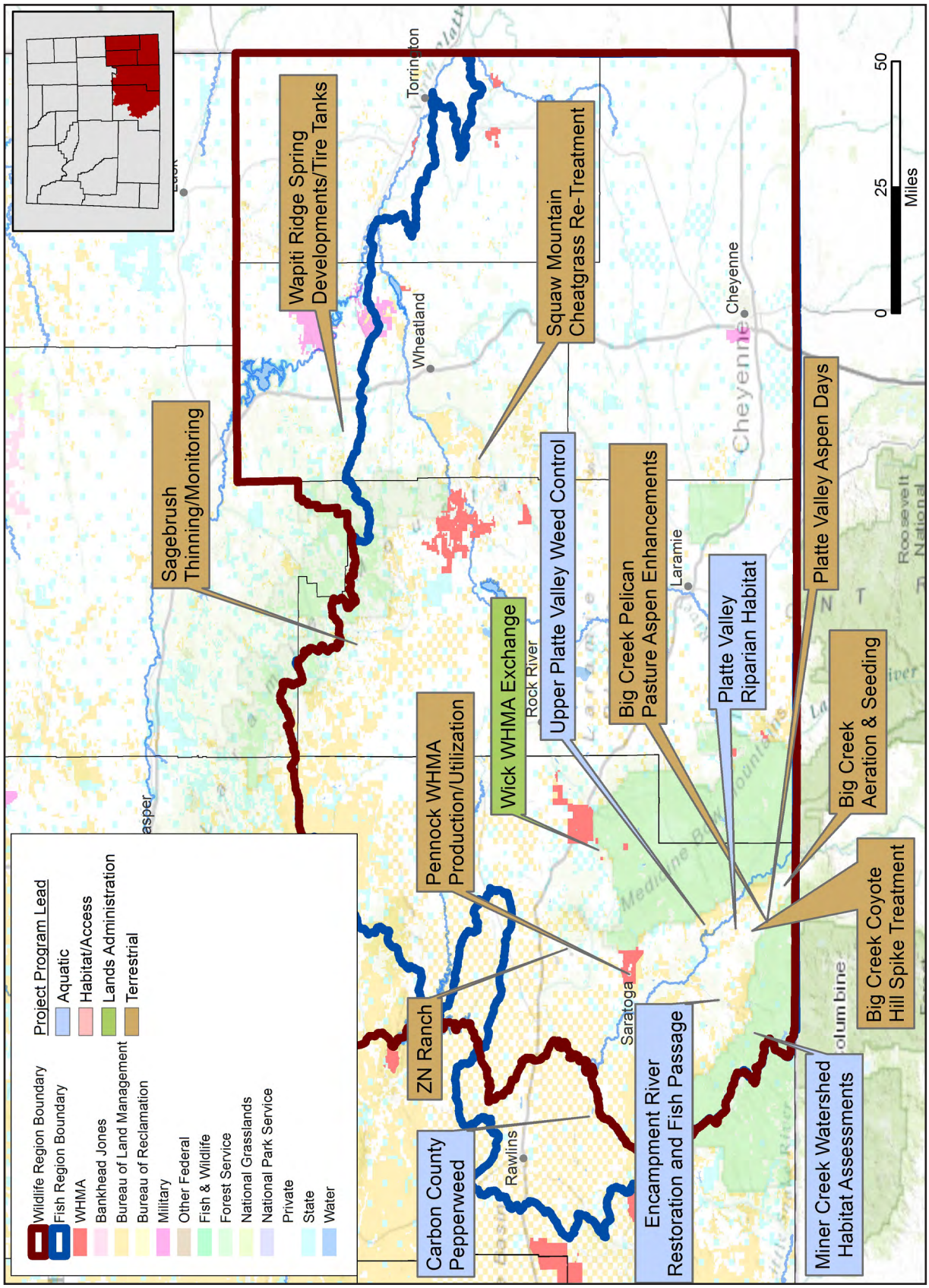
Laramie Region



Laramie Region

The Platte Valley, in the western part of the Laramie Region, was the focal point for many habitat projects in 2014. The bulk of these projects focused on habitat for mule deer and aquatic species such as trout. Mule deer habitat projects implemented with cooperation from the Platte Valley Habitat Partnership include prescribed burns, fence conversions, willow sprigging along streams, water development projects and vegetation treatments on ranches near Saratoga. These are part of a long-term effort to help stop or slow the decline of mule deer in Wyoming.

Trout in the Encampment River will benefit from habitat enhancements in 2014. Game and Fish personnel assessed habitat along nearly 21 miles of four separate streams. Other projects in the western part of the region include improvements to riparian habitat on the Encampment River, and noxious weeds treatments along smaller streams in the Upper Platte Valley.

The eastern part of the region near Torrington saw major improvements at Table Mountain WHMA through a water delivery enhancement system, which will help ensure an adequate water supply in the wetland ponds, and irrigation work and guzzler installation at the Springer WHMA. These projects will improve habitat for waterfowl, pheasants and other species.

Notable Information and Education efforts in the region in 2014 include Platte Valley Aspen Days and the Platte Valley Volunteer Fence Day. WGFD greatly appreciates all the volunteers who came out to help with these projects.

Perennial Pepperweed Partnership (Goal 2) - WLCI, Jim Wasseen

This project includes the BLM and the Overland Trail Ranch in a partnership to reduce noxious weeds in the checkerboard land pattern that encompasses the majority of the ranch. The Perennial Pepperweed Partnership entails treating Little Sage Creek, one of two main stream branches in the Sage Creek watershed, for mainly perennial pepperweed, but also some whitetop, saltcedar, leafy spurge, and Russian knapweed. Treatment consists of herbicide application to remove and control weeds. Other objectives are to contain other noxious weeds to prevent further degradation and to improve wildlife habitat and livestock grazing forage.

The area contains greater sage-grouse habitat as well as year-round habitat for antelope and mule deer, and winter range for elk. The WLCI funds were used on the western portion of the project area where the landowners conducted weed control on the eastern end of the ranch. A total of 1,750 acres of private and BLM-administered land were inventoried and treated. The removal of noxious weeds helps improve riparian area condition and aids in reducing erosion and sediment delivery to tributaries of the North Platte River. Approximately 90% of the pepperweed invasion has been reduced, according to 2014 monitoring (ocular and photographs).

UW Greenhouse, Mountain Shrub Seedlings (Goal 2) - Ryan Amundson

In 2014, the University of Wyoming, College of Agriculture was contracted to grow 2,000 shrub seedlings from seed at the UW greenhouse facility in Laramie. These seedlings will be planted in areas identified as Mule Deer Initiative focus areas throughout the state in 2015.

Table Mountain WHMA (Goal 5) - David Lewis and Jerry Cowles

Ducks Unlimited and the WGFD Habitat and Access Branch hired a contractor to rebuild the main water control and diversion structure that supplies water to the eight ponds in the wetland system. A contractor was hired to drill, case, test pump and complete a new 600 foot deep well to supplement the wetlands system for moist soil management for all species of waterfowl. This well and new water supply will enhance food production and brood production of nesting waterfowl on the WHMA.

Upper Platte Valley Weed Management Area (Goal 2) - WLCI, Jim Wasseen

The Upper Platte Valley Weed Management Area (UPVWMA) project includes the inventory, monitoring, chemical, and mechanical removal of invasive weeds, mainly leafy spurge, musk and Canada thistle, and spotted knapweed. The primary objective is to prevent weed encroachment onto the adjacent Forest Service and private lands and restrict weed infestations to the currently affected landscape. Secondary objectives include removing or containing other noxious weeds where possible to prevent further degradation and improve wildlife habitat quality and livestock grazing forage.

This area provides seasonal and crucial winter habitat for elk, deer, and antelope as well as bighorn sheep. The majority of the UPVWMA is located within greater sage-grouse core habitat, and supports livestock grazing. Partners include BLM, Carbon County Weed and Pest District, and multiple private landowners. Chemical treatments, inventory, and monitoring were carried out on state, federal, and private lands in July and August 2014. A total of 600 acres of private and BLM-administered land were treated. Approximately half of the known sites in the project area were treated in 2014, mostly in the Bennett Peak area. Past treatments have thinned infestations to the point that aerial treatment was not conducted this year, and may not be needed if maintenance activities continue on an annual basis.

Rawhide WHMA (Goal 2) - Jerry Cowles

The contractor sprayed 75 acres for Russian olive re-sprouts and also sprayed 5 acres of noxious weeds. Seven miles of boundary fence were maintained and seven acres of corn were planted, irrigated and harvested through the Exchange of Use agreement with an adjacent landowner.

Boykin-Encampment River Restoration, Phase II (Goal 2) - Christina Barrineau and WLCI, Jim Wasseen

The Boykin-Encampment River Restoration is a phased river restoration within the Upper North Platte priority area. Activities include streambank stabilization, channel reconstruction, and riparian enhancements downstream of the Town of Riverside. This reach is highly unstable with areas of erosion, extensive mid-channel bar and transverse bar development, channel degradation and excessive sediment deposition. These issues are a legacy of land uses such as historic tie drives, mining, channel dredging, and water diversions, which all contributed to the channel instability. These conditions are associated with riparian water table declines and reduced deep-rooted native riparian vegetation. The unstable channel and streambanks have led to degraded habitat for aquatic species, amphibious and terrestrial species, and contributed to agricultural land loss.

Revegetation following recent channel restoration has proven difficult along the Encampment River. Coarse cobble substrate with limited fine sediment has inhibited streambank and overbank zone revegetation efforts to date. Six riparian habitat study plots utilizing containerized shrubs were established throughout the Encampment River - Boykin Reach. The study plots were designed by Randy Walsh, an ecologist with Stantec Consulting Services, Inc. and placed along riffle habitats throughout the 3,400 ft reach. The plots were arranged in a randomized complete block design with a split-plot treatment structure to test the effects of elevation (relative to bankfull elevation) and soil amendments (fertilizer, top soil, and Terra-Sorb®).

Figure 87. *Native riparian shrub study plot on the Encampment River-Boykin Restoration.*

In early August, 270 native shrubs were planted over four days in the plots with 45 plants per plots (Figure 87). The following is an accounting of the species and number planted within the 6 plots: river hawthorn (24), Booth's willow (18), geyer willow (60), park willow (36), water birch (48), thinleaf alder (48), redosier dogwood (9), chokecherry (9), wood's rose (9), and golden currant (9). Plant container sizes were 10 cubic inch, 14-inch deep-rooted, and 1 quart. Holes in the cobble substrate were dug with shovels or post hole diggers. After each planting a 4 ft tree tube (Blue-X® tree shelter or Tubex® tree shelter) was placed around each plant to protect from browsing and to offer a greenhouse environment. Additionally, 10 5-gallon alder plants were randomly planted near the experimental plots. WLCI funds were used to purchase plants.

Red Rim – Grizzly WHMA Forage Reserve Grazing (Goal 1 and Goal 5) - Dave Lewis and Mark Cufaude

Six cattle operators grazed the WHMA under the cooperative management of the WGFD and BLM in a rest rotation grazing plan designed to benefit wildlife habitat values inside the WHMA and habitat adjacent to the WHMA boundary on the operator's grazing allotments. A total of 3,877 AUMS were utilized.

Platte Valley Habitat Partnership (Goal 5) - Ryan Amundson and Katie Cheesbrough

In November 2013, the Platte Valley Habitat Partnership (PVHP) committed $94,000 of WGFC funds to mule deer habitat improvement projects in the Platte Valley. Since these PVHP funds were granted, they have generated approximately $429,000 (plus ~$71,000 from WLCI pending final approval) in additional funds and in-kind contributions from over 15 different partners for multi-year, landscape-level mule deer habitat enhancements. Approved PVHP projects that began implementation in 2014 include the USFS French Creek fence conversion, BLM/SERCD fence conversions and water developments, the Big Creek Ranch mountain shrub and aspen treatments, and the ZN Ranch riparian and mountain shrub enhancements.

Figure 88. *Platte Valley Volunteer Day participants after removing hazardous fence from the French Creek area.*

The USFS French Creek fence conversion consisted of converting nearly 1 mile of dilapidated 5-wire fence in an area of high mule deer use to a wildlife-friendly 4-wire laydown fence along a Forest/private landowner boundary. Also, a half mile of remnant boundary fence was removed during the Platte Valley Volunteer Day event (Figure 88). The fence conversion was completed in June 2014 with $3,000 of PVHP/WGFC funding for fence supplies.

In 2014, the BLM and Saratoga-Encampment-Rawlins Conservation District (SERCD) fence conversion and water development project converted 12.5 miles of fence and completed 2 water developments throughout the Platte Valley using $19,341 of PVHP/WGFC funds. An additional 7 miles of fence conversions and 6 spring developments are expected to be completed during the 2015 field season.

Figure 89. *Dr. Paul Rogers of the Western Aspen Alliance discusses the importance of healthy aspen stands to wildlife at the Platte Valley Aspen Days event.*

In addition to collaborative project development, funding, and implementation, PVHP hosted "Aspen Days" in cooperation with the Western Aspen Alliance and Voices of the Valley. This workshop highlighted the importance of aspen communities to wildlife and discussed aspen health within the Platte Valley with a group of over 30 participants (Figure 89). PVHP also helped to coordinate the Saratoga-Encampment-Rawlins Conservation District Volunteer Day, where PVHP partners participated in removing hazardous fencing in areas of high mule deer use.

Project implementation and PVHP events in 2014 have generated further interest in PVHP and mule deer habitat improvements within the Platte Valley as well as interstate opportunities with Colorado. PVHP project development continued in 2014 with expanded landowner and agency participation.

The second round of PVHP project funding applications were approved in November 2014 and allocated $84,120 of WGFC funds to projects that will cost an estimated $536,585. These projects include 780 acres of prescribed burning and mechanical treatments (including conifer and aspen encroachment treatments) in mixed mountain shrub and aspen communities, 4.5 miles of wildlife-friendly fence conversion in mule deer migration corridor and stopover areas, 2,060 acres of invasive weed treatments and cheatgrass herbicide trials, 110 acres of improved irrigation and reseeding on the Pennock WHMA, and 10 miles of road decommissioning and reclamation.

Squaw Mountain Cheatgrass Re-Treatment (Goal 2) - Ryan Amundson

Figure 90. *Helicopter application of Plateau herbicide on Squaw Mountain.*

In 2011, approximately 14,489 acres of BLM and private lands were burned by wildfire on Squaw Mountain, located 15 miles southwest of Wheatland. In 2012, 5,866 acres of south facing aspects were treated with imazapic herbicide. Two years of cheatgrass control was achieved on the majority of the 5,866 acres treated. A follow-up application was completed on 1,000 acres in September 2014 in order to protect this investment. Native, perennial grass re-establishment, in combination with application of sound grazing management practices, should reduce risk of cheatgrass invasion on the majority of the treated acres. An additional 2,000 acres of BLM lands will be receiving a follow-up reapplication in September 2015 to control the most at-risk acres.

Big Creek Ranch Mountain Shrub and Aspen Treatments (Goal 2) - Ryan Amundson and Katie Cheesbrough

The Big Creek Ranch provides extensive habitat for many species of wildlife throughout the year. This includes winter/year-long range for elk, spring/summer/fall range for pronghorn, core habitat for sage-grouse, and winter/year-long ranges for mule deer. The areas proposed for treatment are known to serve as valuable transition range for mule deer, particularly as they migrate eastward from the Sierra Madre Range to Prospect Mountain and other nearby foothill habitats. As such, this project was identified through the 2013 WGFD Platte Valley Habitat Event and was proposed as a multi-year project that includes 920 acres of sagebrush herbicide (Spike) treatment, 200 acres of aeration and reseeding, and 30 acres of aspen enhancement treatments. Funding partners for this project include the WGFC, Wyoming Wildlife Natural Resource Trust, Rocky Mountain Elk Foundation, Mule Deer Foundation, Bowhunters of Wyoming, and the South Central Local Sage-Grouse Working Group.

Figure 91. *Big Creek aspen stand pre-treatment monitoring.*

In June 2014, pre-treatment monitoring of aspen (Figure 91) and aeration treatments were conducted and soil samples were sent to CSU to be analyzed for Spike herbicide application rates. Aspen enhancements and Spike treatment will be completed in 2015.

Because the Big Creek aeration and seeding project is located within the South Rawlins Core Area it was designed in compliance with Executive Order 2011-5 and WGFD Protocols for Treating Sagebrush in Sage-grouse Core Area 2.Bii. Native and non-native seed mixes were developed based on favorable habitat features for sage-grouse and big game, seed availability, and recommendations from representatives of the South Central Local Sage-Grouse Working Group and local agencies. Starting in late October 2014, WGFD Habitat and Access personnel used a Lawson aerator outfitted with a broadcast seed box to aerate and seed 100 acres with the native seed mix, 15 acres with the non-native seed mix, and 75 acres were aerated with different intensities but not seeded (Figure 92). Funds spent on this project in 2014 included $10,000 from the LSGWG for purchase of seed and $10,000 from RMEF for purchase of herbicide. Habitat and Access personnel implemented this treatment. Pre-treatment measurements and photos were taken and post-treatment monitoring will begin in spring 2015.

Figure 92. *Lawson aerator outfitted with a broadcast seed box on the Big Creek Ranch.*

Lower Encampment River Restoration and Fish Passage Planning (Goal 2) - Christina Barrineau

Planning and coordination continues for future restoration and fish passage projects on the lower Encampment River. The Laramie Aquatic Habitat Biologist assisted the Saratoga-Encampment-Rawlins Conservation District and Trout Unlimited with several successful grant proposals for watershed-wide funding for the Encampment River. These grant sources included WLCI, Wyoming DEQ 319, and the NRCS Resource Conservation Partnership Program. Many habitat funding sources have asked for us to plan at a larger scale. In 2015, bank stabilization is planned upstream of Riverside along with riparian restoration efforts at 2011-2015 project sites. Additionally, a detailed plan for the lower Encampment River, covering project needs from below Purgatory Gulch downstream to the confluence with the North Platte River, will be refined. The plan will focus on estimates of sediment coming from unstable banks and potential restoration ideas along with locations of fish passage projects.

Habitat Monitoring (Goal 4) - Ryan Amundson

Shrub production and utilization monitoring continues throughout southeastern Wyoming pre- and post-treatments. With favorable and timely precipitation in 2014, most winter range shrubs responded favorably and produced leader growth not witnessed since 2011. Spike herbicide applications completed 2 years ago on 1,850 acres in the Laramie Range took effect, and thinned sagebrush stands by nearly 50% (sagebrush canopies thinned from 30% pre- to 18% post-treatment). Herbaceous response was excellent and growing season grazing deferment allowed for further recovery of perennial plants in the understory.

Figure 93. *Excellent bitterbrush leader growth observed in 2014 (left) and sagebrush thinning evident two years post herbicide application (right).*

Red Rim –Grizzly WHMA fence conversion (Goal 5)- Dave Lewis and Mark Cufaude

WLCI funding was used to purchase fence materials and extend the contract for the conversion of 5.5 miles of woven wire and five wire fences to improve migration of mule deer, pronghorn and elk. The fence will be converted to a four –wire wildlife friendly fence design. This WLCI project is in its sixth year, with 12 miles of fence converted during the previous 5 years.

ZN Ranch Riparian and Mountain Shrub Enhancement - Ryan Amundson and Katie Cheesbrough

Figure 94. *Prescribed burning on Rattlesnake Creek/ZN Ranch.*

The ZN Ranch is located in the Platte Valley crucial mule deer winter and year-long range, and contains important mule deer spring/fall transition ranges. Given the high mule deer usage in the area, several habitat enhancements were identified during the 2013 WGFD Platte Valley Habitat Event. Treatments include 1.8 miles of riparian fence, willow pole cutting and sprigging, and 300 acres of upland mixed shrub prescribed burn and/or mechanical treatments.

Figure 95. *Statewide Habitat Biologist, Ryan Amundson transplants willows along Rattlesnake Creek on the ZN Ranch.*

In May 2014, WGFD personnel cut and transplanted approximately 200 willow poles to Rattlesnake Creek to aid in woody species establishment (Figure 95). Construction of 1.8 miles of riparian fence was completed in October 2014 to better manage livestock during seasonal use, allowing the vegetation (including new willow poles) to establish and keep the riparian area in good condition. Prescribed fire was proposed for the upland shrub habitats on ZN Ranch to promote a mixed age class of shrubs, and to improve shrub production and nutritive quality in these important mule deer browse species. Due to

unexpected late fall moisture and warm temperatures, conditions were not favorable for burning during the 2014 fall burn window. The first attempt at burning on the ZN Ranch in mid-October 2014 yielded 5 burned acres (Figure 96). WGFD and contract personnel will reattempt these burn units in spring 2015.

Figure 96. *Prescribed burning on ZN Ranch.*

Wildlife Habitat Management Areas and Public Access Areas (Goal 1) - David Lewis, Josh DeBerard, Mark Cufaude, Jerry Cowles

- In Albany County, 12 acres of Public Access Areas was treated for noxious weeds. In Carbon County, 25 acres of Public Access Areas were treated for noxious weeds.

- 466 acres of hay meadows was irrigated on the Wick WHMA to provide forage for wintering wildlife. A total of 240 acres of noxious weed control was completed by the contractor and 20 miles of crucial winter range fence was maintained. The livestock operator used 220 AUMs on the existing grazing lease. Sheet piling and rock rip rap were installed on the Carlson Creek ditch west as gradient controls to prevent erosion.

- 35 acres of hay meadow was irrigated on the Pennock WHMA and 29 miles of crucial winter range boundary fence were maintained. The contractor completed 25 acres of noxious weed control.

- 88 miles of boundary fence was maintained on the Red Rim - Grizzly WHMA and 3,877 AUMs of livestock grazing were utilized in forage reserve.

- 4 miles of boundary fence was maintained on the Forbes WHMA and Albany County Weed and Pest sprayed two acres for noxious weeds.

- 6 miles of crucial winter range fence was maintained on the Laramie Peak WHMA and Albany County Weed and Pest sprayed one acre for noxious weeds.

- 7 miles of boundary fence was maintained on the Thorne-Williams WHMA. Over 2 miles of woven wire fence conversion to wildlife friendly fence was completed by a private contractor, and 4 acres of noxious weed control were completed by the Albany County Weed and Pest District (Figure 97).

- 3 miles of boundary fence were maintained on Cottonwood Draw WHMA.

Tom Thorne/Beth Williams WHMA (Goal 5) - David Lewis and Josh DeBerard

Figure 97. *ThorneWilliams WHMA woven fence (left) was converted to a wildlife friendly fence (right).*

The conversion of 2.3 miles of woven wire fence on the west boundary of the Thorne Williams WHMA opened 2,834 acres of bighorn sheep winter and year-long range, mule deer winter and year-long range, elk winter range and pronghorn spring/summer/fall range. The fence contractor completed the removal and conversion of 12,200 linear feet of woven wire 2-strand sheep tight fence and replaced it with 6,850 feet of 3-strand, 750 feet of 4-strand, 2,600 feet of pole top, and 2,000 feet of buck and pole wildlife friendly fence (Figure 97).

Springer WHMA (Goal 2) - Jerry Cowles

A total of 352 acres were irrigated. Roughly 120 acres of warm season grasses and 10 acres of cool season grasses were irrigated six times under the north pivot irrigation system by a contract farmer on the Springer WHMA. The farming contractor planted, irrigated and harvested 160 acres of corn. The farmer also irrigated 35 acres of small grain food plots that were left standing for wildlife forage. Habitat and Access personnel irrigated 157 acres of Dense Nesting Cover (DNC). About fifteen acres of dryland food plots were left standing for wildlife. A noxious weed contractor sprayed 303 acres on Springer, Bump Sullivan, and Mac's 40 WHMAs. Three new steel goose pit/blinds were installed under the Thaler south pivot to provide improved goose hunting to the public. Goose nesting structures were repaired and re-bedded with assistance from Two Shot Goose Hunt volunteers. Six miles of boundary fence were maintained and the WGFD crew repaired and rip-rapped 1,600 feet of wetland dikes at the Wellnitz ponds.

Big Game Nutrition - Interpreting Nutritional Analysis of Forages and Fecal Diet Composition (Goal 4) - Ryan Amundson

Guidelines were developed and distributed in summer 2014 to assist WGFD personnel with interpreting lab results from forage and fecal analysis. This information will be used to make informed decisions regarding the value and need for habitat treatments in key areas to meet the nutritional needs of wild ungulates.

Encampment River Peryam Restoration (Goal 2) - Christina Barrineau

Figure 98. *Aquatic Habitat Technician, Stephanie Stoughton and contractor installing a rock-constructed riffle structure on the Encampment River Peryam Restoration.*

The Encampment River Peryam Restoration is a 1,200 ft reach immediately downstream of the 2011-2013 Boykin Restoration. Prior to restoration, the Peryam reach was a C4 channel with two short pools at the top of the reach that transitioned into a long, over-widened riffle/run feature throughout the remainder of the reach. Project goals included narrowing the stream channel and adjusting the pool to pool spacing to provide enhanced habitat for trout, especially during periods of low flow. The restoration included two constructed riffles, 250 ft of toe wood, pool depth enhancements, and bankfull benches for floodplain connectivity. Old cobble berms were also graded to the floodplain elevation to enhance floodplain access. Construction oversight assistance was provided for the construction, which took 11 days in September (Figure 98). Riparian enhancements, such as willow staking, may occur on the reach in 2015.

Similar to previous Encampment River restorations, monitoring for the Peryam restoration included establishing pre-restoration channel cross-sections and photo points. Cross-sections were measured and photos points were retaken immediately following construction completion. Biological monitoring was added for this project to provide information on restoration effects on trout populations and aquatic macroinvertebrates for Encampment River projects (Figure 99). A pre-restoration trout population estimate was conducted, and pre-restoration riffle macroinvertebrate samples were collected within and downstream of the Peryam reach. Post-restoration biological monitoring will occur in 2015 at the same sites. Additional information about the Encampment River Peryam Restoration can be found in the WGFD Fish Division Progress Report.

Partners for the Encampment River Peryam Restoration included WGFD, Trout Unlimited, private landowner, WWNRT, NRCS, and Saratoga-Encampment-Rawlins Conservation District.

Figure 99. *Aquatic Habitat Technician, Stephanie Stoughton, collecting a macroinvertebrate sample from a riffle in the Encampment River Peryam Restoration reach prior to construction.*

Riparian Habitat Improvement/Wildlife Friendly Fence Upper North Platte Priority Area (Goal 2) - WLCI, Jim Wasseen

During 2014, 16 miles of fence were converted to wildlife friendly standards on both BLM and private lands within the Platte Valley Management Area. These fence conversions were meant to improve migration routes for mule deer.

Miner Creek Watershed Habitat Assessments (Goal 2) - Christina Barrineau

Figure 100. *Irrigation diversion structure on North Fork Miner Creek. Low summer stream flows and diversion materials may create a fish passage barrier.*

Figure 101. *Potential beaver relocation site in the lower reaches of North Fork Miner Creek.*

Wyoming Habitat Assessment Methodology (WHAM) surveys were conducted throughout the Miner Creek Watershed, a 6th level HUC (101800020506) within the Encampment River Watershed. Surveys were completed on 4 streams covering 20.7 miles. Streams surveyed included North Fork Miner Creek, South Fork Miner Creek, Hell Creek, and Cooper Creek. Reference reaches for A and B channel types were identified, but no reference reach data was collected. Reference reaches provide vital stream channel design criteria for restoring degraded stream reaches.

Two irrigation diversions, one on North Fork Miner Creek (Figure 100) and the other on Copper Creek, were observed. Both structures appear to be barriers for upstream fish movements, especially during the summer months. Future investigations of the fisheries upstream and downstream of these diversions will be needed prior to any fish passage enhancement. Areas for potential beaver reintroductions were noted on lower North Fork Miner Creek and South Fork Miner Creek (Figure 101). A landowner in the watershed is interested in future habitat enhancements for both aquatic and terrestrial wildlife. Habitat enhancement planning with this landowner will occur in 2015. Additional information about the Miner Creek Watershed WHAM Level 1 surveys can be found in the 2014 WGFD Fish Division Progress Report, and WGFD WHAM and Photo databases.

Red Rim-Daley WHMA Forage Production (Goal 2) - Amy Anderson, Matt Pollock, Katie Cheesbrough

In coordination with the Rawlins BLM Field Office and the WGFD, forage production/utilization monitoring on the Red Rim-Daley WHMA was re-initiated in fall 2014. In October, BLM and WGFD personnel collected fall production clippings from 7 established sites across the unit and found an average of approximately 169 lbs/acre of forage on the Red Rim-Daley WHMA (Figure 102). Production values will be compared with utilization sampling conducted spring 2015 to estimate wildlife forage use.

Figure 102. *Production sampling site on the Red Rim-Daley WHMA.*

Baggot Rocks Invasives (Goal 2) - WLCI, Jim Wasseen

Located within the BLM/Upper North Platte Geographic Priority Area, the proposed project was designed to remove or treat invasive or encroaching plant species. Targeted species include all noxious and invasive species such as leafy spurge and Russian thistle and conifer trees that have encroached into riparian areas within the Baggot Rocks and Platte Valley areas. In 2014, the National Environmental Policy Act (NEPA) process was completed for the targeted areas. Treatments will be implemented in spring-fall 2015 in cooperation with Saratoga-Encampment-Rawlins Conservation District, WGFD, and Montana Conservation Corp as a potential partner. The project will be associated with a larger-scale timber removal project currently estimated at 150 acres.

Laramie Range Conservation Easement (Goal 1) - Ryan Amundson

A 2,200 acre conservation easement is in the works on the foothills of the Laramie Range, west of Glendo. The private property is home to a resident herd of ~200 elk, pronghorn, mule deer, white-tailed deer, wild turkeys, and many neo-tropical migrant songbirds. The Rocky Mountain Elk Foundation is poised to be the easement holder, with easement monitoring being offered by the WGFD. In addition, the landowner recently installed four tire tanks on developed springs, with funding from RMEF, to provide reliable water sources for wildlife.

Figure 103. *One of four tire tanks installed on private property slated for conservation easement protection.*

Pennock WHMA Forage Production Monitoring (Goal 2) - Ryan Amundson and Katie Cheesbrough

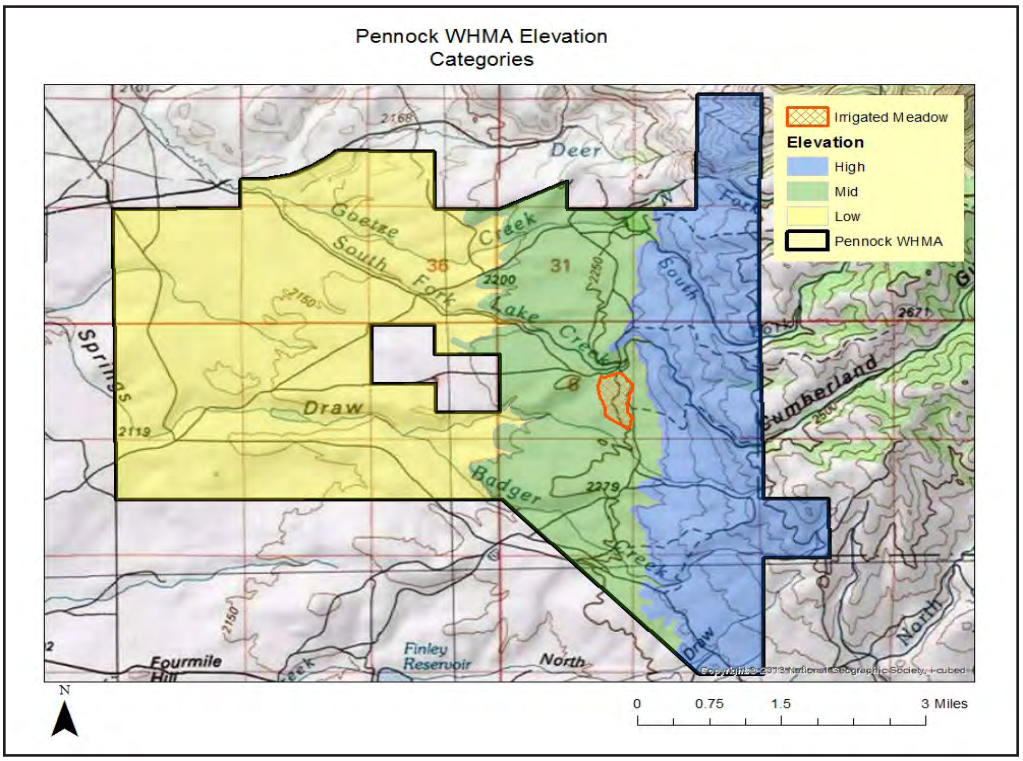


Figure 104. *Elevational ranges in which forage production monitoring was conducted on the Pennock WHMA.*

Based on collaborative PVHP discussions with local stakeholders, the Pennock WHMA has been identified as an area that could potentially be used as a "grassbank" to graze livestock that have been displaced as a result of habitat treatments in the area. As such, terrestrial habitat biologists began forage production monitoring in July 2014 on the Pennock WHMA to determine forage capacity for both wildlife and livestock. At least three years of production and utilization data will be collected and analyzed against known wildlife use prior to making any final determinations or recommendations regarding livestock use on the Pennock WHMA.

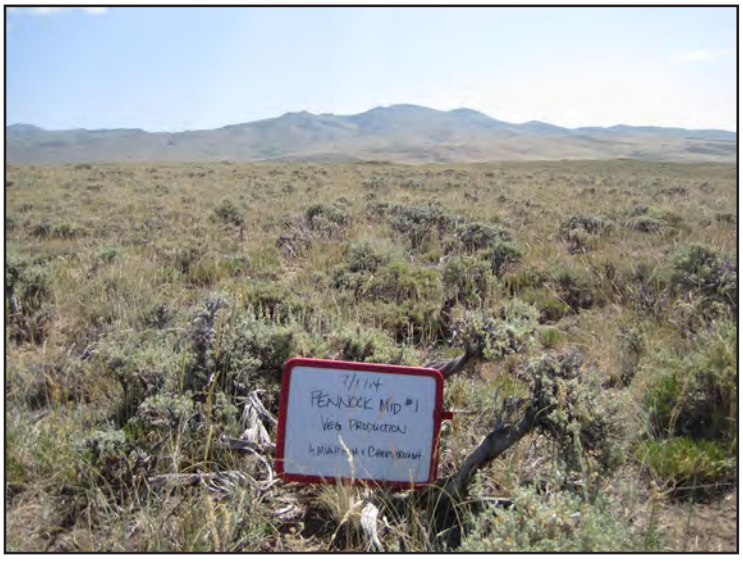


Figure 105. *Production sampling site on the Pennock WHMA.*

Plot sites were selected to capture the different vegetation types that exist within elevational ranges (Figure 104) as well as on the irrigated meadow. As such, 4 plots were clipped at low elevation (6,500-7,200 feet), 3 plots were clipped at mid elevation (7,200-7,500 feet), 4 plots were clipped at high elevation (7,500-8,200 feet), and 2 plots were collected on the irrigated mead-

ow. At each site all grasses and forbs were clipped within a 12”x24” plot, collected, dried, and weighed to determine total pounds per acre of vegetation (Figure 105).

Above average precipitation was experienced in the Platte Valley in 2014 which influenced the production values found on the Pennock WHMA. The total average production across the WHMA, based on total acres in each elevational range, was approximately 668 lbs/acre. These production numbers will be compared to forage utilization sampling conducted in spring 2015 to estimate wildlife forage use.