Goals

• Increase biodiversity
• Reduce or eliminate invasive species
• Educate stakeholders
Natural Area Assessment

- Determine the current state of your ecosystem
  - Assess your site to determine plant species, soils, and hydrology
Natural Area Assessment – Soils

- Ensure a proper base for plant growth, adequate topsoil and/or compost
Plant species are assigned wetness factors. Wetness factors are categories of saturation tolerance. The categories are Obligate Wetland (OBL), Facultative Wetland (FACW), Facultative (FAC), Facultative Upland (FACU), and Upland (UPL).

Wetland plants are adapted to soils with varying degrees of saturation.
Natural Area Assessment – Plants

- Determine the plant species on site and whether they are native or invasives
Native Plants

- Native plants have natural limits to growth
- There is a life cycle to these ecosystems, called succession.
- Succession increases diversity and limits each species so they do not continuously dominate the landscape.
- Some examples of native plants include Grasses, Coneflowers, Susans, Irises, Bulrushes, Sedges, Rushes, Arrowheads
Native Plants

- Prairie plant root systems are very deep compared to traditional landscaping.

*Image by Conservation Research Institute and Heidi Natura*
Natural Area Management Goals - Stormwater Management

- Turf Grass
- Big Bluestem
- Switchgrass

Image by Conservation Research Institute and Heidi Natura
Invasive Plants

• Typically, invasive species are from Europe or Asia, brought over for landscaping, agricultural, or were mixed up with other items.

• Invasive species are out of their native habitat and so generally do not have any predators or natural limits on growth.

• Some examples of invasive plans include Buckthorn, Reed Canary Grass, Honeysuckle, Garlic Mustard, Common Reed, Cut-leaved Teasel, Canada Thistle, Eurasian Milfoil and Purple Loosestrife.
Invasive Natives

• These plants:
  – Dominate created habitats and fringe areas
  – Very aggressive
  – Limited restrictions to growth and propagation

• Cattails, Poison Ivy, and Box Elder Trees are native plants that are considered invasive in regards to natural area management.
Natural Area Assessment – Plants

- Determine the plant species on site and whether or not they are wetland or upland species
- Wetlands are the most common habitats protected from development, and therefore are the most common naturalized area which requires management.
Natural Area Assessment – Plants

- Wetland plants are adapted to soils with varying degrees of saturation.
- The soil saturation limits or inhibits oxygen intake by roots, so the wetland plants adapt by utilizing the above ground leaves for oxygen.
- Adaptations include waxy cuticles, adventitious roots, buttressing (hypertrophy) and modified growth schedules.
Natural Area Assessment – Plants

- Plant species are assigned coefficients of conservatism.
- Coefficients of conservatism or C-values refer to the native value of the plant, specifically the likelihood it would exist only in undisturbed, not degraded, remnant areas.
Prairie Dropseed has a C-value of 10 and a FACU wetness factor, because it does not grow in the wild degraded, disturbed fringe areas and has a possibility of saturation tolerance (1%-33% probability of growing in a wetland).

Common Cattail has a C-value of 1 and an OBL wetness factor, because it will grow in any disturbed or fringe area but requires water (greater than 99% probability of growing in a wetland).

Natural Area Assessment – Plants
Natural Area Assessment

- Determine the current state of your ecosystem
  - Soils
  - Hydrology
  - Plants
Questions and Contact Information

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