

# HIGHLIGHTS

1. An estimated 176,300 ducks were raised in the Morris district with a recruitment rate of 0.68. (Section 1a)
2. One whooping crane spent several days in the Morris district. (Section 1c)
3. Our habitat management efforts were particularly productive, with 7,274 acres burned under prescription, 1,519 acres grazed, and 886 acres hayed to improve habitat. (Sections 3b, 3c, and 3f)
4. Two new Working Land Initiative Areas were started in the District for a total of nine areas. We expended significant effort and had several accomplishments with the Working Lands Initiative. (Section 5b)
5. The District experienced a significant change in staffing. Three positions were vacated, the manager, assistant manager, and biologist/law enforcement officer. All of these positions had been filled for many years by the same individuals, which made the transition all the more difficult. (Section 8b)



A flock of migrating swans take flight. 2009-1 SJD 4/2009

## **Climatic Conditions**

### **Morris, Minnesota**

#### **October 2008:**

The high temperature for the month was 72.4°, occurring on the 6<sup>th</sup>. The low temperature for October was 23.6°F on the 28<sup>th</sup>. The first frost of the season occurred on the 16<sup>th</sup> with the temperature dropping to 26°F. Precipitation total during October was 3.22 inches compared to an average of 2.3 inches.

#### **November 2008:**

November's mean temperature was 31.3 °F, which was 1.6°F above the 122-year mean (1886-2008). High temperature was 73°F on the 4<sup>th</sup>. Low temperature was 1°F on the 21<sup>st</sup>. Total precipitation was 2.00 inches, which is 1.02 above normal. The 7<sup>th</sup> set a new daily precipitation record of 1.72 inches with a mix of rain and snow. Total snowfall for November was 5.3 inches.

#### **December 2008:**

The mean temperature was 6.9°F, which was 8.6°F below normal. This December was the coldest since the year 2000. The high temperature was 42°F on the 3<sup>rd</sup>. The low temperature was -25°F on the 31<sup>st</sup>. There were 18 days of 0°F or lower during the month. Precipitation received was 1.75 inches, which is 1.09 above normal. This month's snowfall was 21.8 inches which is 15.1 inches above normal.

Total precipitation for October-December was 4.50 above normal. Total snowfall during this period was 27.1 inches.

#### **January 2009:**

Temperature mean for January was 0.9°F, which is 7.7°F below normal. This was the coldest since 1994 (-2.5°F). High temperature occurred on the 31<sup>st</sup> with a reading of 30°F. The low temperature for the month occurred on the 16<sup>th</sup> when -31°F was recorded. There were 25 days of 0°F or lower temperature readings. Precipitation totaled 0.51 inches, which is 0.19 inches below normal. Total snowfall for this month was 7.0 inches which is about 1 inch below normal. Total snowfall for November-January was 34.1 inches.

#### **February 2009:**

February's mean temperature was 12.2°F, which is 1.1°F below normal. The month's high temperature was 42°F on the 1<sup>st</sup> and the low was -18°F on the 3<sup>rd</sup> and 4<sup>th</sup>. During the month 12 days of 0° or lower were observed. A total of 0.95 inches of precipitation occurred, which is 0.28 above normal. A new record snowfall event occurred on the 27<sup>th</sup>, with 4.8 inches of snow. February's snowfall was 10.3 inches which is about 3 inches above normal. Total snowfall from November through February was 44.4 inches.

**March 2009:**

The mean temperature was 24.8°F, which was 2.1°F below normal. March's high temperature occurred on the 17<sup>th</sup> with a reading of 57°F and the low was on the 1<sup>st</sup> when a -16°F occurred. March saw 5 days of 0° or lower temperatures. The recorded precipitation for the month was 2.84 inches, which is 1.68 inches above normal. On the 23<sup>rd</sup> a new daily record precipitation was set with 1.63 inches. Snowfall for the month totaled 8 inches, with 3.5 inches on the 11<sup>th</sup> and 3.0 on the 31<sup>st</sup>. Snowfall for the winter season November-March 2008-2009 totaled 52.4 inches, and normal annual snowfall is 40 inches.

**April 2009:**

Mean temperature for the month of April was 41.4°F, which was 2.3°F below normal. The high temperature was 89°F on the 24<sup>th</sup> and the low temperature was 20°F on the 3<sup>rd</sup> and 6<sup>th</sup>. Precipitation for the month totaled 0.88 inches, which is 1.42 inches below normal. Total snowfall was 4.0 inches, all occurring on the 1<sup>st</sup>. Total annual snowfall this winter (October 2008 through April 2009) was 56.4 inches. Snowfall of 40 inches is normal for this area.

**May 2009:**

May's mean temperature was 55°F, which was 0.8°F below normal. The mean temperature for the first five months of 2009 has all been below normal. A 92°F on the 20<sup>th</sup> was the high temperature for the month and also tied with 1925 for the daily maximum reading. The low temperature occurred on the 17<sup>th</sup> with a reading of 31°F. May's precipitation totaled 0.48 inches, which was 2.48 inches below normal, making this May the 4<sup>th</sup> driest on record. The April-May precipitation total of 1.36 inches was the 3<sup>rd</sup> driest on record (1886-2008).

**June 2009:**

Mean temperature for the month of June was 64.4°F, which is -1.7°F below normal. The month's high temperature was a 92°F on the 27<sup>th</sup> and the low was 38°F on the 3<sup>rd</sup>. Total precipitation for June was 2.12 inches, which is 1.86 inches below normal.

**July 2009:**

July's mean temperature was 66°F, which was 4.9°F below average. The high temperature of 84°F for July occurred on the 24<sup>th</sup> and 27<sup>th</sup>. The low temperature of 44°F occurred on the 19<sup>th</sup>. Since the first of the year, all months have had below normal temperatures. Precipitation totals for July were 1.01 inches, which is 2.64 inches below normal. Rainfall from April through July totaled 4.49 inches, 8.38 inches below normal.

**July 14, 2009:**

During the afternoon of July 14<sup>th</sup>, severe thunderstorms developed out ahead of a cool front in western Minnesota. An EF-2 tornado with estimated winds between 110 and 119 mph began about three miles southwest of Swift Falls (on Loen WPA), tracking northeast through Swift Falls and ended in southern Pope County.

The twister's path was approximately nine miles long with a width of 350 yards. Touchdown appeared to be 4:21 p.m. with end time around 4:37 p.m. for an average movement around 34 mph. There was significant tree damage, 2 large turkey barns were completely destroyed along with 2 residences and other outbuildings. Minor crop damage occurred. The remains from the tornado's path were scattered throughout the countryside affecting our WPAs in Swift County (Swift Falls), and Pope County (Heidebrink, Larson, and Nelson Lake).



Tornado damage at Loen WPA, Swift County. 2009-2 DMO 7/29/2009

### **August 2009:**

Temperature means for August were 65.1°F, which is 3.5°F below normal. August's high temperature of 88°F was on the 13<sup>th</sup> and the low temperature of 39°F was on the 30<sup>th</sup>. This was the 8<sup>th</sup> straight month of below normal temperatures. Precipitation for August totaled 3.78 inches, which is 0.79 inches above normal. Precipitation from May through August totaled 7.39 inches, 6.19 inches below normal.

### **Summer 2009:**

Thunderstorms were less numerous than last year, as well as below the five year average. Severe weather numbers were also well below normal and started later than normal. Cooler than normal temperatures prevailed with summer averages ranging from one to five degrees below normal. Precipitation was below normal.

**September 2009:**

September's mean temperature was 63.1°F, which was 4.0°F above the normal mean. The month's high temperature was 84°F on the 19<sup>th</sup> and the low was 33°F on the 29<sup>th</sup>. During the month, we had 8 days of 80°F temperature. Precipitation for the month totaled 2.50 inches, which was 0.16 inches above normal. On the 9<sup>th</sup> a new daily record for the day was set with the 1.0 inches of rainfall; the previous record was 0.99 inches in 1929. Rainfall May through September totaled 21.51, 2.18 below normal for the time period.

**Summary:**

The coldest day was on January 16, 2009, with a -31°F reading.  
The highest temperature occurred on May 20 and June 27 with 92°F.  
There were only 4 days with a maximum of 90°F or above.  
There were 60 days of 0°F or lower.



Aerial view of the southeastern corner of Swift Falls WPA (looking to the southwest) shows the scattered debris from the July 14<sup>th</sup> tornado.

2009-3 WAH 7/24/2009

# MONITORING AND STUDIES

## 1a. Surveys and Censuses

### **Christmas Bird Count**

Two Christmas Bird Counts (CBC) took place in the Morris District this year. The Morris area CBC was held December 29. Three participants found 27 bird species in the count circle, including Eurasian collared doves. The Lac qui Parle CBC was held on December 30, with 2 participants counting 37 species, including a golden eagle during the count week.

### **Woodcock Survey**

Biological Technician Oglesby assisted with the annual American woodcock singing-ground survey. There are two assigned survey routes in the district, one in Pope County and one in Stevens County. Routes are 3.6 miles long, with 10 listening stations where observers record the number of woodcock heard peenting. The route in Pope County is run annually. This year it was surveyed on May 1 with seven birds observed. There were eight woodcock on this route in 2008 and nine in 2007. The Stevens County route is run every five years unless birds are observed, in which case it would be run annually. The long term trend in the Central region is -1.1 percent, but there is no significant long-term trend in Minnesota. There were no significant 10-year trends for Minnesota or the region (the region returned to stability after a significant decline last year). There was no significant annual change in the region, but there was an increase in Minnesota from 2008.

### **Breeding Bird Survey**

Staff conducted one breeding bird survey route this year. The breeding bird survey is coordinated by USGS and the Canadian Wildlife Service. It is a long-term, large-scale survey used to monitor status and trends of North American bird populations. There are several routes within the Morris WMD, many of which are conducted by Migratory Bird Management staff and other volunteers. Biologist Vacek ran the Chokio (#21) route on June 26, and observed 50 bird species, with a distinct lack of grassland birds or waterfowl.

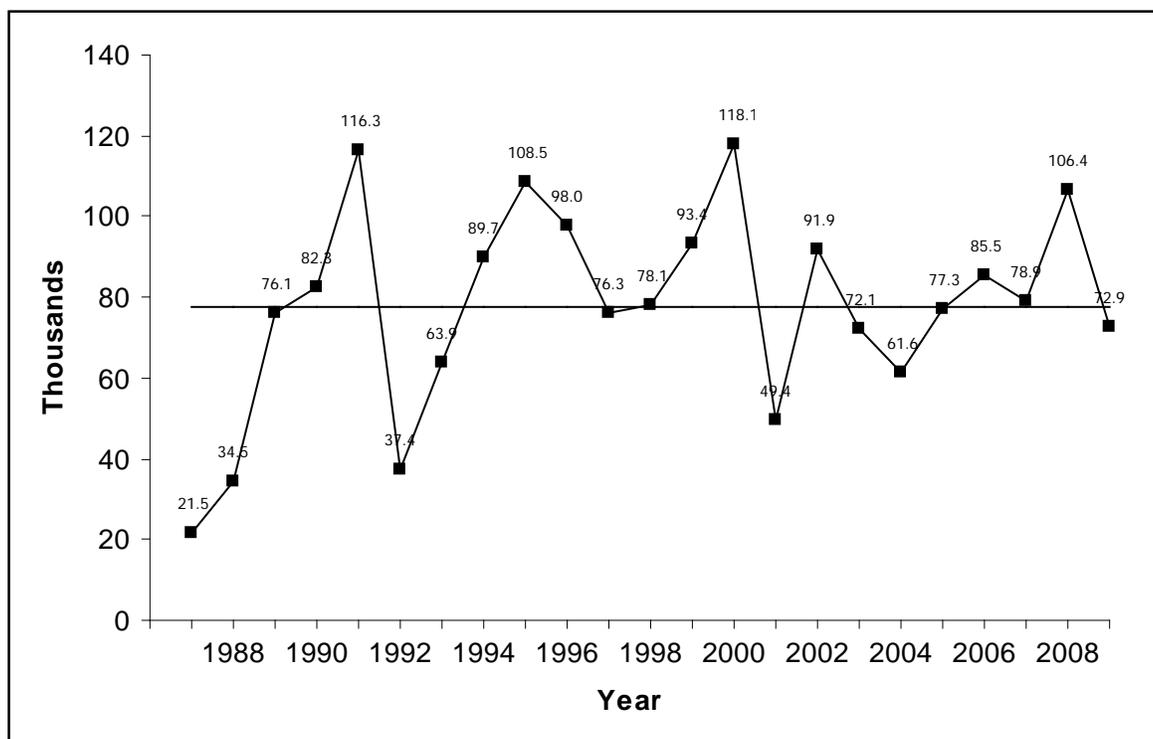
### **Four Square Mile Waterfowl Pair Count**

The annual four square mile breeding waterfowl survey has taken place for 22 years. Each year, the Region 3 Habitat and Population Evaluation Team uses data from this survey to compile wetland condition, breeding waterfowl population, and waterfowl production estimates for the Morris WMD and prairie pothole region of Minnesota and Iowa.

Wetland conditions were about average in the Morris WMD this year. There were slightly fewer wetlands this year, but wetland density and size increased. The estimated number of breeding pairs (53,600) was well below the long-term average.

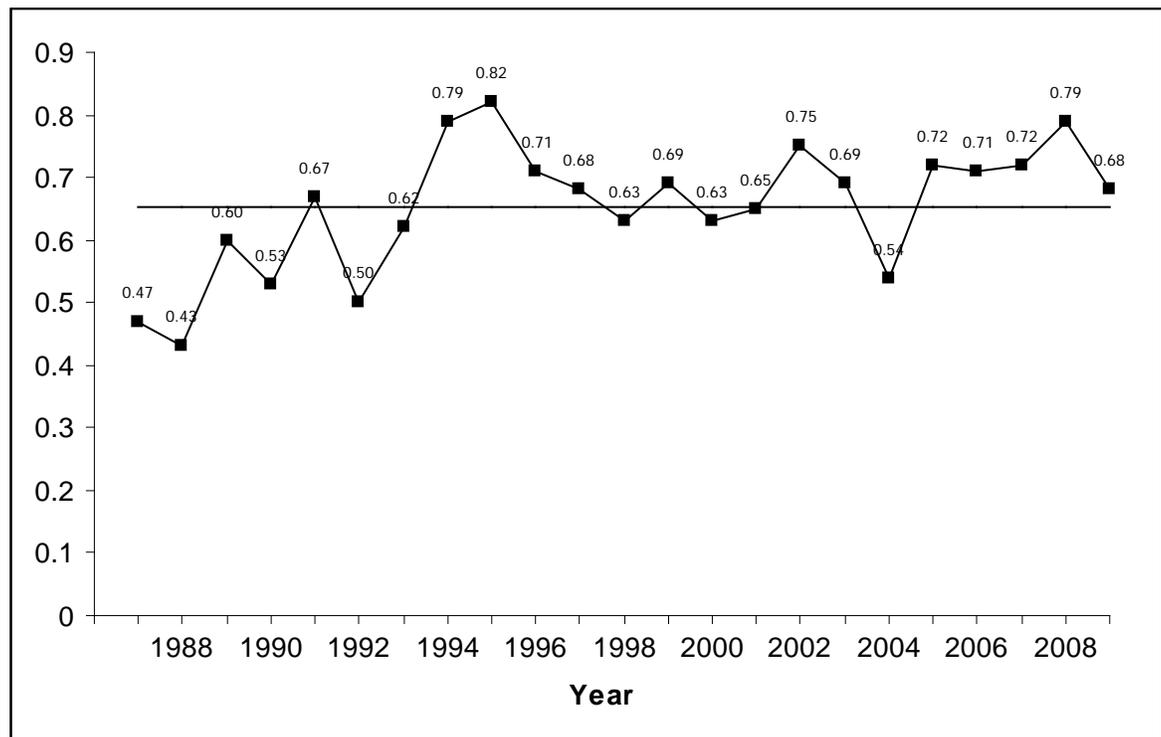
There were 176,300 recruits produced in the Minnesota portion of the Prairie Pothole Region in 2009. The Morris WMD contributed 72,900 recruits to the fall flight. The Minnesota Prairie Pothole Region and Morris WMD recruitment rates were both at relatively healthy levels again this year (0.57 and 0.68, respectively). The Prairie Pothole Joint Venture Implementation Plan has a recruitment rate objective of 0.6 under average environmental conditions, and 0.49 for all managed areas.

**Figure 1. Number of Recruits Produced in the Morris WMD - 1987-2009**



Data values are for five species – mallard, gadwall, blue-winged teal, shoveler, and pintail. Solid line is long-term average (77.8).

**Figure 2. Recruitment Rate for the Morris WMD - 1987-2009**



Data values are for five species: mallard, gadwall, blue-winged teal, shoveler, and pintail. Solid line is long-term average (0.65).

### **Annual Brood Surveys**

This was the second of a three year project to survey broods on designated Four Square Mile Survey plots throughout the prairie pothole region. FWS Habitat and Population Evaluation Team and Ducks Unlimited are coordinating this extensive survey, which they hope will provide information about how waterfowl production relates to the breeding population and landscape characteristics. Biologist Vacek and STEP Weegman completed surveys on four plots in Stevens County. The plots we survey have a high wetland density, but many of the wetlands are temporary and seasonal so they are dry or completely obscured by crops when the surveys are done. The road-based surveys are conducted from July 20 to August 5 each year. We expect to see a data summary at the end of the project (2010).

### **North American Amphibian Monitoring Program/Minnesota Frog and Toad Calling Survey**

We continued to participate in the North American Amphibian Monitoring Program this year. Routes were visited after sunset three times annually (early spring, late spring and summer). Observers identified the frog and toad species present at each stop based on breeding calls and estimated the abundance of each species using an index value.

Eight of the ten designated routes in the district were at least partially completed this year. Many of the routes were completed by DNR-recruited volunteers this year, while STEP Weegman and Biologist Vacek completed three routes. We plan to continue participating in this annual survey and would like to add routes in areas of special management concern or that are not well covered by the existing routes.

Seven species were observed on routes in the district: wood frog, western chorus frog, spring peeper, northern leopard frog, American toad, Cope's gray treefrog/gray treefrog, and green frog. The chorus frog, leopard frog, and American toad continue to be the most commonly observed species (highest number of routes and survey runs).

### **Native Prairie Remnant Inventory**

We continued floristic quality assessments on remnant native prairie tracts managed by the Morris WMD. Briefly, we list all plant species observed during a field visit to a prairie remnant. Using the coefficient of conservatism that has been assigned to each plant of the northern Great Plains, we are able to calculate a floristic quality index (FQI) that can be used to compare the relative quality of remnants. In addition to the FQI, we can analyze remnants based on other calculations such as the percent of native or non-native species present.

We have created a prioritized list of prairie remnants on 40 WPAs and 47 easements, essentially the largest remnants we manage in each county. After this year, we have completed 20 of the WPAs and 4 of the easements (and are partially through many others).

### **Wild Rice Inventory**

Although prairie wetlands are not typically considered prime habitat for wild rice, we have observed this important waterfowl food on several WPAs. In an attempt to better understand the relative abundance of wild rice throughout the district, we developed and tested a rice monitoring protocol this year. The protocol was based on that developed by the 1854 Treaty Authority for monitoring the extensive rice beds in northern Minnesota. We map and measure the size of the wild rice bed in the wetland, then count the number of stems in randomly placed 0.5 m<sup>2</sup> plots within the rice bed. An abundance index is then calculated for each wetland, based on the density (number of stems) and size of the wild rice bed. Using staff suggestions, we identified five WPAs in Pope County that have wild rice. Beginning in 2010, we will begin annual monitoring on these sites and any others that are identified. Data will be shared with Minnesota DNR Shallow Lakes staff.



The wild rice at Nelson Lake WPA (YCC Pool) was very dense this year. Healthy rice beds like this prompted us to begin monitoring wild rice distribution, abundance and density throughout the district.

2009-4 M. Weegman 7/8/2009

### **Wetland Resources Monitoring**

In an attempt to better understand wetland hydrology, Regional Hydrologist Josh Eash has established a long-term monitoring project to study surface and ground water within wetland complexes at Rothi and Nelson Lake WPAs. Josh was testing equipment at some wetlands on Rothi this year, and will install more stations at both units in 2010. Hydrology data collected at the monitoring stations include precipitation, water quantity, and ground water levels. Quantifying hydrology will allow us to better predict bounce, source water availability, groundwater recharge, hydrolic impacts of upstream land use, impacts of restored wetlands on flood abatement, and threats and needs of prairie wetlands under current climate change scenarios. In addition, water quality parameters are being collected periodically throughout the growing season. Water quality data will help us determine wetland health, impacts of adjacent land use, wetland filtration potential, and influence of restoration design and management practices on mitigating non-point source contaminants. Currently, there are only three long-term wetland monitoring sites in the Prairie Pothole Region. The data we collect may also be used to refine climate change models for the region.

## **1b. Studies and Investigations**

### **Enhancing Our Prairies – Effects of Tree Removal on Grassland Birds**

This was the fifth field season of a study to monitor the response of grassland birds before and after removing trees from large grassland habitat blocks. This study is being coordinated by the HAPET office and field work is being done at the Morris and Litchfield WMDs. Each district has treatment (trees removed) and control (trees left in place) sites with 20 point count stations in each. In the Morris WMD, treatment study fields are on Thomson and Larson Slough (both now part of Kufrin WPA), Nelson Lake (two fields), and Wentz WPAs. Control areas are at Hagstrom, Stegner, and Rolling Forks WPAs. Stegner and Rolling Forks were added in 2007 to allow us to cut trees on two sites that were formerly controls (Larson Slough and Nelson Lake-east).

In June, grassland bird point counts were done at all 160 stations. Biological Technician Oglesby conducted point counts at Nelson Lake and Rolling Forks, and we hired a contractor to do counts at the remaining five sites. In July and August, we sampled vegetation at all point count stations. Vegetation monitoring consisted of assessing the plant community and structure as well as measuring the distance to the nearest trees and shrubs.

So far, the data has not shown any change in grassland bird use at the treatment sites. It is possible that the continued management activity (prescribed fire, follow up tree control, etc) has kept the sites from becoming more attractive to grassland birds. It is also possible that factors other than local habitat conditions are having a stronger influence on settling patterns of grassland birds (e.g., current population levels, fragmentation of grasslands in surrounding landscape). We plan to meet during the coming winter to discuss current results and the future of the project.

### **Evaluation of Methods for Canada Thistle-Free Habitat Restoration**

This study compares the effectiveness of various seeding techniques and seed mixes for suppressing Canada thistle establishment in new restorations. The hypothesis is that by increasing competition and decreasing the disturbance inherent in seeding, we can produce more weed-resistant restorations. Diane Larson (USGS-Northern Prairie Wildlife Research Center) is the principle investigator for this study, which is being conducted at the Morris, Fergus Falls and Litchfield WMDs and Neal Smith NWR. Each site has two to four study fields consisting of 108 plots that were seeded by one of three seeding techniques and three seed mixes (fully crossed for a total of nine treatments). The seeding techniques include dormant broadcast, spring broadcast, and spring drill. The seed mixes are of three diversity levels: 10, 20 and 34 species. Although the study is ongoing, funding restrictions changed our monitoring plans for FY 2009. Soil samples were collected this year, and a round of full vegetation monitoring will be conducted in 2010.

### **Minnesota Grassland Team**

In recent years, we have had several monitoring projects to assess grassland management tools (fire, grazing, seeding). These efforts have provided some information to guide our management decisions, but one limitation has always been our inability to collect enough data given our staff and time resources. In 2007 we joined with a group of Minnesota prairie managers and ecologists to develop a standardized grassland monitoring program. Our primary partners are The Nature Conservancy and MN Department of Natural Resources. This group originally came together around the idea of monitoring the effects of grazing management, but soon realized that our real question was how to best manage remnant prairies to minimize invasive species (cool-season grasses and woody plants) and favor native species.

After a pilot season in 2008, the group agreed to some revisions in the monitoring protocol. Though some final changes are needed on the model, the group started full implementation in 2009. In the Morris WMD, we collected data at Welsh, Welker, Hamann, Glacial Lake, and Twin Lakes WPAs. Our basic protocol includes monitoring vegetation composition using a belt transect and checklists of indicator species (native and invasive), as well as structural information like litter depth and visual obstruction.

Biologist Vacek presented an overview of the project at the Minnesota Invasive Species Conference in Duluth, MN (October) and as part of a panel discussion at the Wildlife Society Meeting in Miami, FL (November).

### **Native Prairie Adaptive Management Project**

This was the pilot field season for another grassland monitoring project, which is in its second year of funding through the Refuge Cooperative Research Program (RCRP). The Native Prairie Adaptive Management Project is being developed by refuge biologists and managers from Regions 3 and 6, as well as USGS partners from Northern Prairie and Patuxent Wildlife Research Centers. The particular focus of this project is to learn how well we can reduce smooth brome and Kentucky bluegrass from remnant prairies on refuge lands. Management treatments will include burning, grazing, burn-graze combination, haying, and rest.

Biologist Vacek has served on the core science team for this project. The science team has been responsible for developing the monitoring protocol, the model that will be used to test our predictions about management effects, and a database to standardize data entry. The RCRP funding goes through 2010, at which point the Service will assume full responsibility for maintaining the project.

Morris WMD has eight management units in the project, located at Hillman, Florida Creek, and Freeland WPAs. We completed surveys at all but one unit on Hillman. The management units varied in the proportion of sample units dominated by native or invasive species (Table 1). With the exception of Florida Creek C, even those units that were dominated by native species had some

invasion of exotic species. For example, 90.8 percent of the sample units at Florida Creek A are classified as native species dominated, but over half of those plots have at least some Kentucky bluegrass present. Kentucky bluegrass, smooth brome, and reed canarygrass were the most common invasive species present (Table 2).

**Table 1 - Proportion of Management Units That Were Dominated by Native or Invasive Species – Morris WMD – 2009**

<u>Mgmt Unit</u>	<u>Native</u>	<u>Invasive</u>	<u>Other</u>
Florida Cr A	90.8	9.2	0.0
Florida Cr B	13.0	87.0	0.0
Florida Cr C	100.0	0.0	0.0
Freeland A	41.0	59.0	0.0
Freeland B	31.3	68.8	0.0
Hillman A	45.4	54.4	0.2
Hillman B	32.2	67.3	0.4
Hillman D	85.6	14.4	0.0

**Table 2 - Proportion of Management Units Dominated by Specific Invasive Species – Morris WMD – 2009**

<u>Mgmt Unit</u>	<u>Kentucky Bluegrass</u>	<u>Smooth Brome</u>	<u>Quackgrass</u>	<u>Reed Canarygrass</u>	<u>Exotic Forb</u>
Florida Cr A	8.0	0.0	0.0	0.8	0.4
Florida Cr B	4.0	83.0	0.0	0.0	0.0
Florida Cr C	0.0	0.0	0.0	0.0	0.0
Freeland A	35.0	0.0	0.0	24.0	0.0
Freeland B	11.3	12.5	0.0	44.5	0.5
Hillman A	48.0	0.8	5.4	0.0	0.2
Hillman B	25.6	28.0	1.1	0.0	12.7
Hillman D	6.7	7.6	0.0	0.0	0.0

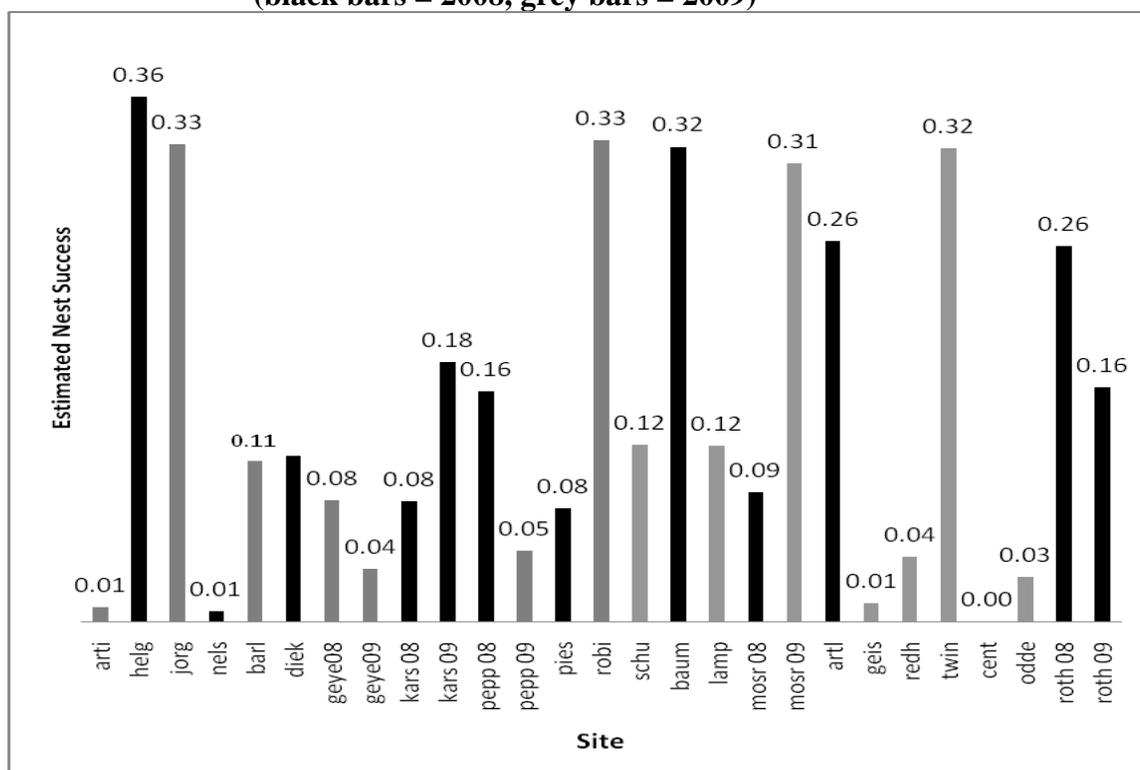
Over time, we hope that monitoring the effects of management actions on the vegetative composition of these prairies will help us make better management decisions in the future. The model is being designed so that if we know the current composition of a prairie (percent native, brome or Kentucky bluegrass), we can predict which management action will most effectively increase native species cover.

### **The Impact of Encroaching Woody Vegetation on Waterfowl Nest Success in Western Minnesota**

This was the second season of a Prairie Pothole Joint Venture-funded study to assess the relationship between woody vegetation and duck nest success. Dr. Todd Arnold and PhD student Sarah Thompson are conducting the research. In 2009,

Sarah and her technicians searched for nests on 13 WPAs in Big Stone, Traverse, western Swift and western Stevens Counties, and found 380 nests. Over the two years of the study, they have found 735 nests on 22 WPAs, with an overall nest success rate of 13.3 percent (Figure 3). In addition to nest success data, Sarah collected information at each nest about the distance to woody vegetation in the immediate nest area and overall landscape.

**Figure 3. Estimated Nest Survival at 22 WPAs - Morris WMD - 2008-2009**  
(black bars = 2008, grey bars = 2009)



Nest survival analysis is producing some interesting information. In both years of the study, nests that were initiated earlier in the season had a much higher probability of hatching than those initiated later in the season. Nests fared better in landscapes with more grass and fewer wetlands, and when the nest was far from a wetland edge. Woody vegetation does have an effect on nest success, though the patterns are more conflicting among years; the model suggests that trees were detrimental to nests in 2008 but beneficial in 2009.

The first year (2008) of the study was primarily a pilot season to determine the number of nests we could expect to find. This year, their work was expanded to include an assessment of the predator communities, grassland passerine populations, and waterfowl nest site selection. Results of those aspects of the study are still pending. The project will continue for one more year.



Through a Special Use Permit we allowed Dr. Roger Becker, University of Minnesota, to set up a one acre study plot in the three year old local ecotype seeding at Kufirin WPA. The study is testing the tolerance of native forbs to herbicides at various application rates and timings. 2009-5 JBB 7/1/2009

### **Sediment Removal Adaptive Management**

Morris WMD participated in an adaptive management project focusing on the role of sediment removal in wetland restoration. We would like to learn more about if and when removing sediment is an appropriate tool to use when restoring partially drained or drained wetlands. The project includes stations throughout Minnesota (Refuges and Private Lands Offices). This year was the pilot season for the project, during which we tested monitoring protocols and treatments. We were able to restore hydrology and remove accumulated sediment from five wetland basins this year, all on private land in Pope County. We will monitor vegetative structure and diversity, invasive species, and hydroperiod. The sites will be surveyed once a year before restoration, annually for the first four years, and in years six and eight. We will add more sites in 2010 as they are available (a wetland must meet strict criteria to be included in the project).

### **Temporary and Seasonal Wetland Adaptive Management**

Breeding waterfowl are attracted to landscapes with a high density of temporary and seasonal wetlands. However, these wetland types are prone to being choked with invasive plants such as reed canarygrass, cattail and willow. We feel that vegetation-choked wetlands do not provide good waterfowl pair habitat, but we are uncertain about the cost effectiveness of the intensive techniques necessary for long-term control or eradication of these invasive species. Morris WMD is involved with an adaptive management project that will explore this issue,

comparing the effectiveness and longevity of various management tools for manipulating vegetation structure in temporary and seasonal wetlands. The management tools included in the project range from being inexpensive but short lived (e.g., crushing or clipping vegetation) to intensive and expensive but longer-lasting (e.g., excavating cattail biomass and sediment). We will monitor waterfowl pair use and vegetative structure and composition annually. Project partners cover an extensive area, from eastern North Dakota, to southern Wisconsin. Morris WMD wetlands included in the pilot season were located on Rothi, Hillman, and Pepperton WPAs.

### **1c. General Wildlife Observations**

The winter season was more severe in 2008-09 than in many of the previous years. Snow cover persisted into April, but was followed by a relatively dry and cool spring, making for decent nesting conditions. A rain event in early June re-filled many temporary and seasonal wetlands.

Waterfowl migration began with the appearance of sheet water in fields in mid-March. The first goose pair was observed near the office on March 7, and young were observed May 8. The first mallard brood was observed on May 24. The first chorus frogs were heard calling April 2. The first pheasant brood was observed on June 10.



Goose brood using Henry WPA, Big Stone County. 2009-6 SCV 6/1/2009

A nesting pair of trumpeter swans was confirmed in Swift County this year. Biological Technician Oglesby observed a pair on Frank Lake in May during Four Square Mile Surveys, and DNR personnel discovered a pair with three cygnets in July on the nearby Camp Kerk Wildlife Management Area.

Other interesting wildlife observations this year included:

- Sandhill crane young at Overby WPA (Pope Co.)
- American avocets near O'Connell WPA (Big Stone Co.)
- An eastern meadowlark on Smith WPA (Stevens Co.)



River otter sightings are becoming more common in our district.

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## HABITAT RESTORATION

### 2a. Wetland Restorations (On/Off refuge)

Five landowners cooperated with the Partners for Fish and Wildlife program during FY09 to restore 14 wetlands. Wetland restorations were completed in Pope and Swift Counties for a total of 30.4 acres. Seven and possibly up to 12 of the 14 wetlands will be protected by Fish and Wildlife Service or other agency perpetual easements, so they can never be drained again.

These numbers are lower than our traditional wetland restoration numbers primarily because we are seeing a change in our program. The Partners program (Section 5c) is becoming more diverse. We cost shared projects this year to seed grass, convert old monotypic grass seedings to diverse stands of native species, and to remove invasive woody vegetation. We are also seeing much of the demand for wetland restoration being completed by other agencies like the Natural Resource Conservation Services (NRCS). The Wetland Reserve Program (WRP) has been very successful in our local counties, especially with securing the largest basins for wetland restoration. The important thing is that restoration work happens, and the great part about WRP is that the basins will be protected forever by a Reinvest in Minnesota (RIM) easement after the 30 year WRP expires.

Wetland restorations averaged about \$1,541 this year, including a large project on private land where a sheet piling structure was installed. The average size of restored wetlands on private land was 2.2 acres, about 2.2 acres less than the long term average for the Morris WMD. The 14 wetlands cost the Service \$21,578 to restore during FY09. Partner cost share was nothing for these projects.

Three wetland restoration structure repairs on private land were completed in FY09. The repairs cost \$52,365 and impacted 28 acres of wetlands. A large water control structure in Big Stone County was repaired on the Dale Johnson Flowage easement (267F & 267M). Only \$2,365 of Partners money was spent on these repairs. The remaining \$50,000 was spent out of 1262 to make the needed repairs at the Johnson easement.

Ditch plugs were repaired on Artichoke Lake Waterfowl Production Area this year. Ten ditch plugs were repaired restoring 30 acres of wetlands that were partially drained by the damage to their ditch plugs. Another nine ditch plugs have been surveyed and staked for repairs on other WPAs for next field season. Two new ditch plugs were also staked on a new roundout to Moulton Lake WPA in Big Stone County. These repairs and new plugs will be completed in 2010.



Before. Johnson water control structure on Big Stone County Easement 267F during spring runoff. 2009-8 SLS 3/2009



After. New structure on Johnson Easement. 2009-9 SLS 11/2009

**Table 3 – Wetland Restorations – Morris WMD – FY 2009**

<b>County</b>	<b>Fee</b>		<b>Private</b>		<b>Total</b>	
	<b><u>Basins</u></b>	<b><u>Acres</u></b>	<b><u>Basins</u></b>	<b><u>Acres</u></b>	<b><u>Basins</u></b>	<b><u>Acres</u></b>
Big Stone	0	0	0	0	0	0
Chippewa	0	0	0	0	0	0
Lac qui Parle	0	0	0	0	0	0
Pope	0	0	13	20	13	20
Stevens	0	0	0	0	0	0
Swift	0	0	1	10	1	10
Traverse	0	0	0	0	0	0
Yellow	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Medicine						
<b>Total</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>30</b>	<b>14</b>	<b>30</b>

**Table 4 – Wetland Restorations – Morris WMD – 1987 to FY 2009**

<b><u>Year</u></b>	<b>Total Restorations</b>		<b><u>Year</u></b>	<b>Total Restorations</b>	
	<b><u>Basins</u></b>	<b><u>Acres</u></b>		<b><u>Basins</u></b>	<b><u>Acres</u></b>
1987	33	79	FY 1999	51	345
1988	208	673	FY 2000	73	387
1989	84	282	FY 2001	38	120
1990	82	278	FY 2002	35	313
1991	103	839	FY 2003	75	255
1992	85	228	FY 2004	54	289
1993	117	508	FY 2005	25	78
1994	78	556	FY 2006	42	128
1995	49	268	FY 2007	17	45
1996	42	177	FY 2008	26	69
1/1-9/30/97	34	423	FY 2009	<u>14</u>	<u>30</u>
FY 1998	91	311	<b>Total</b>	<b>1,456</b>	<b>6,681</b>

## **2b. Upland Restorations (On/Off refuge)**

Three private land owners in Lac qui Parle and Pope Counties restored or converted single species seedings to diverse native grass species. A total of 56.6 acres of grasses were seeded to improve nesting habitat. A 10.1 acre seeding was completed on Arden Hegland's Habitat Easement (102G) in Lac qui Parle County adjacent to Hegland WPA. These three projects were completed through the Pheasants Forever IDIQ (Indefinite Delivery, Indefinite Quantity) contract with FWS. Luverne Forbord in Pope County contributed in-kind hours to prepare the seedbed for his 30 acre seeding by plowing, disking and packing the site in the spring. It was plowed corn stubble which is not ideal for seeding into. Luverne recognized this and contributed his time and fuel to complete this work. He also clipped the site once after seeding. Mike Spors in Lac qui Parle County prepped and clipped his 16.5 acre site as in-kind to the seeding expenses. The total cost for these seedings was \$14,433. The Lac qui Parle Chapter of Pheasants Forever paid \$3,611 worth of the bill. The value of the in-kind site prep and clipping was about \$2,000 and was not included in the \$14,433. The seed mixes for these sites are found in Tables 28 and 29, (Appendix A).

Grasslands consist of native prairie, planted native grass, introduced cool-season grass seedings, and legume plantings. Management practices include fire, grazing, and haying. Traditionally, new fee and easement acquisitions have provided the acreage for seeding each year. In recent years a concerted effort has been made to retire and restore food plots, and convert low quality, weed infested grass stands. Restoration may involve farming for several years or straight conversion with tillage and herbicide. Usually, newly acquired land is cash rented back to the original landowner and farmed with round-up (glyphosate) ready soybeans, which makes a good seedbed for native grasses and provides a means of controlling weeds. In the cases where we are converting grass stands with a historical weed problem, we cash rent to the previous landowner or a willing neighbor for several years in a soybean/corn rotation with the final year being soybeans.

Weed control on young seedings is critical. A combination of herbicide applications, mowing, burning, haying, and grazing are used to aid the establishment and maintenance of both native and cool-season grass seedings and legume stands. Part of the Vegetation Establishment Agreement for an easement is that a property owner is required to spray round-up (glyphosate) 10-14 days before seeding. For native grass establishment and maintenance, prescribed burning reduces competition from unwanted cool-season grasses, but may also stimulate broadleaf weeds. This may necessitate the subsequent application of herbicides or mechanical manipulations. Prescribed burning for new seedings is most often conducted in the spring of the third growing year when there is enough plant material to carry a fire. This stimulates the native warm season grasses and forbs and gives them a competitive edge.



A patch of blue-eyed grass in full bloom in this 2005 native restoration field. Hillman WPA. 2009-10 JBB 6/10/2009



Range Technician Kevin Thell mowing the 2005 restoration field at Hillman WPA for Canada thistle (*C. arvensis*) prior to seedset. 2009-11 JBB 7/1/2009

### Native Prairie

The original upland vegetation within the Morris District was tallgrass prairie. The total native prairie acreage on WPAs within the District was approximately 7,134 in 2009. The areas vary in size from less than one acre to 513 contiguous acres on Hastad WPA. Over the past few years, active management consisting of prescribed burning, grazing, and haying has been applied to most of the remnants. Some of the smaller acreage remnants have not been actively managed because of size, terrain, location, and staff time.

### Native Seeding

This fiscal year, 116 acres were seeded to native grasses and forbs on 7 WPAs (Table 5). The seed mixture used for the seedings varied depending on soil type, seed supplies, and the goal for the site. All but one of the sites were planted with local ecotype seed this year. Detailed lists of the seed mixes used this year are in Tables 30-34 (Appendix A) at the end of this report. Two of the sites (Smith and Loose WPAs) were seeded by Pheasants Forever's West Central Minnesota Habitat Team. The site at Smith WPA was a reclamation due to spray drift and the Loose WPA site was seeded through a North American Wetlands Conservation Act (NAWCA) grant that Pheasants Forever received for Big Stone, Swift, and Stevens Counties using match from DNR Heritage Enhancement grants. The other seedings were broadcast with a Vicon spreader (and packed with a culti-packer in the spring if the soil wasn't too moist and sticky) or by hand. The Loen site was the result of downsizing the food plot from 30 to 14 acres. The site at Hillman was an inter-seeding into the 24 acre east section of the 40 acre 2005 local ecotype restoration field. A herbicide treatment for Canada thistle on October 26, 2007 had impacted non-target planted species, so the interseeding was an attempt to increase forb diversity.

**Table 5 – Native Grass Seedings – Morris WMD – FY 2009**

Unit Name	Unit ID	Unit Type	Acres	Date	Comments
Lawrence	T-2	WPA	21.2	10-09-08	Broadcast local ecotype natives
Loose	SW-30	WPA	32.0	06-09	PF drilled local ecotype natives
Loen	SW-18	WPA	16.0	06-23-09	Broadcast local ecotype natives
Hillman	B-14	WPA	24.0	06-12-09	Broadcast interseed local ecotype
Thorstad	SV-8	WPA	1.0	06-08-09	Hand broadcast porcupine grass seed
Thorstad	SV-8	WPA	2.8	06-08-09	Broadcast bearded slender wheat seed
Smith	SV-19	WPA	9.0	05-18-09	PF drilled cultivar mix
Appleton	SW-15	WPA	10.0	10-20-08	Broadcast
			<b>116.0</b>		

Since 1973, the Morris Wetland Management District has planted roughly 11,301 acres of native grasses. As identified in the Comprehensive Conservation Plan, restorations will replicate, to the extent possible, the structure, species composition, and processes of native ecological communities in the tallgrass prairie. Thus, where practical, restorations will use local ecotype seed containing eight or more

grass species and 30 or more forb species. However, the primary limiting factor to converting more fields of marginal tame grass nesting cover to local ecotype natives is seed availability and expense.

Most of the remnant prairie tracts on WPAs present challenges to bulk seed harvesting using combines because they tend to be rough, rocky, and steeply sloped. Some tracts may also be compromised by adjacent cultivar seedings that have had seed blow in and affect the integrity of the local ecotype native stand. Harvesting by hand and using an ATV seed stripper are the only other means available for collecting from remnant prairie, but these methods are considerably less efficient. Consequently, if we are going to be serious about our goal of restoring grasslands with local ecotype native seed, we have to create our own production plots using seed harvested from remnant prairie, or provide seed to contractors under a cooperative agreement to grow it for us.

We are making progress on our goal of production of local ecotype seed. In the past seven years, 861.7 acres have been seeded with local ecotype natives (Table 6).

Since 2002 we have seeded 19 sites using local ecotype seed (Table 6). In the past few years seed has been harvested from six of these sites: Kuftrin, Thorstad, Rothi, Westport, Robin Hood, and Grove Lake. We are still not past the bottleneck, but we are getting closer. In a few years, we should be able to annually harvest 100 acres or more of seed from these sites. This year we restored the Loen WPA site with a mix consisting of seed that was harvested entirely from within the district.

**Table 6 – Local Ecotype Native Seedings – Morris WMD  
FY 2002 to 2009**

<b>Big Stone County</b>		<b>Pope County</b>	
Hillman	40.0 acres	LuVerne Forbord	10.4 acres
Karsky	13.4 acres	(private)	
Kuftrin	106.0 acres	Grove Lake	155.0 acres
Prairie	8.0 acres	Rolling Forks	40.0 acres
Rackl	24.4 acres	Westport	40.0 acres
(esmt 312G)			
Rothi	103.0 acres	<b>Stevens County</b>	
		Thorstad	30.0 acres
<b>Lac qui Parle County</b>		<b>Swift County</b>	
Colbert	18.3 acres	Hennen-NTGP (11G)	13.0 acres
Taylor	33.2 acres	Loose	32.0 acres
Arden Hegland	8.0 acres	Loen	16.0 acres
(private)			
		<b>Traverse County</b>	
		Lawrence	76.0 acres
		Robin Hood	95.0 acres

For the second consecutive year a forb mix and grass mix were purchased from one vendor, Feder Prairie Seed, rather than cobbling together individual species purchased from several vendors. Although potentially more expensive, this simplified the purchasing process immensely. The forb mix consisted of 35 species (see Table 32, Appendix A) most of which are in families displaying some degree of tolerance to the clopyralid herbicide (trade names Transline and Pyramid). This will make herbicide application for thistles more feasible since there will be less non-target loss of costly forbs. The 32 acre site at Loose WPA received all of the Feder mix and was supplemented with harvests from Big Stone NWR, and Robin Hood WPA. The Feder mix was purchased with end of year funds from the Regional Office and the establishment costs were covered with a NAWCA grant applied for by Pheasants Forever. Four other sites on the district will be restored through this grant in the next few years: Welsh (SW-4) 65 acres, Roderick (SW-29) 30 acres, Pomme de Terre Lake (SV-34) 30 acres, and Pieske (SV-36) 84 acres. These restorations will be straight conversions with no farming, just tillage and tree removal (where necessary).



After a month of growth, the June seeding at Loose WPA is predominated by yellow sweet clover. 2009-12 JBB 7/10/2009



For most restoration sites Canada thistle and sweet clover are the usual problem invasives, but the sandy soils at the 2007 Grove Lake WPA restoration have presented a different set of invasive weeds to battle as evidenced in this photo of absinthe wormwood. Silver cinquefoil, plumeless thistle, Kentucky bluegrass, and yellow toadflax are the other primary culprits at this site. 2009-13 JBB 8/6/2009

### **Seed Harvest**

The 1989 Gleaner R40 that was purchased in June, 2008, did another fabulous job efficiently harvesting seed for us. Unfortunately, the unusual fall weather conditions negatively affected seed harvest goals. A cool summer may have been responsible for what seemed to be delayed plant maturity. Then, while waiting for the go ahead to harvest a tallgrass site at Big Stone NWR, high winds knocked off the majority of seed, causing us to abort harvest there. October was unusually wet as well, with 18 days of measurable precipitation. This year approximately 3,000 bulk pounds of native grass and forb seed were harvested by the combine from Grove Lake, Artichoke Lake, and Kufrin WPAs. Additionally, approximately 80 bulk pounds of blazingstars, golden alexanders, cinquefoil, coneflowers, snake-root, leadplant, cup plant, sunflowers, prairie clovers, goldenrod, and blue asters were harvested by hand or with the ATV seed stripper.

As in years past, most of the hand harvested forbs this year came from the annual volunteer seed collection day. Twenty-six volunteers and four staff members turned out on Saturday, September 26 and collected approximately 55 bulk pounds from Hastad and Hegland WPAs. Total estimated value of the seed and labor was \$5,000.



Angela Lexvold, a volunteer from the University of Minnesota, Morris, tops off the harvest bag. 2009-14 JBB 9/26/2009

**Table 7 – Native Grass Seed Harvested – Morris WMD  
Calendar Year 2009**

Unit Name and ID	Harvest Method	Species	Pounds of Yield	Acres	Date(s)
Grove Lake (P-46)	Combine	Local ecotype side oats grama and little bluestem Lot# P46LE09	~1,500	68	9/17, 9/18, 10/8, 10/9
Artichoke Lake (SW-21)	Combine	Native prairie, Lot# SW21B12NP09	Bulk ~1,500 % PLS	30	9/24 and 9/29/09
Kufrin (B-12)	Combine	Native prairie, mostly lead-plant & rough dropseed/ <i>S. aspera</i> Lot# SW21B12NP09	Bulk ~1,500 % PLS	15	10/13 & 10/19/09
Henry (B-6)	Seed Stripper	Native prairie, mostly <i>L. aspera</i>	Bulk ~25 PLS	8	10/8, 10/13, 10/19, 10/23
Starbuck WMA	Seed Stripper & Hand	Native prairie, <i>L. punctata</i> and <i>E. angustifolia</i>	~2 Bulk	~1	10/25 and 10/27/09
Kufrin (B-12)	Seed Stripper	Native prairie	~2 Bulk	~1/2	10/19/09
Hegland (L-13)	Hand	<i>L. punctata</i> , <i>P. arguta</i>	~3 bulk	~3	9/26/09
Hastad (L-10)	Hand	Mixed forbs, <i>L. ligulistylis</i> , <i>H. maximilliani</i> untested	~55 bulk	~10	9/26/09
Little Chippewa (P-3)	Seed Stripper	<i>Zizea aurea</i>	Bulk ~2	~.5	9/24/09
Loen (SW-18)	Hand	<i>L. aspera</i> , <i>Z. aptera</i> , (bearded slenderwheat) <i>A. subsecundus</i>	<1 Bulk	~2	9/15 and 9/17/09



With a great catch of side oats grama and little bluestem, the relatively weed free 2006 restoration field at Grove Lake WPA made for a nice seed harvest site. 2009-15 JBB 9/18/2009



High quality remnant prairies, like this tract at Twin Lakes WPA, are worth their weight in gold for their biological diversity and seed production; serving a vital role in our native grassland restoration goals.

2009-16 JBB 8/13/2008

# HABITAT MANAGEMENT

## 3a. Water Level Management

Morris WMD has 30 wetlands with water control structures on 18 WPAs. We use water level gauge readings, on-site habitat observations, and aerial photography to assess the effects of management. Most structures are visited monthly from April to October each field season for gauge readings and general maintenance. The annual water plan has details about management results and future plans for each basin.

There were two active drawdowns this year, both for maintenance purposes. The west basin of Giese was dried out again to finish the repairs to the dike that were started in 2007; the bank was regraded and seeded in August. The drawdown at Artichoke was completed in August, which allowed us to clean out accumulated sediment from in front of the structure. Sherstad Slough was also kept in draw-down after the structure installation was complete, but it seemed like a typical season with low enough water levels for mudflats around the perimeter but not enough to dry the basin completely.



The replacement structure at Sherstad Slough was completed this year, and we anxiously await a successful drawdown on the basin.

2009-17 SCV 11/20/2009

### 3b. Haying

Historically, haying has been used for upland habitat management and noxious weed control on a limited basis on the Morris WMD, with an approximate yearly average of 500 acres. Using cooperators to clip thistle problem areas and remove the litter as hay allows us to treat more acres than we can just mowing with district staff. Haying alfalfa fields is delayed until after July 15 to allow for duck nests to hatch. However, the 20 acre field at Walden WPA is the last remaining alfalfa field on the district. On units where an abundance of thistle is triggering the management action, haying may take place earlier to eliminate a serious noxious weed problem.

Like 2008, several units were hayed for tree control (Pearson, Loose, Hastad, Boehnke, and Artichoke). The cooperators are issued a permit with two fee options; a high fee, and a low fee if the trees are removed. Many of the sites required the cooperators to cut some trees with chainsaws.

This year equipment breakdowns and manpower shortages put a bind on timely mowing of weed infested sites and general weed control in second and third year seedings, so several sites (Colbert, Taylor, Karsky, and Lawrence) were hayed by cooperators. We prefer to mow newer seedings at eight inches or higher so that weeds are cut, but planted vegetation isn't clipped. However, with some haying equipment it is often impossible for them to cut that high, so we are faced with a compromise; either no action or a late treatment after seedset, or hay it before seedset at a less than optimum height. We chose the latter to prevent weed seed production.

This year two sites were also hayed to assist with forb interseedings. The Froland site was interseeded in the fall of 2007 and probably should have been cut in 2008 to encourage growth of interseeded forbs. However, with the weeds finally under control on this site we elected to leave it alone in 2008. In 2009 the decision was made to remove the overstory in hopes of encouraging the interseeded forbs to grow. The Robin Hood site was actually hayed in advance of interseeding to improve seed to soil contact. We plan to have it hayed again in 2010 to reduce shading by removing the overstory which should encourage establishment of planted forbs.

The site at Hillman had not received disturbance since a prescribed burn in 2005 and had built up a thick litter layer of Kentucky bluegrass in the uplands and most of the temporary wetlands were choked with vegetation. It was hoped the haying would open up the temporary and seasonal wetlands for pair use this coming spring. This site was also selected for monitoring as part of our Native Prairie and Temporary Wetland Adaptive Management Projects (see Section 1b). Unfortunately, heavy rains in August compromised this objective by filling the basins. The cooperator hayed as far into the basins as he could get, so at least the wetland margins will have open water this spring.

**Table 8 – Haying Summary – Morris WMD – FY 2009**

<u>Unit Name (ID)</u>	<u>Permit Period</u>	<u>Acres</u>	<u>Fee</u>
Lamprecht (SV-13)	10/08 – 12/31/08	14.1	Waived (experimental)
Giese (SV-55)	10/08 – 12/31/08	22.9	Waived (experimental)
Colbert (L-4)	06/26 – 07/16/09	19.0	\$23
Taylor (L-8)	07/07 – 07/31/09	31.0	\$2 per acre
Artichoke (B-26)	07/15 – 08/15/09	65.0	\$2 per acre (tree control)
Giese (SV-55)	07/07 – 07/17/09	45.0	\$1.50 per acre
Rothi (B-2)	07/11 – 07/24/09	81.5	\$1.50 per acre
Froland (P-22)	07/13 – 07/31/09	26.0	\$2.50 per acre
Lamprecht (SV-13)	07/09 – 07/19/09	47.0	\$1 per acre
Seidl (B-30)	07/09 – 08/02/09	31.0	Waived (tree control)
Karsky (B-1)	07/09 – 08/02/09	13.0	Waived (tree control)
Boehnke (B-8)	07/09 – 08/02/09	27.0	Waived (tree control)
Walden (P-19)	07/15 – 07/31/09	20.0	\$2.50 per acre
Lawrence (T-2)	07/10 – 07/26/09	58.0	Waived (emergency)
Diekmann (T-12)	07/10 – 07/26/09	9.0	Waived (emergency)
Smith FmHA C-016	07/16 – 08/04/09	13.3	\$10.00
Hastad (L-10)	07/15 – 08/15/09	61.0	\$2 per acre (tree control)
Sumner (L-9)	07/15 – 08/15/09	2.5	\$2.50
BS-301G/SW-157G	07/16 – 09/30/09	14.5	Waived (tree control)
Plessner FmHA C-011	07/16 – 09/01/09	28.9	\$7.00
Hillman (B-14)	08/05 – 08/31/09	125.0	\$1 per acre
Loose (SW-30)	08/08 – 08/31/09	16.0	\$2 per acre (tree control)
Robin Hood (T-10)	08/10 – 09/07/09	89.0	\$3 per acre
Pearson (L-7)	08/26 – 09/18/09	<u>26.0</u>	\$2 per acre (tree control)
<b>Total</b>		<b>885.7</b>	

Note: Fees are determined based on site conditions (i.e. roughness), nutritional quality of vegetation, and habitat objectives.

In October, 2008, we again issued a special use permit to the University of Minnesota-Morris, allowing them to cut native grass from small areas on two WPAs to allow experimentation in the use of native grass in their biomass gasification plant. We hope to help create a market incentive for private land-owners to provide perennial grass cover on their land as a marketable commodity. In addition, we used the event (together with Minnesota DNR on state lands) to experiment with fall biomass harvest as a habitat manipulation tool. DNR is leading a vegetation monitoring effort comparing the fall harvested areas to adjacent spring burned areas. Along with upland areas containing sapling trees, we intentionally provided biomass cutting areas which included several temporary or seasonal wetlands choked with emergent vegetation (reed canary grass or cattail). The UMM's biomass gasification plant is still experiencing difficulties with its delivery system to the burner, and has built quite a stockpile of feedstock, so no permits were issued for biomass harvest in the fall of 2009.



A second year seeding like this at Lawrence WPA is typically mowed by staff, but workload constraints would not permit timely treatment so instead it was hayed by a cooperator for weed control. 2009-18 JBB 8/4/2009

### **3c. Grazing**

We also use controlled grazing as a grassland management tool. The overall objective of using grazing is to improve the nesting habitat for migratory birds. Specific objectives of grazing depend on the site, but may include: reducing litter layer buildup, relieving competition from invading cool-season grasses, promoting tillering, and stimulating native grasses. A high concentration of livestock (approximately one cow and calf pair per acre) is often used to remove a dense litter buildup and the new growth in roughly a 30-day period of time. We hope this will promote vigorous growth of desired grass species and create quality nesting habitat.

Grazing traditionally has not begun until mid-April for two reasons. One, most cooperators are not finished calving until early May. Two, the combination of spring rains and high stocking rates can cause degradation of the sod. For the spring grazing period most of the cattle were not out on the units until early May this year, due in part to the late spring and slow green-up.

Recently, we have had more grazers interested in late summer and fall grazing and in 2009 we implemented it on fourteen units. Objectives of grazing at this time can be reducing the litter layer, promoting tillering and increasing plant density, and targeting cool-season exotic grasses after most natives have entered dormancy. The late summer grazing period is a nice time of year to graze because it is after

the nesting season, but the cattle come off in time for the grass to recover before freeze-up, thus allowing some residual cover for the following spring.

Traditionally, a lack of border fence, declining cattle operations, and uninterested neighbors, has limited our ability to utilize grazing. Lately, some grazers seem eager to utilize our grasslands for short term grazing and are more willing to do additional fencing now than in the past. This year just over 1,500 acres spread over 21 WPAs were treated with grazing.

This year, depending on when the permit was written, the grazing fees were calculated using a base rate of \$17.01, or \$17.66 per Animal Unit Month (AUM) with deductions for fence installation, fence repair, water hauling, etc. Because there is no report for Minnesota, the base rate was an average of USDA reported rates for South Dakota and North Dakota. In prior years the grazing rate was usually a flat rate of \$2.75 per AUM with little consideration given to fencing installation or other necessary efforts on the part of the grazer. A grazer who installed two miles of temporary electric fence was charged the same rate as a grazer who didn't install any fence. This is definitely more complicated, but it is fairer than the previous method, and most importantly has helped increase interest in grazing. Fees ranged from a low of a credit of \$2,709.35 for Welfare WPA to a high of \$2,038.05 for Johnson WPA. Credits can only be carried over to the following years of a multi-year special use permit. If at the end of the permit deductions exceed the fee, the credit is deleted from the books (i.e. Hillman WPA).



The cooperators built a new section of fence on the west and south boundaries of Bolson Slough WPA which permitted the use of grazing on an additional 76 acres of the unit, as well as a 5 acre prairie remnant and 3 small cattail choked temporary wetlands totaling 1.3 acres. 2009-19 JBB 5/18/2009

**Table 9 – Grazing Summary – Morris WMD – Calendar Year 2009**

<b>WPA Name &amp; ID</b>	<b>Acres</b>	<b>AUM's</b>	<b>Total Fee</b>	<b>Grazing Period</b>
Hillman (B-14)	75	49.2	\$380.77 credit	05/01 – 06/11
Hillman (B-14)		36.0	No Charge*	09/09 – 10/09
Persen (B-38)	35	52.1	\$278.12 credit	07/17 – 08/20
Twin Lakes (B-57)	126	173.3		04/30 – 06/30
Twin Lakes (B-57)		93.3	\$1,766.99	08/11 – 10/07
Lundgren Cell A (C-1)	65	63.3		05/05 – 06/07
Lundgren Cell D (C-1)	54	61.2		08/13 – 09/09
Lundgren Cell A (C-1)		61.2	\$1,396.41	09/10 – 10/09
Bailey Slough (L-2)	26	32.3	\$59.78	05/25 – 09/01
Bolson Slough (L-6)	34	58.2		04/15 – 05/15
Bolson Slough (L-6)	76	40.7		05/16 – 06/05
Bolson Slough (L-6)		60.1	\$270.87	07/15 – 08/18
Pearson (L-7)	80	102.3	\$1,135.53	07/23 – 09/22
Gjerdingen (P-5)	33	49.8	\$15.61	08/01 – 08/29
Heidebrink (P-17)	33	56.2	\$18.29 credit	07/17 – 08/23
Lake Johanna (P-28)	55	42.6	NC (cut trees)	06/25 – 08/28
McIver (P-2)	45	31.3	\$281.67 credit	05/05 – 06/03
Edwards (SV-16)	5	5.0	NC Demonstration	05/01 – 05/31
Johnson (SV-21)	185	208.5	\$2,038.05	05/09 – 06/23
Pepperton (SV-45)	40	57.2	\$527.17 credit	07/26 – 09/05
Sherstad Slough (SV-10)	62	22.4	\$496.58 credit	08/29 – 09/10
Welfare (SV-54)	49	66.0	\$2,709.35 credit	04/20 – 06/06
Gilbertson (SW-23)	34	40.3	\$170.85	04/19 – 05/31
Hanson (SW-26)	61	79.2	\$458.39	04/20 – 06/01
Rice (SW-6)	36	23.2	\$91.26	04/19 – 05/31
Spring Lake (SW-24)	110	88.5	\$90.88	07/30 – 10/04
Welsh (SW-4)	276	186.2	\$455.52 credit	05/01 – 08/15
<b>Totals</b>	<b>1,595</b>	<b>1,839.6</b>		

\*Deductions exceeded grazing fee.

### 3d. Farming

In 2009, 40 acres were cooperatively farmed for seed bed preparations on Westport WPA (P-61). Each year previously broken areas such as poor quality grasslands, old stands of alfalfa, or food plots that are no longer in use are identified to be planted back to natives. These areas are set up to be farmed for one to three years with area cooperators and then seeded with a local ecotype, or cultivar native seed mix.

There were 305.9 acres of cropland managed as food plots for resident wildlife. The food plots were located on waterfowl production areas identified by the Minnesota DNR as significant wintering areas for ring-necked pheasants and white-tailed deer. The majority of food plots were located near shelterbelts and/or cattail sloughs which provide escape and winter cover. Plots were located on soils not classified as highly erodible land, so as to have minimal soil loss potential. Corn, soybeans, and small grains are used in these plots. Soybeans or small grains

are used in the rotation to promote nutrient cycling and reduce insect or disease cycles associated with repeated corn growth. The cooperators are responsible for all field work, seed, fertilizer, and weed control. One third of the plot is left standing in the field in alternate strips. The alternate strips help disperse snow and reduce the chances of the entire plot being buried in snow. The cooperators are allowed to harvest any leftover crops the following spring.



The food plot at Schultz WPA was planted to grain sorghum.  
2009-20 JBB 12/18/2008

The Morris CCP identifies some parameters for where food plots will remain on WPAs to benefit wildlife the most. Evaluation of food plots is annual and over the past few years some food plots have been taken out of production and seeded to native grasses. Food plots were chosen for elimination or reduction based on size and location in an effort to minimize grassland fragmentation and eliminate food plots that are too large for the scale of the WPA on the landscape. The Pomme de Terre chapter of the Minnesota Deer Hunters Association planted the food plots on Edwards, Schultz, and Pomme de Terre River WPAs. Since 100 percent of the crop is left for wildlife, the food plots on these units are smaller acreages than those cooperatively farmed under a one-third crop-share. This is much better for nesting waterfowl and other birds for two reasons: less fragmentation, and more grassland acres available for nesting. Pheasants Forever chapters and the Pope County Pheasant Restoration Club have also been placing feeder cribs throughout the district on both WPAs and private land.

**Table 10 – Food Plot Summary – Morris WMD – FY 2009**

<b><u>County</u></b>	<b><u>No. of WPAs with Food Plots</u></b>	<b><u>No. of Food Plots</u></b>	<b><u>Total Acres</u></b>
Big Stone	7	7	74.9
Lac qui Parle	1	1	10.0
Pope	2	2	26.0
Stevens	9	9	79.0
Swift	3	3	56.0
Traverse	3	4	38.0
Yellow Medicine	<u>2</u>	<u>2</u>	<u>22.0</u>
<b>Total</b>	<b>27</b>	<b>28</b>	<b>305.9</b>

### 3f. Fire Management



Kevin Thell using a drip torch on Robin Hood WPA.  
2009-21 PJM 5/10/2009

This was another record year for fire management on the Morris Wetland Management District. Prescribed fire on the district treated 52 units for 7,274 acres. The district had 3 wildfires for 47 acres. The 7,274 acres was a record for the district and almost double the five year average. The fire season was as safe and efficient as it could be, with no injuries, escapes, or major damage to

equipment. District staff performed at an extremely high level throughout the burn season.

### **Prescribed Fire**

The Morris staff burned 7,232 acres on federally owned lands and 42 acres on private-owned easements. Most of the burns were in the spring, but summer and fall burns added to the totals.

Help for prescribed burning at Morris came from the district staff, adjacent districts and several crews from other states. Local help came from Big Stone NWR, Agassiz NWR, Sherburne NWR, Fergus Falls WMD, and Windom WMD. Further away help came from the Buffalo River Fire Use Module (NPS), Charles M Russell NWR, Tetlin NWR, Lower Suwannee NWR, Anahuac NWR, and the Balconies NWR. Our appreciation is extended to those who helped.



Darrin Franco lighting a backfire on Hegland WPA. The line is being held with the use of the Morris track truck and an ATV.

2009-22 SWG 4/22/2009

**Table 11 – Prescribed Burn Summary – Morris WMD – FY 2009**

<u>County/Burn Name</u>	<u>Unit Type</u>	<u>Burn Date</u>	<u>Acres Burned</u>
<b>Big Stone</b>			
Jorgenson-S	WPA	11/01/08	51
Henry-E	WPA	04/13/09	65
Anderson	WPA	04/14/09	144
Seidl	WPA	04/21/09	155
Olson-E	WPA	04/22/09	275
Johnson-E	WPA	04/25/09	122
276G-2	Habitat Esmt	05/02/09	42
Akron	WPA	05/02/09	66
Hillman	WPA	05/03/09	147
Barry Lake	WPA	05/04/09	46
Dismal Swamp	WPA	05/11/09	627
Middlewest Inv.	WPA	05/11/09	48
Kufrin	WPA	05/22/09	175
Kufrin-Piles	WPA	07/28/09	1
<b>Lac qui Parle</b>			
Hegland-E	WPA	04/22/09	186
Appleton-N	WPA	05/07/09	268
Hegland-Piles	WPA	06/15/09	37
Freeland	WPA	09/15/09	80
<b>Pope</b>			
Blue Mounds	WPA	10/29/08	165
Larson-N	WPA	05/06/09	182
Gullickson-S	WPA	05/21/09	54
Rolling Forks-N	WPA	09/29/09	31
Benson Lake-E	WPA	09/29/09	28
<b>Stevens</b>			
Edwards-SE	WPA	11/02/08	32
Lamprecht	WPA	04/19/09	233
Landers	WPA	04/19/09	81
Hancock	WPA	05/01/09	30
Pomme de Terre Lake	WPA	05/01/09	45
Fults	WPA	05/01/09	276
Smith	WPA	05/05/09	184
Edwards-Islands	WPA	04/14/09	1
Edwards-Central	WPA	05/14/09	28
Fish Lake	WPA	05/17/09	359
Pieske	WPA	05/17/09	152
Johnson-E	WPA	05/21/09	124
Edwards-Plots	WPA	08/25/09	3
Schultz	WPA	09/14/09	6
Edwards-N	WPA	11/09/09	14

Table 11 – Prescribed Burn Summary – Continued

<u>County/Burn Name</u>	<u>Unit Type</u>	<u>Burn Date</u>	<u>Acres Burned</u>
<b>Swift</b>			
Fahl	WPA	04/14/09	127
Tollifson	WPA	04/28/09	146
Artichoke Lake	WPA	05/01/09	483
Swift Falls	WPA	05/03/09	88
Hastad-S	WPA	05/07/09	228
Lynch Lake-N	WPA	05/19/09	438
<b>Traverse</b>			
Robin Hood	WPA	10/31/08	276
Diekmann-W	WPA	04/17/09	138
Pedersen	WPA	05/10/09	121
Robin Hood-N	WPA	05/10/09	298
Gibson	WPA	08/26/09	26
<b>Yellow Medicine</b>			
Dakota	WPA	10/28/08	138
Swede Home-E	WPA	04/28/09	141
Kontz	WPA	09/01/09	<u>30</u>
<b>Total: 52 Treatments</b>			<b>7,274</b>



Prescribed fire on Tollifson WPA. 2009-23 PJM 4/28/2009

## Wildfire

Wildfire activity was light on the district for the fiscal year, but still mildly active nationally. Only three small fires were reported on the district. Minnesota had a very minimal wildfire season.

Members of the Morris staff assisted with interagency fire assignments in several different states. The fire crew participated in suppression activities in Alaska, California, Minnesota, and Washington.

**Table 12 – Wildfire Burn Summary – Morris WMD – FY 2009**

<u>County</u>	<u>WPA Name</u>	<u>Date Burned</u>	<u>Acres Burned</u>
Big Stone	Easement 52X1	11/05/2008	1
Pope	Stenerson Lake	4/15/2009	45
Stevens	Edwards	7/11/2009	1

## Training

District employees assisted with interagency fire training as well as training volunteer fire departments in basic wildland firefighting. Staff members helped instruct S211 (Pumps and Hoses), S234 (Ignitions) and S215 (Fire Operations in the Wildland Urban Interface) courses. Morris WMD also hosted an S215 class this year. The class was held at the USDA Soils Lab due to our office being under construction. Twenty-five students participated (6 FWS, 7 Forest Service, 4 BIA, 7 DNR, and 1 private).



Kevin Thell participating in sandtable exercises for Fire Operations in the Wildland Urban Interface (S215) class hosted by Morris WMD in September.

2009-24 D.B. 9/18/2009

Members of the fire crew also attended various fire trainings, including New Employee Foundations at the National Conservation Training Center in West Virginia, training offered in Grand Rapids, Minneapolis, Morris, and the Minnesota Wildfire Academy.

### **Equipment**

No new equipment was added to the district.

### **Rural Fire Assistance Grants**

The Benson Fire Department received \$6,100 and Morris Fire Department received \$2,500 to assist the departments in purchasing personal protective equipment.

## **3g. Pest Plant Control**

In response to increasing threats from a growing number of plant species, two seasonal biological technicians were hired to map and treat infestations on the district. The Invasive Species Crew (ISC) focused on wild parsnip, common tansy, spotted knapweed and Queen Anne's lace. Much progress was made in mapping, treating, and documenting suspected, known, and previously unknown infestations.



Seasonal Bio Tech Duerkop and STEP Snyder were the Invasive Species Crew in 2009. Here at Rolling Forks WPA they try out a backpack sprayer and sideswipe wick on their first day treating wild parsnip rosettes.

2009-25 JBB 6/1/2009

### Woody Vegetation Control

Beside encroachment of cool-season exotic grasses, our tracts of remnant prairie and re-established native grasses have also been invaded by trees. Siberian elm, box elder, cedar, cottonwood, and willow are the most common culprits.

As in previous years, tree removal work was done through a combination of our staff time and equipment, and contractors. This year though, manpower shortages significantly reduced our control efforts from the levels of previous years.

**Table 13 – Woody Vegetation Control – Morris WMD – FY 2009**

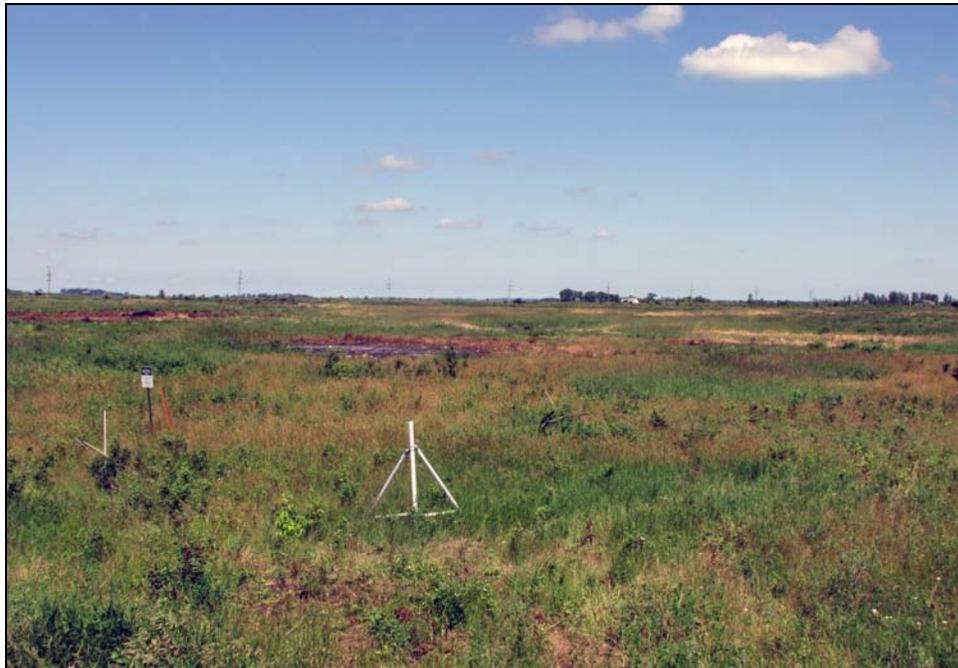
<u>County</u>	<u>Unit</u>	<u>Method</u>
Big Stone	Kufrin	Fecon
Pope	Benson Lake	Contractor and MCC
	Blue Mounds	Spray re-sprouts
	Gullickson-S	Mechanical
	Nelson Lake	Contractor and MCC
	Osterberg Lake	Spray stumps
	Rolling Forks	Hand
	Starbuck	Shears
Swift	155G and 155G-1	Spray re-sprouts



The piles at Hegland WPA were slated to be chipped and hauled to the Fibrominn plant in Benson by March 15, 2009. The contractor who was issued a special use permit to do the work never followed through. The chipping would have been done at no cost to us, so there was no financial obligation or incentive on their part. 2009-26 JBB 6/15/2009



With the failure of the chipping and hauling option we had little choice but to burn the piles. 2009-27 JBB 6/15/2009



Consumption of the piles was nearly 100 percent. Treatment of re-sprouts is the next battle. The helicopter contractor did not perform the spraying, so the plan is to use rotational grazing with goats in the coming years.

2009-28 JBB 6/25/2009

### **Spotted Knapweed (*Centaurea maculosa*)**

The spotted knapweed sites were treated for the fifth year in a row on Cyrus and Pomme de Terre Lake WPAs. A new spot was located and treated on Pieske, but the original locations on Pieske and Nordby WPAs were eradicated. The plants were pulled at Cyrus and sprayed at the remaining sites. The infestation discovered in 2007 on Westport WPA and ATV sprayed in 2008 was found to be clean this year. The neighbor's pasture was again sprayed through the Pope County Cooperative Weed Management Area cost share, so hopefully with due diligence by us and the neighbor, we can eliminate this infestation.

### **Canada Thistle(*Cirsium arvense*)**

Canada thistle control receives a significant amount of effort during the field season at Morris WMD. Our general strategy continues to be mowing problem areas in the summer and spraying those areas with herbicide in the fall. The station received only two complaints (Spellman Lake and Seidl) regarding problem areas. This is down from nine in 2008. Overall, weed complaints are way down from historical levels. Possible reasons for this are improved herbicides, diligent summer mowing and fall spraying, a changing philosophy by farmers in the round-up ready era of farming, and a proliferation of CRP fields with weed issues.

### **Common Tansy (*Tanacetum vulgare*)**

The first ever infestation of common tansy was discovered in 2008 on Anderson WPA (B-52) in Big Stone County. The discovery was too late in 2008 (i.e. in full bloom) to treat with herbicide or to mow, however a neighbor did spray a few of the plants in the ditch and near the field approach in the southeast corner. The herbicide used appeared to be glyphosate. The infestation was mapped with a GPS unit and was treated on July 1 with 2,4-D and metsulfuron methyl.

### **Crown Vetch (*Coronilla varia*)**

For the third consecutive year the infestation of crown vetch on Edwards WPA was treated with herbicide on July 1 and 8. It was spot sprayed or boom sprayed with the ATV to minimize non-target impacts. Another infestation on Florida Creek was sprayed for the first time on July 13 with the boom sprayer. Unfortunately, the infestation on Long Lake and Pearson WPAs were not treated due to time constraints.

### **Wild Parsnip (*Pastinaca sativa*)**

Without a doubt, the most aggressive new weed to appear on the district is wild parsnip. In 2008, Rothi and Westhausen WPAs were discovered to have huge infestations, with small ditch or roadside infestations on Rolling Forks and Helgeson WPAs, and scattered plants on easement BS-276G,1. This year the Invasive Species Crew discovered and mapped large infestations on Ann Lake, Ben Wade, and Bredburg, as well as smaller patches on Gullickson South, Jorgenson, and Stammer WPAs. The northern tier of Pope County is definitely the biggest problem area on the district. It appears to be moving in from Douglas

County. The infestation at Rothi WPA seemingly exploded from just a few plants in 2007 to huge patches and many scattered plants in 2008. Because it readily invades remnant prairie, control was focused on Rothi to prevent spread into the seed production fields.

Because of hiring difficulties, the ISC didn't get started treating rosettes until June 10, about five weeks late, so once flowering commenced it was readily apparent that the extent of the infestation was too great for a two person hand crew. Therefore, we attempted to mow to prevent seedset. Over a seven day period ending on July 27, 31 acres were mowed, with another 15 acres left untreated due to equipment breakdowns and time constraints. In addition to the mowing, the ISC also backpack sprayed and/or shoveled tap roots on over 7 acres. After our first season's effort at controlling wild parsnip it is apparent that on these heavily infested sites we need a more aggressive and more diverse effort that includes timely application of herbicide, diligent and timely mowing, and herbivory. Other sites treated included mowing 14.8 acres at Westhausen on July 23, and spot spraying small infestations at Helgeson and Rolling Forks.

#### **Queen Anne's Lace (*Daucus carota*)**

Another new weed to appear on the district in the last two years is Queen Anne's lace. Similar to wild parsnip, it is a biennial in the carrot/parsley family, which makes treatment with Milestone (aminopyralid) or Transline (clopyralid) ineffective due to its tolerance to these selective herbicides. Cutting or pulling second year plants to prevent seed production, or 2, 4-D application to rosettes is the only course of action for control.

So far the only known population on federal land is an 11 acre minimum infestation in the southeast section of Hillman WPA. Last year it was believed to be just a few plants on the boundary of the WPA, but this year the larger "patch" was discovered. We mowed it once to try and prevent seedset, but it needed multiple mowings to hit re-growth and rosettes that were too short to get clipped during the initial mowing.

These new biennial weeds can be daunting to eradicate or control, especially when they aren't really on the 'radar' of weeds to control on neighboring lands. The formation of a Big Stone County CWMA is an encouragement, as this will provide the means to begin to deal with these weeds on private land.

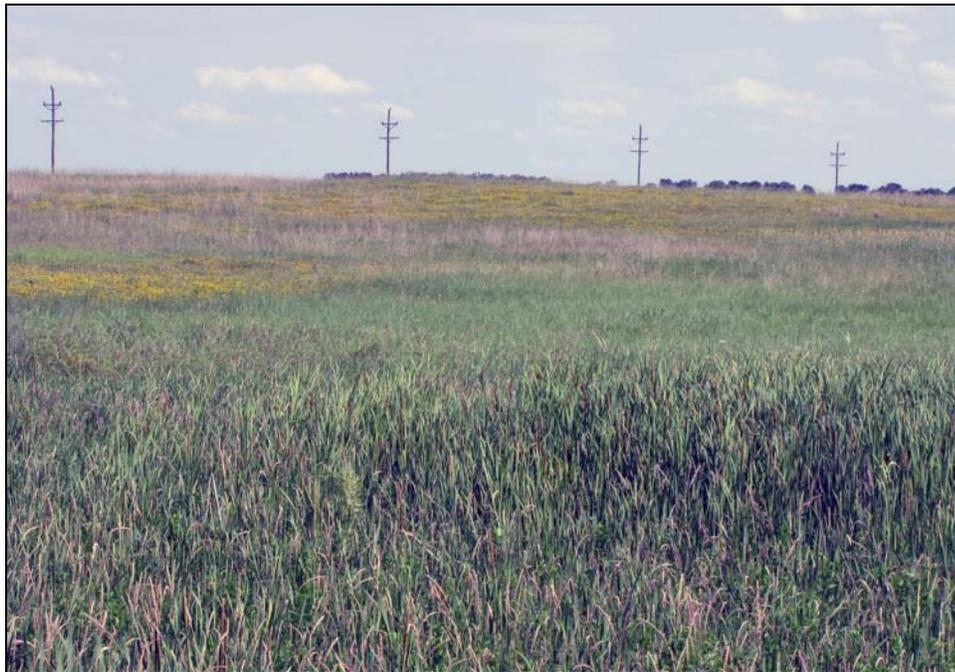
#### **Plumeless Thistle (*Carduus acanthoides*)**

This biennial thistle showed up within the district several years ago. It got a foothold on private lands, especially overgrazed pastures, but also brome CRP with coarse soils. Within a three or four year period it has expanded and in some cases has taken over fields and pastures. A minimum of 14 WPAs have been identified with infestations of biennial thistle, and include the following: Anderson (B-52), Benson Lake (P-50), Diekmann (T-12), Fahl (SW-19), Froland (P-22), Glacial Lake (P-43), Grove Lake (P-46), Hawk Creek (C-2), Kufrin (B-12),

Nelson Lake (P-38), Rolling Forks (P-10), Scofield (P-62), Thorstad (SV-8), and Westport (P-61). The local ecotype native restorations (i.e. seed production fields) at Rolling Forks and Westport were targeted for treatment this year and were boom sprayed with Milestone (aminopyralid) on May 7<sup>th</sup> and 8<sup>th</sup> respectively. Anderson WPA was also boom sprayed (May 18), but with 2,4-D since non-target impacts were not a concern. An anecdotal survey several weeks post treatment indicated the May herbicide applications were very effective on all three sites with minimal collateral damage to non-target species. Hopefully, we can continue to hit the sites with infestations of this weed with timely herbicide treatments. Fahl WPA was spot treated on June 10 with backpack sprayers while Nelson Lake and Benson Lake were clipped or shoveled on July 29.

**Yellow Toadflax (*Linaria vulgaris*) and Bird's-foot trefoil (*Lotus corniculatus*)**

In 2009 yellow toadflax, also known as 'butter and eggs', and bird's-foot trefoil burst onto the scene in the form of large infestations on a couple of WPAs.



Large patches of yellow flowering bird's-foot trefoil are visible here taking over the upland cover in this photo of Bahr WPA. 2009-29 JBB 7/6/2009

Of greatest concern is the butter and eggs infestation in the local ecotype restoration at Grove Lake WPA. The presence of this species threatens to undermine seed harvest goals for this site. The ISC backpack and ATV sprayed toadflax with 2,4-D at 43 patches/sites totaling 15.9 acres on August 10 and 11. Anecdotal observation eleven days post treatment indicated effective control of what was sprayed. Follow-up treatments were needed to hit what was missed but were not performed due to time limitations. Bird's-foot trefoil, which is still commercially available, has been around for several years as it was a component

of roadside plantings to control erosion. It wasn't too concerning as an invasive as it didn't seem to spread rapidly and invade grasslands. However as the photo above demonstrates, it can form huge patches that displace grass cover, thus it now represents a threat to waterfowl production goals.

**Table 14 – Noxious Weed Control – Morris WMD – FY 2009**

<u>County</u>	<u>Acres Treated</u>			<u>Total</u>
	<u>Mow</u>	<u>Spray</u>	<u>Contracted</u>	
Big Stone	275.0	55.0	0.0	330.0
Chippewa	99.8	0	0.0	99.8
Lac qui Parle	0	22.0	0.0	22.0
Pope	200.0	85.8	0.0	285.8
Stevens	29.5	96.7	0.0	126.2
Swift	120.0	8.1	*32.0	160.1
Traverse	0	207.1	0.0	207.1
Yellow Med.	39.7	39.5	0.0	79.2
<b>Total 2009</b>	<b>764.0</b>	<b>514.2</b>	<b>32.0</b>	<b>1,310.2</b>
<b>Total 2008</b>	<b>723.0</b>	<b>327.0</b>	<b>0.0</b>	<b>1050.0</b>
<b>Total 2007</b>	<b>395.5</b>	<b>230.0</b>	<b>90.0</b>	<b>715.5</b>
<b>Total 2006</b>	<b>883.3</b>	<b>867.9</b>	<b>104.2</b>	<b>1,855.4</b>
<b>Total 2005</b>	<b>698.2</b>	<b>347.4</b>	<b>0.0</b>	<b>1,045.6</b>
<b>Total 2004</b>	<b>1,026.9</b>	<b>722.4</b>	<b>0.0</b>	<b>1,749.3</b>

\*Contracted through Pheasants Forever.

### **Biological Control**

#### Purple Loosestrife

All *Galleruculla* spp. purple loosestrife beetle release sites were found to have reduced target weeds enabling the recovery of more desirable vegetation. Four purple loosestrife plants were hand removed on Edwards WPA on August 17.

#### Leafy Spurge

The biological control program for leafy spurge began in 1996 on district land with the introduction of flea beetles (*Aphthona lacetosa*, *Aphthona czwalinea*, and *Aphthona flava*). *Aphthona nigriscutis* have since been added. Beetles are harvested from established populations and released in other leafy spurge problem areas. In 2009, district staff harvested 45,900 beetles from 8 WPAs (Anderson, Artichoke Lake, Heidebrink, Loen, Moulton Lake, Pearson, Robin Hood, Swift Falls) for establishment of new colonies. The beetles were released on 14 sites on 10 WPAs (10 new and 4 existing) and 1 NTGP easement (4 sites). To date, beetles are on 211 release sites at 57 WPAs of which 415.6 acres are infested with leafy spurge. Beetles were applied to 0.3 acres in 2009.

**Table 15 – Flea Beetles Harvested From WPAs – Morris WMD – FY 2009**

<u>County</u>	<u>No. WPAs</u>	<u>Beetles Collected</u>
Big Stone	2	2,700
Lac qui Parle	1	33,000
Pope	1	500
Swift	3	4,700
Traverse	1	5,000



Following a prescribed burn on May 5, two patches of leafy spurge were treated with flea beetles on Pedersen WPA, Traverse County.

2009-30 DMO 6/3/2009

**Table 16 – Flea Beetles Released – Morris WMD – FY 2009**

<u>County</u>	<u>WPA</u>	<u>No. Sites</u>	<u>No. Released</u>
Big Stone	Karsky	1	2,500
	Anderson	1	200
Lac qui Parle	Taylor	1	7,500
Pope	Heidebrink	2	7,500
	Larson	1	3,000
Swift	Artichoke Lake	1	200
	Swift Falls	2	1,500
	Lynch Lake	2	7,500
Traverse	Pedersen	2	5,000
Yellow Medicine	Dakota	1	5,000
Yellow Medicine	38G-1 (Esmt)	4	6,000

### **Pope County Cooperative Weed Management Area**

To address the emergence of so many new invasive weeds, which all carry serious implications if they get established, the district participated in a Cooperative Weed Management Area (CWMA) project with the Pope County Soil and Water Conservation District (SWCD). The Minnesota Board of Water and Soil Resources (BWSR) came out with the CWMA Grant program for the first time in March 2008 and awarded the Pope County CWMA a \$40,000 grant over two years. WRS Bright and WB Salvevold served on the steering committee, lending their expertise to Darrin Welle, the 2009 SWCD intern for the CWMA project. Other supporting agencies were the Minnesota DNR, The Nature Conservancy, Pope County Highway Department, Pope County Land and Resource Management Department, Minnesota Department of Transportation, Natural Resources Conservation Service, Farm Service Agency, and University of Minnesota Extension Service.

The Pope County CWMA focused on education, training volunteer weed watchers for rapid response, infestation documentation, treatment, and monitoring. The project focused on three primary weeds for documentation and control in the first year: common tansy, spotted knapweed, and wild parsnip. These were chosen because of their difficulty to control, their tendency to take over grassland cover, and the uncertainty in their distribution and abundance.

In 2009, Darrin Welle collected leafy spurge beetles at Big Stone NWR for distribution to private landowners with leafy spurge infestations. Many more weed locations were documented and treated this year as well. Education is a major component of the CWMA mission, so in addition to the “Weed of the Week” articles published in the local paper from June to August, a website was developed ([www.weedwatchers.org](http://www.weedwatchers.org)) and a comprehensive weed brochure was produced. This year the Weed Awareness Workshop and Weed Watcher Training were combined into one event to reduce the workload preparing for two separately held events and to increase the number of trained volunteer weed watchers. WRS Bright again gave a presentation on woody vegetation at the workshop, which was attended by about 30 members of the public.

To gain exposure and promote the education events and website, three billboards were rented for eight weeks, but two of them remained up through the fall for several months of free publicity. With several newly elected board members another tour of weed infestations was held for county commissioners, with the hopes of impressing upon them the economic consequences of an apathetic weed program. Lastly, in September, grant applications were submitted for funding for the fiscal year beginning July 1, 2010 for \$25,000 in BWSR funds for an expanded project area that will include Swift County, and \$100,000 in Pulling Together Initiative (PTI) funds from the National Fish and Wildlife Foundation for an expanded area that would include Stevens, Swift, and Douglas counties. As of this writing, word was received that the Pope-Swift CWMA is likely to receive the requested funds, but the application for PTI grant funds was not awarded.



Although not one workshop attendee indicated they were attending due to seeing the billboards, they presumably still provided exposure for the website. Note the hill of leafy spurge behind the sign. 2009-31 JBB 6/24/2009

### **Information Sharing Workshop**

WRS Bright and Doug Wells of the Fergus Falls WMD, co-organized a roundtable type discussion for invasive weed management held March 4, 2009. Twenty four attendees representing several agencies (USFWS, DNR, TNC, Wright County SWCD, and Three Rivers Park District) came from all over the state to share their experience with invasive weeds. Speakers were Doug Holen (UM Extension Regional Educator), who presented findings from research controlling plumeless thistle, Doug Wells, who presented his experience with common tansy and using the Alien Plant Ranking System, Sara Vacek, who presented findings from the ongoing study entitled Evaluation of Methods for Canada Thistle-Free Habitat Restoration, and Brian Sanoski from Wright County SWCD, who presented his experience working on wild parsnip and their Cooperative Weed Management Area project. Chris Trosen from Minnesota Valley WMD and WRS Bright also presented notes from the Invasive Plants Association of Wisconsin (IPAW) conference they attended. The informal workshop was designed to provide opportunities for professionals to ask questions and learn from each other the best management practices for controlling weeds that may be new to their areas.

## FISH AND WILDLIFE MANAGEMENT

### 4a. Bird Banding

The Morris WMD assisted local DNR area wildlife staff with their annual goose banding effort. Locally breeding giant Canada geese are banded in Minnesota each year in an attempt to gather movement and harvest data for the population. The groups we worked with banded about 1,000 geese this year.

### 4b. Disease Monitoring and Treatment

Wildlife disease specialists from USDA-APHIS sampled hunter-harvested waterfowl at several sites within the Morris WMD for avian influenza. Ninety-four ducks were sampled during the first two weekends of the regular waterfowl season. No highly pathogenic H5N1 virus was found, though a low pathogenic avian influenza was detected in a mallard and northern shoveler.

### 4c. Reintroductions

The Morris WMD continued its involvement with an effort to re-establish a greater prairie chicken (*Tympanuchus cupido pinnatus*) population in west-central Minnesota. This project, in its eleventh year, is supported by the Service, Minnesota Department of Natural Resources, Minnesota Prairie Chicken Society, Society of Tympanuchus Cupido Pinnatus, and The Nature Conservancy. Translocations ended in 2006 (574 birds moved since 1999).

Because there are very few birds with working radio collars, we use the number of males on booming grounds as an index to our prairie chicken population. Several Morris WMD staff members assisted with spring surveys again this year. In late March we began roadside listening surveys to locate booming grounds and grounds were observed from blinds in April and May. Bird numbers dropped this year, and only 8 booming grounds were located (Table 17). The Twin Lakes and Sleeping Bison booming grounds did not have any birds in 2009. Four booming grounds are on or adjacent to WPAs (Rothi, Hillman, Hastad, and Odden). There were about 36 males on booming grounds in 2009, which is a decline of 59 percent since 2007 (the first season after releases ended). There were significant declines even on grounds in the core of the work area and since there were not increases on any grounds we are concerned that there is a lack of reproduction. Unfortunately, the future of this new prairie chicken population does not look good.

**Table 17 – Prairie Chicken Booming Grounds in Reintroduction Area  
Morris WMD – FY 2009**

<u>County</u>	<u>Booming Ground Name</u>	<u>Number Males</u>
Big Stone	Dismal Swamp/Odden	1
Big Stone	Hillman	2
Big Stone	Rothi	7
Chippewa	Chippewa Prairie South	4
Lac qui Parle	Hegland/Hastad	5
Lac qui Parle	Plover Prairie	2
Swift	Chippewa Prairie North	8
Traverse	Miller Prairie	7

One positive note is that sharp-tailed grouse sightings continue to increase in the project area. A few sharptails were observed on four prairie chicken booming grounds this year. The Beardsley dancing ground increased from 15 birds in 2008 to 21 in 2009.

#### **4d. Nest Structures**

Morris WMD has two main goals in its nest structure program: to maintain approximately 300 nest structures on WPAs within the district and to distribute nest structures to cooperators with reliable instructions for placement and maintenance. The cooperators must be willing to set up and maintain the structures on private lands. The structures, including mounting post and bracket, predator guard and hardware are given away through the station's private lands program. The mounting posts are used sign posts supplied free by the local State Department of Transportation office. This program has been very successful and well received by the public. In FY 2009 we gave away 10 cylinders to participants. Since the inception of the program in 1995, we have distributed 1,461 nest cylinders.

Results from the 2009 nesting season included 272 nesting structures on WPAs available for use with 506 nesting sites available on these structures. Nests were initiated on 70 or 25.7 percent of the structures.

Delta Waterfowl has a Working Lands Initiative (WLI) grant from MN DNR to place nest structures throughout southwestern Minnesota. Matt Chouinard, the Delta biologist working on this project, has been focusing his efforts in WLI areas (see Section 5c). He started placing structures out in the winter of 2008, and to date has 58 structures on 14 WPAs in Stevens and Big Stone Counties. He also has several hundred structures on state and private lands throughout the area.



Annual maintenance of nest structures is done over ice in the winter. Tractor Operator Boutain adds straw to the structure. 2009-32 WAH 2/23/2009

#### 4e. **Pest Control**

##### **Goose Damage**

Crop damage caused by resident Canada geese continues to be an issue throughout the district. Several options are available to private landowners to lessen damage caused by the birds such as electric fencing and shooting permits. Extended hunting seasons with generous bag limits are also in place to try to reduce the number of birds statewide. The goose damage complaints in our district are handled primarily by the local DNR offices; however, we sometimes get involved if the complaint is adjacent to a WPA. Our office did not receive any damage complaints in 2009.

##### **Beaver**

The number of damage complaints continues to fall. In FY 2009 district staff spent time cleaning out dams and setting traps on Mau WPA. A total of two beaver were removed from this site.

## COORDINATION ACTIVITIES

### 5a. Interagency Coordination

#### **Ducks Unlimited**

We cooperated with Ducks Unlimited to replace the water control structure on Sherstad Slough WPA. The old structure never worked properly in its 20 year history and the marsh could not be drawn down. Partners arranged engineering, permitting, and funding in 2008 and the new structure was completed in the spring of 2009.

Via a cooperative agreement, Ducks Unlimited conducted surveying, engineering, and feasibility assessments for fish barriers and/or water control structures on or around Wiley, Kufrin, Barry Lake, and Twin Lakes WPAs (all in Big Stone County) as well as Fish Lake and Long Lake WPAs in Stevens County. The Fish and Wildlife Service and DU are sharing the cost of the feasibility assessments.

#### **Other Coordination**

We work closely with NRCS in their implementation of conservation programs including WRP, CRP, CREP, and so on.

Staff members worked with other agencies that included Soil and Water Conservation Districts, local water boards, County Highway Departments, and more on many issues. With the complex, scattered, and diverse land holdings of a wetland management district, there are always issues arising each year related to roads, drainage, invasive species, and other topics requiring interagency coordination.

### 5c. Private Lands

The Morris WMD had one FTE this year for the Partners for Fish and Wildlife program. Funding for work on private land typically comes from the Fish and Wildlife Service Partners for Fish and Wildlife program, Challenge Cost Share program, North American Waterfowl Management Plan, private donations, and the Legislative and Citizens Commission on Minnesota Resources. The budget for FY 2009 was \$132,217. This budget covers salaries, supplies, and prairie and wetland restoration and enhancement costs as well as repairs on past projects. The budget was matched with financial and in-kind contributions from private landowners and other agencies and organizations totaling \$84,210. We are using a Blanket Purchase Agreement (BPA) for heavy equipment needs, and a five year IDIQ (see Section 8b) for invasive tree removal. We have also been utilizing Partners Agreements that allow us to reimburse the landowner, and an IDIQ contract with Pheasants Forever. All FY 2009 Partners funds were obligated to projects by the

end of the fiscal year, and most of those projects were completed by the end of the fiscal year. Much of the 2008 dirt work was completed during summer 2009, because of the extremely wet fall in 2008.



**Before.** Tree removal project on quality native dry prairie in Big Stone County. 2009-33 SLS 7/2009



**After.** Tree removal project on quality native dry prairie in Big Stone County. 2009-34 SLS 11/2009

### **FY 2009 Accomplishments**

- 17 wetland restorations, wetlands managed or ditch plug / water control structure repairs totaling 58.4 acres of wetlands impacted
- 160 acres of grassland enhanced by tree removal, biological weed control and grazing/grassland management
- 56.6 acres of new grassland seeded or converted from cool-season exotics to natives
- 16 landowners impacted by 17 Partners agreements

### **Wetland Projects**

Fourteen wetlands totaling 30.4 acres were restored on private land this year working with 5 landowners and numerous other agencies. Wetland restoration cost this year averaged \$1,541 for each basin. Three repairs were completed this year on wetlands that total 28 acres (see section 2a).



Sheet pile weir constructed in Swift County to restore a 10 acre wetland.

2009-35 SLS 8/2009

### **Landowner Assistance**

During FY09, the Morris WMD Partners Biologist provided advice for how to prepare a seed bed and seed native grasses to one landowner and located a seed drill for another landowner. Ten or more landowners were referred to their local Natural Resource Conservation Service office to get signed up for Conservation Reserve Program contracts or Wildlife Habitat Incentive Program contracts. Two landowners have successfully gotten WHIP contracts to help them burn their prairies over the next five to ten years. Others have enrolled acres in CRP. The Partners Biologist also provided advice to four landowners and a number of NRCS Wetland Reserve Program Easement Managers about how to control invasive trees

that are getting established in CRP and WRP tracts. The Partners Biologist designed and supervised the construction of two ditch plugs on a tract in Swift County that was recently enrolled in CRP. The tract was enrolled after working with the Partners Biologist and a private contractor. Three landowners were assisted with getting permit applications to Minnesota Department of Natural Resources to cut cattails and improve the habitat in their shallow lakes that are protected water bodies in Minnesota by opening patches of cattails so that the basins will hopefully get used by more waterfowl.

Spurge Beetles were collected and provided to two landowners to help them control leafy spurge on their property without using chemical. The beetles were collected by the Partners Biologist from sources on Federal waterfowl production areas. Four other landowners were referred to the Pope County Weed Management Area intern for assistance with controlling invasive weeds on their property in Pope County. The Pope County Weed Management Area has also been a highly successful project that the Morris WMD is involved in as a project partner (see Section 3g). The Partners Biologist has also been providing GIS and technical support to the Pope County Weed Management Intern, who is using The Nature Conservancy's WIMS database to store information about weed infestations and treatments that have occurred in Pope County.

During FY09, the Partners Biologist assisted 18 landowners with interest in perpetual Wetland or Habitat easements from the FWS. Easement proposals were prepared and submitted for 12 different landowners. If all of the proposed easements are accepted, 695 acres of upland and wetlands will be protected forever.

The Partners Biologist also assisted six more landowners with getting information about protecting their land with a state Prairie Bank Easement, when the Service easement was not an option or not the best fit for their land. At least two of these tracts were burned this spring by the landowner or a contractor the landowner hired with guidance from the Partners Biologist. The tracts experienced vast changes in vegetation communities following the burn management, which should help them compete for Prairie Bank Easements. Both tracts experienced a huge shift from predominantly invasive cool-season grasses to native grasses by burning late in May when the cool-season grasses can best be set back.

The Partners Biologist is also a part of a committee that selected Reinvest in Minnesota (RIM) Easements that will perpetually protect granite rock outcrops along the Minnesota River. The Granite Outcrop Easement Project is funded by the Minnesota Legislative and Citizens Commission on Minnesota's Resources. This group has funded this easement for two years. Each year we have had more applications than funds, so this team scores each easement application based on the quality of the outcrop and its ability to provide habitat for outcrop plants and animals that are of special concern to the State of Minnesota. The highest scoring easements are accepted into RIM. Outcrops are unique habitats in Minnesota, and

are rapidly being lost to granite mining. These easements are designed to protect these unique habitats from ever being lost. Approximately 1,000 acres of outcrops should be able to be protected with the FY09 money.



Maximilian sunflower, bottle gentian, and liatris in a low pool on a rock outcrop in Lac qui Parle County. 2009-36 SLS 8/2009



Lac qui Parle County rock outcrop selected for protection with a perpetual RIM easement. 2009-37 SLS 8/2009

### Private Lands Grass Drills

In 1997, the Morris WMD Partners for Fish and Wildlife Program purchased two Dura Tech Haybuster grass drills with multiple partners. The Stevens Soil and Water Conservation District (SWCD) coordinated seeding in Stevens County using a newer drill purchased in 2005 and one of the Dura Tech drills in Stevens, Traverse, and parts of Pope and Big Stone counties. The Swift SWCD coordinated seeding with one Dura Tech drill in parts of Big Stone, Lac qui Parle, Chippewa, Pope and all of Swift counties. The 2005 Stevens County drill has an agreement that states that the Stevens SWCD will report the acres they seed to us until they get over 5,000 acres, and then the drill belongs to them with no obligation to report seeded acres to us. In 2009 they exceeded the 5,000 acres at 5,148 acres. Stevens SWCD now owns the drill and will no longer be reporting acres.

**Table 18 – Seedings Using Private Lands Grass Drills – Morris WMD  
FY 1998 to FY 2009**

<u>Year</u>	<u>Number of Landowners</u>	<u>Number of Acres Seeded</u>
2009		532.0
2008	20	349.9
2007	67	1,611.6
2006	114	2,265.0
2005	103	2,178.5
2004	41	1,269.6
2003	40	1,289.2
2002	60	1,440.3
2001	31	1,229.0
2000	53	2,046.0
1999	27	969.0
1998	41	1,840.0

### Working Lands Initiative

Working Lands Initiative (WLI) has become a large portion of the Partners Biologist's job at the Morris Wetland Management District. The WLI is a public/private partnership that is working to provide private landowners in identified target areas with tools to implement conservation practices but still keep their lands working for agricultural purposes. The Morris Wetland Management District has target areas and project teams in six different counties. These projects have been very successful. They have allowed the Partners program to use state funds dedicated to help get alternative conservation practices implemented on the landscape and have also helped to get numerous perpetual easements purchased throughout the prairie / farmland portion of Minnesota. This is an excellent opportunity for us to expand how we utilize partnerships and allows us to target and focus where we know we will get the "most bang for our buck". Each team has focus areas in their counties where they are spending their time and money to improve and expand on areas that are already good for wildlife. These partnership

projects are very time consuming, but have led to some of the most successful and well recognized conservation projects in the state in only a couple of years. The project work is heavily focused on restoring and protecting wetland and grassland habitat in western Minnesota for the long term benefit of waterfowl and prairie obligate species.

Pope, Stevens, Yellow Medicine (via Lyon County WLI), Chippewa (via Renville County), Traverse, and Big Stone all have active projects. These projects are paying incentives for CRP enrollment and perpetual easement enrollment and are promoting and assisting with the financial aspect of implementing rotational grazing and tree removal in native prairie and native pasture lands. They are educating landowners about the importance of grassland management with fire or grazing as the primary management tools and are promoting winter wheat and rye production as good sources of spring nesting cover for grassland birds. The Pope WLI project has been using goats to control woody and weedy species in pasture and native prairie lands throughout the project area. Pope WLI also has a biomass test site, where the landowner is testing the feasibility of utilizing and growing grass to be used in biomass energy facilities in the area. The Partners Biologist has been highly involved in the planning and financial support of this project. Since the inception of WLI in 2006, these projects have impacted more than 2,000 acres of private land in the Morris Wetland Management District.



Moving goats used to control woody vegetation in the Pope WLI target area.  
2009-38 Mary Jo Forbord 6/2009

During FY09, the Partner Biologist assisted, spoke, or organized portions of three WLI landowner meetings and two WLI Project Tours. The Big Stone County, Pope County and Fortier Township (Yellow Medicine County) WLI projects all

held landowner meetings to show what sort of opportunities may be available through the working lands teams in their areas. Pope and Fortier each had about 10 attendees at their meetings, but Big Stone County's meeting was attended by at least 20 people. These meetings have led to a number of projects through the WLI, including numerous Prairie Bank easement applications to protect native prairie in the Correll target area of Big Stone County.



Cooperative grazing project in Pope WLI target area improves dry prairie species diversity. 2009-39 SLS 7/2009

Project tours were held in Pope and Yellow Medicine County WLI target areas this year. Yellow Medicine County Soil and Water Conservation District hosted a grazing tour to showcase FWS habitat easements and an EQIP project that shows how good pasture management can be good for cattle and wildlife. The tour was held on the prairie couteau near Canby, MN, where cattle are still a fixture on the landscape. The tour was attended by about 25 people. The Partners biologist is involved in all three projects and was on hand at each of these events to answer questions and provide information for these landowners about conservation and agricultural programs in their areas. Pope County WLI in conjunction with Prairie Horizons Farm held a project area tour on August 14, 2009. Attendees were able to see how the Pope WLI project team had been implementing both biomass production plots as well as managing habitat with goat and cattle grazing in the project area. The Partners Biologist was the primary speaker on the Pope WLI tour.

### **Education and Cooperative Projects**

The fifth graders at the Ortonville Elementary School went on a tour of wetland restorations in their area in May. This tour is an annual event and is organized by the Upper Minnesota Watershed District, FWS, and the students' teacher, Kyle

Kirkeby. In past years the students have raised funds to restore wetlands on perpetually protected land in their area. They get to see the wetlands before and after restoration. About 45 students and teachers participated in 2009.



These students saw a wetland restoration on Centennial WPA.  
2009-40 SLS 5/2009

The Partners Biologist spent 2 days at Farmfest in Redwood Falls, Minnesota, in August. The Minnesota Private Lands Office provides wood duck and bluebird kits and assistance for assembling those kits to children, their parents and grandparents. This year 500 bluebird boxes and 400 wood duck boxes were available. In the two days that the Morris WMD Partners Biologist assisted, at least 400 boxes were assembled with children. If even a few of these kids who are primarily farm kids become more interested in natural resources, then we are having an impact on the children of rural Minnesota.

The Partners Biologist presented two posters at the Minnesota Chapter of the Wildlife Society Annual Meeting in February related to the Pope County Working Lands Initiative area. The posters were about tree removal and goat grazing on private land within that project area. A presentation was also given about the efforts of the Morris WMD at the Regional Office for a “Brown Bag Lunch” presentation in November 2008. The Partners Biologist also met with both the Swift and Glacial Ridge chapters of Pheasants Forever to remind them of opportunities to partner on projects in their counties as well as to explain the management that FWS has been completing locally the past couple of years on both public and private land. The last cooperative venture that the Morris WMD Partners Biologist was involved with was an adaptive management project (see Section 1b).

## RESOURCE PROTECTION

### 6a. Law Enforcement

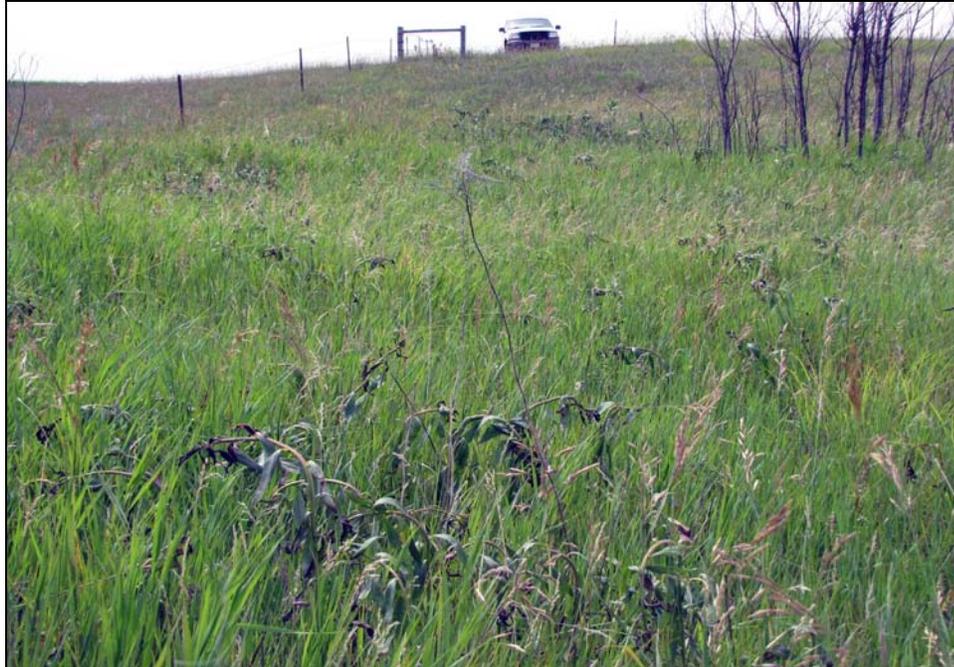
The station started the fiscal year with one dual function officer, Biologist Henderson. Unfortunately Biologist Henderson was promoted and transferred to Kulm WMD in Region 6 at the end of the summer leaving the Morris district without a law enforcement officer for the remainder of the FY. Most enforcement activities are associated with easement violations and WPA use regulations. With 245 WPAs and 833 easement contracts scattered through eight counties, there is no shortage of conflict to deal with. State Conservation Officers carry the brunt of the responsibility for hunting and public use enforcement within the district. We maintain a good rapport with state officers, working cooperatively during the fall hunting seasons and providing assistance when requested. Typical public use violations include no license in possession, no state stamp, no federal waterfowl stamp, lead shot, unplugged shotgun, vehicle trespass, minnow trapping on WPA, abandoned property and destruction of government property.

#### **Waterfowl Production Areas**

Most WPA management problems are detected during routine work activities, easement surveillance flights, or brought to our attention by the public. Typical and recurring issues include farming encroachment, rock dumping, vandalism, vehicle trespass, and private drainage affecting WPA wetlands.

During FY 2009 five Violation Notices were issued. All of these involved the illegal use of ATVs on waterfowl production areas.

Another notable incident was agricultural overspray on Glacial Lake WPA in Pope County. An aerial applicator was spraying in wind outside the acceptable range from the northwest. Herbicide drift killed vegetation on approximately five acres of this site. This case will remain under investigation through the FY 2010 growing season in an effort to estimate the actual extent of the vegetation damage.



This is the result of careless application by an aerial sprayer on a calm day (Glacial Lake WPA, Pope County). 2009-41 JBB 8/2009

### **Easements**

Most easement violations are detected by annual surveillance flights. Typical violations are associated with activities that degrade wetland value, such as filling and draining. The authority to cite an individual is an essential element to resolving easement violations. But, because the ultimate goal is restoration of the resource, citations are seldom used. With only one dual function officer on staff, easement case load remains static. The addition of another officer on staff would greatly improve case closure rate. The year started with 3 open cases from FY 2008. Five new cases were opened in FY 2009. By year end a total of 11 cases had been closed. Forty-one cases remained open at the end of the year. Twenty-five mapping requests remain open at the end of the year. Mapping requests are in addition to potential violations that need to be mapped.

## **6b. Permits and Economic Use Management**

During FY 2009 we issued 59 Special Use Permits (SUP). The permits were issued for cutting hay, grazing, cash rent farming (see Sections 3b, c, d), firewood cutting, fencing, tree removal, tile repair, and feeder cribs on WPAs and habitat easements.

## 6g. Land Acquisition Support

We have in place an efficient and effective process for acquiring wetland easements and those habitat easements that allow continued haying or grazing. Fully restrictive habitat easements (no haying or grazing) and fee title tracts require going through a complex and time consuming appraisal/review/offer process that regularly takes more than a year. As a result, the Morris district has pursued primarily easement acquisition over fee title and has declined to pursue any fully restrictive habitat easements. Landowner interest in fee title sale remained low during the year while some easement tracts were available.

### Fee Title

We purchased only one fee tract this year under the small wetlands program, the Warren Olson tract in Pope County. This is a new WPA which is 156 acres in size and was named State Lake WPA. The current state of our acquisition program makes aggressively searching for quality fee title acquisition projects nearly pointless. The process takes too long and we have insufficient resources to pursue numerous fee tracts. Moreover, the uncertain real estate market and state of the farm economy cause few people to walk in our door interested in selling. Many of those interested in land use changes sell to a private buyer or gravitate to land conservation programs available through USDA or state agencies once they realize how long we will take to get them a purchase offer. There seems to be an insatiable appetite for land for recreational use by non-local buyers and they often snap up any land with wetlands or other hunting features. We try to direct these land buyers to sites with excellent habitat restoration potential but there is a strong preference by recreational land buyers to purchase land with existing wildlife habitat.

We have only two other fee title tracts in the appraisal or review process and neither were concluded by the end of the fiscal year. In August, 2007, we initiated purchase of the Olson Tract. On February 11, 2009, we succeeded in acquiring this tract to create State Lake WPA.

**Table 19 – Waterfowl Production Area Realty Acreage – Morris WMD  
FY 2009**

<u>County</u>	<u>Units</u>	<u>Realty Acres</u>	<u>Goal Acres</u>
Big Stone	58	11,721.48	15,600
Chippewa	2	360.10	0
Lac qui Parle	18	4,090.40	6,600
Pope	65	13,153.88	21,000
Stevens	55	9,631.60	12,850
Swift	30	7,608.90	10,800
Traverse	12	4,105.20	6,720
Yellow Medicine	<u>5</u>	<u>959.60</u>	<u>1,260</u>
<b>Total</b>	<b>245</b>	<b>51,631.16</b>	<b>74,830</b>

**Table 20 – Waterfowl Production Area Managed Acreage\* – Morris WMD  
FY 2009**

<b>County</b>	<b>Managed Acres 9/30/08</b>		<b>Managed Acres 9/30/09</b>	
	<b>Units</b>	<b>Acres</b>	<b>Units</b>	<b>Acres</b>
Big Stone	58	11,738.99	58	11,738.99
Chippewa	2	360.14	2	360.14
Lac qui Parle	18	4,065.24	18	4,065.24
Pope	64	13,079.62	65	13,236.00
Stevens	55	9,676.46	55	9,676.46
Swift	30	7,653.41	30	7,653.41
Traverse	12	4,141.77	12	4,141.77
Yellow Med.	<u>5</u>	<u>952.66</u>	<u>5</u>	<u>952.66</u>
<b>Total</b>	<b>244</b>	<b>51,668.29</b>	<b>245</b>	<b>51,824.67</b>

\*Keeping an accurate tally of the acreage of so many units is difficult. The acres recorded as purchased in real estate records are shown in Table 19 above. The actual acres we manage do not precisely match real estate records. The two most common reasons are 1) land use lines that differ from legal descriptions; and 2) managing land within the boundaries of a meandered lake. Although we do not technically own the land within the meander line, water levels are often low enough that we end up managing a fringe of land between the meander line and the water's edge.



State Lake WPA, Pope County. 2009-42 GIS File

The legislation authorizing purchase of WPAs requires that the Fish and Wildlife Service receive approval by the state involved. In Minnesota, the state makes its decision to approve or deny acquisition tract-by-tract through a decision by the Land Exchange Board. Land Exchange Board members are the Governor, Auditor, and Attorney General. Before going to the Land Exchange Board, we discuss the proposed acquisition with the board of commissioners of the county involved. The county does not approve or deny the acquisition but does express its opinion to the Land Exchange Board through this process that we call certification. With county certification, Land Exchange Board approval is almost automatic; without county certification, approval at the state level is less assured. As a result, we spend time discussing each fee and easement tract with local counties who occasionally use the forum to discuss an array of issues regarding the Fish and Wildlife Service. Water, weeds, and taxes are frequent subjects. While the meetings are occasionally challenging, they do force the staff to hear and consider local concerns regarding management of federal land. Federal land acquisition is almost always controversial anywhere in the country. On wetland management districts, though, we usually acquire land each year and thus the difficult relationships that often arise from land acquisition never have a chance to completely heal before the next acquisition project.

The tax loss issue remains an important issue related to land acquisition. A trust fund payment is made to the county government with each new fee purchase where revenue sharing is short. The interest from the trust fund payment, when invested at the current one-year treasury bill interest rate, should make up the difference between the revenue sharing payment and the taxes that would be paid on the land if it remained private property. The payments are only made in cases where the estimated revenue sharing payment for the land is less than the current taxes on the property. It is up to the counties to decide what to do with the money; they can spend it or invest it. The county commissioners appreciate this program but don't consider it the full answer to the revenue sharing problem.

Removing cropland from agricultural production is the other major concern that is raised more and more often by people opposed to our program. Commissioners from various counties frequently raise concerns of losing cropland acres for local farmers. Cropland loss is also used as an argument against our habitat (grassland) easements or wetland easements involving wetland restoration.

Revenue sharing payments (so-called "in-lieu-of-tax payments") are important to our acquisition program. Counties are understandably interested in the annual payment they receive and they are concerned about low payments. In 2008, counties received only 32.9 percent of the amount prescribed by the revenue sharing formula (3/4 of one percent of fair market value). However, due to rapidly increasing land values and recent reappraisals of fee tracts in certain counties, the revenue sharing check received by certain counties went up dramatically in recent years. That softened the concern over low revenue sharing payments in those counties. In other counties, it remains tough to explain why the

government is not paying 100 percent of its revenue sharing commitment. Of course, we make many fewer demands on county resources than do owners of private land. Our drain on county resources for infrastructure, law enforcement, and human services is minimal or absent. Furthermore, in Minnesota, state school aid formulas tend to offset any loss of local property tax and prevent any loss of income to a school district when we purchase land. Still, while our net economic effect to most counties is almost certainly positive, it is difficult to get past the fact that we pay less than 100 percent of the authorized amount.

**Table 21 – Revenue Sharing Payments – Morris WMD - FY 2005-2009**

<u>County</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
Big Stone	*\$28,545	\$20,331	\$19,797	\$15,360	
Chippewa	1,028	486	1,009	783	
Lac qui Parle	*26,951	8,359	14,813	11,492	
Pope	58,213	53,878	52,098	41,063	
Stevens	28,885	26,734	25,851	20,107	
Swift	17,913	16,579	16,031	31,784	
Traverse	10,307	9,540	18,215	14,132	
Yellow Med.	<u>3,491</u>	<u>3,231</u>	<u>3,124</u>	<u>2,424</u>	
<b>Total</b>	<b>\$175,333</b>	<b>\$139,138</b>	<b>\$150,938</b>	<b>\$137,145</b>	

\*Includes payment for both WPA acres and Big Stone National Wildlife Refuge acres.

\*\*Payments for 2009 have not yet been received.

The long term future of fee acquisition is unknown. Our real estate capabilities, the farm economy, farm programs, revenue sharing, and many other issues combine to influence our land acquisition program. With the continued degradation of habitat on private land, fee title acquisition remains a critical tool for habitat protection.

### **Wetland Easements**

We permanently protected 13.55 wetland acres with one new wetland easement this year. Last year we purchased three wetland easements covering 91.55 acres of wetlands.

Under the terms of a wetland easement, the Fish and Wildlife Service purchases the rights to drain, burn, level, or fill wetlands from a willing seller. Easements of highest priority have been those which preserve wetlands within two miles of a waterfowl production area. However, wetlands near state land or other acceptable habitat can also be protected by easement. In recent years, many wetland easements are related to our private lands program where we restore drained wetlands on private land; many of these landowners are interested in selling us an easement to leave the wetland in place permanently.

The future of our easement program is directly related to funds, staff time, and the process by which we provide landowners an easement offer. We could take many more easements if we had the staff time for making unsolicited easement contacts and enough acquisition money to pay for them. Many wetlands that need protection are still available and the program remains popular with landowners. Roughly half of all duck production in western Minnesota comes from temporary and seasonal wetlands which still have little or no protection under state and federal law. Each year sees more ephemeral wetlands drained in the district. Small shallow wetlands are usually not defined as wetlands by USDA and are specifically excluded from Minnesota's wetland protection legislation in typical agricultural situations. Our easement is the only protection available for many remaining wetlands.



The wetland easement protects wetlands on private land for migrating waterfowl. 2009-43 SJD 4/2009

County commissioners must review all easement tracts for certification as with fee tracts. Easement certification is sometimes simple. However, some tracts lead to serious concerns by the county. The major objection is placing an easement on restored wetlands that were previously considered cropland. Many commissioners view that as a loss of productive agricultural land and are also concerned that the conversion to marsh will reduce tax revenue. Also, any time we restore wetlands, it leads to concerns by neighbors and thus commissioners who fear that we will cause flooding on adjoining land without permission. While we never flood a neighbor's land without permission, it is hard to overcome a deep rooted tradition that says draining water is good and storing water is bad.

**Table 22 – Wetland Easement Program Status – Morris WMD – FY 2009**

<u>County</u>	<u>Number Easements</u>	<u>Wetland Acres</u>	<u>Total Easement Acres</u>	<u>Goal Acres</u>
Big Stone	199	6,736.2	25,244.00	42,640
Chippewa	4	115.1	392.00	0
Lac qui Parle	40	1,368.7	5,078.58	23,540
Pope	261	8,982.0	34,861.17	44,180
Stevens	57	1,824.4	5,116.40	6,090
Swift	69	1,486.5	5,255.10	14,540
Traverse	35	1,146.0	3,871.51	8,440
Yellow Med.	<u>11</u>	<u>181.4</u>	<u>659.27</u>	<u>7,860</u>
<b>Total 2009</b>	<b>676</b>	<b>21,840.3</b>	<b>80,478.03</b>	<b>147,290</b>
<b>Total 2008</b>	<b>675</b>	<b>21,826.7</b>	<b>80,318.03</b>	<b>147,290</b>
<b>Total 2007</b>	<b>672</b>	<b>21,735.1</b>	<b>79,948.03</b>	<b>147,290</b>
<b>Total 2006</b>	<b>667</b>	<b>21,572.3</b>	<b>79,460.56</b>	<b>147,290</b>
<b>Total 2005</b>	<b>663</b>	<b>21,465.5</b>	<b>79,148.50</b>	<b>147,290</b>
<b>Total 2004</b>	<b>646</b>	<b>21,117.4</b>	<b>77,877.15</b>	<b>147,290</b>

#### **Wildlife Habitat Protection Easements**

The Fish and Wildlife Service introduced the habitat easement in 1993. This easement is aimed at maintaining grassland habitat adjacent to wetlands. While native prairie tracts receive the highest priority, we pursue easements on other grassland habitat too as long as the block provides significant waterfowl value.

Four types of easement are available. The four options allow varying opportunities for grazing and limited haying. All four easement types prohibit drainage and tillage. The landowner is required to pay taxes and control noxious weeds. A new realty process allowing quick and efficient offers for minimally restrictive easements has caused the district to shift exclusively to easements for which the landowner retains grazing and/or haying rights. In particular, we have been taking many easements in recent years on native prairie pastures containing or adjoining wetlands. With the landowner still able to graze the sites, it is both attractive to the landowner and beneficial to migratory birds to permanently protect these grasslands.

We purchased seven habitat easements this year, covering 977.31 acres. Last year, we acquired one easement covering 42.1 acres. Habitat easement acquisition ebbs and flows based on landowner interest and realty workload. We have several large easements proposed for acquisition next year. Habitat easements must have commissioner review and Land Exchange Board approval in the same manner as the wetland easement.

**Table 23 – Easements For Wildlife Habitat Protection - Morris WMD  
FY 2009**

<u>County</u>	<u>Easements</u>	<u>Acres</u>
Big Stone	23	2,269.84
Chippewa	0	0.00
Lac qui Parle	10	664.92
Pope	15	1,334.46
Stevens	0	0.00
Swift	14	818.12
Traverse	2	296.16
Yellow Medicine	<u>5</u>	<u>624.11</u>
<b>2009 Total</b>	<b>69</b>	<b>6,007.61</b>
<b>2008 Total</b>	<b>62</b>	<b>5,030.30</b>
<b>2007 Total</b>	<b>61</b>	<b>4,988.20</b>
<b>2006 Total</b>	<b>55</b>	<b>4,456.67</b>
<b>2005 Total</b>	<b>53</b>	<b>4,051.80</b>
<b>2004 Total</b>	<b>52</b>	<b>3,964.80</b>

#### **Farmers Home Administration Easements**

The former Farmers Home Administration (FmHA) is now part of the Farm Service Agency (FSA). For consistency, we continue to call easements related to their programs FmHA easements. We inspect each easement for compliance each year and manage the units in a manner similar to our fully restrictive habitat easements, using prescribed fire, haying, grazing, or no management action as appropriate. Changes in USDA rules and policies have nearly eliminated opportunities to acquire additional FmHA easements.

**Table 24 – FmHA Easements – Morris WMD – FY 2009**

<u>County</u>	<u>Easements</u>	<u>Easement Tracts*</u>	<u>Acres</u>
Big Stone	1	1	4.82
Chippewa	1	1	63.20
Lac qui Parle	2	2	114.93
Pope	5	11	220.13
Stevens	1	2	73.55
Swift	10	17	418.12
Traverse	0	0	0.00
Yellow Medicine	<u>3</u>	<u>9</u>	<u>342.48</u>
<b>Total</b>	<b>23</b>	<b>43</b>	<b>1,237.23</b>

\*Some easements contain more than one tract.

### **Northern Tallgrass Prairie National Wildlife Refuge**

The Fish and Wildlife Service received approval in 2000 to proceed with development of this refuge. Funding for acquisition has come through both Land and Water Conservation Fund appropriations as well as through a state conservation corridors grant. The refuge concept is modeled after the small wetlands (WPA) program and aims to protect 77,000 acres of remaining native tallgrass prairie in scattered tracts in western Minnesota and northwest Iowa. Prairie protection is accomplished through a combination of fee title and easement acquisition. Overall refuge coordination is provided by the manager of the Big Stone NWR. Various refuges and wetland management districts are responsible for coordinating acquisition and management of individual refuge units in designated counties. The Morris WMD is responsible for those units that fall within our eight county district.

One Northern Tallgrass Prairie NWR easement tract was acquired this year, the McLain Partnership Tract in Yellow Medicine County, which encompasses 286.57 acres.

Northern Tallgrass Prairie NWR tracts in the Morris district are managed similarly to our WPAs and habitat easements though they have a primary purpose of prairie protection rather than waterfowl production. We use prescribed fire and other upland management tools as appropriate. We seed any acres of disturbed soil with seed harvested from nearby native prairie remnants.

**Table 25 – Northern Tallgrass Prairie National Wildlife Refuge Units  
Morris WMD – FY 2009**

<b><u>County</u></b>	<b><u>Fee Tracts</u></b>	<b><u>Fee Acres</u></b>	<b><u>Easement Tracts</u></b>	<b><u>Easement Acres</u></b>	<b><u>Total Tracts</u></b>	<b><u>Total Acres</u></b>
Big Stone	0	0	2	224.75	2	224.75
Chippewa	0	0	0	0	0	0
L Q Parle	0	0	1	27.49	1	27.49
Pope	0	0	2	164.05	2	164.05
Stevens	1	21	0	0	1	21.00
Swift	0	0	2	110.00	2	110.00
Traverse	0	0	2	45.70	2	45.70
Y. Med.	<u>0</u>	<u>0</u>	<u>11</u>	<u>720.27</u>	<u>11</u>	<u>720.27</u>
<b>Total</b>	<b>1</b>	<b>21</b>	<b>20</b>	<b>1,292.26</b>	<b>21</b>	<b>1,313.26</b>

## PUBLIC EDUCATION AND RECREATION

### 7a. Provide Visitor Services

The Morris district's visitor numbers are based on results of the University of Minnesota research project: *Estimating Visitor Use Levels at Waterfowl Production Areas in Minnesota* (Vlaming et al, 2003, Report to U.S. Fish and Wildlife Service).

At Morris WMD approximately 69,000 visitors participate in recreational activities during the year. Most district visits are associated with public recreational opportunities such as trapping, hunting, fishing, wildlife observation, interpretation and environmental education. Visitors benefit from the Service's commitment to conserving, protecting and enhancing fish, wildlife and plants and their habitats at each unit in the district.

The headquarters offers a visitor center where general information about the Morris WMD, activities, and programs are available. This year the addition of WPA mapper, a website featuring maps and aerial photography of WPAs, will give the public an important new tool to enjoy their waterfowl production areas.

At the headquarters, a short paved trail loops through native prairie and is accessible to people with physical disabilities. A scenic, 2.5 mile gravel wildlife tour route is open for vehicle traffic during spring, summer, and early fall, and is always open for foot or bicycle travel. The route demonstrates wildlife management techniques and provides wildlife viewing opportunities. We also maintain a 1.2 mile long hiking trail that winds through native prairie, woodlands, and around a wetland. Morris WMD has another self-guided nature trail located at Froland WPA, Pope County, near Starbuck.

Wildlife-oriented activities available to the public include hiking, nature observation, photography, snow-shoeing, mushroom and berry picking, and cross-country skiing. Hunting, fishing and trapping in accordance with state regulations are permitted on WPAs. Open year around, WPAs provide solitary places to take a quiet stroll, places for recreation (hunting, etc.), and outdoor classrooms to observe and learn about the natural world.

The economic importance of waterfowl production areas were shown in results from *Impacts and Benefits of Waterfowl Production Areas* by Drew Laughland, Senior Economist with Eastern Research Group, dated May 25, 2005. The local analysis for the Morris district shows that non-local visitors (people driving more than 60 miles) to WPAs in the Morris district directly spend over seven million dollars each year and are responsible for the direct creation of 75 jobs. This only includes direct spending by non-local WPA visitors. There are additional benefits

created by local WPA visitors, the money rippling through the economy, WPA-produced wildlife enjoyed elsewhere, etc. The largest impact provided to local communities comes from hunters who are the most frequent users of the land. WPAs were used by an estimated 32,000 waterfowl hunters, 700 other migratory bird hunters, 18,250 upland game hunters, 5,500 big game hunters, 980 small game hunters, 3,500 anglers, and 40 trappers. An estimated 8,900 visitors enjoyed wildlife observation and hiking.

### **Second Grade Field Day**

Each year in May the district provides a fun day of environmental education where second grade students learn about the wonders of the natural world.



Young biologists in training. Second Grade Field Day.  
2009-44 SJD 5/20/2009

On May 20 we hosted the 17<sup>th</sup> annual event where students from seven schools (Morris, Cyrus, Chokio, Glacial Hills, Hancock, Minnewaska, and St. Mary's) participated in a variety of instructional activities focusing on the Prairie Pothole Region. Most staff members participated, along with volunteers Judy Johnston (SWCD), and Ron Rosen (Friends Group). For the first time, at the request of the teachers, the 18<sup>th</sup> annual event was held in the fall (September 23). Because of inclement weather, the event was held in office and shop areas instead of outdoor stations.

### **Prairie Pioneer Days**

On July 12, during Morris' annual Prairie Pioneer Days, staff members and Friends did their part to celebrate our prairie heritage. This year the Friends group hired Skilly & Duff, folk music ensemble, which helped draw attendance of over 200 people to the event. Visitors not only enjoyed music, but also horse-drawn wagon rides through the prairie, a display of prairie plants, and free bird house construction for kids.



The combination of music nostalgia, and interpretation was a hit at this year's Prairie Pioneer Days. 2009-45 SJD 7/12/2009

Staff provided support to the following at the district headquarters:

- University of Minnesota, Morris Wildlife Biology Class, Oct. 6 & 7, 2008
- Morris Area High School Wildlife Biology Class, September 26, 2009

### **Hunting**

Hunting continues to be a major part of many people's lives, especially in rural areas. Even if hunters don't fill their limit, they are out enjoying the great outdoors. The diversity of WPAs in the district offers many options for the hunter.

The 2008 waterfowl season began in September with the early goose hunt (September 6-22) and was followed with approximately three months of some type of waterfowl hunting. Duck season was open from October 4-December 2. The daily bag limit was six, and could not include more than four mallards with one hen mallard, two wood ducks, two redheads, one pintail, and two black duck. The daily limit could include one scaup until November 13 when two scaup could be taken. The December goose hunt ended the waterfowl hunting season on the 22<sup>nd</sup>.

There are opportunities to hunt rabbit, squirrel, ruffed grouse, gray partridge, wild turkey, crow, woodcock, rail, snipe, mourning dove, raccoon, coyote, and fox on the WPAs of the district. Pheasant harvest was good. The season ran from October 11 to January 4 with a two cock limit. Hunting success was down from previous years. An unusually wet June may have resulted in an increase in chick mortality.

Turkey hunting season occurs in the fall and spring. Zones 416, 417, 422, 424, 425, 431, and 433 are within our district. Hunters can take only one by shotgun, archery, or muzzleloader. Success rates for those zones were up. Populations and range continue to expand.

Archery season for deer opened on September 13, general firearms season was November 8-30, and muzzle loader season occurred from November 28-December 14. Firearms deer harvest was down 11.6 percent from last year. DNR officials had predicted a lower harvest than last year because of reductions in the number of antlerless permits that were available to hunters.



A successful turkey hunter from North Dakota. 2009-46 K. Vacek 4/2009

## 7b. Outreach

The Morris WMD web page on the Internet is: <http://midwest.fws.gov/morris>

The Morris WMD submits a monthly newspaper column that is published by many local papers in the district. Each month's column features a natural resource topic of general interest as well as describing a specific WPA.

In an effort to increase public awareness and education outreach, the Morris staff represented FWS at the following events throughout the year:

- Spoke to UMM Ecology Class
- Represented FWS at Pope Soil and Water Planning
- Provided advisor for the Morris Area Elementary School Science Fair
- Provided judges for the Morris Area High School Science Fair
- Gave S130/S190 Training to Milbank Volunteer Fire Department
- Presented S215 Wildland Urban Interface Training
- Represented FWS at Boise de Sioux Watershed-Red Hat Project
- Gave S130/S190 Training at Big Stone NWR
- Helped with Envirothon at Alexandria
- Talk to Stevens County Boy Scouts
- Provided students of Ortonville Public School with wetland tour
- Participant at Pope County Weed Awareness Workshop
- Represented FWS at Glacial Ridge Development Association Meeting
- Cooperative Weed Management Project Tour
- Booth at Horticulture Night, Morris
- Represented FWS on Biomass Test Plot and Grassland Management Demonstration (Pope WLI) Field Tour
- Pope/Stevens 5<sup>th</sup> Grade Field Day-Scandia Woods Enviro Learning Lab
- Yellow Medicine WLI/Grazing Tour



Wildlife Refuge Specialist Styron Bell conducts off-site outdoor education and interpretation at the Swift County Water Festival.

2009-47 SCV 9/8/2009

## 7c. Friends of the Morris WMD

The Friends of the Morris Wetland Management District, a non-profit advocacy and support group, was established in 2003. Their mission is to help the community develop a deeper appreciation and understanding of the Morris Wetland Management District. The Friends continue to be amazingly productive and helpful despite their modest membership. During the fiscal year two friends, along with a friend's staff liaison, participated in the 2009 National Wildlife Refuge System "Friends Unite!" This conference, co-hosted by the National Wildlife Refuge Association (NWRA) and the Fish and Wildlife Service, was held February 21-23 at the Marriott Wardman Park Hotel in downtown Washington, D.C., followed immediately by NWRA's Hill Rally on February 23-24.

The 2009 Friends Conference brought together over 500 Friends and FWS staff from all over the nation for the largest such gathering in the history of the Friends movement. Nearly 300 Friends from 162 different organizations in 49 states represented over 230 national wildlife refuges at the Conference and were joined by almost 200 Service staff.



President of the Friends of the Morris Wetland Management District Dale Livingston, and Vice-President Ron Rosen in front of Minnesota Senator Amy Klobuchar's office. 2009-48 SAB 2/23/2009

Besides major projects like the friends conference, the Friends continue to provide active support for district management, particularly activities relating to community relations. Besides numerous other small events and activities, the Friends helped organize, staff, and fund our participation in Prairie Pioneer Days, a local community festival we use to promote awareness of grasslands and wetlands.

## 8b. General Administration



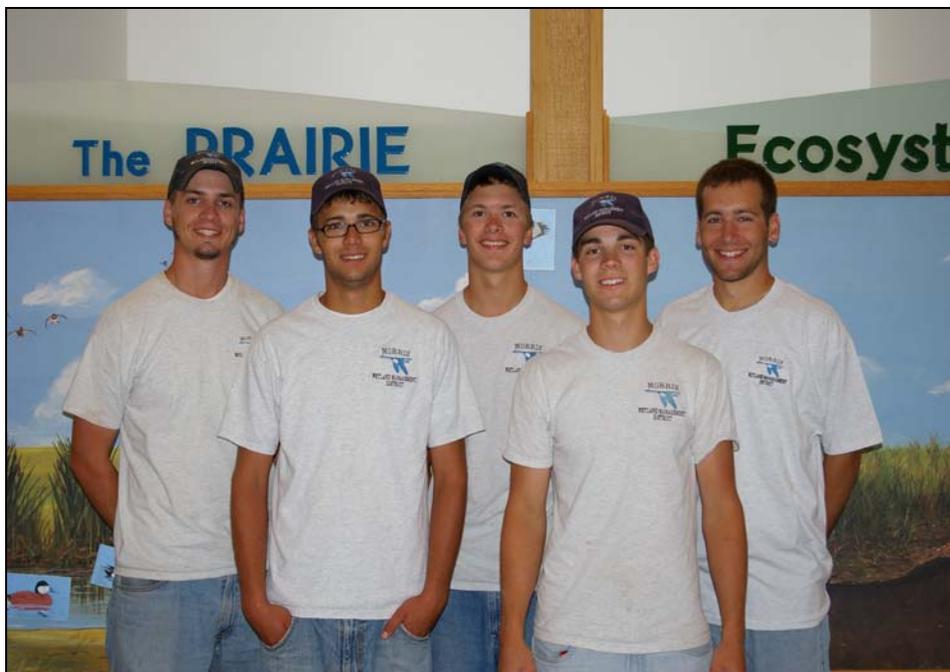
1            2            3            4            5  
 6            7            8            9            10          11          12          13  
                  14            15            16

1. J. B. Bright, Wildlife Refuge Specialist, GS-11, PFT.
2. Derrick Odegard, Range Technician, GS-6, PFT Seasonal, EOD 10/12/08.
3. Frank Durbian, Wildlife Refuge Specialist, GS-12, EOD 6/21/09.
4. Phil Millette, Supervisory Range Technician, GS-7, PFT.
5. Mark Fondriest, Range Technician, GS-5, TFT.
6. Wayne Henderson, Wildlife Biologist (Enforcement), GS-12, PFT,  
transferred to Kulm NWR on 8/17/2009.
7. Kevin Thell, Range Technician, GS-5, TFT.
8. Karen Stettner, Administrative Officer, GS-9, PFT.
9. Donna Oglesby, Biological Technician, GS-7, PFT.
10. Stacy Salvevold, Wildlife Biologist, GS-11, PFT.
11. Sara Vacek, Wildlife Biologist, GS-11, PFT.
12. Seth Grimm, Fire Management Officer, GS-11, PFT.
13. Joel Boutain, Tractor Operator, WG-7, PFT.
14. Styron Bell, Wildlife Refuge Specialist, GS-9, PFT, EOD 12/7/08.
15. Steven Delehanty, Wetland Manager, GS-13, PFT,  
Transferred to Alaska Maritime NWR on 8/17/2009.
16. Rodney Ahrndt, Engineering Equipment Operator, WG-10, PFT.

The following personnel actions took place in FY 2009:

- Derrick Odegard was hired as Seasonal Range Technician (fire) effective October 12, 2008.
- Styron Bell began as Wildlife Refuge Specialist on December 7, 2008. He came from Hillsboro, GA.
- Wildlife Refuge Specialist Deb Beck left Morris for a Regional Office job. Deb came to Morris in August, 2001, and her last day was January 2, 2009.
- Jake Randa, SCEP, spent a couple days at Morris in May. He returned to school to work on his M. S. project but will be back in 2010.
- Frank Durbian began as Wildlife Refuge Specialist on June 21. He came from Squaw Creek NWR in Missouri.
- Manager Steve Delehanty took a job in Homer Alaska. Steve came to Morris in September, 1998, and his last day was August 15.
- Wildlife Biologist (Law Enforcement) Wayne Henderson, who came to Morris in October, 1995, took a job at Kulm WMD in North Dakota. His last day at Morris was August 15.

### Temporary Personnel



6 5 3 7 4

1. Mark Fondriest	Range Technician, TFT	3/29/2009 – 10/10/2009
2. Kevin Thell	Range Technician, TFT	3/29/2009 – 10/10/2009
3. Charles Michealson	Biological Aid, TFT	5/10/2009 – 08/29/2009
4. Mitch Weegman	Biological Aid, TFT	5/10/2009 – 08/15/2009
5. Timothy Knudson	Biological Aid, TFT	5/29/2009 – 09/12/2009
6. Peter Duerkop	Biological Aid, TFT	5/31/2009 – 10/10/2009
7. Ryan Snyder	Biological Aid, TFT	6/07/2009 – 08/29/2009

Range Technicians Fondriest and Thell were funded with fire funds. Their primary job was to help with fire activities. Biological Aids Knudson and Michealson spent the summer posting boundaries. Biological Aids Duerkop and Snyder spent their time controlling noxious weeds on Service lands under the direction of J.B. Bright. Mitch Weegman worked with Sara Vacek.

**Table 26 – Staff Size – Morris WMD – FY 2005 to FY 2009**

	<u>Permanent</u>			<u>Temporary</u> <u>GS &amp; WG</u>	<u>Other</u> <u>Programs*</u>
	<u>Full Time</u>	<u>Seasonal</u>	<u>Part Time</u>		
FY09	13	1	0	8**	0
FY08	13	1	0	9**	0
FY07	12	2	0	6**	0
FY06	12	2	0	4	3
FY05	13	2	0	4	0

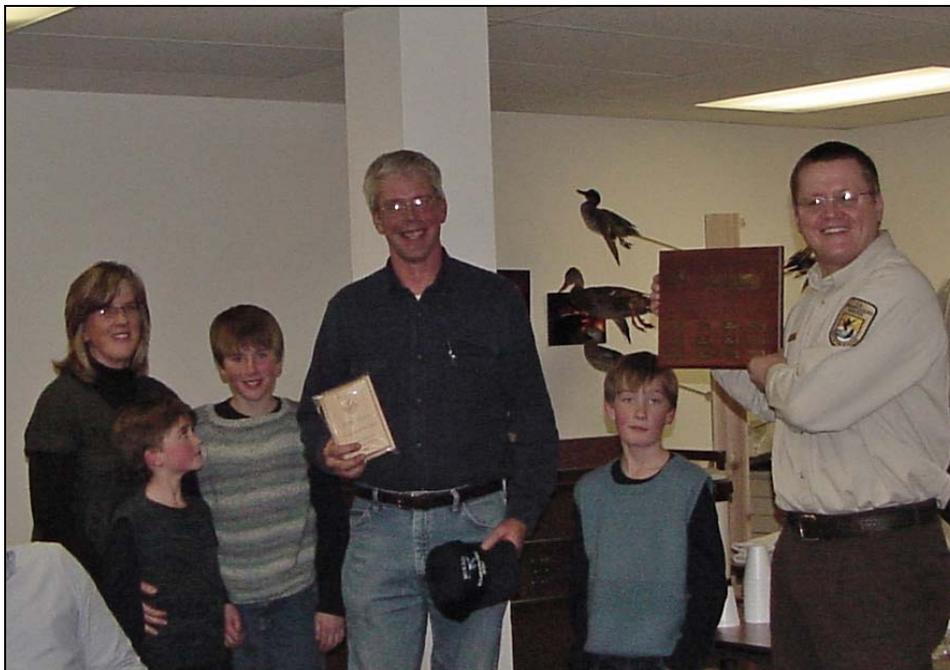
\*\*Includes SCEP student

\*YCC, CETA, Work Study, Green Thumb, etc.

### **Volunteers**

Our volunteers continue to be an asset to the Morris WMD. Most of our regular volunteers are members of our Friends group or students from the University of Minnesota – Morris. In FY 2009, 71 volunteers contributed 815 hours of work. The bulk of our volunteer hours came from activities such as seed collecting and cleaning, visitor services and outreach, data entry, and building nest boxes.

In January the staff hosted a dinner and short program to thank our volunteers and Friends Group for their help the previous year. The Friends and Volunteer Recognition Dinner has become an annual event. Each volunteer was presented with a certificate of appreciation and a gift (determined by their cumulative volunteer hours). In addition, we recognized Mike Troen and the Troen family as the 2008 Volunteer of the Year. Mike Troen and his three sons, Hunter-8, Joshua-10, and Andrew-11, have worked many hours at Froland Waterfowl Production Area (WPA) in Pope County. Froland WPA contains a one mile hiking trail that winds its way through a native oak grove, prairie, and wetlands. The Troen family has done an outstanding job of maintaining the trail through mowing, trash clean up and the removal of non-native buckthorn with the help of some of Mike's students at the Minnewaska Secondary Alternative School. Because of their dedication and hard work, the people of Pope County have a wonderful recreational opportunity available at their doorstep.



Manager Delehanty presents Mike Troen and family with a plaque for being the 2008 Volunteer of the Year. 2009-49 DMO 1/22/2009

### Safety

The station had one reportable accident during FY 2009. Biological Aid Michealson suffered a severe laceration to one of his fingers while removing storm debris from Heidebrink WPA.

### Funding

**Table 27 – Morris WMD Funding Levels – FY 2004-FY 2009**  
(Dollars in Thousands)

<u>FY</u>	<u>1260</u>	<u>Fire</u> <u>9100/9200</u>	<u>Special</u>	<u>1230</u>	<u>1120</u>	<u>Total</u> <u>Budget</u>
09	1,032.1	271.2	*1,164.9	-0-	132.2	1,435.5
08	1,155.6	269.0	80.0	-0-	127.6	1,632.2
07	1,083.9	308.9	-0-	-0-	88.3	1,481.1
06	972.2	273.2	-0-	1.0	136.6	1,383.0
05	949.7	267.5	-0-	30.0	118.5	1,365.7
04	1,027.1	213.8	-0-	-0-	113.7	1,354.6

\*Not included in Total Budget figure.

The budget amounts for 1260 and 9100/9200 are somewhat deceiving because they often include “project specific” funds.

In 2009, 1260 project specific funds included:

- \$32,618 for a permanent-change-of-station move
- \$ 6,016 for Biological Workshop costs
- \$21,033 for a new cargo trailer

In FY 2008 MEP Associates, LLC of Eau Claire, Wisconsin, was contracted to write the specifications for a HVAC System (energy retrofit) of our 1981 office building. The award amount was \$65,059. Their report was completed in June. On July 30 the office contract was put out for bids. In late September the bid was awarded and FY 2009 funds of \$1,164,998 were obligated. Work will be done over winter with a projected completion date for inside work of April, 2010. The exterior work including painting, concrete, landscaping, etc., will be completed when weather permits.



One last look at the office building as built in 1981. Next year it will have a new look! 2009-50 DMO 11/6/2009

This year, in order to get projects done in a somewhat timely manner, we used an Indefinite Delivery, Indefinite Quantity (IDIQ) contract prepared by Contracting in the regional office. They called for bids for a type of work (i.e. tree cutting) for a general area (several counties). Contracting then awarded the bid to one or more contractors on the IDIQ, but no dollars were obligated. When we had a project, we would get bids from contractors on the list and then issue a purchase order against the IDIQ. The contractors had to stay at or below their IDIQ bid.

## **General Maintenance**

### Computers/Office Equipment

The following office equipment was purchased.

- Two fire-proof file cabinets
- Plotter

### Equipment

The following equipment was purchased/repaired.

- Generator/Welder (\$2,950)
- Argo Amphibian Machine (\$23,606)
- Cargo Trailer (\$21,033)
- Repair a hydraulic leak in the TV-140 Tractor (\$7,000)

### Facilities

Inspection of boundary posting continues to be a priority for the district. The majority of the work was done by STEP students Michealson and Anderson, but other members of the staff helped out as well. In FY 2009 we focused on Yellow Medicine, Stevens, Swift, Traverse, and Lac Qui Parle Counties. The crews were able to completely check the perimeter of 89 units replacing 274 posts and 973 signs. Over the past five years we have been able to inspect the boundary signs on 97 percent of the WPAs located within the District.

An MCC (Minnesota Conservation Corps) Crew was hired for a two-week period. They worked on tree removal (sawing trees and treating stumps) at Nelson Lake and Benson Lake WPAs. The cost was \$6,640.

We paid \$6,890 to Riley Brothers to pave the back lot at the shop. They were here finishing up the FY 2008 project which included paving the front shop lot.

- New carpet was installed in the large multi-purpose room in the basement. The whole basement now has new, matching carpet.
- Air conditioning was installed in the office portion of the shop building.
- Five electric garage door openers were installed on the overhead doors of the shop building. This will eliminate constant repair of the old opener system.

### Swift County Storm Debris Cleanup

On July 14, 2009, a tornado struck the Swift Falls (Swift County) area and caused damage to two houses, several outbuildings, and a poultry rearing facility. This storm was classified as an EF-2 and covered portions of northeastern Swift County and south central Pope County. The resultant debris consisted mainly of large pieces of tin roofing, tin siding and insulation throughout the path of the storm. Staff working in this area reported a significant quantity of storm debris on several WPAs.



The debris found on all the WPAs appeared to originate from this site (poultry rearing facility). 2009-51 WAH 7/2009

In an effort to examine and assess potential WPAs for debris cleanup efforts, a reconnaissance flight was undertaken by Regional Aviation Manager Lubinski, Wildlife Refuge Specialist Durbian, and LE Biologist Henderson. This flight resulted in the identification of storm debris on five WPAs including Swift Falls, Larson, Heidebrink, Ouren, and Nelson Lake. Heidebrink WPA appeared to contain the largest amount of debris.

Due to environmental concerns and both public and staff safety, efforts to remove the debris were initiated at the end of July. Initial debris cleanup efforts were undertaken by seasonal biological, maintenance and fire staff. Even though all staff involved in the cleanup effort wore proper PPE, including leather gloves, one seasonal technician received a severe laceration to his hand while handling a piece of tin. This injury resulted in surgery, and the individual was unable to continue his duties the remainder of the summer field season. This incident emphasized the need to remove as much of the debris as possible for public safety.

A second flight for aerial photography was conducted using an Applanix DSS 439, 39 megapixel, medium format digital camera system. Flight day weather was clear and sunny so the tin debris was highly visible to the observers. Photographs were collected and, using ArcMap, were reviewed to identify debris within the WPA boundaries. Each potential debris object was marked and GPS coordinates were calculated for each point representing a potential object. These points were loaded into a hand held GPS unit which was given to the cleanup crew. The cleanup crew was provided with maps for orientation and a list of each point with the potential debris type listed. They were instructed to navigate to each point and

remove any debris that was located and to record the debris type located. Heidebrink WPA was especially challenging due to both habitat obstacles and the lack of easy access to debris drop off points. However, this technique allowed the debris removal crew to remove a significantly greater amount of debris in a shorter time span than would have occurred by simply trying to run transects through the WPAs. Additionally, this technique likely resulted in the location and removal of a significant portion of debris that would have otherwise never been located.

The first two days of cleanup resulted in the retrieval of a dump truck load of tin, ranging in size from 3' x 16' to 2' x 2', and one pick up load of bagged, fiberglass insulation. The crew searching the uplands used ATVs for locating and removing debris while the crew searching the wetlands used a Marsh Master. As debris was removed it was placed in staging piles near parking lots and other access points where it could later be removed with vehicles. All tin was recycled, and insulation and wood were hauled to a sanitary landfill. Excluding the use of the regional aircraft, pilot, initial observers and material, approximately 200 person hours were used during this clean up effort resulting in an estimated cost of \$6,000.



Wildlife Refuge Specialist Styron Bell picking up a large piece of tin in a wetland on Heidebrink WPA. 2009-52 MF 8/2009

## ITEMS OF INTEREST



Manager Steve Delehanty modeling a farewell gift at his party. Steve left on August 17 for his new job as Manager of Alaska Maritime Refuge in Homer, Alaska. 2009-53 SCV 7/31/2009



Wayne Henderson is enjoying his farewell party. Wayne left Morris for an Assistant Manager position at Kulm Wetland Management District in North Dakota. 2009-524 SCV 7/31/2009

## Appendix A

Table 28 - Forbord and Hegland Seed Mix - 2009

Forb Mix %	Common Name	Scientific Name	Variety	Origin	Purity
1.95%	Wild Bergemot	Monarda fistilosa	MN Native	Faribault Cty	96.70%
3.89%	Prairie Blazing Star	Liatris pycnostachya	MN Native	Blue Earth cty	92.95%
2.43%	Button Blazing Star	Liatris aspera	MN Native	Faribault Cty	98.62%
7.30%	Long Head coneflower	Ratibida columnifera	MN Native	Brown cty	99.14%
1.46%	Prairie Cinquefoil	Potentilla arguta	MN Native	Brown cty	95.53%
6.81%	Prairie Onion	Allium stellatum	MN Native	Faribault Cty	99.81%
4.87%	Wild Rose	Rosa arkansana	MN Native	Faribault cty	98.65%
0.49%	Alum Root	Heuchera richarsonii	MN Native	Redwood Cty	95.18%
10.71%	Golden Alexanders	Zizia aurea	MN Native	Martin cty	99.39%
2.92%	Heart Leaf Golden Alexanders	Zizia aptera	MN Native	Blue Earth Cty	99.66%
5.84%	Lead Plant	Amorpha Canescens	MN Native	Blue Earth Cty	99.52%
9.73%	Narrow Purple Coneflower	Echinachea angustifolia	MN Native	Faribault Cty	93.36%
2.43%	Prairie Coreopsis	Coreopsis palmate	MN Native	Blue Earth Cty	70.24%
14.60%	White Prairie Clover	Dalia candidum	MN Native	Freeborn Cty	99.70%
3.89%	Smooth Blue aster	Aster laevis	MN Native	Blue earth Cty	96.34%
6.08%	Large Flowered Penstemon	Penstemon grandiflorus	MN Native	Brown cty	86.16%
14.60%	Purple Prairie Clover	Dalia purpurium	MN Native	Faribault Cty	99.86%
Grass Mix %	Common Name	Scientific Name	Variety	Origin	Purity
18.13%	Big Bluestem	Agropyron gerardii	MN Native	Brown Cty	80.77%
18.75%	Indiangrass	Sorghastrum nutans	MN Native	Faribault County	86.69%
8.75%	Prairie Brome	Bromus kalmii	MN Native	Houston cty	92.27%
12.50%	Slender Wheatgrass	Agropyron trachycaulum	Revenue	CAN	97.74%
3.12%	Canada Wild Rye	Elymus Canadensis	MN Native	Houston Cty	86.10%
2.50%	Rough Dropseed	Sporobolus asper	MN Native	Faribault County	99.03%
0.63%	Prairie Dropseed	Sporobolous heterolepisr	MN Native	Polk Cty	99.20%
3.12%	Switchgrass	Panicum virginium	Dacotah	MN	99.56%
18.75%	Side Oats Grama	Bouteloua curtispindula	MN Native	Faribault County	91.58%
13.75%	Little Bluestem	Schizechyrium scoparium	MN Native	Winona cty	80.65%

**Table 29 - Spors Seed Mix - 2009**

Grass Mix %	Common Name	Scientific Name	Variety	Origin	Purity
22.50%	Big Bluestem	Agropyron gerardii	MN Native	MN	98.02%
23.75%	Indiangrass	Sorghastrum nutans	MN Native	Faribault County	86.69%
2.50%	Blue Grama	Bouteloua gracilis	MN Native	Polk Cty	98.66%
10.00%	Slender Wheatgrass	Agropyron trachycaulum	Revenue	CAN	97.74%
5.00%	Canada Wild Rye	Elymus canadensis	MN Native	Houston Cty	86.10%
3.75%	Green Needlegrass	Stipa viridula	Lodorm	MT	99.72%
10.00%	Virginia Wild Rye	Elymus virginicus	IA Native	IA	89.66%
3.75%	Switchgrass	Panicum virginium	Forestberg	MN	99.07%
10.00%	Side Oats Grama	Bouteloua curtipendula	MN Native	Faribault County	91.58%
8.75%	Little Bluestem	Schizechyrium scoparium	MN Native	Winona cty	80.65%
Forb Mix %	Common Name	Scientific Name	Variety	Origin	Purity
1.33%	Wild Bergemot	Monarda fistilosa	MN Native	MN	93.08%
0.52%	New England Aster	Aster novae-engliae	MN Native	MN	93.90%
10.62%	Long Head coneflower	Ratibida columnifera	MN Native	Brown cty	99.14%
2.12%	Oxeye Sunflower	Heliopsis helianthoides	MN Native	Blue Earth Cty	96.12%
1.33%	Cream Gentian	Gentiana flavida	MN Native	MN	91.08%
0.27%	Showy Goldenrod	Solidago speciosa	la Native	la	97.62%
0.27%	Golden Alexanders	Zizia aurea	MN Native	Martin cty	99.39%
1.59%	Prairie Cinquefoil	Potentilla arguta	MN Native	Brown cty	95.53%
5.31%	Black Eyed Susan	Rudbeckia Hirta	MN Native	MN	99.35%
1.33%	Canada Milkvetch	Astragalus canadensis	MN Native	MN	99.78%
7.17%	Maximillian Sunflower	Helanthus Maximillani	MN Native	Faribault Cty	92.77%
7.97%	Hoary Vervain	Verbena stricta	MN Native	Martin Cty	99.40%
21.25%	White Priarie Clover	Dalia candidum	MN Native	MN	99.70%
1.33%	Wild Yarrow	Achilles millifolia	MN Native	MN	94.59%
0.40%	Smooth Blue aster	Aster laevis	MN Native	MN	95.63%
15.94%	Yellow Coneflower	Ratibida pinnata	MN Native	MN	99.85%
21.25%	Purple Priarie Clover	Dalia purpurium	MN Native	MN	99.96%

**Table 30 - Lawrence WPA Seed Mix - Morris WMD – FY 2009**

<u>Species</u>	<u>Origin</u>	<u>Lot Number</u>	<u>Vendor</u>	<u>#’s PLS/ac</u>
Big bluestem	Morris WMD	B2LE07	Morris	1.50
Indiangrass	Morris WMD	B2LE07	Morris	1.20
Trace species*	Morris WMD	B2LE07	Morris	0.36
Canada wildrye	McLeod Co.	T10-CWR-05	Morris	2.00
Little bluestem	MN Native	GM-08-04-14-03	Feder	.525
Prairie dropseed	MN Native	GM-08-04-14-03	Feder	.045
Rough dropseed	MN Native	GM-08-04-14-03	Feder	.075
Sideoats grama	MN Native	GM-08-04-14-03	Feder	0.57
Prairie cordgrass	Red River	GM-08-04-14-03	Feder	.075
Prairie brome	Houston Co.	GM-08-04-14-03	Feder	.075
Switchgrass	MN Native	GM-08-04-14-03	Feder	.075
June grass	Canada	GM-08-04-14-03	Feder	0.03
Canada bluejoint	Canada	GM-08-04-14-03	Feder	0.03

<u>Forbs</u>				<u>Oz. PLS/ac</u>
Alumroot	Faribault Co.	FM-08-04-15-04	Feder	1.60
Blue vervain	MN Native	FM-08-04-15-04	Feder	4.80
Bottle Gentian	Faribault Co.	FM-08-04-15-04	Feder	1.60
Canada milkvetch	MN Native	FM-08-04-15-04	Feder	4.80
Common ox-eye	MN Native	FM-08-04-15-04	Feder	8.00
Cream wild indigo	Faribault Co.	FM-08-04-15-04	Feder	1.60
Culver’s root	Kossuth Co.	FM-08-04-15-04	Feder	0.80
Cup plant	Kossuth Co.	FM-08-04-15-04	Feder	3.20
Golden Alexanders	Martin Co.	FM-08-04-15-04	Feder	8.80
Heart Leaf G. Alexander	Blue Earth Co.	FM-08-04-15-04	Feder	9.60
Hoary Vervain	MN Native	FM-08-04-15-04	Feder	6.40
L.F. Beardstongue	Brown Co.	FM-08-04-15-04	Feder	6.40
Leadplant	MN Native	FM-08-04-15-04	Feder	3.20
Max. sunflower	Day Co.	FM-08-04-15-04	Feder	2.40
Mountain mint	MN Native	FM-08-04-15-04	Feder	1.60
N.L. Purple coneflower	MN Native	FM-08-04-15-04	Feder	3.20
New England aster	Houston Co.	FM-08-04-15-04	Feder	4.80
Prairie cinquefoil	Kossuth Co.	FM-08-04-15-04	Feder	6.40
Prairie coreopsis	Kossuth Co.	FM-08-04-15-04	Feder	2.40
Prairie coreflower	Brown Co.	FM-08-04-15-04	Feder	6.40
Prairie onion	MN Native	FM-08-04-15-04	Feder	1.60
Prairie phlox	Faribault Co.	FM-08-04-15-04	Feder	1.60
Prairie spiderwort	MN Native	FM-08-04-15-04	Feder	1.60
Purple prairie clover	MN Native	FM-08-04-15-04	Feder	9.60
Rough blazingstar	MN Native	FM-08-04-15-04	Feder	3.20
Showy goldenrod	Dane Co.	FM-08-04-15-04	Feder	9.60
Showy tick trefoil	Faribault Co.	FM-08-04-15-04	Feder	4.00
Smooth blue aster	Kossuth Co.	FM-08-04-15-04	Feder	3.20
Sneezeweed	Kossuth Co.	FM-08-04-15-04	Feder	3.20
Stiff goldenrod	MN Native	FM-08-04-15-04	Feder	6.40
Tall blazingstar	Faribault Co.	FM-08-04-15-04	Feder	3.20
White prairie clover	MN Native	FM-08-04-15-04	Feder	9.60
Wild bergamot	Faribault Co.	FM-08-04-15-04	Feder	9.60

\*Lot B2LE07 trace species (rough dropseed, purple prairie clover, switchgrass, bearded slender wheatgrass, prairie dropseed, Canada wildrye, sideoats grama, wild sunflower sp., solidago spp., aster spp., apiaceae, sweetclover)

**Table 31 – Loen Mix – Morris WMD – FY 2009**

<b><u>Species</u></b>	<b><u>Origin</u></b>	<b><u>Lot Number</u></b>	<b><u>Vendor</u></b>	<b><u>#’s PLS/ac</u></b>
Big bluestem	Big Stone NWR	BS-08	N/A	1.22
Canada wildrye	McLeod Co.	T10LE07	N/A	3.00
Bearded slender wheat	Morris WMD	BSW-18	Feder	1.00
Indiangrass	Morris WMD	B2L13NP06	N/A	0.67
Little bluestem	Morris WMD	B2L13NP06	N/A	trace
Big bluestem	Morris WMD	B2L13NP06	N/A	trace
Switchgrass	Morris WMD	B2L13NP06	N/A	trace
Kalm’s brome	Morris WMD	B2L13NP06	N/A	trace
Sideoats grama	Morris WMD	B2L13NP06	N/A	trace
Muhlenbergia spp	Morris WMD	B2L13NP06	N/A	trace
Sideoats grama	Morris WMD	B2L13NP06	N/A	trace
Tall dropseed	Morris WMD	B2L13NP06	N/A	trace
Indiangrass	Big Stone NWR	BS-08IN	N/A	1.70
Big bluestem	Big Stone NWR	BS-08IN	N/A	trace
Switchgrass	Big Stone NWR	BS-08IN	N/A	trace
Kalm’s brome	Big Stone NWR	BS-08IN	N/A	trace
Sideoats grama	Big Stone NWR	BS-08IN	N/A	trace
Muhlenbergia spp.	Big Stone NWR	BS-08IN	N/A	trace
Sideoats grama	Morris WMD	Kufrin 08	N/A	2.00
Little bluestem	Morris WMD	Kufrin 08	N/A	trace
Big bluestem	Morris WMD	Kufrin 08	N/A	trace
Indiangrass	Morris WMD	Kufrin 08	N/A	trace
Switchgrass	Morris WMD	Kufrin 08	N/A	trace
Canada wildrye	Morris WMD	Kufrin 08	N/A	trace
Virginia wildrye	Morris WMD	Kufrin 08	N/A	trace
Kalm’s brome	Morris WMD	Kufrin 08	N/A	trace
<b><u>Forbs</u></b>				<b><u>#’s PLS/ac</u></b>
Purple prairie clover	Freeman WMA	Freeman WMA 08	N/A	1.30
Prairie clover spp.	Big Stone NWR	BS08IN	N/A	trace
Max. sunflower	Big Stone NWR	BS08IN	N/A	trace
Ratibida columnifera	Big Stone NWR	BS08IN	N/A	trace
Stiff goldenrod	Big Stone NWR	BS08IN	N/A	trace
Asters spp.	Big Stone NWR	BS08IN	N/A	trace
Purple prairie clover	Morris WMD	B2L13NP06	N/A	trace
Max. sunflower	Morris WMD	B2L13NP06	N/A	trace
Stiff goldenrod	Morris WMD	B2L13NP06	N/A	trace
Prairie cinquefoil	Morris WMD	B2L13NP06	N/A	trace
Asters spp.	Morris WMD	B2L13NP06	N/A	trace
Leadplant	Morris WMD	B2L13NP06	N/A	trace
Liatrix spp.	Morris WMD	B2L13NP06	N/A	trace
Wild onion	Morris WMD	B2L13NP06	N/A	trace
Prairie clover spp.	Morris WMD	Kufrin 08	N/A	trace
Canada milkvetch	Morris WMD	Kufrin 08	N/A	trace
L.F. Penstomen	Morris WMD	Kufrin 08	N/A	trace
Max. sunflower	Morris WMD	Kufrin 08	N/A	trace
Ratibida columnifera	Morris WMD	Kufrin 08	N/A	trace
False sunflower	Morris WMD	Kufrin 08	N/A	trace
Stiff goldenrod	Morris WMD	Kufrin 08	N/A	trace
Prairie cinquefoil	Morris WMD	Kufrin 08	N/A	trace

**Table 32 – Loose WPA Seed Mix – Morris WMD – FY 2009**

<u>Species</u>	<u>Origin</u>	<u>Lot Number</u>	<u>Vendor</u>	<u>#’s PLS/ac</u>
Big bluestem	Big Stone NWR	BS08	N/A	1.00
Indiangrass	Big Stone NWR	BS08IN	N/A	1.00
Prairie species*	Big Stone NWR	BS08IN	N/A	0.50
Canada wildrye	McLeod Co.	T10LE07	N/A	0.50
Bearded slender wheat	Morris WMD	BSW-18	Feder	2.50
Little bluestem	MN Native	GM-09-03-18-01	Feder	.875
Prairie dropseed	MN Native	GM-09-03-18-01	Feder	.075
Rough dropseed	MN Native	GM-09-03-18-01	Feder	.125
Sideoats grama	MN Native	GM-09-03-18-01	Feder	0.95
Prairie cordgrass	MN Native	GM-09-03-18-01	Feder	.125
Kalm’s brome	MN Native	GM-09-03-18-01	Feder	.125
Switchgrass	MN Native	GM-09-03-18-01	Feder	.125
June grass	South Dakota	GM-09-03-18-01	Feder	0.05
Canada bluejoint	Canada	GM-09-03-18-01	Feder	0.05
<b><u>Forbs</u></b>				<b><u>Oz. PLS/ac</u></b>
Feder Forb Mix		FM-09-03-17-01	Feder	20.0
Alumroot	MN Native	FM-09-03-17-01	Feder	0.20
Blue vervain	MN Native	FM-09-03-17-01	Feder	0.60
Bottle Gentian	MN Native	FM-09-03-17-01	Feder	0.20
Canada milkvetch	MN Native	FM-09-03-17-01	Feder	0.60
Common ox-eye	MN Native	FM-09-03-17-01	Feder	1.00
Cream wild indigo	MN Native	FM-09-03-17-01	Feder	0.20
Culver’s root	MN Native	FM-09-03-17-01	Feder	0.10
Cup plant	MN Native	FM-09-03-17-01	Feder	0.40
Golden Alexanders	MN Native	FM-09-03-17-01	Feder	1.10
Heart Leaf G. Alexander	MN Native	FM-09-03-17-01	Feder	1.20
Hoary Vervain	MN Native	FM-09-03-17-01	Feder	0.80
L.F. Beardstongue	MN Native	FM-09-03-17-01	Feder	0.80
Leadplant	MN Native	FM-09-03-17-01	Feder	0.40
Max. sunflower	MN Native	FM-09-03-17-01	Feder	0.30
Mountain mint	MN Native	FM-09-03-17-01	Feder	0.20
N.L. Purple coneflower	MN Native	FM-09-03-17-01	Feder	0.40
New England aster	MN Native	FM-09-03-17-01	Feder	0.60
Prairie cinquefoil	MN Native	FM-09-03-17-01	Feder	0.80
Prairie coreopsis	MN Native	FM-09-03-17-01	Feder	0.30
Prairie coneflower	MN Native	FM-09-03-17-01	Feder	0.80
Prairie onion	MN Native	FM-09-03-17-01	Feder	0.20
Prairie spiderwort	MN Native	FM-09-03-17-01	Feder	0.20
Purple meadow rue	IA Native	FM-09-03-17-01	Feder	0.20
Purple prairie clover	MN Native	FM-09-03-17-01	Feder	1.20
Rough blazingstar	MN Native	FM-09-03-17-01	Feder	0.40
Showy goldenrod	MN Native	FM-09-03-17-01	Feder	1.20
Showy tick trefoil	MN Native	FM-09-03-17-01	Feder	0.50
Smooth blue aster	Kossuth Co.	FM-09-03-17-01	Feder	0.40
Sneezeweed	Kossuth Co.	FM-09-03-17-01	Feder	0.40
Stiff goldenrod	MN Native	FM-09-03-17-01	Feder	0.80
Tall blazingstar	MN Native	FM-09-03-17-01	Feder	0.40
White prairie clover	MN Native	FM-09-03-17-01	Feder	1.20
Whorled milkweed	MN Native	FM-09-03-17-01	Feder	0.40
Wild bergamot	MN Native	FM-09-03-17-01	Feder	1.20
Wild rose	MN Native	FM-09-03-17-01	Feder	0.30
Trace forbs*	Big Stone NWR	BS08IN	N/A	trace

\*(Pr. Clover, Ratibida columnifera, Stiff goldenrod, Asters spp., big bluestem, switchgrass, Canada wildrye, Kalm’s brome, sideoats grama, and Muhlenbergia spp.)

**Table 33 – Hillman Seed Mix – Morris WMD – FY 2009**

<u>Species</u>	<u>Origin</u>	<u>Lot Number</u>	<u>Vendor</u>	<u>#’s PLS/ac</u>
Sideoats grama	Morris WMD	Kufrin08	N/A	3.45
Prairie species*	Morris WMD	Kufrin08	N/A	4.01
Prairie Species**	Morris WMD	B14NP08	N/A	2.50

\*Kufrin08 Prairie species (big bluestem, indiagrass, switchgrass, Elymus spp., little bluestem, Kalm’s brome, prairie coneflower, prairie clover spp., Canada milkvetch, Max. sunflower, bugleweed, Pr. Cinquefoil, stiff goldenrod, large flowered beardstongue))

\*\*B14NP08 prairie species (big bluestem, indiagrass, switchgrass, Elymus spp., little bluestem, Canada milkvetch, Max sunflower, prairie dropseed, prairie cordgrass, sideoats grama, Liatris spp., tall dropseed, narrow leaved purple coneflower, bedstraw, bugleweed, prairie cinquefoil, snakeroot, wild licorice, Muhlenbergia spp., Asters spp., goldenrods spp., leadplant)

**Table 34 – Smith Seed Mix – Morris WMD – FY 2009**

<u>Species</u>	<u>Variety</u>	<u>Lot Number</u>	<u>Vendor</u>	<u>#’s PLS/ac</u>
Big bluestem	MN Native	GM-09-03-26-02	Feder	1.95
Indiangrass	MN Native	GM-09-03-26-02	Feder	1.98
Cordgrass	Red River	GM-09-03-26-02	Feder	0.10
Slender wheatgrass	Revenue	GM-09-03-26-02	Feder	0.40
Sideoats grama	MN Native	GM-09-03-26-02	Feder	1.00
Kalm’s brome	MN Native	GM-09-03-26-02	Feder	0.50
Blue grama	Red River	GM-09-03-26-02	Feder	0.40
Virginia wildrye	MN Native	GM-09-03-26-02	Feder	0.40
Green needlegrass	Lodorm	GM-09-03-26-02	Feder	0.30
Switchgrass	Dacotah	GM-09-03-26-02	Feder	0.20
Little bluestem	Itasca	GM-09-03-26-02	Feder	0.76

<u>Forbs</u>				<u>Oz. PLS/ac</u>
Wild bergamot	MN Native	FM-09-04-23-05	Feder	0.25
New England Aster	IA Native	FM-09-04-23-05	Feder	0.25
Rnd Headed Bushclover	MN Native	FM-09-04-23-05	Feder	0.65
Oxeye sunflower	MN Native	FM-09-04-23-05	Feder	1.50
Golden alexander	MN Native	FM-09-04-23-05	Feder	0.45
Showy tick trefoil	IA Native	FM-09-04-23-05	Feder	0.40
Black-eyed Susan	IA Native	FM-09-04-23-05	Feder	0.35
Canada milkvetch	MN Native	FM-09-04-23-05	Feder	1.00
Hoary vervain	MN Native	FM-09-04-23-05	Feder	0.50
Leadplant	MN Native	FM-09-04-23-05	Feder	0.50
White prairie clover	MN Native	FM-09-04-23-05	Feder	0.75
Smooth blue aster	IA Native	FM-09-04-23-05	Feder	0.25
Button blazingstar	MN Native	FM-09-04-23-05	Feder	0.20
Purple prairie clover	MN Native	FM-09-04-23-05	Feder	0.95