Nebraska Wetland Condition Assessment

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Introduction
1780 Wetlands vs 1980 Wetlands
Nebraska Wetland Assessment 2011-2013
Goals

• Full range of conditions
• Baseline data
• Monitor future change
Methods – Site Selection

• Soil, vegetation, and size
• Random points
• Contact landowners
• On the ground confirmation
2016

- 8 EPA Sites – 2 Repeated
- 20 Intensification Sites in Cherry County Fens
- 20 Intensification Sites in Alkaline Meadows
2017

• 20 Intensification Sites in **Diamond Willow**
• 20 Intensification Sites on **Central Platte**
• 20 Intensification Sites in **Verdigre Bazile**
Methods

• Soil
• Vegetation
• Water
• Buffer
Assessment Area

- 40 meter radius circle
- 5 vegetation plots
  - green boxes
- 1 soil pit
  - red circle
- 1 water sample area
  - yellow star
Buffer
Water

- 53 Sites
- Chlorophyll a
- Microcystin
- Water chemistry
Vegetation
Sandhill Fens
Sandhill Fens
Sandhill Fens
Alkaline Meadows
Alkaline Meadows
Alkaline Meadows
Alkaline Meadows
Alkaline Meadows
North and Middle Loups
North and Middle Loups
North and Middle Loups
North and Middle Loups
North and Middle Loups
Central Platte
Central Platte
Central Platte

The diagram shows the distribution of unique plants across different plots. Each plot is divided into three categories: Small, Medium, and Large. The height of each bar represents the total number of unique plants for that plot, with the color coding indicating the proportion of each category.
Verdigre Bazile
Verdigre Bazile
Verdigre Bazile
Verdigre Bazile
All Wetlands
Soil
Soil
Preliminary Soils Results

- 2 Cobalt
- 1 Phosphorous
- 1 Antimony and Cadmium
Anecdotal Results

• Over 50% rejection rate on the Loup Rivers
• 5-15% Elsewhere
Going Forward

• Me
  - Model indicators of wetland condition
  - Determine appropriate size and number of vegetation plots
  - Determine appropriate depth for soil pit

• Nebraska Intensification
  - Continue to secure the intensification grants every five years
  - Gather more baseline information for other BULs
  - Monitor changes that occur and help landowners effectively manage their wetlands
BIG THANK YOU!

• Thank You Landowners!
Thank You

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