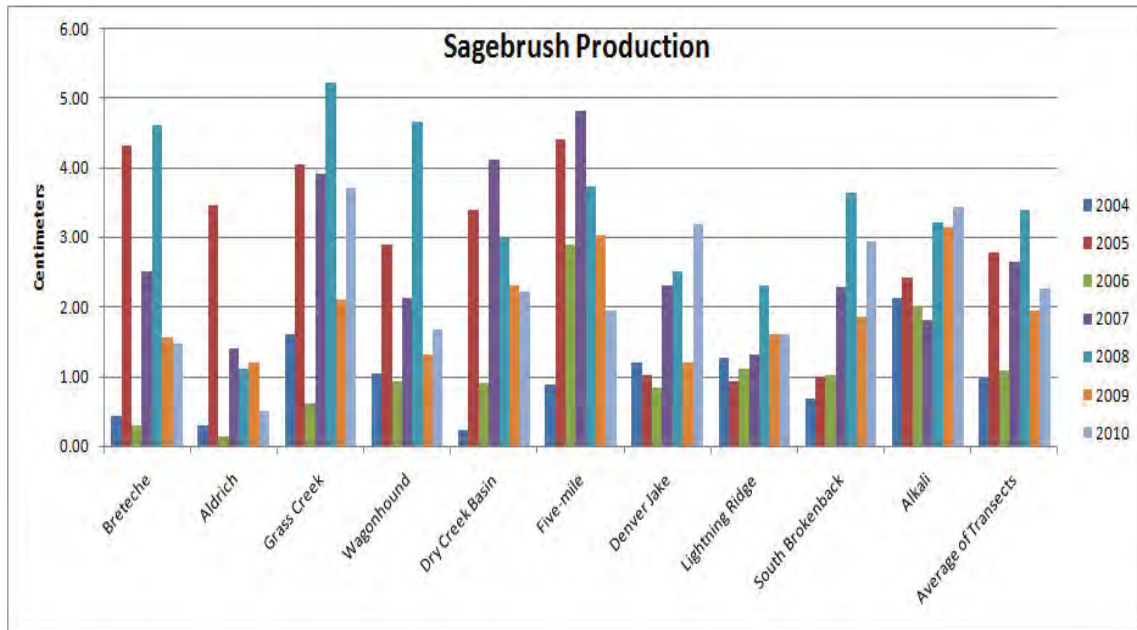


Figure 15. Annual production of sagebrush at ten locations in the Cody Region.

Generally, production at transects on the west slope of the Bighorn Mountains were slightly above a 7-year average, while those on the face of the Absaroka Mountains were slightly below. Utilization at all transects in spring 2010 was below the 35% threshold for over-utilization (Figure 16). 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 mild winters with big game distributed more widely over winter ranges rather than concentrating animals on crucial winter ranges where utilization studies are located.

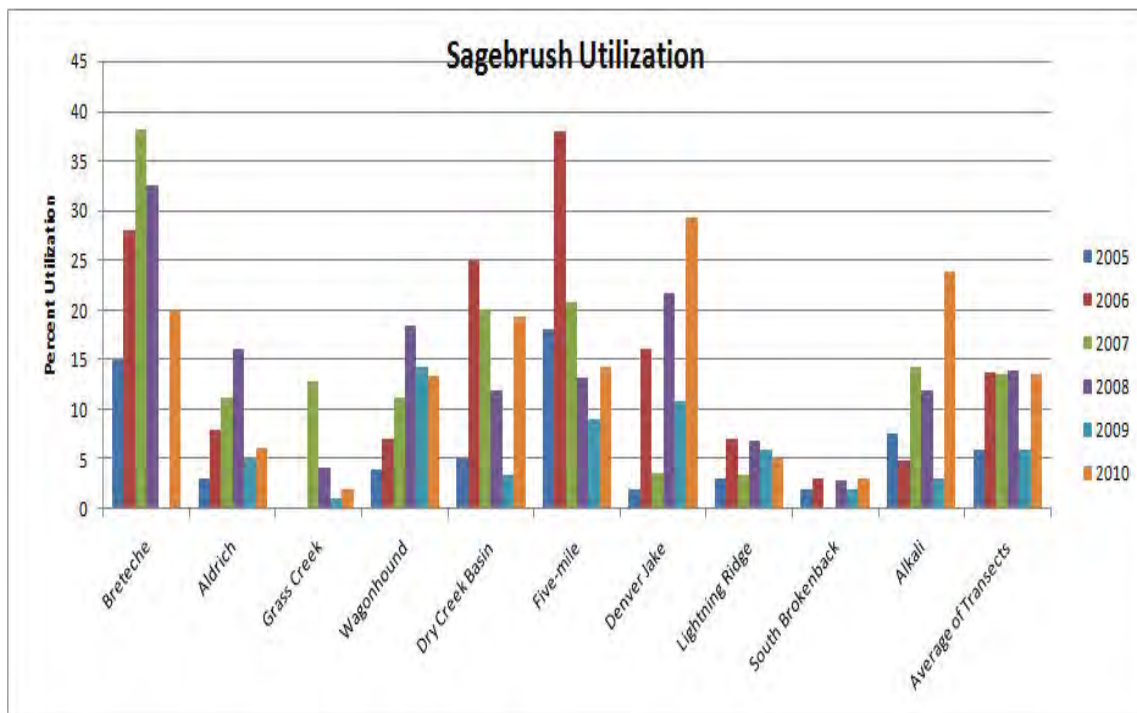


Figure 16. Utilization of sagebrush expressed as percent of that years annual leaders browsed at ten locations in the Cody Region.

Herbaceous production and utilization was measured at five sites on the Absaroka Front. Production was above average on all sites except for those in the eastern portion of the Clark's Fork elk herd unit (Bald Ridge and Heart Mountain 1) (Figure 17). Utilization during winter continues to exceed upper limits in Sunlight Basin (Figure 18). Three new production utilization studies were established in Sunlight Basin to provide more data for an upcoming herd unit population objective review.

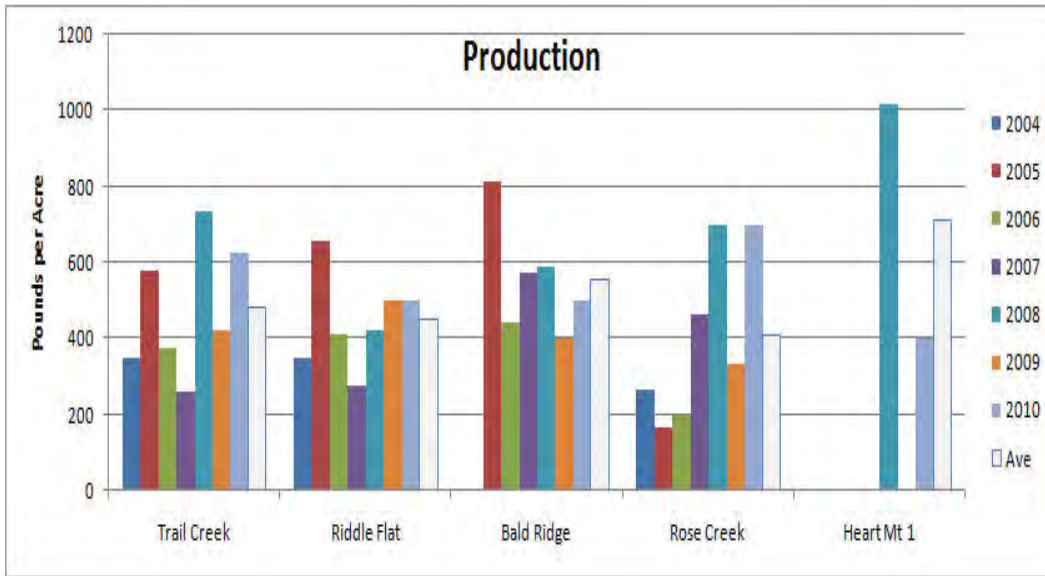


Figure 17. Annual production of herbaceous vegetation at five locations in the Cody Region.

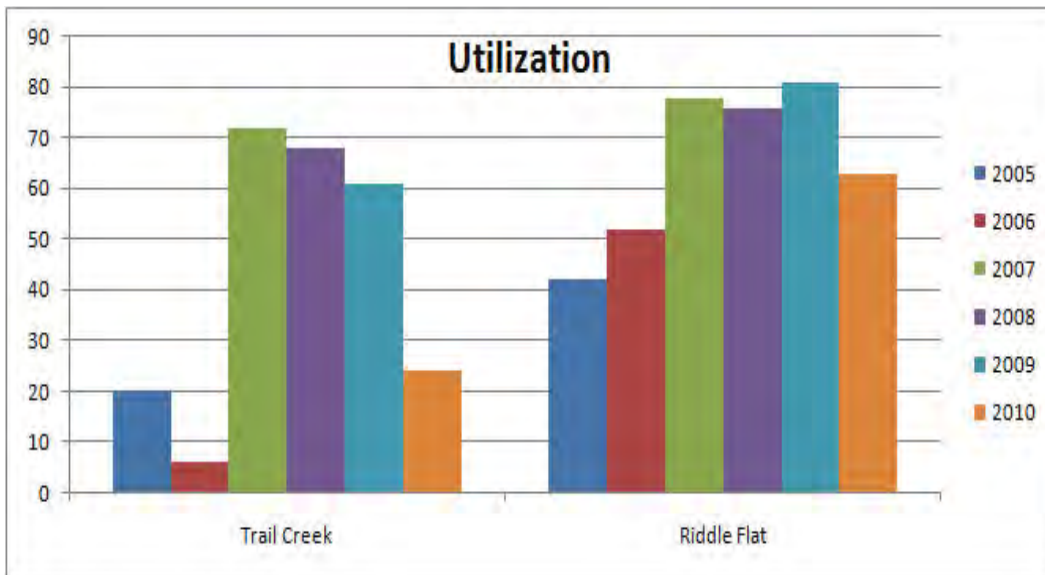


Figure 18. Utilization of herbaceous vegetation at two locations in Sunlight Basin.

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

In August of 2007 steps were taken to begin working actively on the tamarisk and Russian olive invasion on Cottonwood Creek. A CRM/Watershed Improvement District (WID) has been in place since 2005, and large tracts of the 270,000 acre watershed have been inventoried for noxious and invasive weed species through individual and Hot Springs County Weed and Pest efforts. 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.

To date, 856 acres of Cottonwood Creek have been treated mechanically with follow up chemical treatments. There are 2 active CCRP contracts on Cottonwood Creek, and a new CCRP contract that will be initiated on Grass Creek in 2011. All of these contracts will require tree and willow plantings in the spring of 2011.

There are also 4 active CCRP contracts 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 (Figures 19 and 20).



Figure 19. Spring Gulch before CCRP in October 2007.



Figure 20. Spring Gulch CCRP 2 years after installation in September 2010.

In May of 2010, several work days were held to plant willow and cottonwood cuttings using the waterjet stinger. Over 700 willows were planted on 3 different properties using the waterjet stinger. Survival of the 2,000 willows planted since 2009 has been relatively low. There are several practices that will be initiated in 2011 to hopefully improve willow survival.

Currently, the largest funding source is the NRCS AMA Program followed by the WWNRT which has allocated \$225,000 to the project. TNC obtained an additional \$40,000 to assist with this effort, especially on BLM land bordering the area. Every landowner with property adjacent to Cottonwood Creek has initiated efforts to control tamarisk and Russian olive.

Big Horn River Oxbow Restoration (Goal 2) - Amy Anderson

In 2008, the landowner initiated restoration of a wetland in an old oxbow of the Big Horn River. Initially, there were adjacent landowner concerns, but the NRCS engineer designed the wetland to avoid issues with adjacent landowners and the railroad right of way. There were serious Russian olive and tamarisk concerns on the property. The BLM owns a parcel directly on the river, and agreed to assist with some fencing, prescribed burning, and removed of Russian olives on their property. Work began in the spring and was completed in late fall 2010. The BLM burned the heavy build up of cattail and Canada thistle to help provide for greater depth. The landowner will begin to fill the wetland in early spring of 2011.

BLM/WGFD Cooperative Prescribed Burns (Goal 2) - Jerry Altermatt

Approximately 550 acres of juniper communities were treated with prescribed fire in the Little Mountain area east of Lovell. 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. The burns were part of a larger effort that has treated over 3,000 acres in the Little Mountain area. Approximately 150 acres were treated with prescribed fire in the Breteche Creek watershed west of Cody, WY (Figure 21). The objective of the burn was to remove encroaching juniper, limber pine and Douglas fir, create younger age classes of sagebrush, and increase herbaceous forage on elk, mule deer and bighorn sheep winter ranges.



Figure 21. Prescribed fire to remove conifers from sagebrush and aspen communities on Breteche Creek.

Dorsey Creek Wetland Creation (Goal 2) - Amy Anderson

Dorsey Creek is a tributary of the Greybull River and flows ephemerally through a very arid portion of the watershed. The vegetation consists mainly of Gardner's saltbush, greasewood, and a variety of grasses. The landowner hopes to develop his entire property for wildlife including 2 more wetlands. He has developed several food plots and plantings of trees and shrubs that are attractive to wildlife. The following photos show the area before and after the creation of 2 wetlands (Figure 22 and 23).



Figure 22. Dorsey Creek wetland project in March of 2008 prior to construction of 2 tiered wetlands.



Figure 23. Dorsey Creek wetland project in September of 2010 after construction and planting of adjacent food plots for waterfowl.

Renner Cheatgrass Control (Goal 6) - Jerry Altermatt

Approximately 2,500 acres of cheatgrass dominated rangeland on the Renner WHMA was aerially sprayed with Plateau herbicide in 2009. The treatment included 1,500 acres treated with a six ounce rate of herbicide and 5 gallons of total volume per acre in the South pasture and 1,000 acres treated with a eight ounces of herbicide and 10 gallons of total volume per acre in the Lower Mountain pasture. Production and nested frequency studies were established in 2008 prior to treatment and were re-read in 2010. The frequency data indicates a 47% reduction in occurrence of cheatgrass following treatment. Occurrence of western wheatgrass increased 50% while bluegrass species decreased 30% (Figure 24). Production data indicates a 99.5% control of cheatgrass, which meets the objective of the project (Figure 25). The Lower Mountain pasture is important for wintering elk and the South pasture contains mule deer winter range and sage grouse breeding habitat.

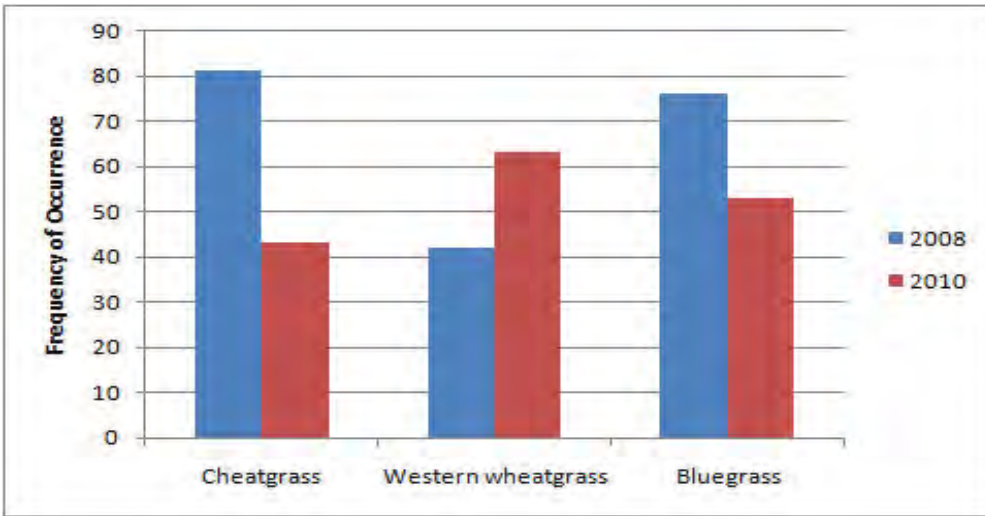


Figure 24. Data from nested frequency transects showing occurrence of three plant species before and after cheatgrass control.

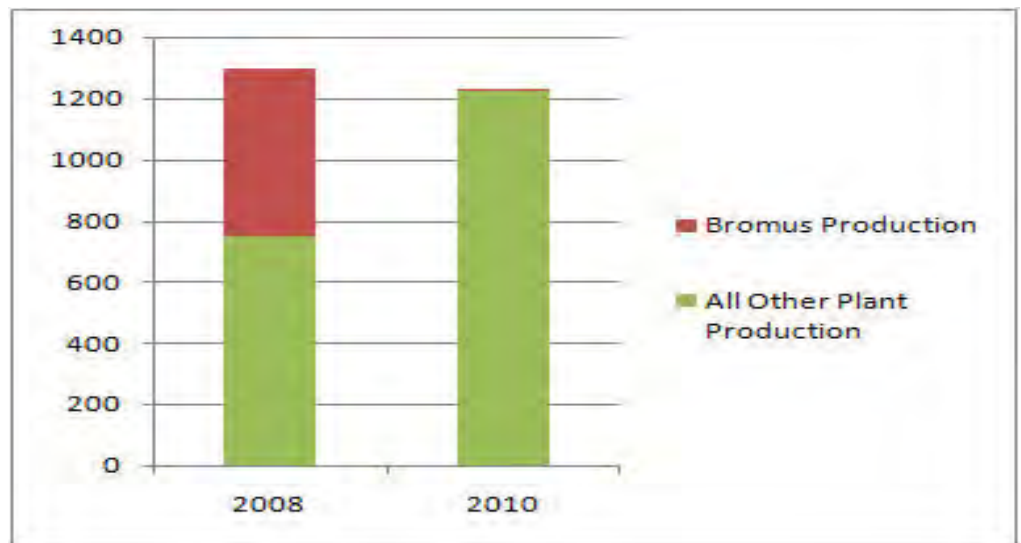


Figure 25. Data from production transects showing production of cheatgrass and other plants before and after cheatgrass control.

Diamond Creek Wetland (Goal 3) - Steve Yekel

The Diamond Creek wetland was completed in November 2010. This involved replacing a washed out earthen dam with a steel piling/rock structure designed with a gate for future wetland maintenance (Figure 26). Approximately 2500 cubic yards of accumulated silt was also removed and placed at an upland barrow site.



Figure 26. New water level control structure installed to create a wetland and silt detention pond to protect the Diamond Creek Dike Pond.

Reseeding with native vegetation is scheduled for spring 2011. The goal was to rejuvenate the silt retention properties of this five acre wetland (Figure 27) to prolong the age of the downstream Diamond Creek dike pond, a Yellowstone cutthroat trout fishery. In addition, waterfowl nesting and loafing habitat will be restored. Funding partners include the U.S. Bureau of Reclamation, WWNRT and WGFD.



Figure 27. Five acre wetland and silt detention pond developed on Diamond Creek in 2010.

Sunlight Basin WHMA Forage Utilization - Steve Ronne

Annual forage production and utilization information is collected on the Sunlight Basin WHMA (Figures 28-31)

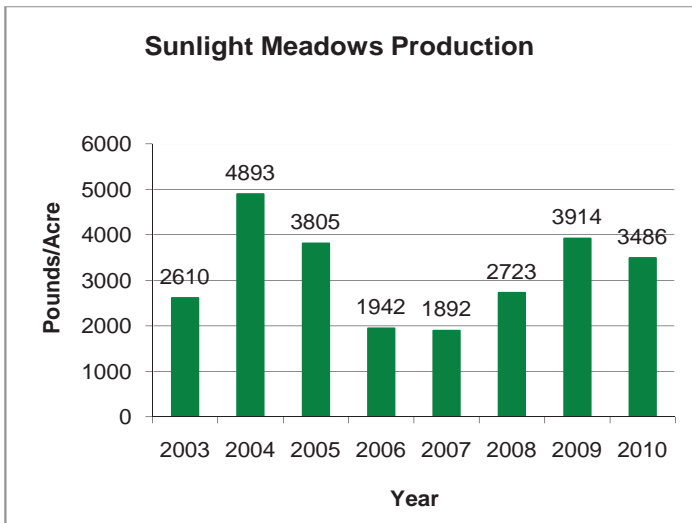


Figure 28. Sunlight Basin WHMA meadow production.

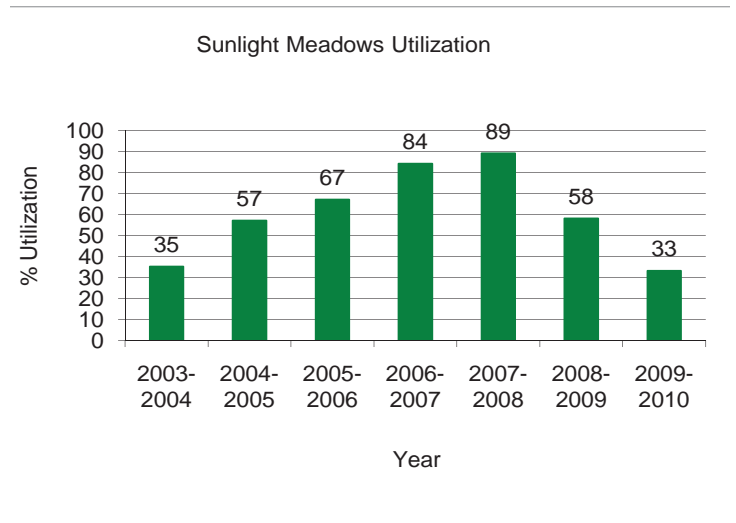


Figure 29. Sunlight Basin WHMA meadow utilization.

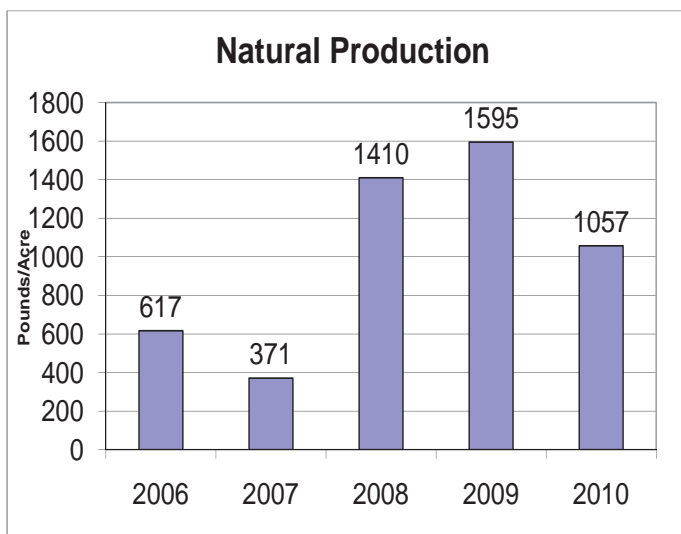


Figure 30. Sunlight Basin WHMA non-meadow production.

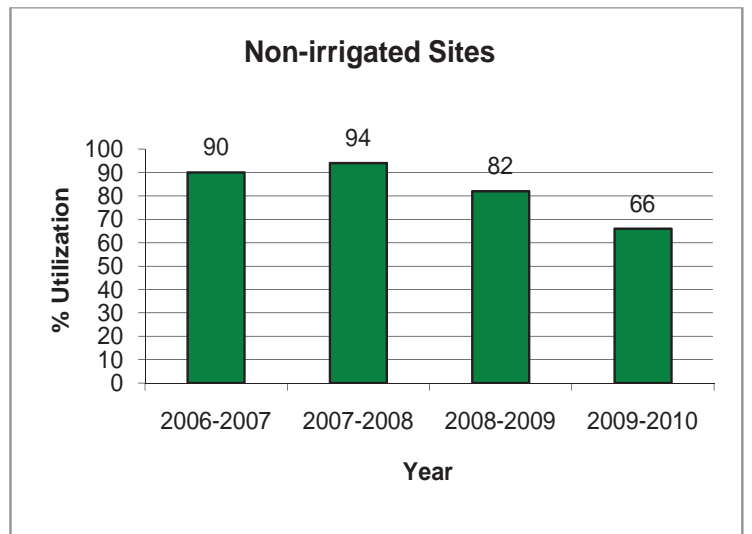


Figure 31. Sunlight Basin WHMA non-meadow utilization.

Sunlight Basin Bank Stabilization (WHMA) - Steve Ronne

Approximately 1,000' of stream bank was terraced and top soil hauled off to prevent further bank collapse into Sunlight creek (Figure 32).



Figure 32. Stream bank stabilization at Sunlight Basin.

Yellowtail Bigfork Canal, Final Phase (WHMA) - Steve Ronne

Work began in December to reconstruct the steep hillside portion of the bigfork canal and install a 48" pipeline to transport the water to the siphon. This canal provides all of the irrigation and pond filling water for ~640 acres of crops and cover fields, and three large ponds on the north side of the Shoshone river. Completion is expected by April, 2011.

Yellowtail WHMA Food Plots - Steve Ronne

We planted 85 acres in sorghum and corn mix. Three acres were planted in clover mix, and over 130 acres of cover was irrigated. Seed was donated by Pheasants Forever and University of Wyoming seed lab in Powell. (Figure 33).



Figure 33. WGFD and volunteers Planting Buffalo Berry at Yellowtail.

Renner Russian Olive Removal (WHMA) - Steve Ronne

Russian Olive trees were mechanically removed from Zeisman canyon utilizing a tracked excavator with a mulching head. Re-growth was chemically treated in the fall and will be monitored and treated in following years. This head-waters type project was conducted on BLM and WGFD fee title lands, in cooperation with Worland BLM. Funding has been provided by WWNRT and WGFD.

Medicine Lodge Boundary Fence (WHMA) - Steve Ronne

One half mile of forest boundary fence was replaced with buck and pole fence in the Black Butte area. This fence replaces an old section of buck and pole fence in a high wildlife movement winter range area adjacent to a FS cattle grazing allotment (Figure 34).



Figure 34. Medicine Lodge Boundary fence.