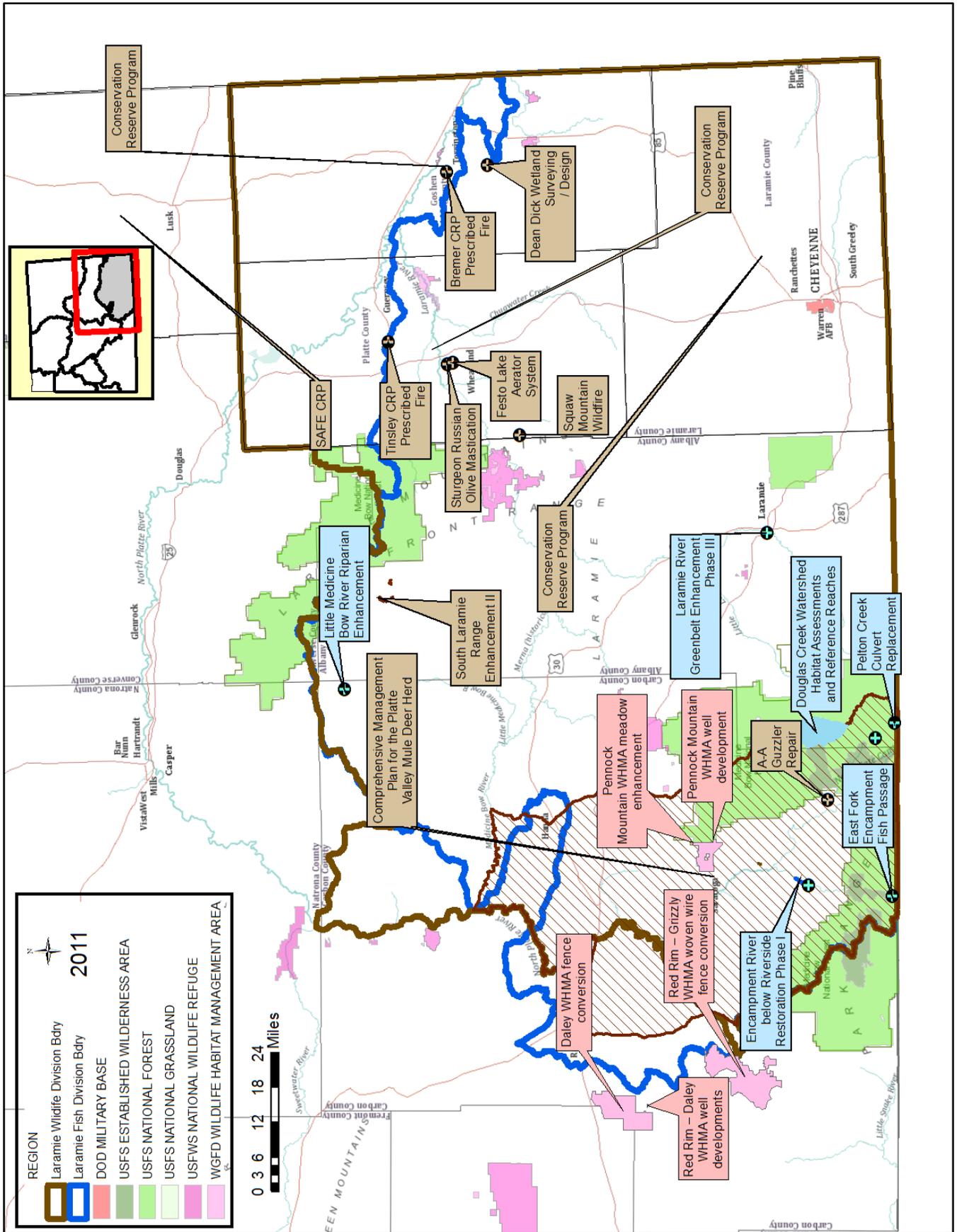


LARAMIE REGION



LARAMIE REGION HIGHLIGHTS

- 900 acres of CRP enrolled lands were enhanced with prescribed burns
- 680 acres of CRP enrolled lands were seeded or reseeded
- 60 acres of Russian olive were masticated and treated with herbicides
- 33 acres of conifers were removed from aspen stands
- 95 acres of dense, decadent mountain big sagebrush stands were treated with prescribed fire
- 14½ miles of woven wire fence was converted to 4-wire wildlife friendly fence and 3 solar panel/pump systems were installed to provide water for wildlife on the Red Rim WHMA
- 70 acres of food plots were planted for wildlife propagation on Springer and Table Mountain WHMAs
- The final phase of the Laramie River Enhancement was completed and consisted of rock deflectors, rootwad revetments, boulder clusters, vegetated riprap, and rootwad spurs
- Construction began on the first phase of the Encampment River below Riverside restoration
- More than 2,000 willow stakes were planted on a walk-in fishing access area on the Little Medicine Bow River

Conservation Reserve Program (CRP Sign-Up 41) (Goal 1) – Ryan Amundson

Another CRP sign-up occurred in spring 2011, resulting in more than 100 contracts being reviewed in Platte, Goshen and Laramie counties. Technical assistance with permanent cover seed mixes, water developments and mid-contract cover management was provided, potentially impacting more than 100,000 acres. Pollinator species plots and food plots (annual and perennial) were also planned for planting in spring 2012.

Mid-Contract Management is planned on thousands of acres of CRP in southeast Wyoming in the coming year. Light disking, legume interseeding, prescribed fire, or managed grazing will be prescribed to reinvigorate old CRP tracts and maximize habitat values for wildlife.

A CRP Mid-Contract Management matrix was also developed for use by NRCS field offices and landowners statewide. Based on predominant cover type found within the tract, recommendations were made for mechanical, chemical or biological techniques for cover management (Figure 1). This matrix was developed to improve stand diversity and ultimately improve cover quality and forage production.



Figure 1. Herbicide applications (left ½ of photo) are completed on smooth brome dominated stands, followed by interseeding of preferred grasses and legumes for stand improvement in CRP.

SAFE CRP (Goal 1) – Ryan Amundson

A proposal for a “State Acres For Wildlife Enhancement – SAFE” CRP program was developed by Erika Peckham, Brian Jensen and Ryan Amundson in 2010. The proposal was approved and landowner sign-ups occurred in spring 2011. More than 9,500 acres were enrolled in the program. We were responsible for providing technical assistance with seed mixes, Mid-Contract Management

practice recommendations and developing wildlife habitat management and wildlife species monitoring plans for properties enrolled in these 10- to 15-year contracts.

Comprehensive Management Plan for the Platte Valley Mule Deer Herd (Goal 1) – Grant Frost

The department initiated a collaborative public involvement process in 2011 to plan future management needs for the Platte Valley mule deer herd. This effort is a result of the Wyoming Mule Deer Initiative approved by the WGFC in 2008. Meetings were held in four communities to gather public input on issues and improvements that will be incorporated into a management plan that will be completed in early 2012, followed by another round of public input prior to finalizing the plan. Approximately 170 people attended the first two meetings. One of the improved coordination suggestions proposed is formation of a Platte Valley Habitat Partnership. Details for this partnership will be addressed in 2012.

Squaw Mountain Wildfire Rehabilitation (Goal 1) – Ryan Amundson

A 14,500 acre wildfire burned crucial big game ranges west of Wheatland in August 2011 (Figure 2). Efforts to rehabilitate the site, threatened by invasion of cheatgrass, are underway. Funding has been applied for to assist in aerial herbicide application to at-risk aspects and slopes in 2012 on private, state and federal lands affected.



Figure 2. Lightning-caused fire on Squaw Mountain threatens crucial big game habitats if cheatgrass is not controlled.

Technical Assistance on Conservation Easements and Environmental Action Conservation Review for NRCS (Goal 1) – Ryan Amundson

Technical assistance was provided to NRCS field offices in southeast Wyoming with review of Environmental Quality Incentive Program and other Farm Bill program scheduled conservation practices. These reviews help ensure wildlife habitats or wildlife species are not negatively impacted by planned fences, pipelines and other agricultural practices.

Three landowners (one Platte County, two Goshen County) were provided basic information and technical assistance on conservation easements. All projects are slowly moving forward, but are being spearheaded by other conservation groups such as DU and NRCS.

Platte Valley Mule Deer (Goal 2) – WLCI

This is a multiple component project to improve range lands for wildlife and livestock. The first step was completed when a water well was successfully drilled and capped. The second phase will incorporate the use of the well by running water lines to troughs and fencing to adequately utilize all

of the pastures. The completion of these projects will allow for future habitat treatments. Partners include the private landowner, SERCD, RMEF, WWNRT, BLM and WGFD.

Platte Valley Mule Deer Habitat Enhancement (Goal 2) – Grant Frost

The right-of-way fence along Highway 130 was converted to pole-top along the second half mile on both sides from County Road 209 to the east to facilitate mule deer crossing (Figure 3). Small portions of the fence had been constructed originally in high wildlife crossing spots, but there were continued problems with young animals not being able to cross, getting trapped in the ROW, or individual deer getting caught in the fence.



Figure 3. Completed sections of pole-top fence along Highway 130.

East Fork Encampment Fish Passage (Goal 2) – Christina Barrineau

In the late 1970s, the USFS constructed a concrete hydrology weir on the East Fork Encampment River near the confluence with the Encampment River. The weir was used to measure water yield in conjunction with a timber harvest study, but was only used for a few years. WGFD, USFS and TU recognized the weir as a barrier for upstream fish movements. In 2011, the hydrology weir was removed and the channel restored, allowing for reconnection of the Encampment River and East Fork Encampment River for brown trout, brook trout, longnose dace, longnose sucker and rainbow trout (Figures 4 and 5). Approximately eight miles of tributary stream habitat was reconnected. Funding for the weir removal was provided by Medicine Bow National Forest, WGFD Habitat Trust Fund, WWNRT, USFS Resource Advisory Council and TU.



Figure 4. Removing concrete hydrology weir from the East Fork Encampment River.



Figure 5. Restored channel following removal of the concrete hydrology weir on the East Fork Encampment River.

Habitat Extension Services (Goal 2) – Ryan Amundson

In 2011, 48 individual landowner contacts were made, with 75% of those developing into on-the-ground projects. Numerous other contacts were made while performing normal job duties and may or may not lead to a landowner implementing a project on his or her own.

More than 6,300 acres were planned to be burned through prescription on nine properties, with 900 acres completed on two of the planned sites. Uncooperative weather and landowners opting out of planned projects due to expense and planned oil and gas exploration activities on lands slated for burning, decreased completed acreages for 2011. CRP stand renovation through herbicide application and re-seeding was conducted on 680 acres.

Burn planning was conducted with BLM personnel and private landowners for several other burns planned for 2012-2013 (Figure 6). Planning involved use of GIS and field site visits with cooperating agencies and funding partners.



Figure 6. Summer months were spent planning the next phase of prescribed burns at Iron Mountain, located southwest of Chugwater.

Funding in the amount of \$30,000 was secured through an application to the WWNRT in fall 2011 to complete Russian olive mastication/removal at a key private wetland habitat area located west of Wheatland.

Permitting assistance, design review and wetland management plans were completed for four wetland restoration projects totaling more than 37 surface acres of water. Planned projects also include planned management of adjacent upland habitats through haying and grazing plans. Funding of \$24,000 was secured from the Director's Office Planning fund in 2010 and was utilized to assist with completing a topographic survey/preliminary design of a private wetland project in Goshen County. Preliminary design plans show more than 22 surface acres of wetlands being potentially restored through low level dike construction and stream check structure placement.

Landowner interest in upland water developments remained high in 2011, with more than 175 guzzlers being planned for installation on newly enrolled or re-enrolled CRP lands (CRP Sign-Up 39). Guzzler standards and specifications were cooperatively developed with NRCS personnel to meet the needs of wildlife in southeast Wyoming. The design drawings were distributed to private landowners and installations were completed with cost share assistance from the USDA.

Over 50 USDA EQIP applications were reviewed and recommendations were made in the Conservation Assistance Notes sections of the landowner's file. Assistance was also provided to NRCS field offices in southeast Wyoming with review of draft ECS-42s, prior to submittal to the Wyoming Game and Fish Department's Environmental Protection Section for formal comment.

Twenty shrub transects are read annually throughout the Laramie Range to measure annual production and utilization by ungulates. The information is included in annual regional wildlife biologist big game reports.

Encampment River below Riverside Restoration Phase I (Goal 2) – Christina Barrineau

Construction began on the Encampment River below Riverside Restoration in fall 2011 on the most upstream property of the assessed reach a short distance downstream from the Highway 230 road crossing. Prolonged high flows and a change in landownership in late summer delayed the construction start, but the new landowner was enthusiastic about starting the restoration. The goals of the restoration are to 1) dissipate energy and prevent land loss by building floodplain benches and expanding pool habitats, 2) improve bedload transport by changing stream dimension and pattern, 3) provide grade control by installing in-stream structures and 4) improve trout habitat with overhead cover on banks, deeper and more abundant pools and narrower riffles.

Fall 2011 construction focused on changing the meander radius at the upstream end of the restoration reach. A new channel was cut, while filling in the old channel and creating a new bankfull bench. Rock sills were set at bankfull height out from the terrace to establish the bankfull channel width and protect the newly constructed meander. Toe-wood treatments were installed along the outside of the meander to enhance trout habitat (Figure 7). On the new bankfull bench, willow clumps and stakes were planted. Approximately 300 linear feet of channel were completed and an additional 300 linear feet were rough-cut. Following construction, a riffle and a pool monitoring cross-section were established, along with several photo points through the restored meander.

In addition to restoration construction, monitoring activities were also conducted. Photos were taken



Figure 7. Toe-wood treatments along restored meander bend of the Encampment River.

at monitoring points established in 2010, along with measuring three pool monitoring cross-sections. The cross-sections indicated an increase in bankfull width and bankfull area while mean bankfull depth and maximum bankfull depth both decreased compared to 2010 indicating that pools are filling in with bedload. Following restoration, deep pools are expected to remain, even after large run-off events. Bank erosion pins for measuring bank profiles and erosion rates at the cross-sections were all washed out by the spring flows, and thus bank profiles were not measured. Lateral movement of the channel was measured from the cross-sections and ranged from 11 to 46 feet.

Partners for the Encampment River below Riverside Restoration Phase I included Trout Unlimited, S-E-R Conservation District, Wyoming Wildlife and Natural Resource Trust, Wyoming Governor's Big Game License Coalition, US Fish and Wildlife Service, private landowner, and USFS Resource Advisory Council.

WHMA Management Assistance (Goal 2) – Ryan Amundson

Technical assistance was provided to WGFD personnel on management of croplands, rangelands, riparian and wetland habitats on WHMA properties. Prescribed burn plans were written and DEQ smoke permits and USFWS, SHPO and NEPA authorizations were completed to conduct a 680 acre burn on the Springer WHMA. Additional technical support was provided to WGFD personnel

with mapping efforts for Russian olive infestations at Rawhide WHMA and food plot locations at Table Mountain WHMA.

Upland and meadow habitats were evaluated on the Spence/Moriarity WHMA near Dubois and ground preparation, seed mixes and irrigation management recommendations were made to WGFD personnel. Seeding efforts were initiated in November 2011.

Pelton Creek Culvert Replacement (Goal 2) – Christina Barrineau

Two culverts were replaced on Pelton Creek in the Douglas Creek Watershed by the USFS to allow for fish passage and sediment transport. The upstream culvert was undersized and a barrier to upstream fish movements and was replaced by a bottomless arch culvert. The downstream culvert was a double culvert that was a barrier to fish movements and was unable to effectively pass flood flows. This culvert was also replaced with a bottomless arch culvert. The stream channel immediately above and below each culvert was reconstructed and the riparian area was re-vegetated. One more culvert will be replaced in 2012. When all three culverts are replaced, passage to 7.3 miles of headwater streams will be enhanced.

South Laramie Range Enhancement II (Goal 2) – Grant Frost

Conifer and aspen mastication was completed on different aspen patches totaling about 33 acres to help regenerate failing aspen stands (Figure 8). Prescribed burns were also conducted in dense, decadent mountain big sagebrush communities in a mosaic pattern within a total area of about 95 acres (Figure 9). These treatments were done on the KeSa Ranch between Toltec and Marshall, mainly to enhance elk habitat and restore aspen communities and sagebrush communities.



Figure 8. Masticated aspen stand on the KeSa Ranch.



Figure 9. Sagebrush prescribed burn on the KeSa Ranch.

A-A Guzzler Repair (Goal 2) – Grant Frost

The A-A guzzler was no longer collecting or holding water for wildlife. The Laramie Region Habitat and Access crew helped over the course of two days to make needed repairs and improvements to the guzzler and buck and pole fence surrounding it (Figure 10).



Figure 10. Affecting repairs to the A-A Guzzler.

Douglas Creek Watershed Habitat Assessments and Reference Reaches (Goal 2) – Christina Barrineau

Wyoming Habitat Assessment Methodology (WHAM) Level 1 surveys were continued on tributary streams in the Douglas Creek drainage on the Medicine Bow National Forest during summer 2011. Surveys were conducted on 11 streams within the Upper Douglas Creek sixth level HUC (101800020104). Approximately 28.5 stream miles were surveyed. Streams assessed were stable, although some areas of instability were observed. Potential reference reaches were identified for future data collection of stable stream habitat (Figure 11). Reference reaches provide vital stream channel design criteria for restoring degraded stream reaches. Most reaches had evidence of past beaver activity, while current beaver activity was predominately located on only two streams. Widespread watershed impacts observed included bark beetle impacts to upland conifer vegetation and unauthorized ATV trails. Once all streams in the Douglas Creek drainage are surveyed, the information will be summarized in an administrative report and guide development of habitat management recommendations and projects. Additional information can be found in the WGFD WHAM and Photo databases.

In addition to WHAM Level 1 surveys, reference reach data were collected on two streams, Bear Creek and Douglas Creek above Rob Roy Reservoir. Both streams were classified as C4 channels, indicating a moderately sinuous channel in well developed floodplain with riffles, pools and point bars. A detailed summary of reference reach data will be included in the overall administrative report for assessments in the Douglas Creek Watershed.



Figure 11. Collecting reference reach data in Bear Creek, a tributary to Douglas Creek on the Medicine Bow National Forest.

Laramie River Greenbelt Enhancement Phase III (Goal 2) – Christina Barrineau

The final phase of the Laramie River Enhancement was completed in 2011. Habitat treatments in the river and along the streambanks consisted of rock deflectors, rootwad revetments, vegetated riprap with rootwad spurs and longitudinal stone toe with rootwad spurs. Funding for Phase III was provided by WWNRT, WGFD Habitat Trust Fund, City of Laramie, Albany County, Laramie Rivers Conservation District, Wyoming DEQ and Laramie Economic Development Corporation-Beautification Committee. Additionally, numerous local volunteers helped cut willow stakes for the treatments.

With assistance from WYDEQ, Year 2 of streambank erosion monitoring was conducted for the Laramie River Enhancement to fulfill requirements for a WYDEQ 319 grant. WYDEQ recently completed a two-year monitoring program of the Laramie River near Laramie. Three of their sites were used for monitoring (above enhancements, within enhanced reach-Optimist Park and below enhancements). Pool cross-sections, BEHI (Bank Erosion Hazard Index), NBS (Near-Bank Stress) and bank profiles (below enhancement reach only) were repeated at the WYDEQ sites. An additional monitoring site located within the enhancement reach (below Snowy Range Road) was monitored for BEHI and NBS only.

Preliminary data indicate elevated erosion rates above and below the enhanced reach, while erosion rates have decreased in the enhanced area (Optimist Park site only). Monitoring will continue after run-off in 2012 and data will be finalized following the 2012 field season. Photo monitoring will also continue in 2012.

2011 Production and Utilization Surveys (Goal 2) – Grant Frost

Game wardens and population biologists assisted with collecting annual shrub utilization and production information on crucial big game winter ranges in the Laramie Region in the spring and fall. Utilization was measured for the winter of 2010-11 at 42 of the pronghorn and mule deer shrub winter range monitoring stations. Average utilization was lower for sagebrush and higher for bitterbrush and true mountain mahogany. Utilization levels exceeded the recommended level of 35% at 9 transects.

Table 1. Laramie Region Average Shrub Utilization

	Big Sagebrush	Antelope Bitterbrush	Mountain Mahogany
2010 Measurement	30%	29%	14%
2011 Measurement	24%	37%	15%
Change	-20%	+28%	+7%

Production for the growing season of 2011 was generally similar to 2010 for sagebrush and bitterbrush, with a large decrease for true mountain mahogany. Measurements were taken at 38 transects during the fall of 2011.

Table 2. Laramie Region Average Shrub Production (inches)

	Big Sagebrush	Antelope Bitterbrush	Mountain Mahogany
2010 Measurement	1.13	3.39	3.71
2011 Measurement	1.20	3.54	2.60
Change	+6%	+4%	-30%

Wildlife Habitat Management Areas (Goal 2) – Dave Lewis, Josh DeBerard, Nick Kafcas, Steve Page

- In Albany County, 45 acres of WGFD Public Access Areas were treated for noxious weeds.
- In Carbon County, 25 acres of WGFD Public Access Areas were treated for noxious weeds.
- 767 acres of hay meadows were irrigated on the **Wick WHMA** to provide forage for wintering wildlife. A total of 254 acres of noxious weed control were completed by the contractor and 20 miles of crucial winter range fence were maintained.
- 68 acres of hay meadow were irrigated on **Pennock WHMA** and 25 acres of noxious weeds were controlled by contract. 29 miles of crucial winter range boundary fence were maintained. A contractor installed a solar panel/water pump system to provide water for wildlife (Figure 12).
- 49 miles of crucial winter range fence were maintained on **Red Rim - Daley WHMA** and livestock grazing of 1,688 AUMs were used.
- On **Red Rim - Grizzly WHMA** 88 miles of boundary fence were maintained (Figure 13) and livestock grazing utilized 4158 AUMs.
- On **Forbes WHMA**, Albany County Weed and Pest sprayed two acres of noxious weeds and six miles of boundary fence were maintained.
- Albany County Weed and Pest sprayed seven acres of noxious weeds on **Laramie Peak WHMA**. More than six miles of crucial winter range fence were maintained.
- On **Tom Thorne/Beth Williams WHMA**, seven acres of noxious weed control was completed by the contractor and seven miles of boundary fence was maintained.
- On **Springer WHMA**, 116 acres of warm season grasses, 10 acres of cool season grasses and 80 acres of alfalfa hay were irrigated under the pivot irrigation system and two cuttings of hay were harvested. Another 100 acres of corn was planted and harvested by a contract farmer. 20 acres of small grain food plots were planted by a contract farmer and left standing for wildlife propagation. 62 acres of noxious weeds were sprayed on **Springer, Bump Sullivan and Mac's 40 WHMAs**.
- On **Table Mountain WHMA**, 50 acres of food plots were planted, irrigated and left standing for wildlife propagation. Goshen County Weed and Pest sprayed 50 acres of noxious weeds.
- A contractor stabilized 1,500 feet of stream bank along the North Platte River on **Rawhide WHMA** and 4 miles of boundary fence was maintained.



Figure 12. Solar panel on Pennock WHMA.



Figure 13. Maintaining fence on Grizzly WHMA.

Little Medicine Bow River Riparian Enhancement (Goal 3) – Christina Barrineau

Three segments of the upper Little Medicine Bow River have been enrolled in the Walk-in Area (WIA) Fishing Access Program for several years. Stream habitat conditions in the WIA consist of a wide and shallow channel with limited overhead cover, few deep pools and eroding banks. The stream is managed as a wild fishery, but the Laramie Fisheries Management Crew stocked brown trout in the WIA from 2004-2007. Trout population monitoring did not show survival of the stocked fish in the WIA. In addition, stream temperature monitoring in 2005 and 2006 indicated that temperatures reached lethal limits for trout during the summer.

Following the population and temperature evaluations, several meetings were held with the landowner, Medicine Bow Conservation District (MBCD) and USFWS to discuss options for stream habitat improvement. The group opted to try a pilot riparian enclosure with willow plantings. In 2010, the landowner applied for Wildlife Habitat Enhancement funds through the PLPW Program to purchase temporary electric fencing materials. The landowner and MBCD personnel installed the temporary fence in fall 2010 along an approximate one-mile reach. They also planted willow stakes in a portion of the reach with assistance from the USFWS. In spring 2011, WGFD and USFWS personnel cut over 2,000 willow stakes from the Medicine Bow River and North Fork Little Medicine Bow River for additional planting throughout the reach. Photo points were also established to monitor willow success. The willow plantings will be monitored over the next several years to determine if more plantings are needed and if the plantings can be expanded to other reaches.

Public Recreation Benefits (Goal 3) – Ryan Amundson

Coordination efforts with private landowners participating in the Walk-in Area program and providing technical habitat management recommendations to PLPW staff and landowners continued during 2011. Planned CRP mid-contract management activities scheduled for implementation in 2012–2014 were finalized and should improve habitat quality for upland game birds and big game and subsequently result in improved hunting opportunities for sportsmen.

An aerator unit was purchased by Pheasants Forever (Chug Creek Chapter) in 2011 and will be installed at Festo Lake, located west of Wheatland in spring 2012. Significant time was spent formalizing agreements with the Platte County Commissioners and the adjacent private landowner to allow for the improvement to be installed (Figure 14). The aerator will help improve oxygen levels in the lake for sport fisheries and will also maintain some open water during cold winter months to help keep migratory waterfowl in the area. Hunting and fishing opportunities should both improve with this planned enhancement.



Figure 14. Aerator unit to be added to Festo Lake for fisheries and waterfowl habitat.

Education (Goal 4) – Ryan Amundson

Eleven educational events were held throughout 2011, discussing conservation messages to over 420 attendees including: Wyoming Wild Sheep Foundation Convention, Hunter Safety Education, Wheatland Science Day, Wheatland High School science classes, Conservation District field tours and Ag in the Classroom. In addition, formal wetland planning and permitting and CRP Mid-Contract Management training was provided to NRCS field office personnel.

Southeast Wyoming Cheatgrass Partnership (Goal 5) – Grant Frost

The Southeast Wyoming Cheatgrass Partnership brings together representatives from WGFD, BLM, USFS, county weed and pest districts, NRCS, Conservation Districts, researchers and university faculty and private citizens to communicate, collaborate on projects and learn. Coordination meetings and plans for cheatgrass management and control efforts are conducted annually.

Technical Assistance (Goal 5) – Ryan Amundson

Coordination and technical assistance continues to be provided in the role of State Coordinator and Western U.S. Project Technical Advisor for the Water for Wildlife Foundation based out of Lander, WY. Technical assistance is also provided to the Wyoming State Forestry's Living Snow Fence program and State Forestry Stewardship Committee.

In 2011, extensive effort was made to continue to build working relationships with USDA's Farm Service Agency and NRCS, particularly with CRP and SAFE CRP sign-ups occurring. Important partnership strengthening efforts are also taking place with local Pheasants Forever chapters and other nonprofit conservation groups. These groups will play a pivotal role in assisting with Mid-Contract Management of CRP in the future.

Designated as co-chair of the agency's Bighorn Sheep Working Group in 2010, continued in 2011 and requires an active role in trouble-shooting statewide and local bighorn sheep population, disease and habitat related issues. In 2011, that effort included planning a Domestic Sheep/Bighorn Sheep Interaction Study that was to take place at Sybille Research Center. Partners ultimately decided not to move forward with the project and chose to support ongoing disease research at Washington State University. Other bighorn sheep related project assistance and coordination included Ferris Mountain and Seminoe Mountain prescribed burn/natural burn planning and GIS mapping efforts of occupied bighorn habitats in southeast Wyoming. As a member of the WGBGLC (Bighorn Sheep Group), annual project applications are reviewed and recommendation for funding provided to the WGBGLC.

Pole Mountain Beaver Transplant (Goal 5) – Grant Frost

A private landowner sought assistance in reestablishing beaver in ponds on his property on the South Fork Middle Crow Creek. The WGFD provided funds and hired a trapper who provided three beaver from Boswell Creek near the Colorado Border. Additional enhancement opportunities with the landowner are being developed and will hopefully lead to future on-the-ground projects.