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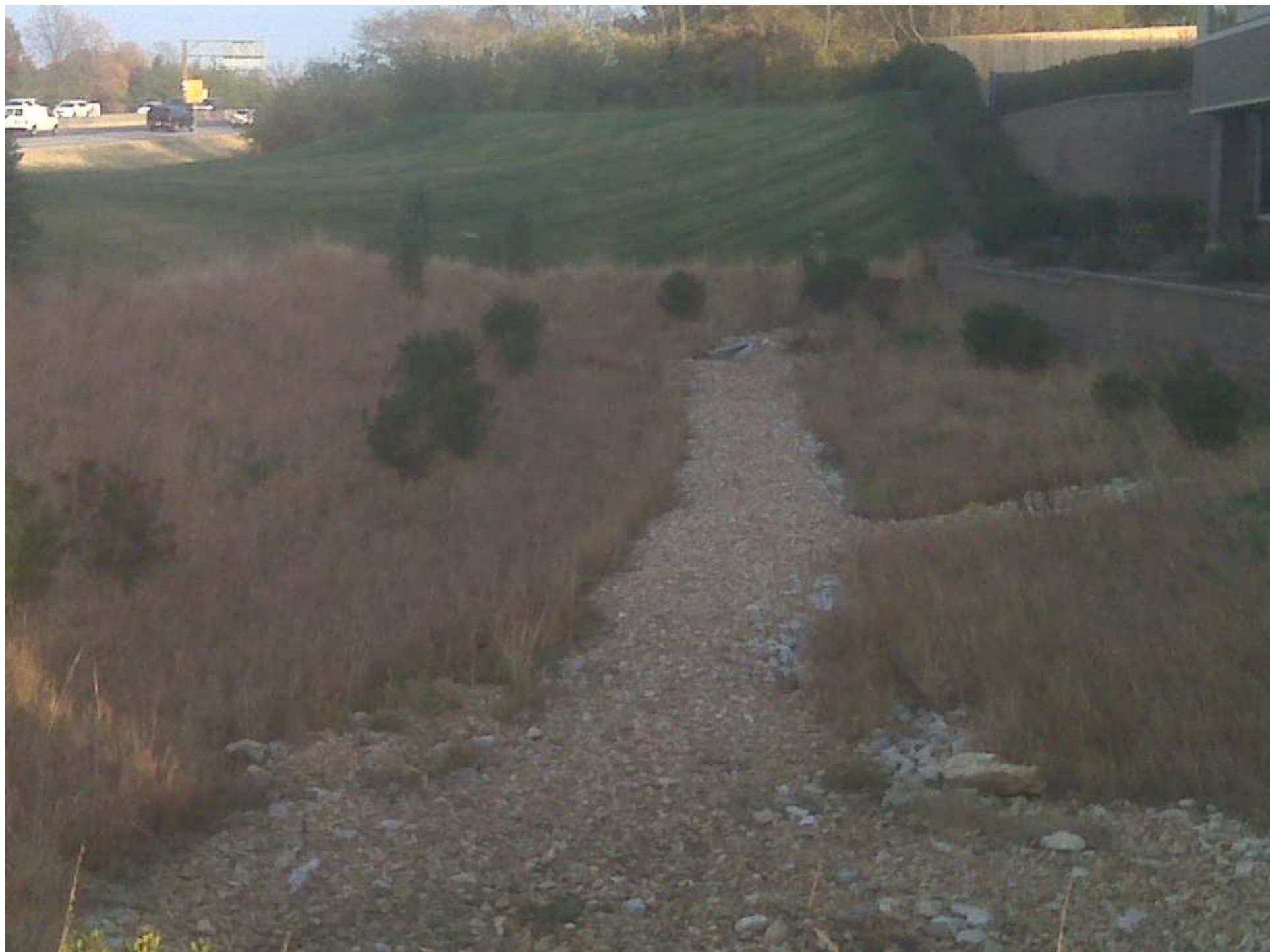




















# Outline

- Site Assessment.
- Strategies for soil stabilization and seed stratification
- Maintenance during the establishment phase





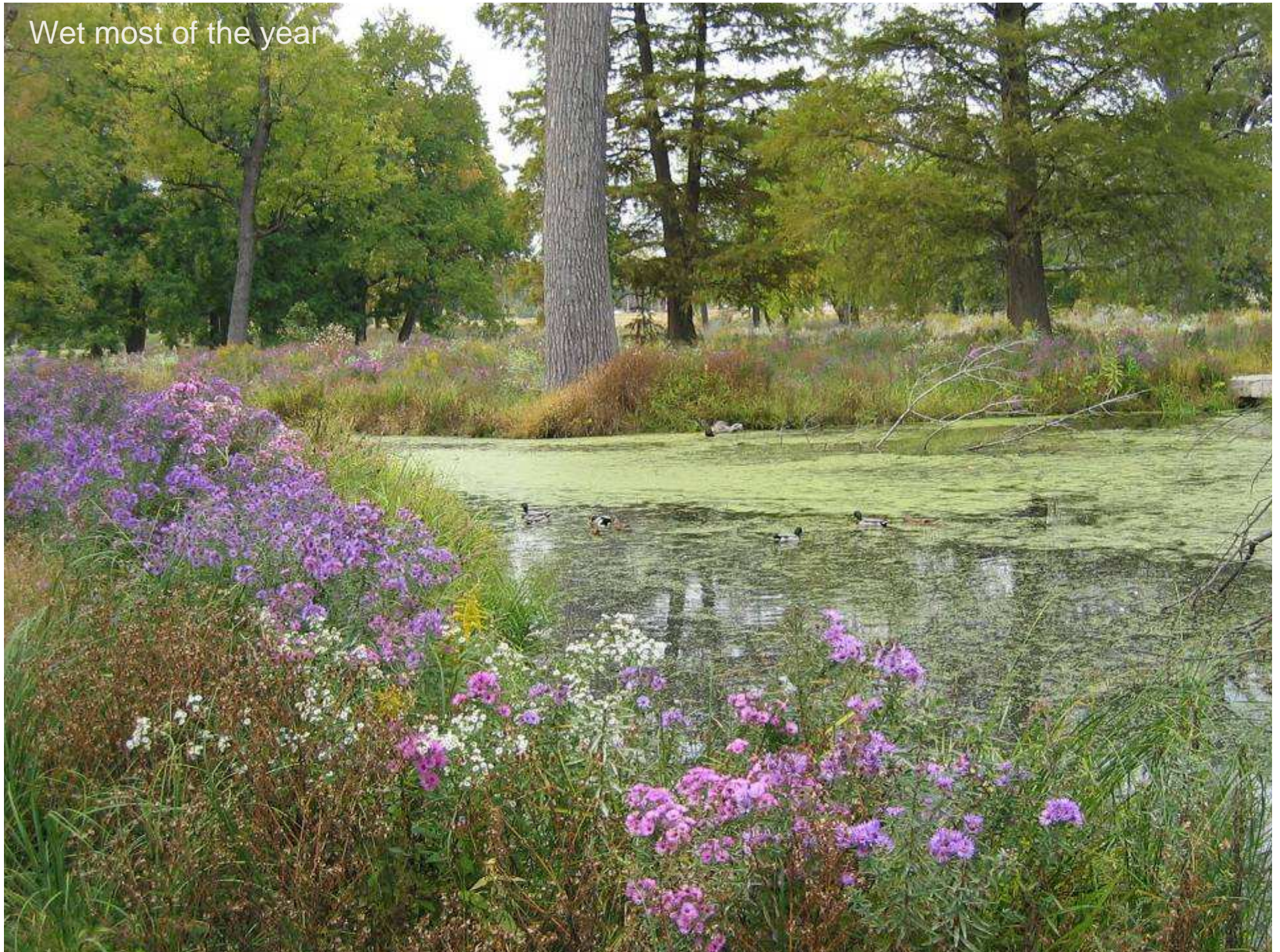
# Overview

- Plan your plant community around existing lay of the land.
- Basic agronomic fertility levels give you a place to start.
- Compaction is your enemy
- Weeds will come to visit
- Soil communities will rebuild over time





Wet most of the year





ater soaks in during rain





Water drains rapidly





## Correct fertility if needed

- Use Build up rates from the soils lab
- Adjust P to 45- 50 lbs/Acre
- Adjust K to 260 – 300 lbs / Acre
- Adjust PH to 6 to 8 with agricultural lime or sulfur.
- If CEC is below 12 meq/100g you may have to add organic matter or grow a cover crop to disk in.



# Compacted Sites

- Alleviate Compaction – Chisel Plow and Disk: April – May
- Spray Erosion Control: May
- Plant cover crop (Oats, annual rye, sudan): May
- Disk in cover crop: August
- Spray: September
- Plant winter wheat: September
- Plant: November - February





# Strategy

- Reduce weed seed bank in soil
- Limit weed seed production
- Limit weed seed introduction



# Annual Weeds



Foxtail

Common Ragweed



Sweet Clover



# Perennial Weeds



Johnson Grass

Canada Thistle



Serecea  
lespedeza



# Stratagies for soil stabilization

- No-till through dead sod or nurse crop
- Nurse crop only
- Straw mulch with nurse crop
- Erosion control blanket



# No-till through dead sod





# Cover crop 1 bushel /acre Winter wheat





urse crop





et area subject to flowing water





# Native Seeding



## Seasonal Considerations

- ~November 15 through March 15 for mixed forbs and grasses
- March 15 to May 1 Grasses only.
  - Proper site prep + Correct fertility = Success
  - Match the seed mix to the site
  - **Native Seed mixes are low lbs/ Acre Calibrate Carefully**

**SEEDS (PLS) PER SQUARE FOOT**





<b>Permanent Grasses:</b>		Average		
<b>Botanical Name</b>	<b>Common Name</b>	<b>Seeds/ Ounce</b>	<b>Ounces / Acre</b>	<b>Seeds/ Sqft</b>
<u><i>Andropogon gerardii</i></u>	Big Bluestem	8,188	48.00	9.02
<u><i>Bouteloua curtipendula</i></u>	Side-Oats Gramma	9,375	32.00	6.89
<u><i>Chasmanthium latifolium</i></u>	River oats	3,969	8.00	0.73
<u><i>Elymus canadensis</i></u>	Canada Wild Rye	4,258	32.00	3.13
<u><i>Elymus virginicus</i></u>	Virginia wild rye	4,375	16.00	1.61
<u><i>Hystrix patula</i></u>	Bottlebrush grass	4,700	1.00	0.11
<u><i>Schizachyrium scoparium</i></u>	Little Bluestem	8,800	32.00	6.46
	<b>Total</b>		<b>169.00</b>	<b>27.95</b>

# **Construction Sites, Compaction, Rubble, Toil and Trouble**

Set a realistic time frame

Damaged sites take 3 to 5 years to recover

Set a maintenance schedule

Overseeding and fertility adjustment





- Maintain plantings through the first two years of establishment at a minimum.
- High mow annual weeds
- Spot spray perennial weeds
- Maintain fertility levels
- Overseed thin spots







# • Tallgrass Prairie Facts

• *Compiled by Minnesota DNR*

1. Native tallgrass is the MOST ENDANGERED ecosystem
  - in North America – *Kansas University*
2. Native prairie root systems are the BEST natural soil
  - anchors on earth.
3. In one acre of established prairie there is 24,000
  - pounds of roots. – *Iowa State University*
4. One acre of prairie can ABSORB 9" of rainfall/hour
  - before runoff occurs. – *University of Northern Iowa*
5. One acre of established prairie will INTERCEPT as
  - much as 14,000 gallons of water during a one inch per hour rain
  - event. – *University of Nebraska, Lincoln*

GOOD JUDGEMENT is the result of experience,  
EXPERIENCE is the result of BAD JUDGEMENT





