




Dear Water Topic Committee:

Each spring in McHenry County water is slowly released and directed onto hay lands at 150-200 cfs under a managed flood plan. In 2011 we saw 26,000 cfs that ravaged the downstream hay meadows remaining for several weeks, directly impacting plant growth. This water was nutrient rich and contaminated with many man-made and natural materials; including human waste, fertilizer, garbage, home materials, fossil fuels, and sediment.

This nutrient rich material created filamentous algae, fungi and moss that deposited on most of the land flooded for an extended period of time. On lands that were true meadows (wet meadow zones, saline lowlands, sub-irrigated lands, wet lands, riparian zones, and loamy overflow site), vegetation death was minimal, but stress reduced plant production in 2011. Lands that were not true meadows (loamy, sandy, sands, and clayey uplands) and were flooded with water for more than 1-2 weeks resulted in high death loss of perennial vegetation. Also, areas that were seeded to alfalfa or non-water loving grasses have received high death loss of plants. Many of these areas have now become inundated with quack grass and noxious weeds. Damage to crop land, hay land, structures and fence lines has exceeded \$3.5 million dollars. Significant impacts to the livestock industry with herd dispersals continue into 2014.

In many of these areas there was a significant economic impact on rural residents who make their livelihood along the river. I have attached a compilation and pictures from 52 Flood Impact Reports that were turned in by McHenry County residents and producers, this is only a small representation of the total that were affected. Agriculture plays a crucial role in the life of an economy. It is the backbone of our economic system. Agriculture not only provides food and raw material but also employment opportunities to a very large proportion of population.

McHenry County is vital to the agricultural sector of ND. This agricultural community has proved remarkable resilience as an industry despite the ongoing environmental challenges. Farmers and ranchers in McHenry County have a vital role in ensuring a safe, traceable and high quality domestic food supply, and the collective importance of food, farming and ranching to the ND economy must not be underestimated or forgotten as a basin wide approach for flood protection is developed.

Sincerely,



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McHenry County Flooding

2011 was one of the most devastating events to impact McHenry County in History.

“One of the most severe flood damage in recent times, will take years to completely recover”

- Over 30,000 acres were inundated with flood waters for over 5 months
- 50% of McHenry County was Prevented Planted – over 500,000 acres – however ranchers did not benefit of this.
- Over 60 % of the nearly 2,000 miles of County and Township roads were damaged or destroyed
- McHenry County had a total of 1,491 approved sites throughout the county

These 1,491 sites totals \$5,711,876 in damages

Of these \$5.7 in damages, \$1.5 million is the county's responsibility

McHenry County also incurred damages on Federal Aid roads estimated at about \$500,000, which FEMA does not cover.

In addition, a bridge on a major collector collapsed in the river. That bridge is estimated at about \$1.4 million to replace.

100 Flood Impacts reports were mailed out to producers directly affectly along the path of the Souris River. Keep in mind that this only represents 52 producers.

52 of the Flood Impact Reports that were turned in:

- Fence line – 170 miles X \$6632/mile (including labor) = \$1,127,440.00
- Pasture Acres = 10,165
- Hay land Acres = 16,702.20
- Cropland Acres = 3,098
- Bales = 21,893 bales (17,514 tons) X \$30.00 bale average (\$30.00 was in 2011) = \$656,790.00
- Rent - \$31,000 (that would of not been spent)
- Purchased Hay - \$169,625
- New Tank - \$250.00
- Pump/System - \$4,000.00
- Culverts - \$24,000
- Debris Clean Up - \$9,555.00

Dealing with the Mouse River Flooding and Impacts on Downstream Hay Meadows

The Situation

The 2011 summer flooding event of the Mouse River impacted numerous acres of hay meadow land north and west of Towner, North Dakota. Water remained on these lands on the majority of the land until freeze up, directly impacting plant growth into 2013. The areas that drained even without a crop or vegetation cover, responded with production in the 2102 growing season.

This water was nutrient rich and contaminated with many man-made and natural materials; including human waste, fertilizer, garbage, fossil fuels and sediment.

This nutrient rich material created filamentous algae, fungi and moss that deposited on most of the land flooded for an extended period of time.

- Damage to Pasture, Hay lands and Croplands estimated at \$3.5 million
- Over 1.2 million dollars in fence lines have been replaced in the last two years
- The meadows have now been inundated with Quack grass and Noxious Weeds.
- Many of the impacted lands still remain too wet to utilize

Extension Response

A team of Extension professionals and elected decision makers was assembled to address the issue. As a result of the collaboration effort a research project was established to test mechanical and chemical treatments on removal of filamentous algae and moss that impede plant growth. Field trials were also established to study different mechanical treatments on collection and removal, shredding and removal, shredding with no removal, and other techniques to determine best method of revitalizing the hay meadows.

Individual producer visits for on site evaluation and recommendations has been conducted on an ongoing basis over the past two years.

Information on replanting and managing flooded soils has been presented at several meetings, news releases, TV interviews and Ag Alerts over the past two years.

Impacts

3 research test plots will be continued to be studied for regrowth of native species on a multi-year process as soon as we are able to access many of those flooded areas as vegetation was still not apparent in some of these areas. The ground also remains so saturated that weeds have become the dominant species. The State of North Dakota provided \$5,550 for reimbursement for 15 producers for forage seed expenses and up to a maximum of \$370 per producer.

In 2013 the ND Forest Service provided \$23,572.50 to assist applicants with reseeding of Native Grass Species, debris removal and noxious weed control to be conducted hopefully during the 2014 growing season.

Contact

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June-2011-Spuris River Flood - Falsen twp. Verendrye -













