

Restore

BLM

Restore New Mexico Newsletter • October 2009

*One Million Acres
and Counting!*



Restore New Mexico...

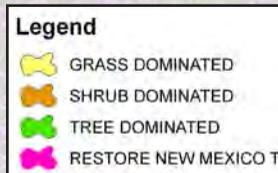
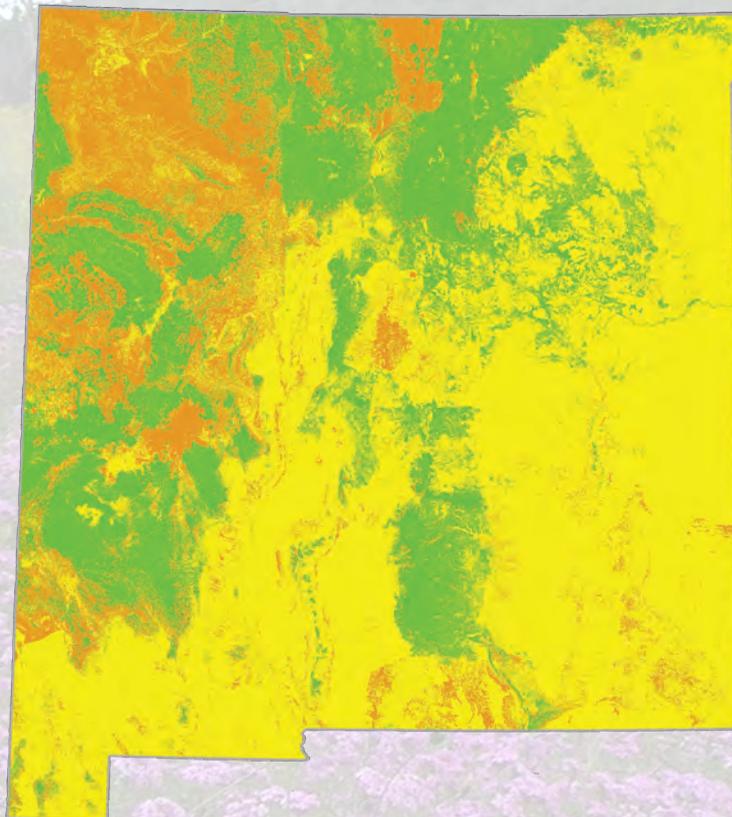
Acreage Totals of Lands Restored by Fiscal Year

2005	95,821 acres
2006	195,904 acres
2007	261,680 acres
2008	310,747 acres
2009	162,000 acres
2010	350,000 acres*

(*projection based on available funding)

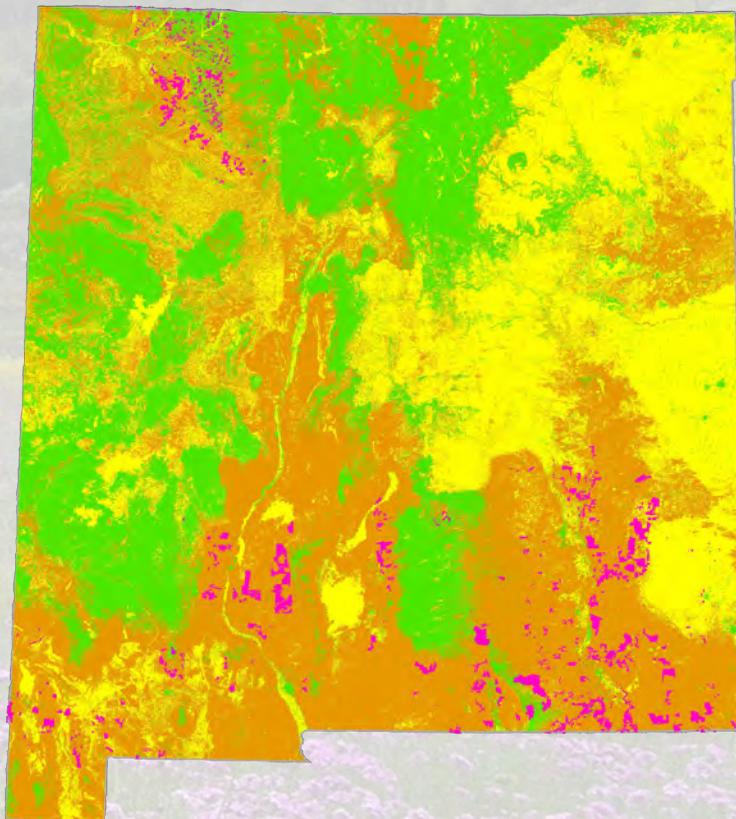
is an aggressive partnership to restore our state's grasslands, woodlands and riparian areas to a healthy and productive condition. In many areas, historic overuse of the land has transformed fragile desert grasslands and open woodlands into virtual wastelands of creosote and mesquite, and diverse streamside vegetation into barren monocultures of salt cedar. These gradual changes have damaged the land's biological productivity, resulting in less wildlife, degraded water quality and decreased supplies of groundwater.

In the early 19th century, grasslands dominated much of New Mexico. Over the past century, however, grasses have given way to invasive species like creosote, mesquite, salt cedar and more, the result of overuse, development, drought and other factors. The left map shows vegetation levels before European settlement; note the overwhelming presence of grasslands across the state. The second map shows levels of vegetation when Restore New Mexico began, illustrating the vast expansion of shrub-dominated landscapes; items in red are areas treated by the Restore New Mexico program since 2005.



Historic Dominant Vegetation, pre-settlement

Restore New Mexico is focusing on landscape-scale restoration efforts on federal, state and private lands, targeting invasive and exotic brush species, including mesquite, juniper, creosote, cheatgrass, noxious weeds and salt cedar. Partners are returning New Mexico's grasslands, woodlands and riparian areas to their original healthy conditions, which not only improves the land but benefits wildlife, reduces the risk of wildfire, and improves water quality and quantity. More than one million acres of degraded landscapes have been restored to healthy ecological states thus far, but millions more acres of land are in need of renewal.



Current Dominant Vegetation with Restore Treatments, 2009

Restore Totals by Treatment (in acres)

Mesquite
352,912

Creosote
198,135

Creosote/Acacia
164,164

Sagebrush
96,957

Piñon/Juniper
147,793

Salt Cedar
12,501

Noxious Weeds
44,478

Oilfield Reclamation
1,334

NRCS - A Key Partnership that Launched Restore New Mexico

By Don Ellsworth, BLM Team Lead, Restore New Mexico



When Linda Rundell came on board as our new state director one of her top priorities was “Do Good for the Land.” Under the Restore New Mexico partnership we’ve been doing just that for the last five years. Linda asked us to impact lands across landscapes and create lasting on-the-ground improvement across New Mexico.

For us to be successful in this task we needed to start thinking differently about how we tackled problems on the ground. To accomplish our goal of truly impacting landscapes we needed to radically enhance our thinking and invite all possible partners to participate in the effort.

The impetus that made this happen was our partnership with the Natural Resources Conservation Service in 2005 through their Environmental Quality Incentives Program (EQIP).

Rosendo Trevino, State Conservationist for the NRCS in New Mexico, had the authority to use EQIP funds on federal lands, if the treatments benefited private property. In 2005 he set aside \$1.5

million for the BLM and Forest Service to use for EQIP projects, of which the BLM used \$1.25 million in the southeastern part of the state.

This was the key that kick-started Restore New Mexico. The NRCS’s current State Conservationist, Dennis Alexander, has continued to make this funding available, and the BLM has received about \$1.25 million yearly since 2006. The BLM has matched these EQIP funds dollar for dollar with our own appropriated funds to complete projects on the ground.

With these funds we were then able to garner other funding – from ranchers, the oil and gas industry, sportsman conservation groups and others – which, added together, now totals over \$7.1 million. The BLM committed \$22.5

million of its funding to Restore efforts on public lands since 2005. And now we have over a million acres restored!

Our goal has been to treat hundreds of thousands of acres per year, regardless of land ownership with the help of our numerous partners. We are proud to have met this goal and we appreciate all of the partners involved in Restore. We will continue to strive toward this yearly goal of treating invasive shrubs, weeds and other plant species that have led to some of our critical landscapes becoming out of balance.

We will continue to work with our existing partners and to build even more partnerships, to continue achieving our State Director’s goal of “Do Good for the Land.”



Steve Bird and Ty Allen from the Carlsbad Field Office walk in the grasses of a restored creosote treatment south of Carlsbad, one of the early Restore projects completed in partnership with NRCS.

One Million Acres Restored, Four Million to Go!

By Linda Rundell, BLM-New Mexico State Director, and
Jesse Juen, BLM-New Mexico Associate State Director

Only four years ago a program was launched that would change the history of land management in New Mexico – and now the nation. A vision to work with partners in restoring degraded landscapes across the state became action and, with over a million acres restored since 2005, results on a historic scale!

Partners under ‘Restore New Mexico’ started with a remarkably ambitious goal: pooling their resources to restore hundreds of thousands of acres of land each year within priority watersheds, regardless of land ownership type, leading to the restoration of landscapes to their full ecological potential. By ‘restoration’ we mean soils, native vegetation, groundwater supplies, and wildlife habitat, not to mention the fabled landscapes of the American West, the special places that give us our sustenance and spirit.



Truth be told, we didn’t know if this vision was actually doable on the scale we had hoped for. The bottom line was that we wanted to make a difference; everyone interested in restoring land was, and is, welcome to join us. It’s only because of the many partners involved in this effort – BLM, along with other federal and state agencies, local communities, soil and water conservation districts, ranchers and other individuals, the energy industry and conservation groups – that we have restored over one million acres!

Our motto was (and remains) *Git R Done!* There are another 4 million acres in our state that could use some sort of restoration work, such as thinning of overgrown forests, reductions in mesquite, creosote and salt cedar, plus the reclamation of abandoned oil fields, and more.

But today, let’s take stock and appreciate the work that’s been done by each and every one of you: speaking for the BLM, we really appreciate the contributions you’ve made to Restore New Mexico. Some partners have made generous financial contributions, which have allowed us to find funding matches from additional partners. Some have provided in-kind services and agreed to rest treated areas from grazing (in fact, ranchers in the program do not receive increases in livestock numbers on their restored federal allotments but they do get ‘fatter cows faster’ from much improved rangelands).

In addition, energy companies are implementing voluntary conservation measures and Best Management Practices on their operations. Just last year BLM and the U.S. Fish and Wildlife Service pioneered the use of Cooperative Conservation Agreements on public lands leased for oil and gas development or livestock grazing in order to implement conservation measures for the lesser prairie-chicken and sand dune lizard. There’s much more we could mention, and even more to come!

So, what does the future hold? We will continue and even expand restoration and reclamation efforts and continue to recruit partners to join us. We hope you will help us in these efforts!

Our ground rules are simple: we’re not playing a blame game, identifying what group was responsible for damaging what landscape. Neither is Restore New Mexico an ideological or political undertaking; it is a historic effort that will continue into the long term because of the substantial benefits it creates for all New Mexicans.

Farmington Field Office

The Farmington Field Office (FFO) administers some 1.4 million acres of high mesas, deep canyons, rolling hills, open prairie and riparian environments. Thousands of oil and gas well pads dot the landscape and thousands of miles of unpaved roads provide access to the wells. The San Juan Basin is one of the most productive natural gas fields in the world, as well as a scenic and natural treasure.

Aerial application of herbicide pellets to thin sagebrush has been the most widespread form of vegetative treatment and restoration in the FFO administrative area. In many areas sagebrush on the prairies has become unnaturally dense due to lack of natural fire, so thinning the sagebrush (but not eradicating it) makes room for growth of desirable grasses and forbs for watershed values and the benefit of wildlife. Another method of thinning sagebrush has been by use of a specially designed tractor-

pulled plow that thins the plants as a broadcast seeder simultaneously spreads seeds.

Much of the FFO administrative area includes woodlands of piñon and juniper trees. A lack of natural fire has contributed to the trees crowding out desirable vegetation. When conditions are right, controlled burns have been conducted to thin trees. The opened areas then receive more light and are seeded with



A Dixie Harrow thins dense areas of sagebrush and releases seeds of grasses and forbs.

variety of exotic weeds have invaded the area, crowding out native plants. The only safe and effective way to control these weeds is by hand – on foot with a backpack sprayer.

Perhaps the most labor-intensive restoration effort has been the

hand-planting of thousands of mountain mahogany and antelope bitterbrush shrubs for deer and elk forage. The planting has been in areas where mountain mahogany and antelope bitterbrush grow naturally, but have been devastated by drought and overgrazing by deer.

In addition to the extensive vegetation efforts, FFO has also been reclaiming roads, pipelines, and well pads from historic oil and gas operations.

“With the ongoing drought and our diverse terrain, restoration efforts are a real challenge,” said Steve Henke, Farmington District Office Manager. “We will continue to work with our partners to meet that challenge.”

“Restore New Mexico is making a real difference in the health of our public lands. I am excited about the partnerships and the possibilities.”

- Steve Henke, Farmington District Office Manager

grasses and forbs for the benefit of wildlife. When the circumstances are not right to conduct controlled burns, the trees have been thinned by chainsaw and the downed trees made available to the public for firewood.

The FFO also uses a hydromower to thin stands of piñon and juniper trees. The hydromower is a tracked vehicle with a spiked, spinning drum mounted on the front that grinds the trees into mulch.

In canyons and low-lying areas where invasive salt cedar and Russian olive have taken root, the trees are cut by crews then treated with herbicide so the chemical soaks down into the roots for an effective kill. In addition to salt cedar and Russian olive, a wide



Dustin Porch uses a chainsaw to cut Russian olive trees, whose stumps will be applied with an herbicide to prevent regrowth.

Taos Field Office

Forests in the western U.S. have been drastically altered over the past century by fire suppression and other human-caused activities, adversely impacting populations of wildlife and the health of watersheds. Many communities in northern New Mexico rely on forests for wood products, grazing of livestock, and water for drinking and irrigation. The Taos Field Office has focused its Restore treatments to reduce the threat of wildfire and to restore watershed conditions and wildlife habitat.

BLM is working with partners in local communities – tribal members, local governments, ranchers and conservationists – to identify areas in need of restoration and then accomplish the work.

Camp Frank Rand, a 2,000-acre site owned by the Boy Scouts of America, lies in one of northern New Mexico's most scenic areas, adjacent to the Pecos Wilderness. It has dense piñon-juniper and ponderosa pine woodlands and includes a tract of old-growth ponderosas. For the past four years, the BLM has treated more

than 800 acres by mechanical thinning, pile burning of excess slash, and broadcast burning. With decreased forest densities, herbaceous ground cover has increased and provided carrier fuel for low-intensity ground fires, which are used to maintain the open forest stand structure. The improved watershed conditions have also resulted in the protection of important archaeological sites

“Restore New Mexico has been well received in the Taos area because the end results are healthy and productive landscapes. But, most importantly, it is about something that everyone values the most: a predictable and positive future for our community.”

- Sam DesGeorges, Taos Field Office Manager

and improvement of habitat for wildlife, including deer and elk.

The West Guadalupe Mountain and North Wild Rivers sagebrush treatments occurred on 1,300 acres in 2006. Projects included mechanical removal of sagebrush followed by a seeding to facilitate re-colonization by native grasses. Consideration for avoiding archaeological sites and maintaining sagebrush corridors for wildlife cover created a pattern

of treatment that simulated a more natural mosaic of sagebrush and grassland on the landscape. These sites are key forage areas for herds of elk and mule deer.

The Cerro del Aire and Cerro Montoso landscapes, significant wintering wildlife areas, were treated to create a more natural ecological balance on 29,000 acres on the Taos Plateau. Projects included thinning of sagebrush via plowing and seeding, as well as using tracked equipment to remove sagebrush when appropriate winter prescriptions were met. Other methods included thinning with chainsaws and burning of the resulting slash to decrease fuel loading in the area.

Future restoration and treatment efforts will focus on areas that have moved away from their reference condition – areas that no longer reflect the appropriate balance and amounts of vegetation for a given soil type. About 60 percent of the public land within the Field Office is in a state of “non-reference” which gives us the opportunity to focus on areas that are in most need of improvement.



These photos show a sage shaving project conducted by the BLM's Taos Field Office in the Wild Rivers area in 2003 and 2004. The shaving is done during the winter when the sage freezes and snaps easily. The sage is then piled into wind rows and burned in the spring.

Rio Puerco Field Office

The Rio Puerco Field Office manages approximately 900,000 surface acres of public land, most of which is piñon-juniper or open woodlands. Humans have had a great impact in altering these piñon-juniper woodlands and grasslands, beginning with the continuous occupation of Sky City since the 12th Century by Pueblo de Acoma and with European occupation of the Rio Puerco basin for over 400 years. Most of the altering of these woodlands was done by agricultural practices and successful fire-suppression activities which resulted in the expansion of woodland vegetation and reduction of grasslands.

The restoration of these open woodlands begins with three basic tools: chemical treatment, mechanical treatment, and prescribed fire. Rio Puerco BLM, along with its partners, has begun restoration by controlling big sagebrush, piñon-juniper, salt cedar, and cheatgrass. Our mechanical treatments include both the use of chainsaws and

masticators. The chemical treatment is primarily the use of Spike. Finally, prescribed fire is used on a periodic basis to mimic the role of natural fire in the ecosystem. Throughout our treatment processes, we are always mindful of tribal sensitivity as the tribes have many traditional, cultural, and sacred sites on the public lands.

"I am privileged to be part of a team that is leaving a legacy of improved landscapes for our grandchildren's grandchildren."

- Tom Gow, Rio Puerco Field Office Manager

Since 2005 the Rio Puerco Field Office has completed 8,866 acres of mechanical treatment, 23,726 acres of chemical treatments, and 56,766 acres of prescribed fire for a total of 89,358 acres treated. Included in this total is 750 acres of cheatgrass treatment on the Chijuilla allotment. The treatments have been applied to Mesa Chivato, Mertz Ranch, Chain of Craters, and the Candy Kitchen area to name a few locations. This acreage treated represents about one tenth of the

Rio Puerco Field Office surface land base. The Rio Puerco's main funding partner has been the New Mexico Department of Game and Fish through its Sikes Act program.

The end result of these treatments has been an improvement to the watershed and wildlife habitat. A prime example of this is Cebolla Spring in Cebolla Canyon which has been transformed from a "V" shaped arroyo to a wide meadow with perennial water, sedges, and cattails which has created habitat for a multitude of wildlife.

Additional restoration remains to be done on approximately 200,000 acres and will be accomplished utilizing every method available to BLM and our partners.



Chijuilla allotment in July 2005 before prescribed fire treatment.



Chijuilla allotment in July 2007, two years after treatment. Notice the stark reduction in cheatgrass, piñon-juniper and sagebrush.

Socorro Field Office

The Socorro Field Office covers two of New Mexico's most beautiful counties, Socorro and Catron. The BLM manages 1.5 million acres of landscape ranging from grasslands, ponderosa pine and Douglas fir in the west, to piñon-juniper in the northwest and east, and mesquite and creosote bush following the Rio Grande Valley.

Since the beginning of Restore New Mexico, vegetative treatments of 79,650 acres on public land have been accomplished, including 25,000 acres of herbicide treatments targeting mesquite, sand sage and juniper, plus 850 acres of salt cedar. Mechanical treatments targeting piñon-juniper on 8,400 acres and prescribed burns of 45,400 acres have also been completed. In addition, 15.5 miles of interior fences, 11.4 miles of water pipelines and associated facilities, water catchments for wildlife, and over 400 erosion control structures have been installed.



Prescribed fire was used on the Chupadera Mesa to create a mosaic burn pattern, creating pockets of piñon-juniper which provide cover and shelter for wildlife.

Many of these accomplishments will benefit wildlife as their habitat is improved along with the land. In the Horse Mountain Area of Critical Environmental Concern, the BLM released 25 Merriams wild turkeys in 2005 and 2006 to augment the existing population in cooperation with the New Mexico Department of Game and Fish and the National Wild

"I'm particularly proud of the work we've done on the ground so far. People are drawn to this program because it's not about being divisive, it's about getting the job done and showing the results."

- Danita Burns, Socorro Field Office Manager

Turkey Federation. The Socorro Office is currently working with the Department of Game and Fish to release five additional Desert Bighorn Sheep in the Ladron Mountain Area. With the Peregrine Fund, Aplomado Falcons have been released, with future releases planned.

These accomplishments would not have been possible without the support of our many partners.

In 2009, the Socorro Office completed prescribed burn projects on the Chupadera Mesa, Pelona Mountain



On Pelona Mountain one- to five-acre blocks were cut to create an edge effect for wildlife. Note the opening in the lower right-hand corner.

and Magdalena Mountains encompassing 51,100 acres of private, state, Forest Service and public lands. The completion of the first prescribed fire burn block of 34,000 acres was completed on Pelona Mountain this June to reduce fuel loading and improve stand health in the ponderosa pine. Burning was done to rejuvenate the browse and forage and reduce the canopy cover of piñon-juniper.

Also in the western portion of the field office, we are working with the Department of Game and Fish on mechanical treatments of ponderosa pine, piñon and juniper by carving amoeba-like patterns into the area to enhance wildlife habitat and fire effects. A total of 600 acres have been cut utilizing this technique scattered within a 5,000-acre block.

In the Chupadera Mesa Area, two burns were implemented this year, totaling 4,700 acres. Our objectives were to reduce the piñon-juniper component of the vegetative community and create a mosaic pattern for wildlife where pockets of piñon-juniper provide cover and shelter for wildlife.

Roswell Field Office

The Roswell Field Office (RFO) has been successful at restoring large areas of native grasslands in southeast New Mexico. While the focus of Restore New Mexico has been restoring the native grasslands, there is more to the effort than that. The scale and complexity of the projects seem immense but a simple question drives our efforts – what actions will improve the health of the land?

Sometimes the answer is eradication of a noxious weed infestation. Sometimes it's reclaiming an unused road or taking down an idle overhead electric power line. At other times the answer can be reducing the amount of fuels near homes, or the amount of woody shrubs in a pasture.

A priority within RFO has been defragmenting habitat for the lesser prairie-chicken and sand dune lizard, two species under consideration for listing under the Endangered Species Act.

Examples of the work in the area are caliche removal (a road surfacing material), re-seeding for native vegetation, well marker and unnecessary powerline removal to minimize raptor perching, and fence marking to avoid collisions by prairie chickens. By removing disturbed areas and reclaiming to natural landscapes, the species are benefiting from



The Roswell Field Office has reclaimed numerous roads involved in historic oil and gas operations.

“I am pleased with the progress we have made in restoring land health in the Roswell Field Office and across the entire state. The spirit of cooperation from our partners has led to many accomplishments that we could not have completed on our own. I also would like to recognize the hard work and dedication of the entire staff within the Roswell Field Office; they are visionaries who have produced positive results.”

- Chuck Schmidt, Roswell Field Office Manager

positive results on the health of the land. We also continue to utilize other tools such as prescribed fire to mirror natural processes in brush management, proper livestock grazing use to ensure longevity of the effort, noxious weed control to prevent further degradation of the native vegetation, and riparian area enhancement and exotic plant removal to allow native vegetation to establish in these important areas.

None of this work could be completed without the involvement of our partners. We are fortunate to have industry, landowners, interested conservation groups, and other land-managing agencies actively involved in this landscape-level approach. The reason for our success is that we collaboratively work together, come to a common goal and work without ownership boundaries to improve the health of the land.

Has the public received its money's worth from these projects? Considering the improved quality of wildlife habitat, the enhanced function of watersheds, decreased erosion, and increased biodiversity, the answer is a resounding yes.

larger expanses of undisturbed habitat.

Invasive brush reduction efforts have also been at the core of the Restore New Mexico program. We've shown positive results on a landscape level by treating areas to reduce invasive brush species; the effort includes many styles of treatment. We have utilized herbicides to effectively control invasives. By proper application and careful preparation, we have repeatedly shown the



Antelope and other wildlife are beginning to return to areas after Restore treatments.

Carlsbad Field Office

The Carlsbad Field Office has been blessed with great public resources. Balancing the uses of these resources takes strong partnerships, trust, support and a long-term vision. It is the strong commitment of all of our partners and a common vision to do the right thing in balancing and improving the resources that has made the Restore New Mexico effort so successful here.

Grassland restoration is being accomplished by treating invasive brush species such as mesquite, catclaw, creosote, salt cedar, and noxious weeds. Aerial herbicide application is being used to treat thousands of acres at a time. After grasslands have been reestablished, prescribed fire may be used to keep the brush controlled and allow diverse native grasses to flourish.

This improves wildlife habitat for species such as the lesser prairie chicken, quail, dove, deer, antelope, and javelina. The upland watershed also benefits from the improved grass community. To date, approximately 574,138 acres of rangeland brush control have

been completed in the Pecos District with more acres planned to be treated.

Native indigenous wood, herbaceous plant populations, and riparian species are being restored with the eradication of salt cedar and Russian olive along water systems. Riparian restoration projects have been completed along

“What has been so important to the success of Restore New Mexico is that people continue to come forward with a common vision, not blaming others or past practices, but simply being accountable for our future.”

- Jim Stovall, Carlsbad Field Office Manager

the Black River, the Delaware River, the Pecos River, and the Cottonwood Day Use Area, all of which were choked with invasive species and are now seeing water levels and wildlife returning to healthy levels.

Reclamation of areas impacted by oil field development is another way that partnerships improve the health of the land. Reclamation includes removal of caliche, ripping the surface, and seeding with native grasses. Just over 458 acres of these abandoned sites have been returned to a more native



This 10-year-old creosote treatment south of Carlsbad shows the stark contrast between the diverse grass components of the treated area on the left versus the creosote-dominated area on the right.

state. By removing abandoned pads and roads, many more acres of wildlife habitat are defragmented, leading to larger areas of suitable habitat for sensitive species such as the lesser prairie-chicken and sand dune lizard.

Restore New Mexico has enabled partners to work together in a “color blind” manner, focusing on a landscape scale, rather than drawing lines along ownership patterns on a map. Energy industry partners, as well as ranchers and other groups, all share the vision of a restored landscape. They have all contributed financially to projects. Utilizing the strengths and funding sources of each partner, everyone has been able to leverage funds to accomplish larger-scale projects in a matter of weeks versus months or years.

We need to continue to be resilient in maintaining and growing strong partnerships and focusing on a common vision of balancing and improving our public resources.



The lesser prairie-chicken, a candidate for listing on the Endangered Species List, is benefitting from Restore treatments.

Las Cruces District Office

The Las Cruces District, located within the northern extension of the Chihuahuan Desert Ecoregion, contains five million acres of public land. Beginning in the mid-1800s, these semi-desert grasslands experienced a shift from perennial grassland to shrub-dominated desert scrubland as a result of historical land use practices, causing these areas to function below their potential in terms of habitat provision and watershed stability. In the absence of herbicide application, creosote bush and mesquite will continue to dominate these areas.

The District has been conducting grassland restoration projects since the early 1980s. From 1981 to 2005 about 220,000 acres were treated. Since 2006, the District has treated over 205,000 acres of creosote- and mesquite-invaded grasslands.

Nearly 160,000 acres have been in the Jornada landscape area, which totals 665,619 acres. Over 500,000 acres of the Jornada project area have been determined to have restoration potential, either

by chemical, manual, or prescribed burning.

The Bootheel landscape area is another priority restoration area. Over the last 20 years, about 15,500 acres have been treated through prescribed burning and 60,000 acres through chemical application. It's been determined that over 800,000 acres in the Bootheel Initiative Area are shrub-invaded and may have potential for successful treatment.

"The real key to the success of the Restore New Mexico initiative is the cooperation of the various partners and the commitment to long-term management and sustainability of these key habitats and priority watersheds. Through our subsequent monitoring efforts, we will ensure the long term sustainability and health of the land."
- Bill Childress, Las Cruces District Office Manager

The goal for both of these projects, along with others in the District, is to reduce existing shrub densities and thus allow more desirable vegetative species to flourish.

This will benefit the watershed by stabilizing soil and ultimately increase forb, grass, and favorable shrub production, thus resulting in increased and improved wildlife habitat.

The restoration of native grassland communities within the Chihuahuan Desert will restore and improve habitat for migratory grassland



Photo courtesy of David J. Griffin

Aplomado Falcons have been reintroduced in the Las Cruces District over the past several years in partnership with The Peregrine Fund.

birds, upland game, big game and a wide variety of other species. Our efforts will also increase habitat for the Aplomado Falcon, a federally listed species that was designated a "non-essential experimental population" in 2006 to facilitate reintroductions in New Mexico, many of which have already occurred.

The Las Cruces District has identified four priority landscape areas for restoration, totaling nearly 1.6 million acres of shrub-invaded grasslands. The goal is to reduce creosote and mesquite densities and restore native vegetation diversity, thus improving watershed conditions and native wildlife species habitat over the landscape. Chemical treatments and subsequent careful livestock management will allow grass cover to begin to play a role in restoring fire and proper hydrologic function to the system. Prescribed fire will be used in future years to maintain treated areas and continue to move sites toward improved watershed and habitat conditions.



The Las Cruces District Office has treated nearly 160,000 acres in the Jornada landscape.

Amarillo Field Office

While the Amarillo Field Office restoration figures may not appear as large as New Mexico's, they are significant considering that this office manages only 12,000 surface acres. On that property, known as the Cross Bar Cooperative Management Area (CMA), the Amarillo Field Office has sprayed about 26 percent (3,200 acres) for the reduction of mesquite.

In addition to those acres, the Amarillo Field Office has been involved in a riparian restoration effort on 17 miles of West Amarillo Creek and the Canadian River, both of which run through the property. Due to labor-intensive ATV and backpack spraying efforts, this project has resulted in the near-eradication of tamarisk within Cross Bar's boundaries. Yearly salt cedar spraying efforts have been followed by early spring plantings of willow and cottonwood in the treated riparian areas. To date about 4,000 cottonwood and willow seedlings have been planted. The Amarillo Field Office also burned, using prescription fires, about 25 percent of the Cross

Bar each year since 2003 to reduce grass biomass, kill cholla, increase forb production, and kill any mesquite seedlings.

Other restoration efforts include the application of herbicide to mesquite in the riparian areas; eradication efforts targeting

"The Restore project has not only led to amazing and very visible results but has also made the Cross Bar Cooperative Management Area into a ecological show place. Surrounding land owners and other federal agencies now use the CMA as an example of what can be accomplished relative to shortgrass prairie restoration on the arid plains of the panhandle of Texas."

- Leslie Theiss, Amarillo Field Office Manager

musk thistle, Canada thistle, Johnson grass, and old world bluestem; removal of all interior fencing within the property; the closing and rehabilitation of approximately 30 miles of roads; and the construction of gabions in areas where severe erosion over many years had caused the formation of large and constantly growing drainage ditches.

In treating the Cross Bar CMA,

the field office is restoring a classic Southern High Plains shortgrass prairie. The next decade of restoration efforts will see mesquite treatments and subsequent brush reduction on another 6000 acres, bringing the total area treated to 75 percent.

In addition, it is our plan to reduce cholla cactus numbers on the CMA through fire and herbicide treatments. This field office will still spend about five weeks each year spraying any tamarisk resprouts along West Amarillo Creek and the Canadian River while continuing to plant cottonwood and willows along the riparian area.

Sometime in the near future we would like to reintroduce black-tailed prairie dogs to the property. Our efforts have already resulted in increased numbers of pronghorn, turkey, quail, mule and white tail deer, as well as increases in a variety of non-game species. In addition, we have seen increased available water in West Amarillo Creek and nearby springs.



These photos show a portion of West Amarillo Creek in 2003 (left) after a prescribed burn and an initial herbicide application to the tamarisk along its banks, and the same location in 2009 (right) after several more seasons of treating tamarisk and two years of volunteer work cutting the dead tamarisk, dragging it out of the riparian area and stacking it for quail habitat.

Restore and Wildlife

One of the central tenets of Restore New Mexico has been the restoration of habitat for fish, wildlife, and endangered species. Indeed, our goals of improving the land and improving wildlife habitat are inextricably linked. "Every acre we've treated has been for the benefit of wildlife in one shape or form," says Bill Merhege, BLM Deputy State Director for Lands and Resources.

The reasons that led us to begin treating landscapes – the expansion of invasive species, degraded water quality due to erosion, threats from catastrophic wildfire, and fragmentation from historic oil and gas development – are the same factors that motivate us to improve habitat.

Five years in, the results are nothing short of remarkable. The one million acres treated so far are providing the basis for what is already becoming improved habitat for wildlife across the state.

One of our greatest success stories (and a model for the Restore

program) is the restoration of the Delaware River in southeastern New Mexico. The river, a once-healthy riparian area, had become choked by salt cedar, an invasive species that consumes much of the river's water, leaving little for native vegetation. The BLM, in conjunction with various partners, began treating salt cedar along the river in 1998, and by 2000 the river had begun to

"Every acre we've treated has been for the benefit of wildlife in one shape or form."
- Bill Merhege, Deputy State Director, Lands and Resources

return to a perennial stream. The Delaware's restoration has resulted in many benefits to wildlife and fish in the area. Fish that were once struggling are now thriving. Upland wildlife that rely on water from the stream are faring much better with the return of water flows. Whereas the river was once dominated by salt cedar, now healthy riparian vegetation exists, and food and cover for a variety of species are now present.



These Rio Grande Turkeys were transplanted to the Delaware River in 2008.

There have been numerous sightings of wildlife near the river where once there were few. Bird populations have become much more diverse now that the salt cedar has been removed and the cottonwoods and willows are growing. Many different species have been spotted in the past few years, including the belted kingfisher, green heron, great blue heron, various ducks, osprey, yellow-billed cuckoo, and scale quail.

"What's most encouraging is the amount of water there is and the duration that it's there," said Steve Daly, Soil Conservationist in the Carlsbad Field Office. "With that extra water, we're seeing a corresponding increase in the variety of plant species. There are more forbs, grasses and woody species. With that improvement in the vegetation, there's a better improvement in the wildlife component – everything from rodents, reptiles, amphibians, mammals and birds."

The Socorro Field Office has also been doing important work for



The Delaware River, after the removal of salt cedar, is now a healthy riparian area with water that flows year-round.

the benefit of wildlife. Thinning and prescribed burns on the Pelona and Ladron Mountains have begun, with the objective of restoring healthy vegetative conditions. About 8,500 acres were treated on Ladron and 34,000 acres on Pelona. Crews started with mechanical thinning and then prescribed burns, the beginning of what will be a long-term project. Wildlife water units were also installed.

In addition to the thinning and burning, holes are being “punched” in thick piñon-juniper to promote growth of herbaceous vegetation, grasses and forbs. Canyon bottoms and historic meadows - areas which attract wildlife - are also being thinned.

“Though it will take years before the full benefits of these projects are seen, these efforts will promote self-sustaining, healthier wildlife populations of both game and non-game species,” said Carlos Madril, Socorro Field Office Wildlife Biologist.

In northern New Mexico, the BLM’s Farmington Field Office has been working on projects benefitting wildlife on Crow Mesa for 14 years. There have been water development projects, road closures, and vegetative

and prescribed fire treatments. The Field Office initially began installing water guzzlers, drilling solar wells, and building a number of ponds to increase the water resources for wildlife in the area. There has been an aggressive program to close roads. In all, about 34 miles of roads in Crow Mesa have been closed, reducing fragmentation and minimizing human activity.

Farmington wildlife biologist John Hansen says these water and road closure projects have greatly benefitted elk and deer populations. More recently, there have been a number of efforts to improve forage for wildlife in the area. There have been herbicide treatments of sagebrush and thinning projects by the Dixie Harrow, a tractor-like device which drags lengths of pipe, acting as a giant rake, removing about 40-50 percent of the sagebrush. The tractor also spreads seeds of grasses and forbs. By thinning sagebrush and planting seeds, these projects are allowing for the healthy growth of forbs, browse species, and grasses, all of which provides better forage for wildlife. Prescribed fire has also been used to reduce piñon-juniper, sagebrush, and cheatgrass.

Across New Mexico, there are many other projects like these, all part of Restore New Mexico’s efforts to restore landscapes



Elk near the Cerro Chiflo shaving project west of Taos.

and improve habitat for wildlife. With our partners, numerous wildlife reintroductions have been held as well, including antelope, turkeys, otters, bighorn sheep, and aplomado falcons. Apart from reintroductions, the BLM and its partners are confident that wildlife are returning to restored areas as forage increases.

This is just the beginning. As we look ahead, we’re confident we’ll continue to see positive results as wildlife return to their native, and now restored, habitat.



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Antelope on a restored grassland in the Pecos District.

Thank you to our many Restore New Mexico partners!

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