

Ecological Management Plans: Essentials for Successful Conservation

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Minnesota Conservation Summit

September 24, 2009



Outline

- Achievable Restoration & Management Goals
- Components of an Ecological Management Plan
- Concepts and System-Level Planning
 - Desired Future Conditions
 - Reconstruction & Restoration Targets, Schedule, Cost
 - Funding (short & long term)
 - Performance Measurement
- Case Studies
- Ecological Management Plan Grant Requirements
- Where to Go for Help
- Questions/Discussion

Achievable Restoration & Management Goals

1. Site restoration potential

- Existing ecological integrity
- Soils
- Moisture regimes & groundwater
- Invasive plants
- Past & ongoing human disturbances

2. Project goals

- Desired level of ecological integrity of ecosystem
- Aesthetics
- Ecological functions

Achievable Restoration & Management Goals

3. Inventory of technical & logistical resources

- Partners
- Agencies
- Landowners

4. Budget, phasing & funding

- Initial restoration
 - Intensive period
 - Maintenance period
- Long-term stewardship

Components of an Ecological Management Plan

A really good plan will always:

1. Address project goals
2. Consider the audience
3. Address landowner needs & desires
4. Convey phasing, schedule & budgets
5. Anticipate who will likely implement
6. Allow for adaptive management

Components of an Ecological Management Plan

1. Introduction

- Purpose

2. Existing Ecological Conditions

- Site regional context
- Existing ecological data from site
- Natural Resource Inventory/Assessment

3. Identify Opportunities & Constraints

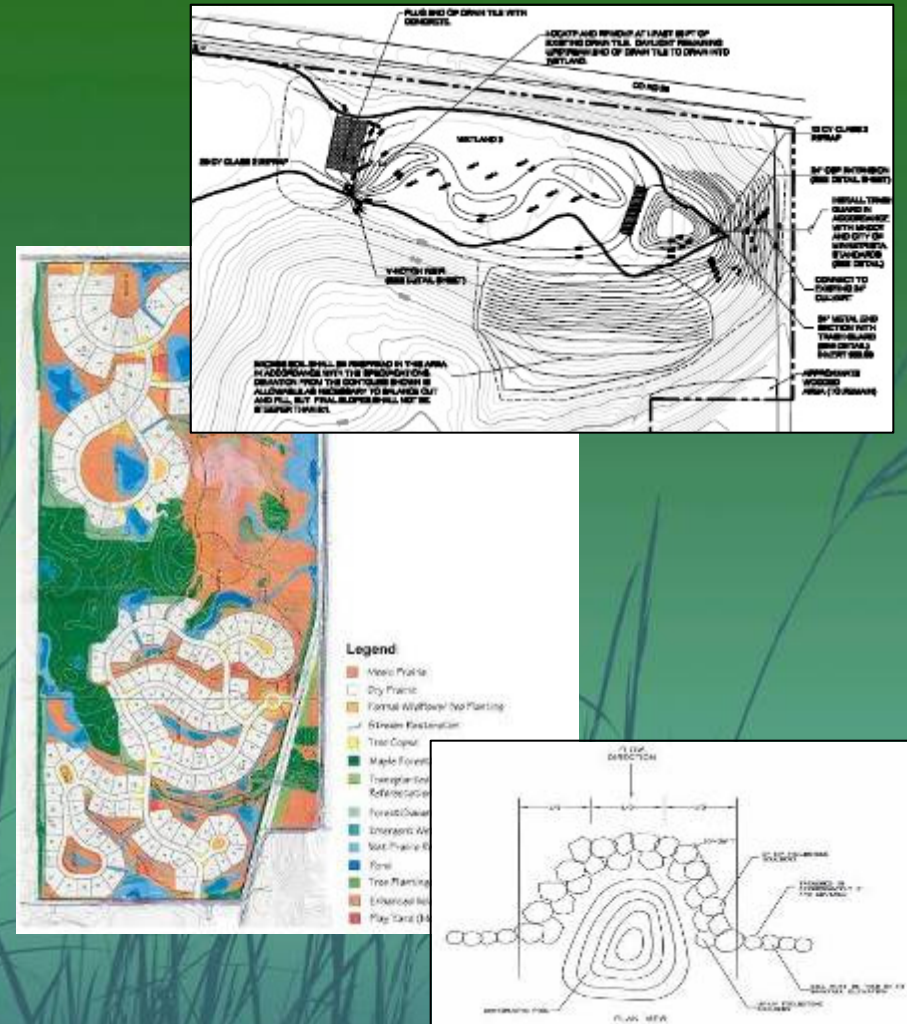
- Address existing conditions
- State goals – achievable & cost-effective



Components of an Ecological Management Plan

4. Plan Set

- Title page
- Grading plan
- Erosion control plan
- Planting plan
- Management units
- Details



Components of an Ecological Management Plan

5. Specifications

- Definitions
- Legal responsibilities
- Contractor qualifications

SITE WORK	
SECTION – GRADING	
PART 1.	GENERAL
1.1	DESCRIPTION
A.	Grading shall include all clearing, grubbing, tree removal, unclassified excavation, hybrid (wetland) soils excavation, temporary stockpiling and replacement, topsoil excavation, temporary stockpiling and replacement construction as shown on the drawings and detailed in these specifications.
1.2	RELATED SECTIONS
A.	Herbaceous species removal, Soil Preparation
1.3	QUALITY ASSURANCE
A.	Qualifications of workers: provide at least one person who shall be present at all times during execution of this portion of the work, and who shall be thoroughly familiar with this type of work and the type of materials being used. Said person shall be competent at identification of different types of soil (i.e., topsoil, hybrid soil, unclassified material). Said person shall also direct all work performed under this section.
B.	Standards: all materials, equipment, and procedures used during this portion of the work shall meet or exceed applicable federal, state, county and local laws and regulations.
1.4	SUBMITTALS
A.	Materials: Prior to delivery of any materials to the site, Contractor shall submit to the Owner a complete list of all materials to be used during this portion of the work. The list shall include complete data on source, size and quality. This submittal shall in no way be construed as permitting substitution for specific items described on the drawings or in these specifications unless approved in writing by the Owner.
B.	Contractor shall submit a detailed Erosion Control Plan to the Owner prior to the start of construction.
C.	Equipment: Prior to commencement of any work, submit to the Owner a written description of all mechanical equipment and its intended use during the execution of the work.
D.	The Contractor shall notify the Owner and the municipality forty-eight (48) hours prior to the start of construction.
E.	After the work is complete, submit to the Owner formal, surveyed "as-built" plans. As-builts shall be prepared in AutoCAD or comparable drafting software and shall depict post-construction conditions including, but not limited to, final locations and elevations of structures, final ground elevations, invert elevations, and other pertinent design criteria. Any field changes or deviations from the original plans shall be clearly marked on the as-builts. Hand-edited design plans are not acceptable as as-builts.
PART 2.	PRODUCTS
2.1	MATERIALS
A.	Topsoil – Topsoil shall conform to the Minnesota Department of Transportation Specifications. All topsoil shall be from on-site sources and shall be identified by Owner's representative.
B.	Unclassified Excavation - Unclassified Excavation shall consist of all soil that is not topsoil or hybrid soils.

Components of an Ecological Management Plan

5. Specifications (cont.)

- Typical sections for scope of work
 - Grading
 - Herbaceous Species Removal
 - Soil Preparation
 - Cover Crop Seeding
 - Native Plant Seeding
 - Erosion Control Blanket
 - Herbaceous Perennial Planting
 - Tree and Shrub Planting
 - Management
 - Monitoring & Reporting

Components of an Ecological Management Plan

5. Specifications (cont.)

- Each scope of work section contains
 - Description of work
 - List of related sections in specifications
 - Quality assurance
 - Submittals
 - Materials
 - Execution (what, where, how, why & when)
 - Clean-up, removal & repair
 - Inspection
 - Performance standards, acceptance & guarantee or warranty

Thanks for coming!
Questions...discussion...

