

Contract No. 004-060
 “Western ND Habitat Enhancement Projects”
 Submitted by Mule Deer Foundation
 Principal Investigator: Marshall Johnson
 Directives: A, B & C

PARTICIPANTS

Sponsor	Cost Share	
Mule Deer Foundation	<u>\$230,000</u>	
Subtotal Cash Cost Share		\$230,000
ND Game & Fish	\$ 3,000	
Mule Deer Foundation	<u>\$ 6,000</u>	
Subtotal In-Kind Cost Share		\$ 9,000
North Dakota Industrial Commission	<u>\$480,900</u>	
Subtotal OHF Funding		<u>\$480,900</u>
Total Project Cost		\$719,900

Project Schedule – 4 years
 Contract Date – 4/23/2015
 Start Date – 4/3/2015
 Completion Date – 12/31/2018

Project Deliverables:
 Status Report: June 30, 2015 ✓
 Status Report: December 31, 2015 ✓
 Status Report: June 30, 2016 ✓
 Status Report: December 31, 2016 ✓
 Status Report: June 30, 2017 ✓
 Status Report: December 31, 2017 ✓
 Status Report: June 30, 2018 ✓
 Status Report: December 31, 2018 ✓
 Status Report: June 30, 2019* ✓
 Status Report: December 31, 2019*^ ✓
 Status Report: June 30, 2020^
 Status Report: December 31, 2020^**
 Status Report: June 30, 2021**
 Final Report: December 31, 2021**
 Follow-up Report: December 31, 2022

OBJECTIVE/STATEMENT OF WORK:

The purpose of this project is to employ at least six habitat enhancement/restoration projects on over 2,000 acres involving prescribed burns, native grass/shrub plantings, invasive/noxious weed control, fencing and wildlife food plots.

STATUS:

Contract has been executed.

6/30/15 Status Report received. At this time, due to the delay in receiving and signing of the OHF contract, the window of opportunity to take on two projects closed. These were projects that were based on taking the habitat back to native grasses. Unfortunately, we were unable to initiate the project in time before the landowner seeded for crop. Currently we are working with four interested

landowners in developing habitat restoration/enhancement and plan by end of the summer to have workable projects on their land. Once we have the plan developed, we will move forward in requesting OHF funds and allocating raised matching funds. The landowners that we are working with are in the White Earth area, McKenzie County and Slope County.

In July of 2015 a feature article on this grant will be published in the Mule Deer Foundation national magazine reaching over 20,000 households in the United States. Additionally, another article will be published in the Prairie Adventures column, written by Patricia Stockdill. We also promoted the OHF grant at the Minot, Williston and Dickinson banquets and will in the Fargo and Elgin banquets coming up in the next 90 days.

12/28/2015 - Status report states: Our first project was completed in collaboration with the North Dakota Game and Fish Private Lands Working Lands Program. This project was worked on this past summer on the George Schmidt property SE of Belfield, ND in an area adjacent to what has been called the "Little Badlands". The project was developed to develop and restore natural grasslands habitat as well as add the landowner's property into PLOTS for six years. Use of OHF funds and MDF matching funds were used to seed 253.1 acres with a no-till method into weed-free standing stubble. The landowner completed the work of seeding and the project funds were used to reimburse the landowner for the seed, gas and new habitat establishment incentive payment. The land was seeded with the following seed and percentage:

Pubescent Wheatgrass - 30%

Alfalfa - 20%

Switchgrass - 15%

10% or less of Canada Wildrye, Big Bluestem, Sideoats Grama, Cicer Milkvetch and Sweet Clover

The NDGF PI Biologist will monitor the lands that have been re-established as well as the land enrolled in PLOTS. This project helped leverage a 560 acres PLOTS agreement with the NDGF for six years.

6/27/2016 - Status report states: Currently we are working on three habitat projects in which we are awaiting the receipts to file for grant reimbursement. Our first project last year was a huge success as it was the catalyst to two more projects this year. The project was on the Georg Schmidt property SE of Belfield, ND in an area adjacent to what has been called the "Little Badlands". The project was developed to develop and restore natural grasslands habitat as well as add the landowner's property into PLOTS for six years. The landowner was very happy with the results last fall and decided to add another 180 acres this spring for a total of 448 acres. The landowner hired a neighbor to complete the work of seeding and project funds will be used to reimburse the landowner for the seed, gas and new habitat establishment incentive payment. The land was seeded with the following seed and percentage: Pubescent Wheatgrass - 30%; Alfalfa - 20%; Switchgrass - 15%; 10% or less of Canada Wildrye, Big Bluestem, Sideoats Grama, Cicer Milkvetch and Sweet Clover.

The gentleman that had done the work for Mr. Schmidt, Byron Richards, contacted NDGF and MDF with regard to our program as he was impressed on how the program works and the results. Mr. Richards contacted me to discuss developing a plan for some property he purchased NE of Beach, ND, a mere 22,000 acres! The land purchase was finalized in late January and during this time he has been working with the NDGF Private Lands Biologist to discuss priorities to bring the land back to a native state in several areas, develop a grazing method to ensure the health of the land and to restore the Beaver Creek riparian area as it had been over used by livestock. Additionally, this land would be placed in the PLOTS program. The Mule Deer Foundation contacted RMEF, PF & NWTF to gauge interest in assisting with this project as it is a large-scale lands project that will encompass a water project, pulling bad fence and replacing with wildlife friendly fencing, riparian restoration and access/primitive camping area.

With regard to the pulling of dilapidated fencing, XTO Energy and Hess Corporation provided the grants, \$2000 apiece, to purchase two wire pullers with split spools. The machinery can pull a mile of 4/5 strand wire in a few hours saving a tremendous amount of time and labor costs. MDR volunteers will be running this machinery on the Richards Habitat Projects.

We have also completed a project NE of Watford City and will be applying for funds in July. This property is in the heart of the Bakken Oil Fields and was used for its mineral of Scoria for roadwork and pads. The company that was mining the scoria left the state in 2015 and did a poor job of reclamation. This property is in prime mule deer habitat in ND and is located in McKenzie County, N/NE of Watford City, T151 N, R 98 W, Section 12 and is 235 acres. The project will reclaim 67 acres of a former scoria pit and enhance another 41.6 acres of non-cropland. JMAC Resources will provide in-kind services to the landowner to provide the labor and machinery to till and reseed. MDF will cover the costs of the first year soil payment and the cost of the seed. This project leveraged a six year agreement with the Private Land Open to Sportsman program (PLOTS). Reseeded: Tall Wheatgrass, Intermediate wheatgrass, Sideoats Grama, Switchgrass, Vernal Alfalfa, Travois Alfalfa, YB Sweet Clover, Purple Prairie Clover, White Prairie Clover and Oats. (Maps of the Thorland Scoria Reclamation Project, George Schmidt 2016 Habitat Project, and the Richard Property along with a picture of the wire puller and a current view of Beaver Creek are provided in the 6/27/2016 status report posted on the website.)

12/27/2016 Status Report states: Our second project was completed in collaboration with the North Dakota Game and Fish Private Lands Working Lands Program. This project is an add-on to our first OHF project in 2015. The project area that was treated was about ½ mile to the north and was worked on this past summer on the George Schmidt property SE of Belfield, ND in an area adjacent to what has been called the “Little Badlands.” The project was developed to develop and restore natural grasslands habitat as well as add the landowners’ property into PLOTS for six years. Use of OHF funds and MDF matching funds were used to seed 180.1 acres with a no-till method into weed-free standing stubble. A third party completed the work of seeding and the project funds were used to reimburse the landowner for the seed, gas and new habitat establishment incentive payment. The land was seeded with the following seed and percentage:

Pubescent Wheatgrass - 30%

Alfalfa - 20%

Switchgrass - 15%

10% or less of Canada Wildrye, Big Bluestem, Sideoats Grama, Cicer Milkvetch and Sweet Clover.

The NDGF PLI Biologist will monitor the lands that have been re-established as well as the land enrolled in PLOTS. This project helped leverage 560 acres PLOTS agreement with the NDGF for seven years! Total cost of Project: \$21,048.11 (OHF: \$11,755.16 & MDF: \$9,292.95)

MDF/OHF #3: Thorland Mineral Reclamation Project: This property is in the heart of the Bakken Oil Fields and was used for its mineral of Scoria for roadwork and pads. The company that was mining the scoria left the state in 2015 and did a poor job of reclamation. This property is in prime mule deer habitat in ND and is located in McKenzie County, N/NE of Watford City, T151 N R98W Section 12 and is 235 acres. The project reclaimed 67 acres of a former scoria pit and enhanced another 41.6 acres of non-cropland. JMAC Resources will provide in-kind services to the landowner to provide the labor and machinery to fill and reseed. MDF covered the costs of the first-year soil rent payment and MDF/OHF covered the cost of the seed. The project seeded the treatment area with Tall Wheatgrass, Intermediate wheatgrass, Sideoats Grama, Switchgrass, Vernal Alfalfa, Travois Alfalfa, YB Sweet Clover, Purple Prairie

Clover, White Prairie Clover and Oats. Total cost of Project: +10,563 (OHF: \$3,084.68 MDR: \$1,3422.01 In-Kind: Unknown JMAC was the third party who provided the equipment and labor)

MDF/OHF Project #4: Hepper Cover Crop and Soil Improvement Project: To preserve and enhance wildlife habitat and forage components to benefit and sustain wildlife populations. Specifically working with Private Landowners to enhance, conserve or reclaim habitat to benefit wildlife, the landowners grazing potential and open up locked lands and enroll in the NDGF Private Lands Open To Sportsmen (PLOTS). This agreement leveraged a PLOTS agreement for 2,717 acres in prime mule deer country. MDF/OHF provided cover crop seed and MDF covered crop soil payment. The project area consists of 100 acres and will be seeded with: Forage Peas 8#, Forage Oats 8#, Sorghum Sudan 5#, Radish 1# and Turnip #1. The cover crop area will remain idle until hunting season is over and to be ungrazed until after January 10, 2017. This will allow a full growing season and uninterrupted hunting opportunities. This project is to rejuvenate existing hayland in a rotational pattern of 100 acres per year. The following spring a new hay crop will be seeded and the above management activities will be rotated to a new area on the ranch. This new hayland will continue to benefit local wildlife for many years, as new stands of hayland are extremely productive for wildlife and livestock. Total Cost of Project: \$4,964.80 (OHF \$3,464.80 MDF \$1,500)

MDF/OHF Project #5: Richard Ranch Fencing Project (North end) This project is to tear down old and dilapidated barbed wire fencing, eliminate the amount of fencing and replace with wildlife friendly fencing for livestock management and habitat stewardship purposes on the north end of the ranch. The elimination of much of the wire that crisscrossed the land and reducing the number of livestock grazing pastures to six. Replacing barbed wire fence with wildlife friendly fencing is a benefit for all large game animals and upland game. This is a 20,153 acre ranch that is situated in prime mule deer habitat in western North Dakota. The terrain is prairie, badlands, eight miles of riparian area (Beaver Creek) as well as two sizable stock dams. Vegetation includes native grasses, shrubs and forbs. Wood vegetation includes Cottonwood, Ash, Elm, Juniper, Russian Olive, chokecherry, Juneberry and buffalo berry shrubs.

The Muledeer Foundation volunteers (11 people) and the Rock Mountain Elk Foundation (6 people) worked a total of 230 hours to pull out over 5 miles of old dilapidated fences and posts. In addition, volunteers picked up other large pieces of metal or wood and hauled to the garbage pit. We also received equipment in kind from Bobcat/Doosan to complete this work. Bobcat/Doosan delivered three skid steers with various attachments, a Doosan Payloader and a Bobcat 4 person side by side. Bobcat out of Mandan, ND, delivered/picked up the equipment including providing fuel and hydraulics in case needed, this is a 390 mile round trip and that worked out to six trips. Additionally, we used fence pulling equipment that MDF purchased using grant funds from Hess Corporation and XTO Energy. Original agreement with landowner was that MDF/OHF would cover wildlife fencing up to \$15,000 or two miles anything over and above including the installation was covered by the landowner. Landowner installed several miles of the more costly wildlife fencing at his expense as he believed that this fencing was much more beneficial to wildlife. Total Cost of Project: \$14,968.80 (OHF \$11,226.60 MDF \$3,742.20)

MDF/OHF Project #6: Richard Ranch Water Project. The purpose of this project is to provide water to the landowner's livestock as we plan to fence off and limit the access to the Beaver Creek riparian area to allow re-establishment of vegetation to the Beaver Creek riparian area. We figured that this limited access would last several years and afterwards on a rotation basis. The landowner will install up to 15,840 feet of buried water pipeline for livestock and wildlife watering on the north end of the ranch. NDGF will cost share on the water tanks and the landowner will pay 100% of repairs/enhancement to the North Well. MDF/OHF will cost share 75% of the materials and installation cost, up to \$1.50 per foot at a maximum cost share of \$23,760. Pipeline, couplers and other parts were purchased and installation

was done by the ranch employees and neighbors using ranch equipment. This is a 21,153 acre ranch that is situated in prime mule deer habitat in western North Dakota. The terrain is prairie, badlands, eight miles of riparian area (Beaver Creek) as well as two sizable stock dams. Vegetation includes native grasses, shrubs and forbs. Woody vegetation includes Cottonwood, Ash, Elm, Juniper, Russian Olive, chokecherry, Juneberry and buffalo berry shrubs. Below is a picture of the Beaver Creek Riparian area (the picture is available on the website) as it shows that the habitat has suffered from overgrazing and needs to be restored. I have attached an article that we published in the Mule Deer Foundation magazine that describes the whole program and our partnership with OHF and the Oil industry. Cost of Project: \$23,760 (OHF \$16,632 MDF \$7,128)

5/8/2017 Status Report states:

MDF/OHF #8 - Richard Ranch Fencing Project (South end)

This project is a continuation of the overall fencing project that was started last summer. Last summer the focus was on the north end of the property, last fall and into the winter the south part of the project was the focus. The project is to tear down old and dilapidated barbed wire fencing, eliminate the amount of fencing and replace with wildlife friendly fencing for livestock management and habitat stewardship purposes on the south end of the ranch. The elimination of much of the wire that crisscrossed the land and reducing the number of livestock grazing pastures. Replacing barbed wire fence with wildlife friendly fencing is a benefit for all large game animals and upland game. This is a 20,153 acre ranch that is situated in prime mule deer habitat in western North Dakota. The terrain is prairie, badlands, eight miles of riparian area (Beaver Creek) as well as two sizable stock dams. Vegetation includes native grasses, shrubs and forbs. Wood vegetation includes Cottonwood, Ash, Elm, Juniper, Russian olive, chokecherry, Juneberry and buffalo berry shrubs.

The landowner and his employees pulled out over 5 miles of old dilapidated fences and posts. A third party was hired to install new fencing that is wildlife friendly. Original agreement with landowner was that MDF/OHF would cover wildlife fencing up to \$18,810 or 3.5 miles--anything over and above including the installation was covered by the landowner. Landowner installed several miles of the more costly wildlife fencing at his expense as he believed that this fencing was much more beneficial to wildlife. Total Project Cost for MDF/OHF: \$18,810 (OHF: \$14,107.50; MDF: \$4,702.50)

MDF/OHF Project #9: Richard Ranch Water Project (South End)

The purpose of this project is to provide water to the landowner's livestock as we plan to fence off and limit the access to the Beaver Creek riparian area to allow re-establishment of vegetation to the Beaver Creek riparian area. We figured that this limited access would last several years and afterwards on a rotation basis. The landowner will install up to 15,840 feet (3 miles) of buried water pipeline for livestock and wildlife watering on the south end of the ranch. NDGF will cost share on the water tanks and the landowner will pay 100% of repairs/enhancement to the south well and the drilling of another well. MDF/OHF will cost share 75% of the materials and installation cost, up to \$1.50 per foot at a maximum cost share of \$22,500. Pipeline, couplers and other parts were purchased and installation was done by the ranch employees and neighbors using ranch equipment. Cost of Project: \$22,500 (OHF \$16,875; MDF \$5,625)

The Richard Ranch Project will be completed this fall as we will be fencing off Beaver Creek to limit livestock from accessing the riparian area. This summer, MDF volunteers, volunteers from the North Dakota Petroleum Council and Bobcat/Doosan (other Oil Industry Partners have expressed interest in volunteering as well) will be pulling old fence in the creek area as well as collecting refuse (metal, fallen timber, garbage, etc.) Future work may also include parking areas, signs with map of the property and campsites for ND hunters.

(Maps of the entire property and showing the work completed are posted on the Outdoor Heritage Fund website.)

11/28/2017 Status Report states:

MDF/OHF #10: Richard Ranch Fencing Project (Field #9 & #6)

This project is a continuation of the overall fencing project that was started in the summer of 2016. Summer 2017, the focus was on the North End of the property, last fall and into the winter the South part of the property was the focus. This project is a continuation of the South End, where the primary grazing grounds are as well as the Beaver Creek Riparian area. This project included the tearing down of old and dilapidated barbed wire fencing (7-8 miles pulled by MDF volunteers), eliminate the amount of fencing and replace needed fencing with wildlife friendly fencing for livestock management and habitat stewardship purposes on the ranch. Overall goal is the elimination of much of the wire that crisscrossed the land and reducing the number livestock grazing pastures to a better grazing management system. Landowner is working with ND Game and Fish Private Lands Biologist, County Extension and Federal Lands management programs.

Replacing barbed wire fence with wildlife friendly fencing is a benefit for all large game animals and upland game. This is a 20,153 acre ranch that is situated in prime mule deer, elk, antelope and upland game habitat in western North Dakota. The terrain is prairie, badlands, eight miles of riparian area (Beaver Creek) as well as two sizable stock dams. Vegetation includes native grasses, shrubs and forbs. Woody vegetation includes Cotton wood, Ash, Elm, Juniper, Russian Olive, Chokecherry, Juneberry and Buffaloberry shrubs.

The landowner, MDF, RMEF and ND Petroleum Council volunteers pulled out over 7 miles of old dilapidated fences and posts. A third party was hired to install new fencing that is wildlife friendly. Original agreement with landowner was that MDF/OHF would cover wildlife fencing up to \$32,992 or 4.93 miles (roughly 75% of the expense) anything over and above including the installation and additional miles covered by the landowner. Landowner installed several miles of the more costly wildlife fencing at his expense as he believed that this fencing was much more beneficial to wildlife.

Total project cost for MDF/OHF: \$32,992 (OHF: \$24,744 MDF: \$8,248.00)

MDF/OHF Project #11: Richard Ranch Water Project (re-surface and dredge stock dam)

The purpose of this project was to shore up the stability of a South end stock dam as well as to dredge it out in order for it to keep more captured water. These dams are important to the landowner's livestock as we are fencing off and limiting the access to the Beaver Creek riparian area to allow re-establishment of vegetation to the Beaver Creek riparian area. We figured that this limited access would last several years and afterwards on a rotation basis. Wildlife and adjacent grasses, shrubs and trees also benefit from the available water, especially in dry years.

Cost of project: \$10,000 (OHF \$0 MDF \$0; In-Kind from Doosan Equipment - \$10,00 for equipment and operator) No request for funds - representative of project partnerships with industry.

(Maps were included with the status report and are posted on the OHF website along with the status reports.)

12/22/2017 Status Report states in part:

Tracy Mountain Juniper Removal Project. The purpose of this project is to improve the habitat conditions while decreasing Juniper encroachment in a prime Mule Deer habitat area through the use of cutting and eventually a controlled burn. This is Phase One of the project. The project area encompasses approximately 200 acres of land of which was prime grazing land but over the past several decades the habitat was taken over by the cedar/juniper coming over the top and spreading down the south and east facing slopes and onto the prairie. By removing the juniper/cedar, this will open up the area to allow more forbs & grass regeneration. This land is adjacent to federal and state land with mule deer, elk and big horn as well as upland game. This property is also within the impacted areas of energy extraction with several wells and a refuse storage unit.

The work will be conducted by a well-known, professional contractor by the name of Badger Creek Wildlife (BCW) of Poplar, MT. BCW has worked with the North Dakota Game and Fish Department (NDGF) on other projects in North Dakota and comes recommended. Phase One (cutting project) will require much more man-hours, as more time with a chainsaw will be needed to secure a proper fire line. After reviewing the unit, it has been noted that the best option would be a broadcast felling operation. A broadcast felling operation would be implemented by felling cedars in a sequence that would improve ladder fuels increasing the probability of ignition on standing cedars. The felling operation would be conducted throughout the unit with attention to terrain features that improve the spread of fire.

The private landowner, Kim Shade, is a very willing cooperator and has had his land contracted to the Private Lands Open to Sportsmen program and has added another seven years to his agreement.

Phase two will be a controlled burn by the same company, which has conducted burns in North Dakota over the past several years. As per our agreement, we will be in contact with local firefighters and take all precautions when that time does come. In addition, many volunteers will be on hand and trained in spark and fire prevention and spaced around the outlying area. Contractor will work closely with the landowner, rural fire and NDGF to ensure that all precautions and plans are shared and actions are agreed upon.

Total Cost of Phase One Project; Estimated at \$60,000.

(A map was included with the status report and is posted on the OHF website along with the status report.)

3/15/2018 Status Report states:

MDF/OHF #10: Tracy Mountain Juniper Removal Project

The purpose of this project is to improve the habitat conditions while decreasing Juniper encroachment in a prime Mule Deer habitat area through the use cutting and eventually a controlled burn. This is Phase one of the project. The project area encompasses approximately 200 acres of land of which was prime grazing land but over the past several decades the habitat was taken over by the cedar/juniper coming over the top and spreading down south and east facing slopes and onto the prairie. By removing the juniper/cedar, this will open up the area to allow more forbs & grass regeneration. This land is adjacent to federal and state land with mule deer, elk and big horn as well as upland game. This property is also within the impacted areas of energy extraction with several wells and a refuse storage unit. The work will be conducted by a well-known, professional contractor by the name of Badger Creek Wildfire of Poplar, MT. BCW has worked with the NDGF on other projects in North Dakota and comes recommended.

Phase One (cutting project) will require much more man-hours, as more time with a chainsaw will be needed to secure a proper fire line. After reviewing the unit, it has been noted that the best option would be a broadcast felling operation. A broadcast felling operation would be implemented by felling

cedars in a sequence that would improve ladder fuels increasing the probability of ignition on standing cedars. The felling operation would be conducted throughout the unit with attention to terrain features that improve the spread of fire.

The private landowner, Kim Shade, is a very willing cooperater and has had his land contracted in the Private Lands Open To Sportsman program and has added another seven years to his agreement.

Phase two will be a controlled burn by the same company, which has conducted controlled burns in ND over the past several years. As per our agreement, we will be in contact with local firefighters and take all precautions when that time does come. In addition, many volunteers will be on hand and trained in spark and fire prevention and spaced around the outlying area. Contractor will work closely with the landowner, rural fire and NDGF to ensure that all precautions and plans are shared and actions are agreed upon. Total Cost of Phase One Project; Estimated at \$82,000. This is the second installment of four for Phase One

(A map was included with the status report and is posted on the OHF website along with the status report.)

MDF/OHF #11: Richard Ranch South water/pipeline fall 2017 Project

The purpose of this project is to provide water to the landowner's livestock as we plan to fence off and limit the access to the Beaver Creek riparian area to allow re-establishment of vegetation to the Beaver Creek riparian area. We figured that this limited access would last several years and afterwards on a rotation basis. The landowner will install up to 10,460 feet (2+ miles) of buried water pipeline for livestock and wildlife watering on the South end of the ranch. NDGF will cost share on the water tanks and the landowner will pay 100% of repairs/enhancement to the South Well and the drilling of another well. MDF/OHF will cost share 75% of the materials and installation cost, up to \$2.00 per foot at a maximum cost share of \$31,680. Pipeline, couplers and other parts were purchased and installation was done by a contractor third party.

This is a 20,153 acre ranch that is situated in prime mule deer habitat in western North Dakota. The terrain is prairie, badlands, eight miles of riparian area (Beaver Creek) as well as two sizable stock dams. Vegetation includes native grasses, shrubs and forbs. Woody vegetation includes Cotton wood, Ash, Elm, Juniper, Russian olive, choke cherry, June berry and buffalo berry shrubs.

Water projects are completed on this landscape project multi NGO and Agency project. Cost of Project; \$38,233 (OHF \$28,675 MDF \$9,558)

The report includes a photo of the Beaver Creek riparian area after phase one of the South Water/Pipeline project and is posted on the OHF website. This is in extreme western ND last July and you can see an incredible difference by keeping the livestock out of the riparian area. This is accomplished by providing water outside of the riparian area.

8/9/2018 Status Report

MDF/OHF #10: Tracy Mountain Juniper Removal Project

The purpose of this project is to improve the habitat conditions while decreasing Juniper encroachment in a prime Mule Deer habitat area through the use cutting and eventually a controlled burn. This is Phase one of the project. The project area encompasses approximately 200 acres of land of which was prime grazing land but over the past several decades the habitat was taken over by the cedar/juniper coming over the top and spreading down south and east facing slopes and onto the prairie.

Phase One (cutting project) will require much more man-hours, as more time with a chainsaw will be needed to secure a proper fire line. Total Cost of Phase One Project; Estimated at \$82,000. The third & fourth installment of four for Phase One has been completed.

MDF has indicated that an extension may be required.

8/9/2018

MDF/OHF #11: Weed Spraying Project – Richard Ranch

Location: 16 Miles north of Beach, ND

All 21,000+ acres are open to public thru the ND PLOTS program

In 2016 the landowner and local county weed board inventoried the key species of noxious and invasive plants; Hounds Tongue, Canadian Thistle, Leafy Spurge, Common Burdock and Russian Knapweed. Applications were made on the north end of Beaver Creek and the area called Hoot Owl. In 2017 and 2018, the project targeted an area around the HQ and Beaver Creek in the canopy coverage areas of 50-100%. The landowner was looking for support to increase the impact of application of chemical. With the funds that he had spent covered approximately four sections of land. With another \$20,000 they would be able to apply spray to another three to four sections of land. Key benefits of the additional funds is helping the landowner to be in compliance with the ND State and Golden Valley County noxious weed laws. By eliminating noxious weeds, this will allow for more desirable plants for wildlife and livestock as well as to halt any additional weed infestation.

The project area that MDF agreed to pay for spraying encompasses approximately 2,500 acres of land. The terrain is primarily riparian areas and the draws leading down to the creek. The employment of a commercial applicator was used; application was by hand or by using two UTV's equipped with high volume spray units. Key species of noxious and invasive plants; Hounds Tongue, Canadian Thistle, Leafy Spurge, Common Burdock and Russian Knapweed. The Hounds Tongue and Common Burdock ranged from 50%-100% canopy cover in the wooded areas where livestock and wildlife spend a large amount of time in the heat of the day. This is where the primary way of spreading these weeds comes from. Visiting with the commercial applicator, he is very positive that we can and have limited the growth of infestation and slowly and surely will continue to work on elimination of noxious weeds.

Pictures are available in the full report online.

10/15/18

MDF/OHF #12: Woven fence removal & installation of wildlife friendly fence – Paul Ranch

Location: 20 miles south of Carson, ND in Grant County

All 4,930+ acres are open to public thru the ND PLOTS program

The objective of this habitat project is to eliminate five miles of sheep woven fencing and to replace with the installation of wildlife friendly fencing. The woven fencing is a barrier to natural movement for mule deer and antelope as well as a significant danger to upland birds. This project is phase one as there is over 30-40 miles of woven fence.

Studies have shown that woven fencing, and especially woven fencing with a barbed strand across the top is the worst for wildlife. A recent study showed ungulate deaths that are caused by fencing is twice as high for woven fence than traditional barbed wire. One main reason is that wildlife, especially fawns, are unable to jump over the fence and have no means to crawl thru or under a woven fence. Additionally, these fences create a danger to antelope as they typically go underneath the wires and with a woven fence they are unable to do this.

The Paul family has made huge strides in the last 5 years making changes from season long grazing in 4 or 5 large pastures to a 24 plus pasture rotation system. The Paul ranch has been working with Chad Meier, USFWS Partners in Wildlife program, have seen in the last 5 years the increase in grass stands & wildlife. Before 2012 & the beginning of the current rotation system legumes were almost absent due to close to a 100 years history of sheep and season long grazing of both sheep & cattle.

This landowner is dedicated to bring this habitat back to a natural state after years of a sheep operation. For the past several years the Paul family has been working with the USFWS Partners in Wildlife program to improve the riparian areas, grasslands and using different grazing strategies. The family has minimal means to make many changes that cost money, but agreed to extend the terms of their PLOTS agreement if the Mule Deer Foundation, with the use of our Outdoor Heritage Fund grant, use funds to improve the movement of mule deer, antelope and upland game birds by pulling out the woven fencing and replacing with wildlife friendly fencing

The Mule Deer Foundation helped offset costs by having a volunteer event where 14 volunteers pulled four of the five miles of fence with the assistance of Bobcat of Mandan donation of equipment use (two Bobcat skid steers and a UTV, in which they delivered and picked up the equipment).

Pictures are available in the full report online. *A one year extension has been requested and granted.

12/31/18

MDF/OHF #13: Removal of 50-70 year old fence & installation of wildlife friendly fence – Hepper Ranch

Location: SE of Keene, ND, McKenzie County

All 2,717 acres are open to public thru the ND PLOTS program

The objective of this habitat project is to pull out 50-70 year old barbed wire fencing that has fallen in many places, which is a danger to wildlife and livestock. Additionally, to place the new fence on actual forest service boundary (see below the fencing lines) and to replace with the installation of wildlife friendly fencing. This 350 acre property is the only private inholding within the Blue Buttes Recreational area and thru the PLOTS program, this land is now open to sportsman access. The Mule Deer Foundation has also helped pay for a 100 acre cover crop to help enrich the soil for future harvestable crops.

This landowners property is in the center of the Bakken and is interested in not only improving his property for livestock but wants to ensure that the land is open to sportsman as he indicated that the hunting heritage of North Dakota needs to be protected and available for future generations. Pictures are available in the full report online.

June 2019

A fencing project that was started in summer of 2016 was continued. In 2018-2019, the south part of the property was focused on, where the primary grazing grounds are adjacent to the Beaver Creek Riparian area. This project included tearing down 2 miles of old and dilapidated barbed wire fencing. The amount of fencing needed was reduced and replace needed fencing with wildlife friendly fencing for livestock management and habitat stewardship. The overall goal is the elimination of much of the wire that crisscrossed the land and reducing the number of livestock grazing pastures to a better grazing management system and control access to the Beaver Creek Riparian areas. Additional details are available in the full report.

October 2019

MDF/OHF #15: Cannon Ball Creek Riparian Protection Project – Horse Creek Grazing Assoc

Location: 16 Miles north of Marmath, ND

17,270 acres are open to public thru the ND PLOTS program

This project is to protect the riparian area surrounding Cannon Ball Creek. Livestock tends to camp in the riparian area as it is lower elevation, cooler in summer and warmer in winter, also the water is readily available. Landowner and NRCS want to protect and re-establish the riparian habitat with fencing & water source up on the plateau. NRCS helped fund the wildlife friendly fence to place a barrier between the grazing pasture/plateau and the riparian area. MDF assisted in the water project which consisted of the pipeline, tanks & pumping system as well as the underground installation.

The Horse Creek Grazing Association has been a part of the PLOTS program since MDF ND started partnering with NDGF on funding of PLOTS. they have upped their length of term from 4 years to 10 years on the PLOTS agreement. they have over 17,000 acres that is intermixed with USFS grasslands which opens up an incredible amount of land to the public

November 2019

The objective of this habitat project is to eliminate five miles of sheep woven fencing and to replace with the installation of wildlife friendly fencing. The woven fencing is a barrier to natural movement for mule deer and antelope as well as a significant danger to upland birds. This project is phase two as there are over 30-40 miles of woven fence.

Studies have shown that woven fencing, and especially woven fencing with a barbed strand across the top is the worst for wildlife. A recent study showed ungulate deaths that are caused by fencing is twice as high for woven fence than traditional barbed wire. One main reason is that wildlife, especially fawns, are unable to jump over the fence and have no means to crawl thru or under a woven fence, this is especially dangerous for fawns being weaned as they may be abandoned. Additionally, these fences create a danger to antelope as they typically go underneath the wires and with a woven fence, they are unable to do this. Additionally, with antelope, injury and or death maybe caused by a high speed collision with the fence wire if they have been escaping some apparent danger and coming to a fence, they slide or crawl underneath, when there is no room to slide/crawl, at a high rate of speed they slam into the wire. Additional details and pictures available in the full report.

November 2019

An additional status report has been provided. It states in part:

This project was completed in the fall of 2018 to eliminate 2 miles of woven sheep fence and replace with wildlife friendly fencing. Woven sheep fence is a barrier to wildlife and has been found thru a study conducted in Northern Colorado/Southern Wyoming, that it has a 2x's higher mortality rate than standard barbed wire fences. These fences were put up to keep sheep in and this ranch has not run sheep for many years nor plans to run sheep. The existing woven wire fence has been determined to be well over 50 years old and many places in disrepair which increases the danger for wildlife.

Wildlife Friendly Fencing is a great solution to maintaining livestock management while benefitting wildlife with a fence system that is easily crossed over and under by wildlife. The landowner agreed to a PLOTS agreement with the ND Game and Fish. The applicant has requested and been granted a 1 year no cost extension.

December 2019

Evans Ranch – Wildlife Friendly Fencing Project 2019

Location: Adams County - T 129 N, R 893 W Sec 2 SW1/4 and T 129 N, R 89 W Sec 6 E 1/2 of E 1/2

This wildlife friendly fence is a voluntary Ranch land agriculture based Grazing land/grassland and thus wildlife habitat improvement whereas mule deer movement as well as other wildlife will be safer and easier. This will promote the landowners ability to use livestock as a grazing management tool on his

property during the life of this agreement & the duration of his PLOTS agreement as well. It will shorten the disturbance by livestock & increase the recovery (often over 1 yr recover/no grazing) of the grassland which will increase Mule deer forage & Fawning habitat as well as adult mule deer habitat by creating a healthy working private land. This will in-turn increase Mule deer survival alongside ranch objectives & maintain profitability while providing quality habitat for all wildlife, a win- win for both sportsman/wildlife & rancher /livestock. Removal old dilapidated woven fence and installation of 2.75 miles of Wildlife Friendly Fence. This is a cost share program with the landowner where the total project was over \$29,000 to complete. The Mule Deer Foundation with the support of the Outdoor Heritage Fund has allocated \$18,440 to this project.

Njos Ranch – Wildlife Friendly Fencing & Water Project 2019

Location: Bowman County - T 131 N 103 W Sec 32 & 33

This wildlife friendly fence, pipeline & tank is a voluntary Ranch land agriculture based Grazing land/grassland and thus wildlife habitat improvement. This project will promote the landowner's ability to use livestock as a grazing management tool on his property during the life of this agreement & the duration of his PLOTS agreement as well. It will shorten the disturbance by livestock & increase the recovery (often times over 1 yr recover/no grazing) of the grassland which will increase Mule deer forage & Fawning habitat as well as adult mule deer habitat buy creating a healthy working private land. This will in-turn increase Mule deer survival alongside ranch objectives & maintain profitability while providing quality habitat for all wildlife, a win- win for both sportsman/wildlife & rancher /livestock. Project removed old dilapidated woven fence and installation of 2.75 miles of Wildlife Friendly Fence, 1500 feet of pipeline and a water tank. This is a cost share project with the landowner where the total project was over \$31,000 to complete. The Mule Deer Foundation with the support of the Outdoor Heritage Fund has allocated \$21,152.29 to this project.

Tescher Ranch – Wildlife Friendly Fencing Project 2019

Location: Golden Valley County - T 143 N, R 104 W Sec 3,4,9 & 10

This wildlife friendly fence is a voluntary Ranch land agriculture based Grazing land/grassland and thus wildlife habitat improvement. This will promote the landowner's ability to use livestock as a grazing management tool on his property during the life of this agreement & the duration of his PLOTS agreement as well. It will shorten the disturbance by livestock & increase the recovery (often over 1 yr recover/no grazing) of the grassland which will increase Mule deer forage & Fawning habitat as well as adult mule deer habitat buy creating a healthy working private land. This will in-turn increase Mule deer survival alongside ranch objectives & maintain profitability while providing quality habitat for all wildlife, a win- win for both sportsman/wildlife & rancher /livestock. Project removed old dilapidated barbed wire fence and installation of 1.25 miles of Wildlife Friendly Fencing. This is a cost share project with the landowner where the total project was over \$18,000 to complete. The Mule Deer Foundation with the support of the Outdoor Heritage Fund has allocated \$7,416.80 to this project.

November 2020

A no cost extension has been granted due to delays related to Covid.

Updated: 1/8/2021