

# Nebraska Wetland Condition Assessment

Cody Dreier



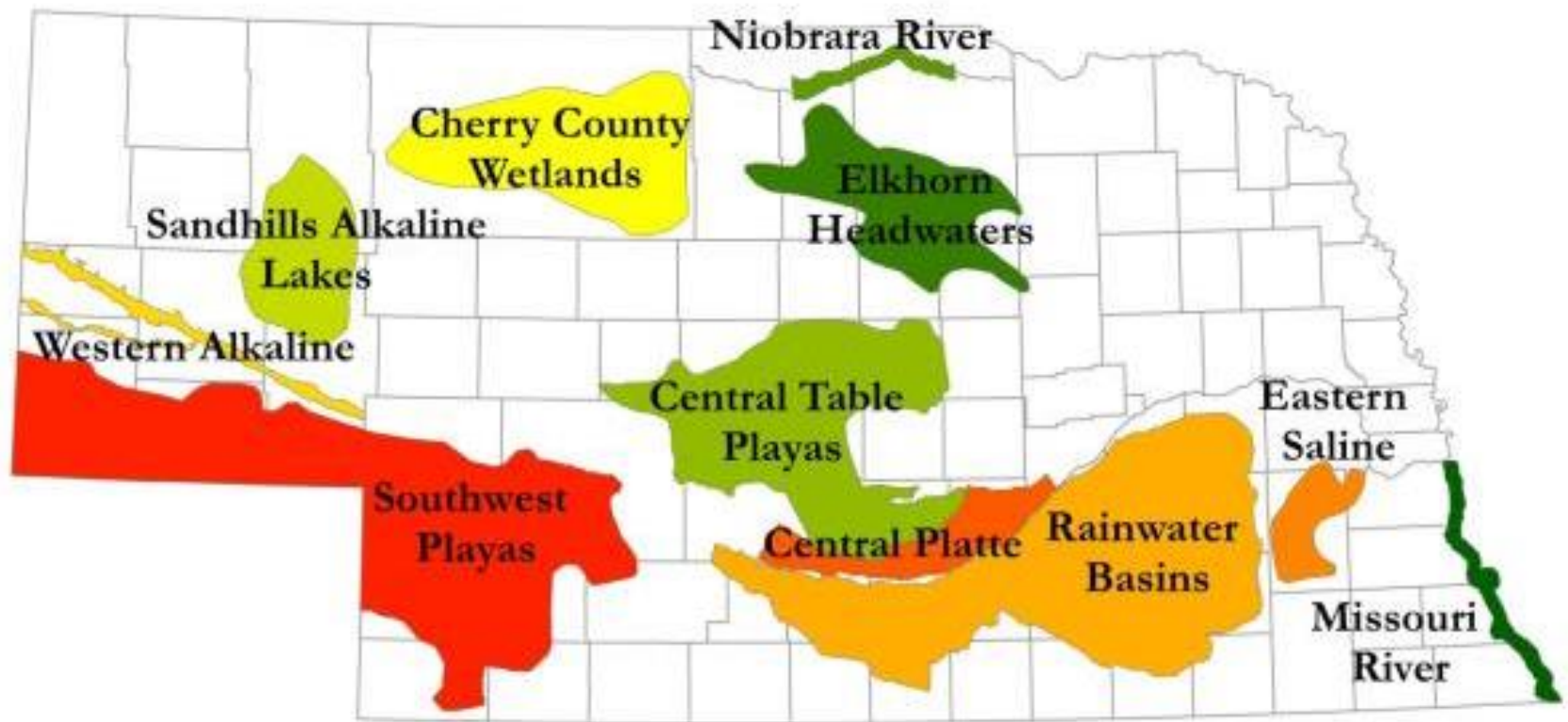
# Introduction



# 1780 Wetlands vs 1980 Wetlands



# Nebraska Wetland Assessment 2011-2013





# Goals

- Full range of conditions
- Baseline data
- Monitor future change



# Methods – Site Selection

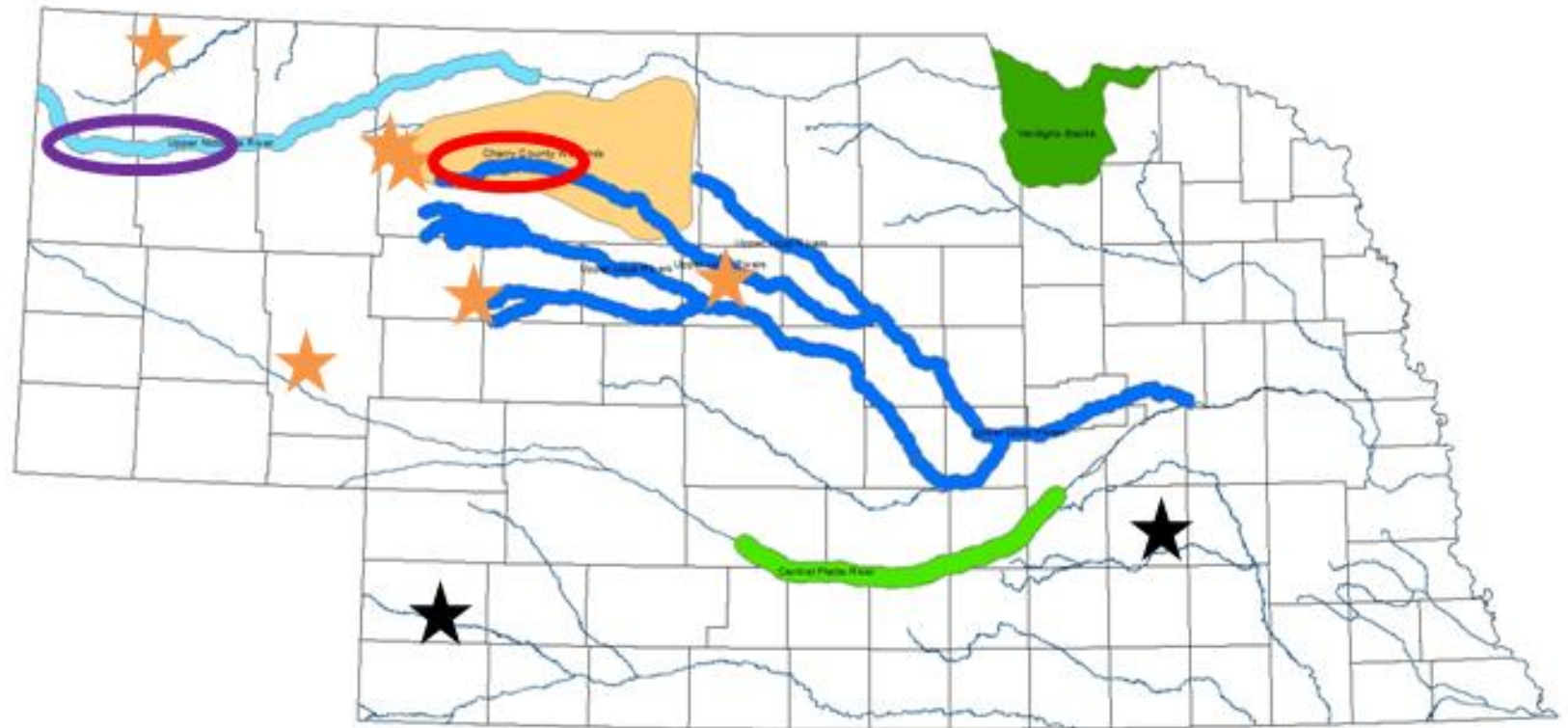
- Soil, vegetation, and size
- Random points
- Contact landowners
- On the ground confirmation





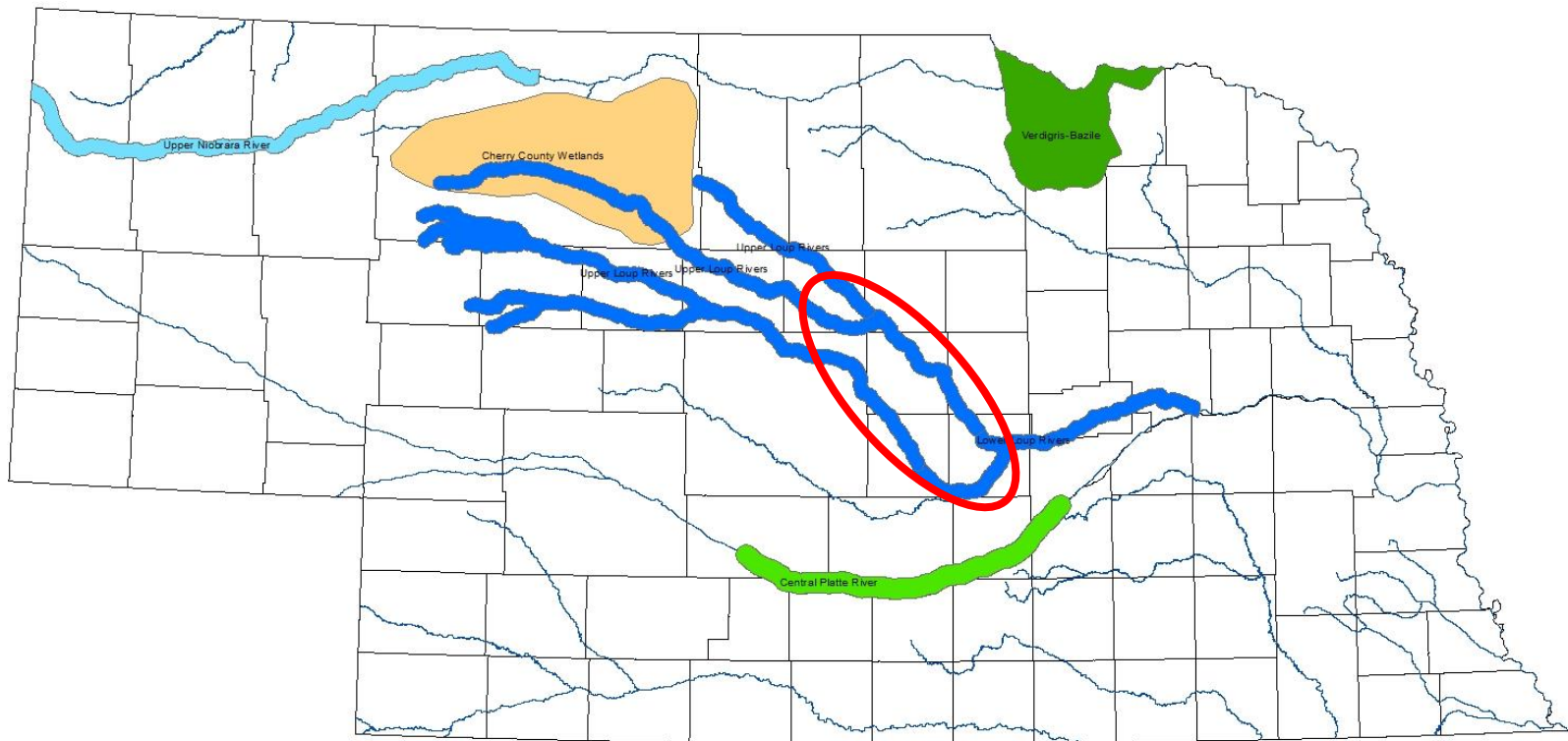
# 2016

- 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 **Verdigris Bazile**





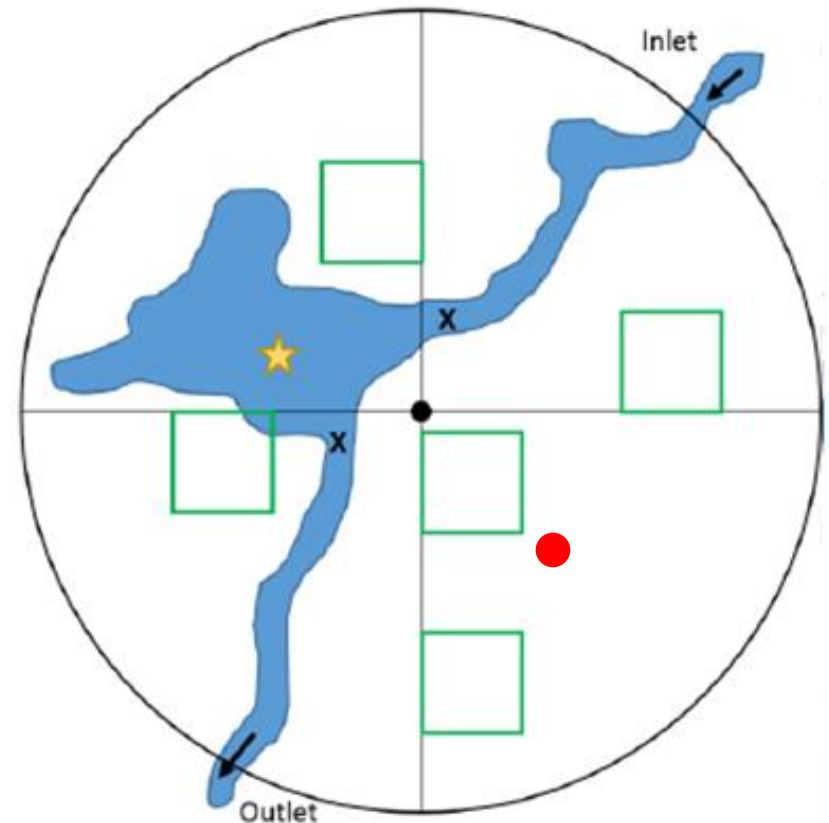
# Methods

- Soil
- Vegetation
- Water
- Buffer

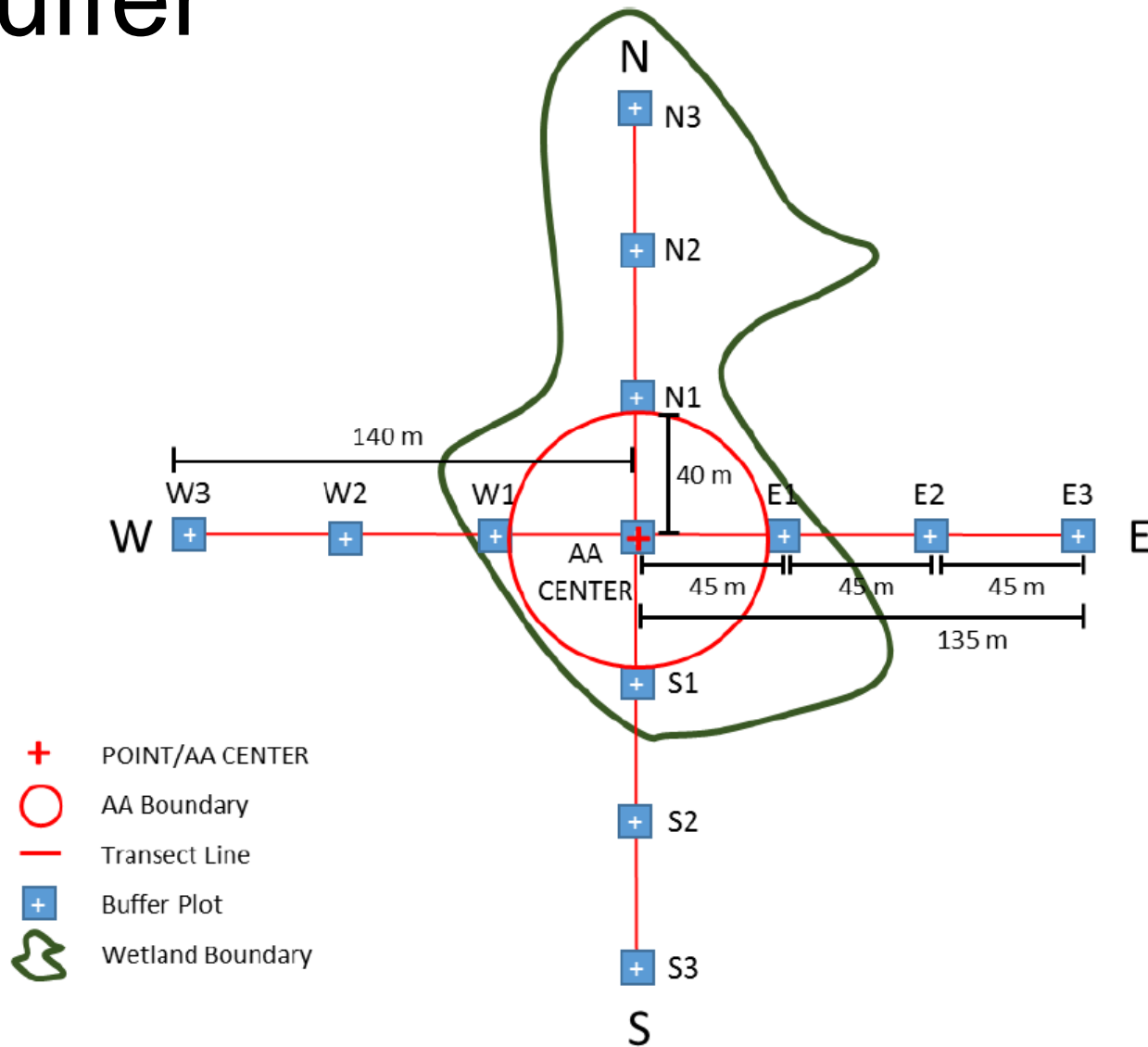


# Assessment Area

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



# Buffer



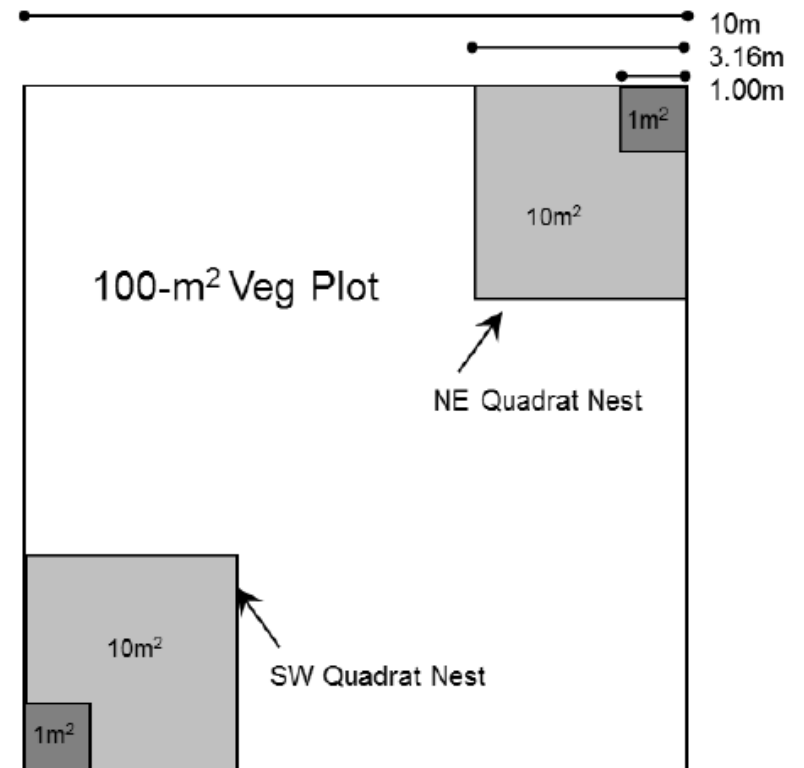
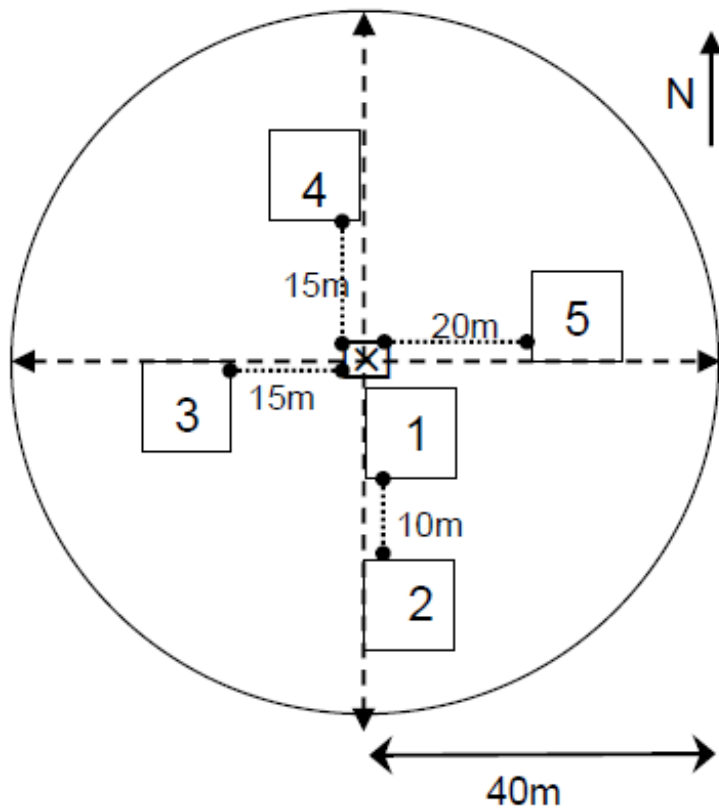
# Water

- 53 Sites
- Chlorophyll a
- Microcystin
- Water chemistry

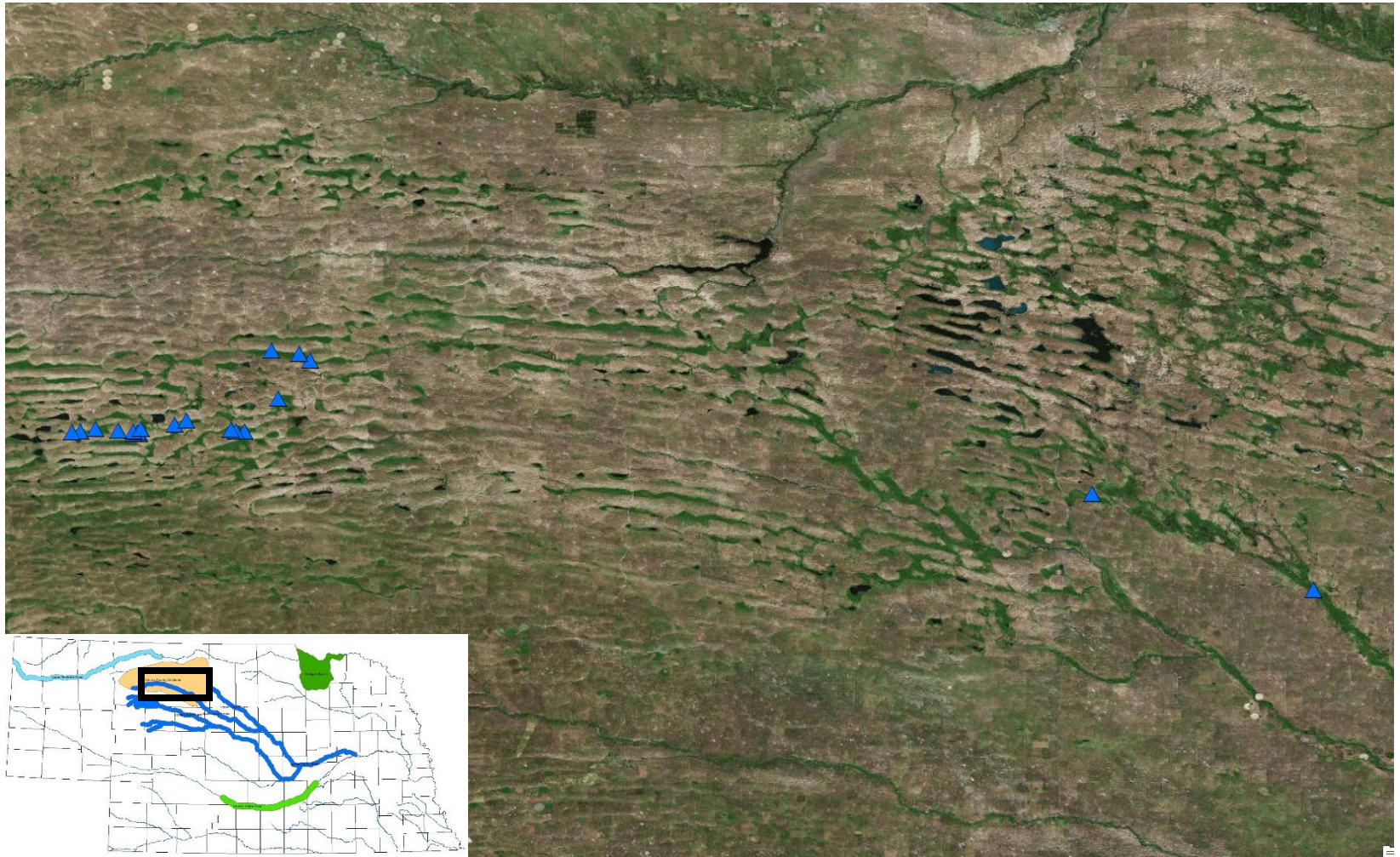




# Vegetation



# Sandhill Fens

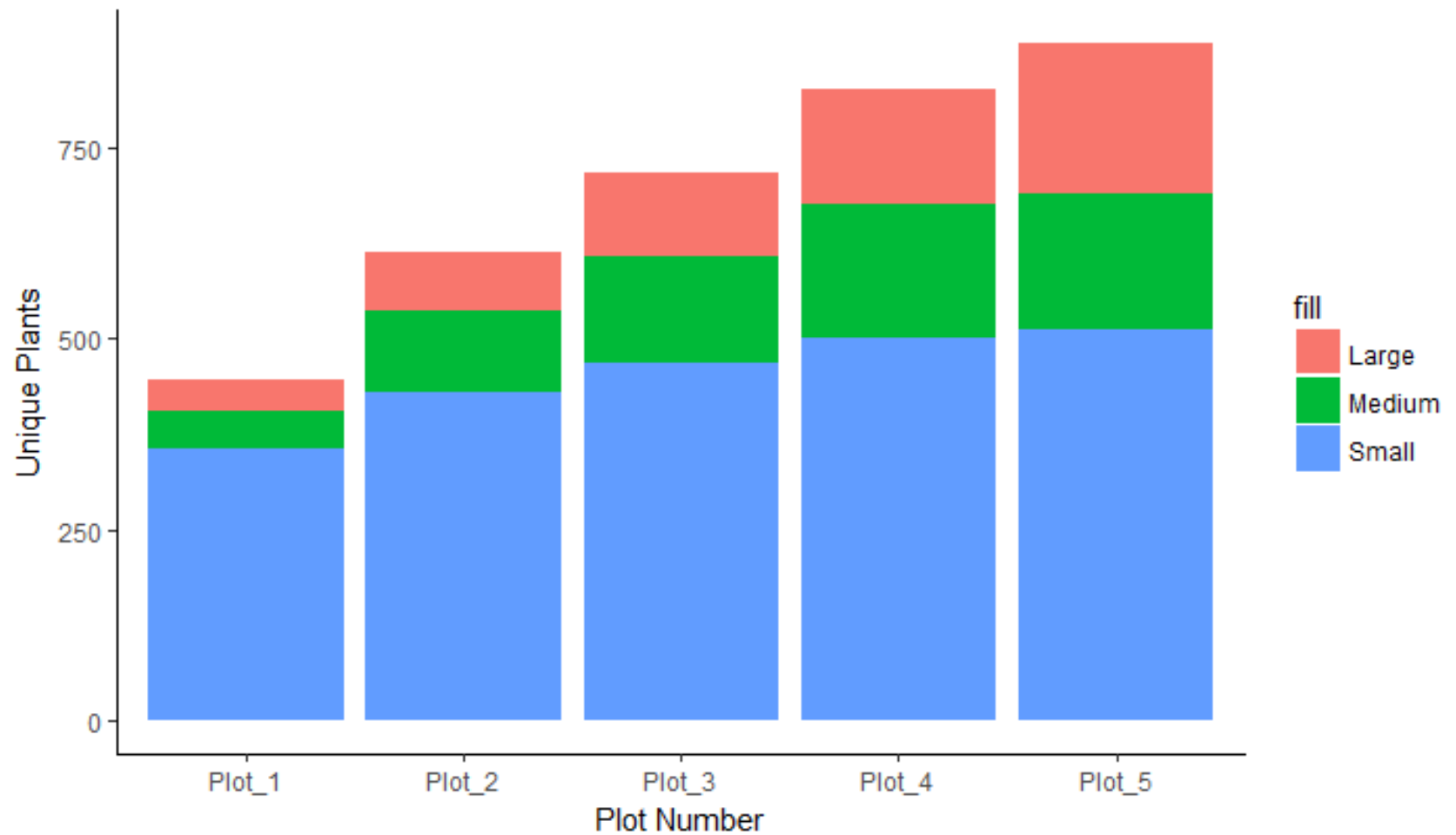




# Sandhill Fens

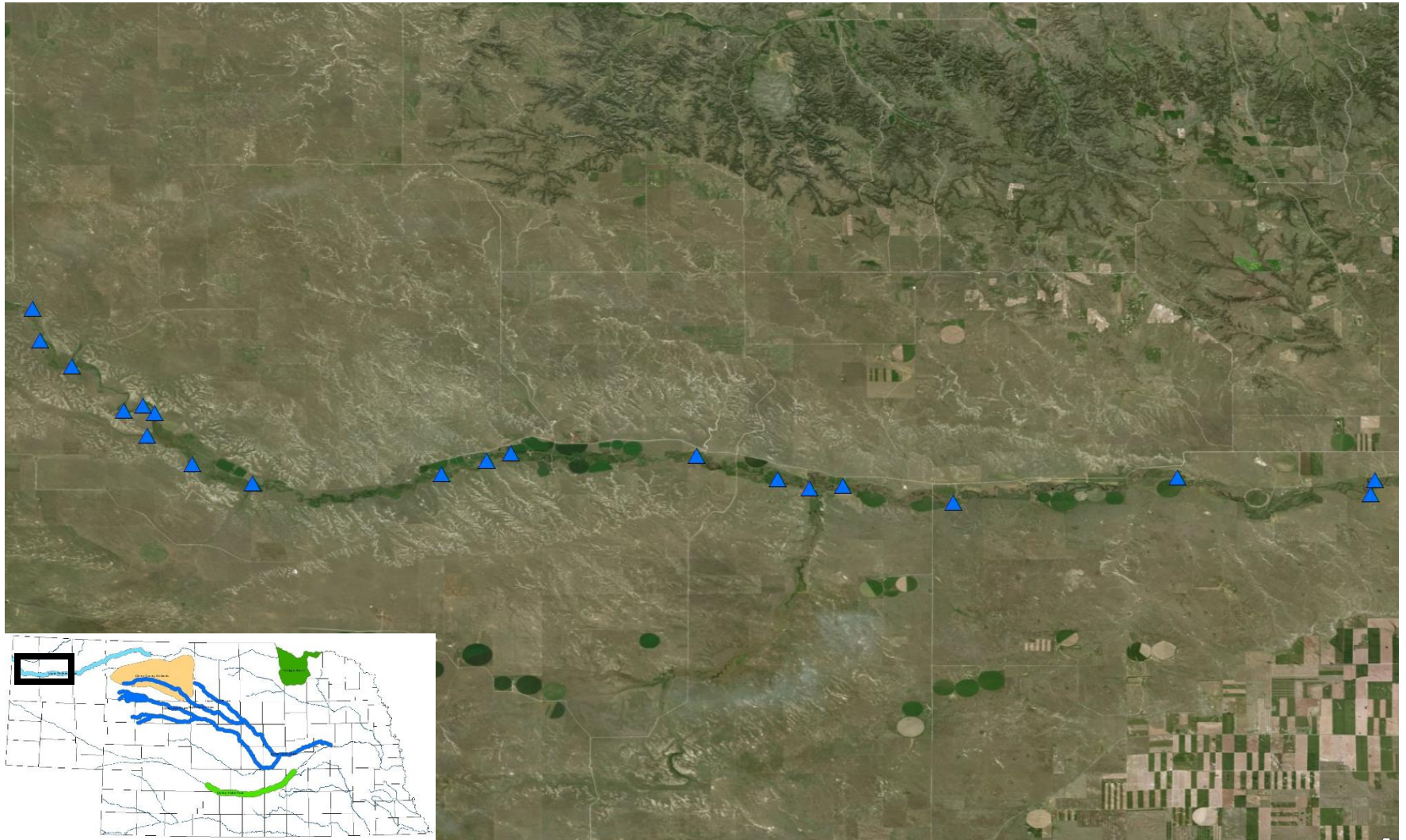


# Sandhill Fens





# Alkaline Meadows



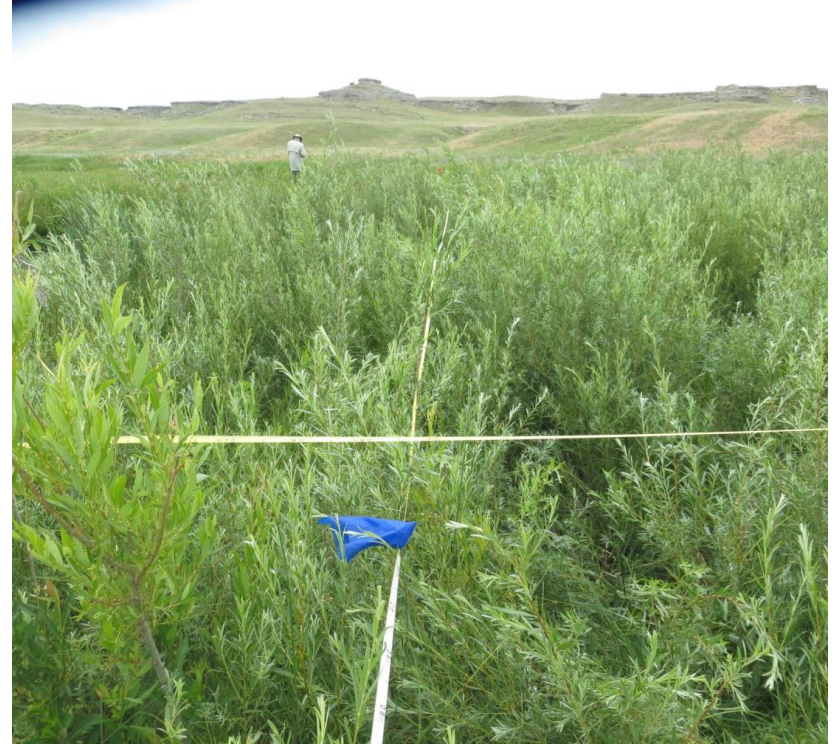


# Alkaline Meadows



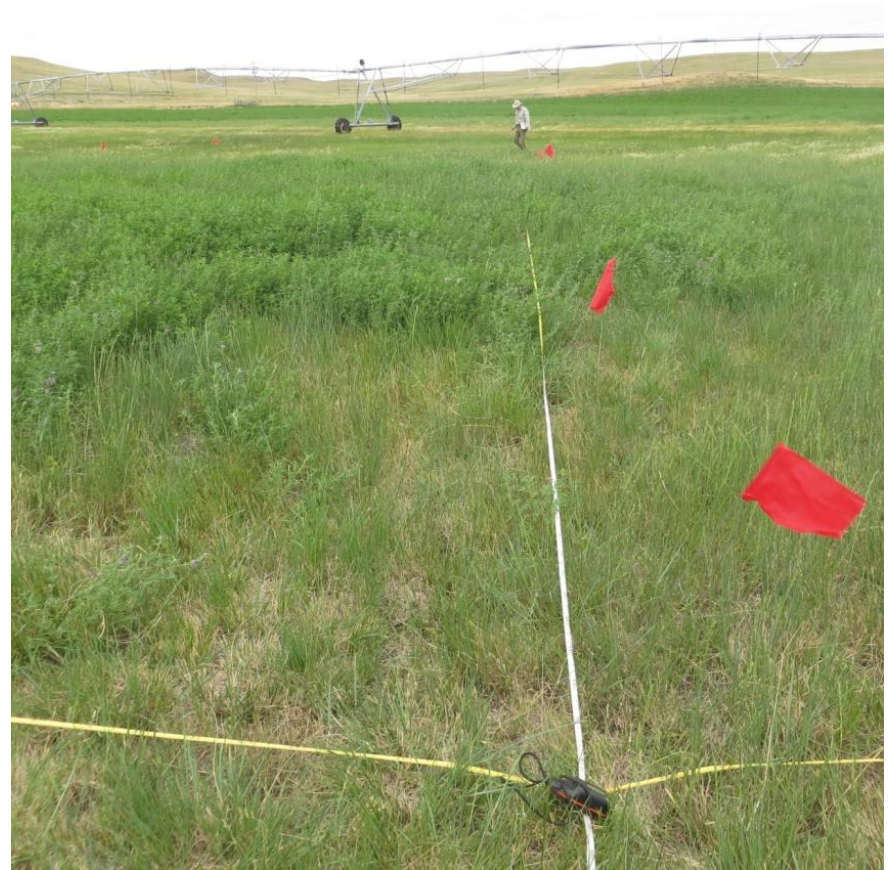


# Alkaline Meadows



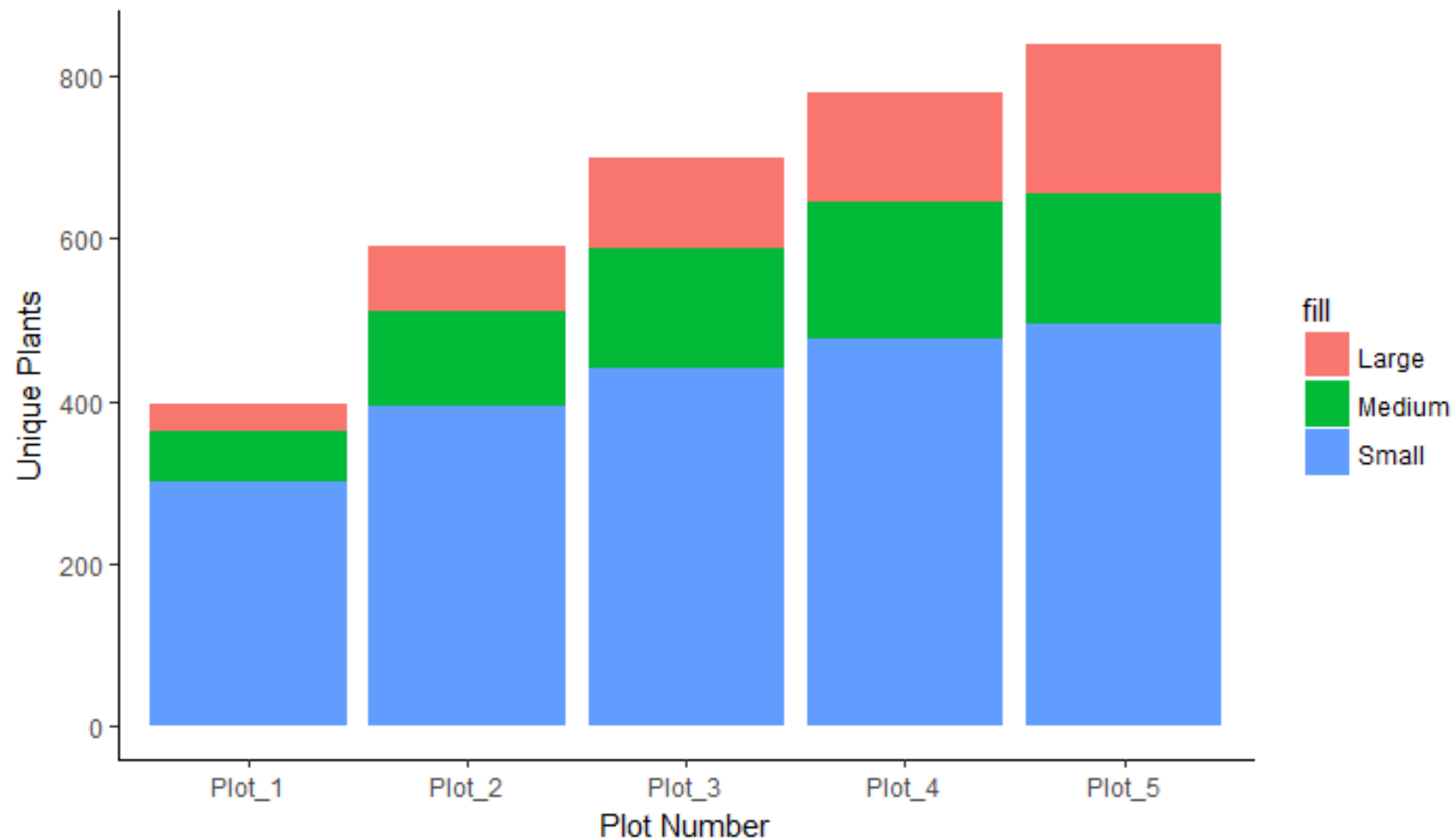


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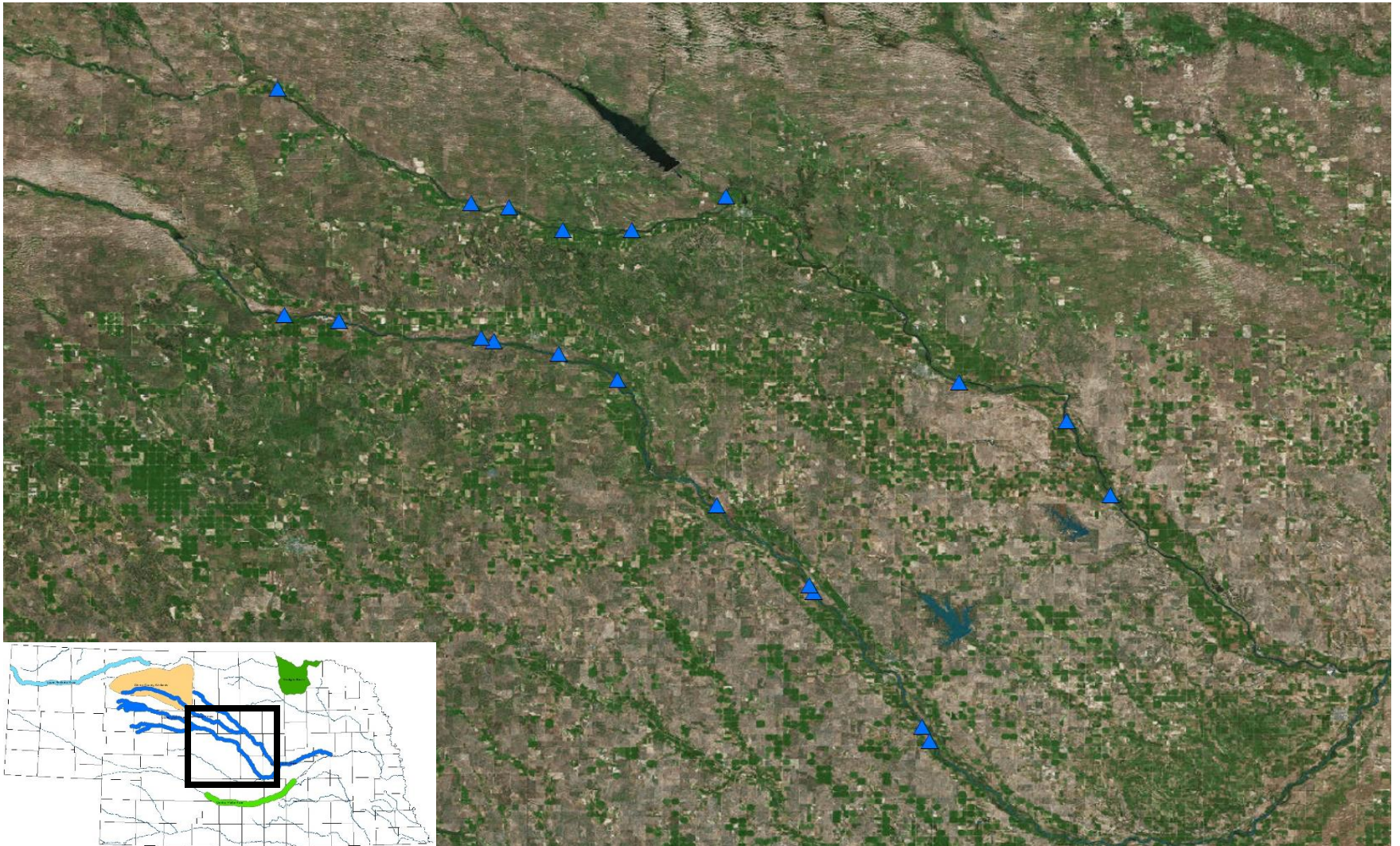




# Alkaline Meadows



# North and Middle Loups





# North and Middle Loups





# North and Middle Loups

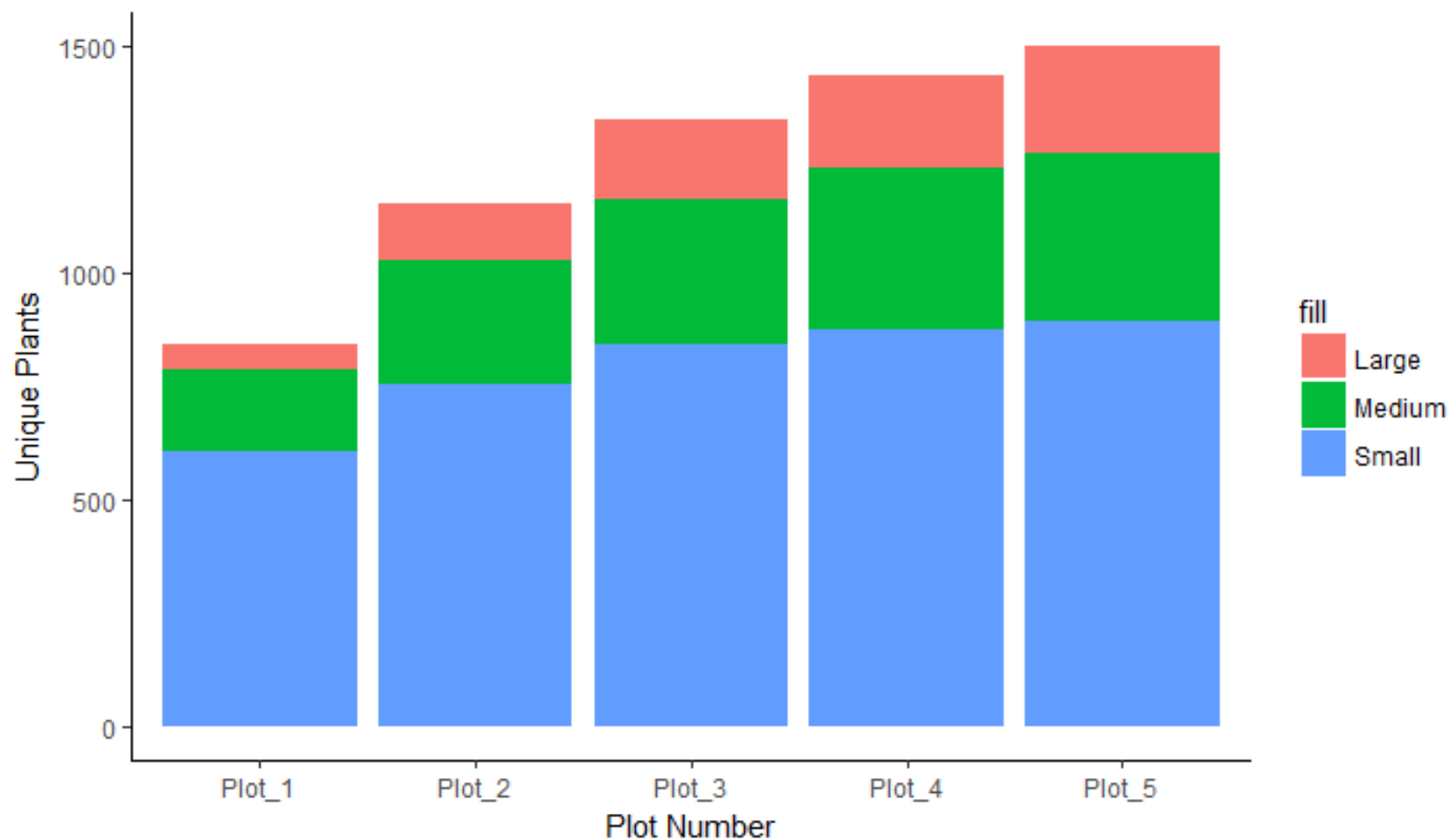




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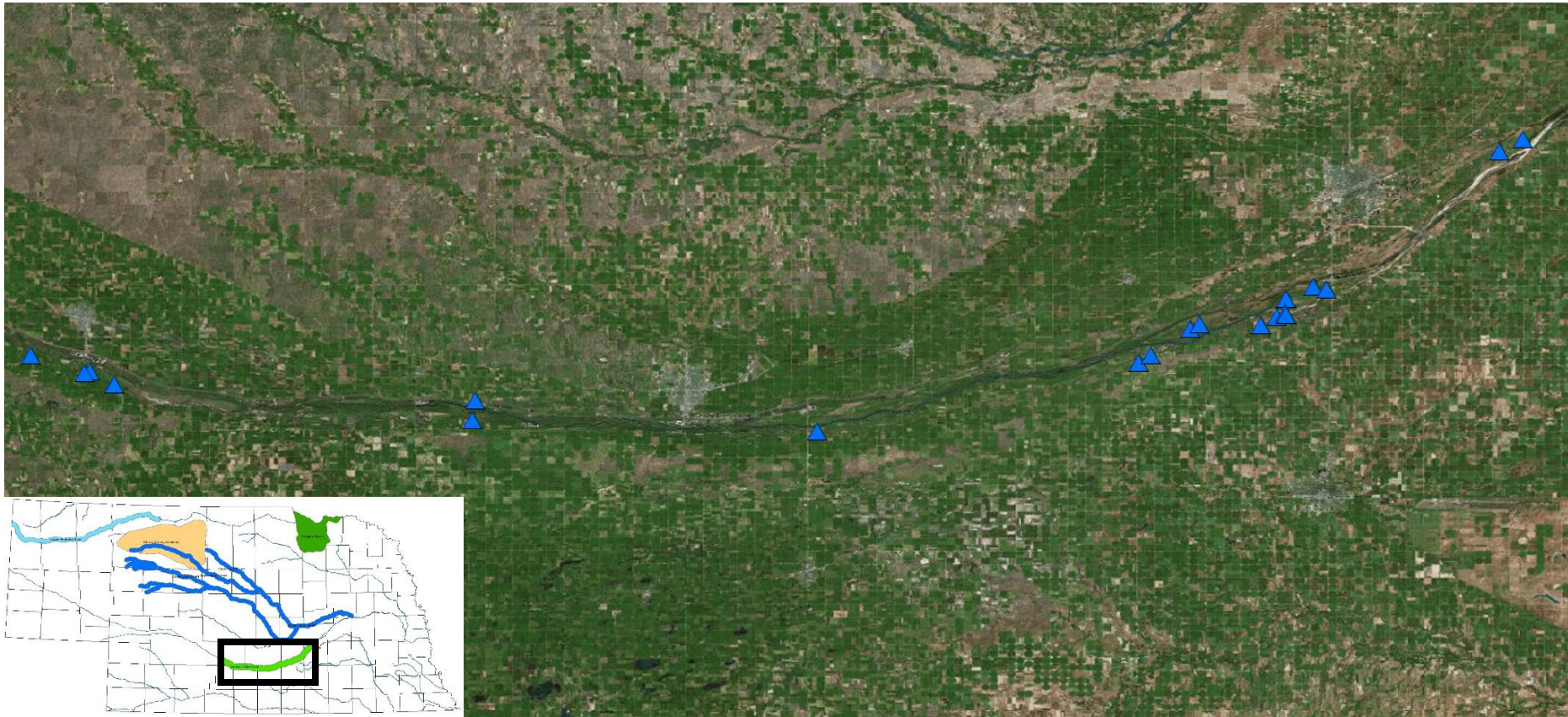


# North and Middle Loups





# Central Platte

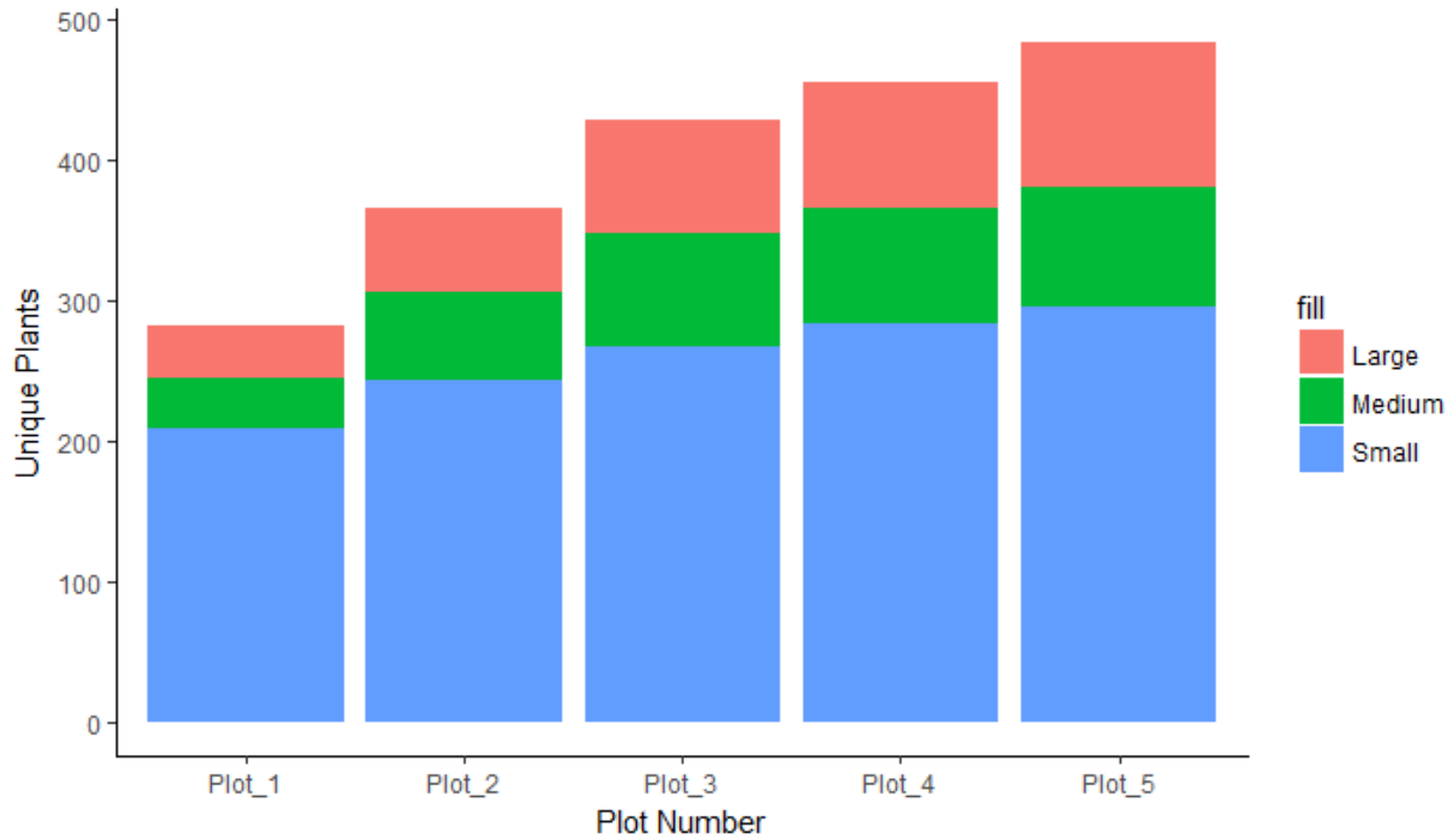




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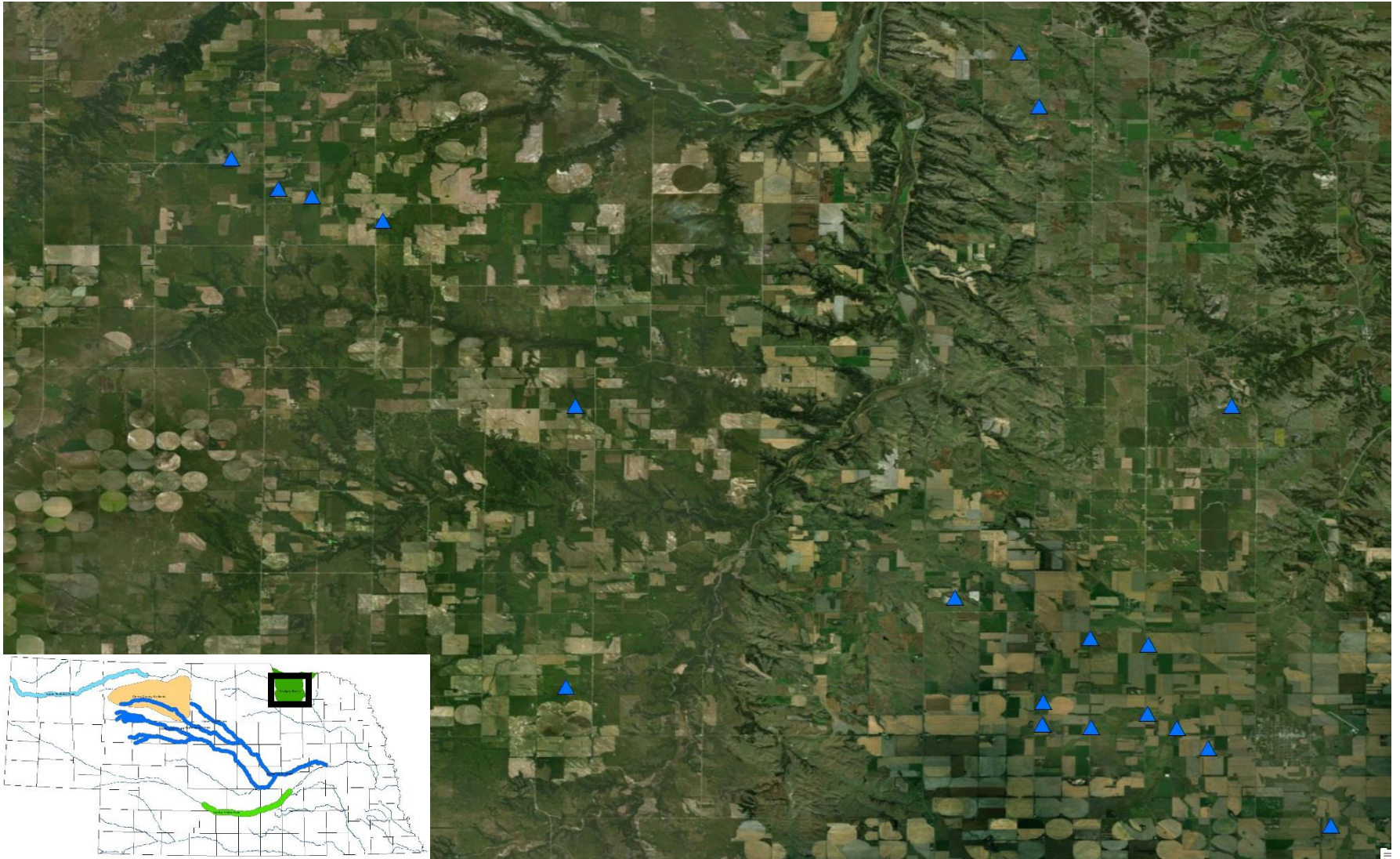


# Central Platte





# Verdigre Bazile





# Verdigre Bazile



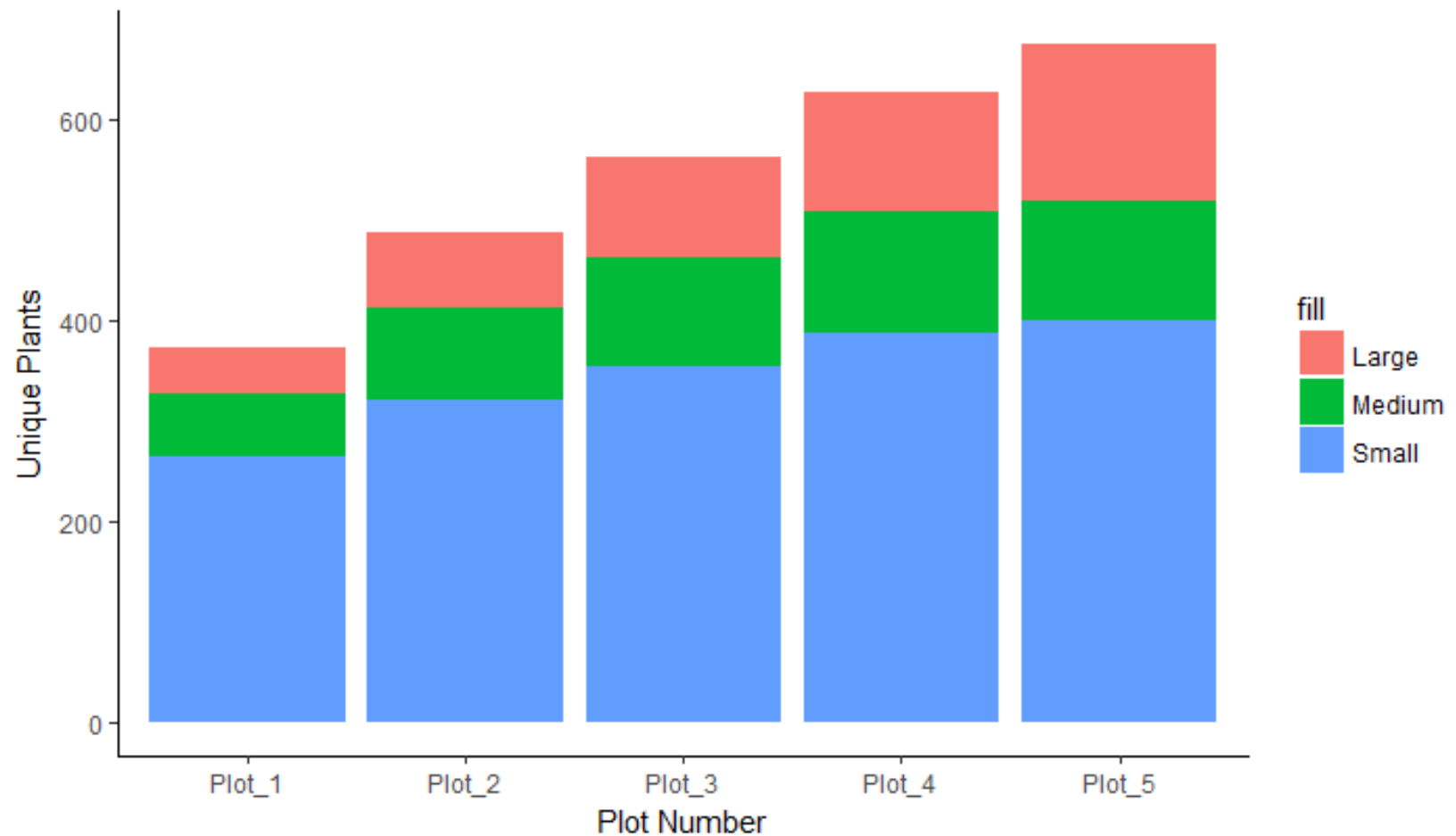


# Verdigre Bazile

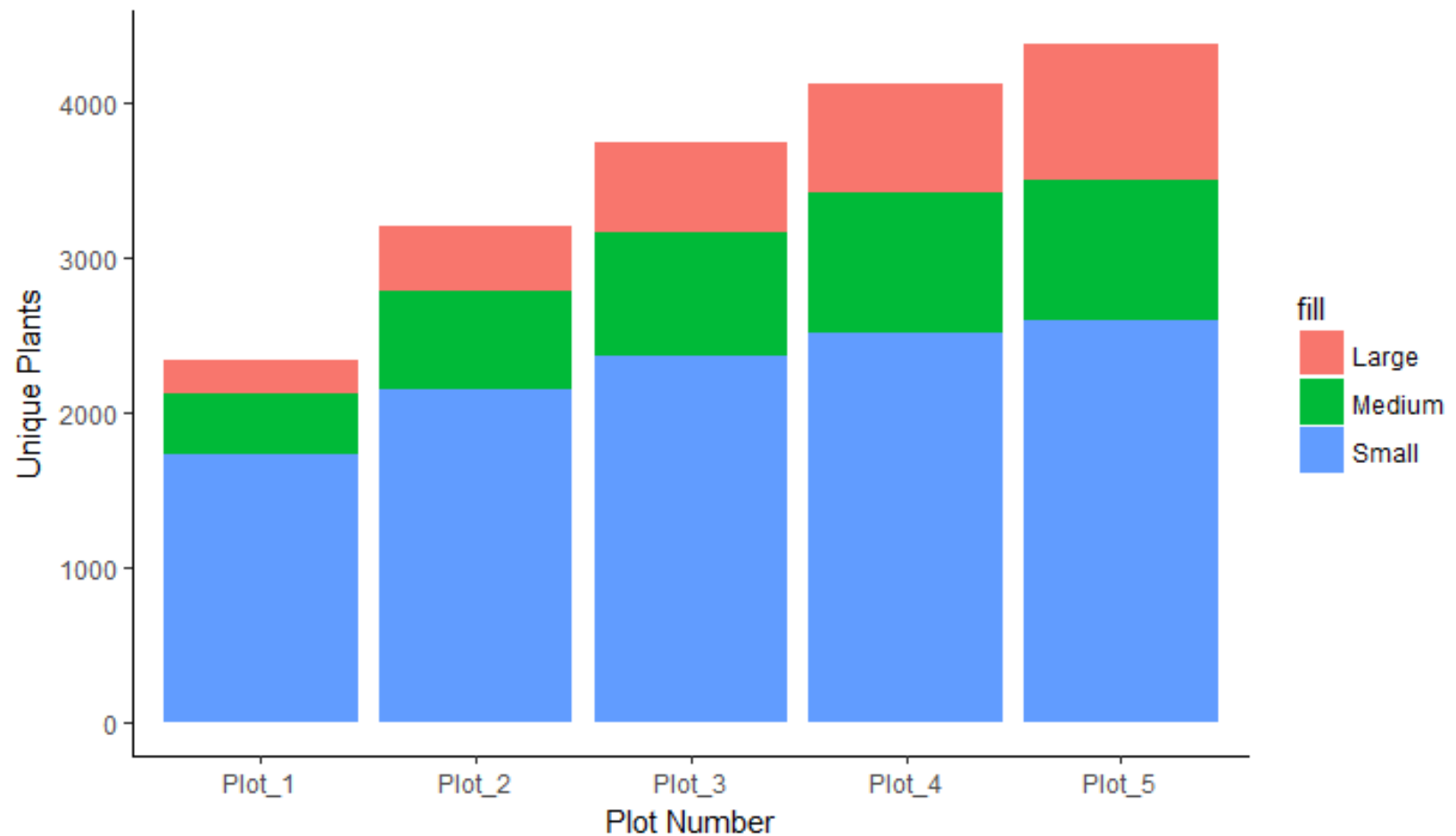




# Verdigre Bazile



# All Wetlands





# Soil









# Soil



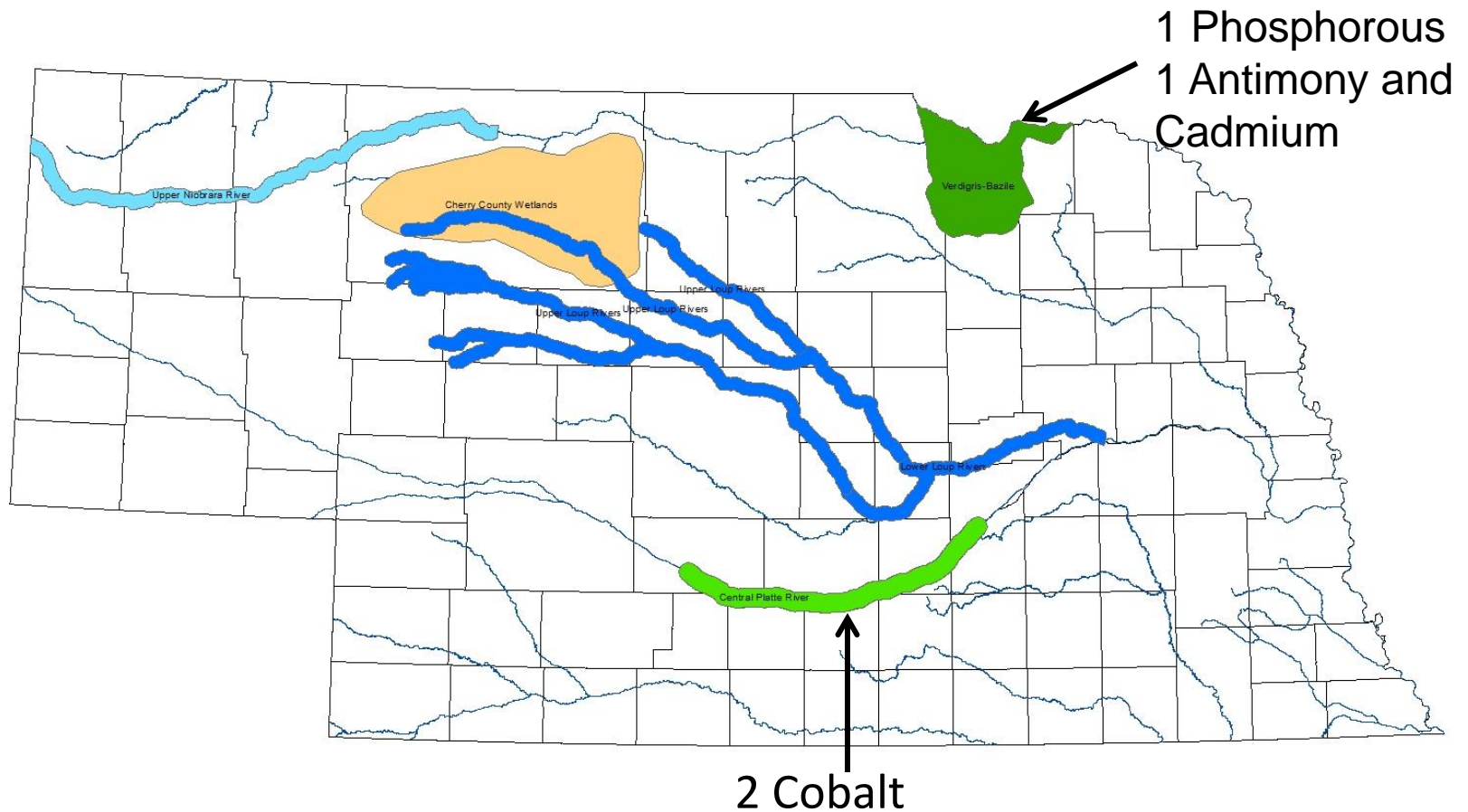


# Soil





# Preliminary Soils Results



# 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

Anne Bartuszevige (Playa Lakes Joint Venture)

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