Minnesota Department of Natural Resource - Natural Resource Guidance Checklist
Natural Area Management Plan

Why Use This Checklist?
This checklist provides land managers with a list of key elements to include in a natural area management plan. A good natural area management plan contains many different kinds of site and landscape-level information. A clear management plan identifies management goals and implementation strategies appropriate to the site, and enhances the likelihood that management activities will succeed.

A. Purpose
' Does the plan contain a clear purpose and identify the management goals near the beginning of the document?

B. Summary
' Does the plan contain a summary (two pages or less) identifying management goals, general strategies and tools to be used, partners, etc.?

C. Applicability
Authority/Responsibility
' Does the document identify for lands covered by the management plan, the entity which has responsibility for management (e.g., city, county, non-government organization), their management authority (e.g. city policy, ordinance, etc), and the department responsible for overseeing the management (e.g., Parks and Recreation, Forestry, etc.)?

Property report
' Does the plan contain a property report?
' Is a legal description or map included of lands subject to the plan?
' Does this report describe or document items such as the following?
  ' current land uses
  ' natural area ownership
  ' ownership of surrounding lands

D. Resource Inventory
Natural Features
' Have the current natural features and resources been assessed comprehensively as appropriate to the situation?

NR Checklist Series
This is one of a series of "checklists" produced for local units of government (LUG) by the Minnesota Department of Natural Resources, Metro Region. Each checklist is intended to help the community integrate natural resources into a particular type of local policy or plan. Each checklist is an outline of key components of a typical LUG planning document with important natural resource-related questions to consider and some examples, definitions, and references.

Definition
natural area
a site largely unaltered by modern human activity, where vegetation is distributed in naturally occurring patterns.

Resources
DNR web pages
Information about rare species, native plant communities, and land protection options are available on the DNR's web site at www.dnr.state.mn.us/ecological_services/nhnrp.

Many natural resource data layers, including native plant communities mapped by the Minnesota County Biological Survey, are available on the "data deli" at deli.dnr.state.mn.us.

' Are clear maps, lists, and/or descriptions presented for features such as the following?
  - ' significant landforms
  - ' bedrock and surficial geology
  - ' soil types
  - ' hydrology, water quality, and aquatic features
  - ' land cover, including delineation of aquatic features (using a methodology such as the Minnesota Land Cover Classification System)
  - ' native plant communities (using Minnesota County Biological Survey data and terminology and additional survey data)
  - ' rare species occurrences
  - ' other native plant and animal species

Historical/cultural context
' Has the historical context of the project been provided?
' Are appropriate methods being used such as the following?
  - ' Have literature searches and/or personal interviews been conducted to assemble information on the site's natural history?
  - ' Have presettlement surveys, pollen studies, historical photos and/or other available resources been used to understand the distribution of historical natural communities and disturbance patterns across the site?
  - ' Has the site's land use history been documented?
  - ' Have the site's cultural resources been investigated and described (archeological features, etc.)?

E. Analysis
Natural Resource Quality and Condition
' Has the quality of each of the natural resources on the site been ranked by a qualified site manager or team of natural resource professionals according to defined values?
' Are these quality-ranked resources clearly delineated on a map?
' Have the following factors been considered?
  - ' Is the site contiguous with other natural areas?
  - ' What is the overall degree of naturalness of the site compared with other local/regional/statewide natural areas (e.g., using the Element Occurrence Ranking Guidelines, DNR Natural Heritage Program)?
  - ' How rare are the site's features in a local, regional, or state context?
  - ' Is the site of sufficient size and quality such that natural processes ensure its long-term viability?
  - ' Are exotic species present?

' Do insect and disease problems threaten the site? If present, are they part of the site's natural disturbance regime? If not, what are the ecological consequences of the control methods under consideration?

Landscape context
' What is the status of surrounding lands?
' Are adjacent lands developed? Are they relatively natural?
' Are there opportunities to implement practices on adjacent lands that will protect and buffer the natural resources on the managed parcel?
' Are there potential recreational connections or natural corridors between adjacent lands and the parcel in question?
' Are there existing land use plans for the surrounding lands? Do local comprehensive plans provide information on the future of the surrounding lands?
' Do the vegetation and proximity to adjacent properties contribute to an increase in risk to fire loss? E.g., does volatile vegetation such as tall grass, young pine, or cattails end abruptly at the edge of the property line adjacent to high density residential property? Does the management of this open space recommend prescribed fire? If so, does this fire use significantly increase or decrease the risk to adjacent property?

F. Management Goals and Objectives
' Does the plan include goals and objectives for the site's natural features, its level of development, and use?
' Are goals and objectives broken down by different management units within the site, corresponding to specific areas on natural resource maps?
' For all restoration projects, are appropriate target communities identified and described?
' Have appropriate recreational opportunities and other on-site projects been addressed in a way that does not compromise the ecological integrity of the site (e.g., trails, access, etc.)?

G. Action Plan
' Does the plan state specific actions to be taken to achieve objectives, with a timeline for implementation? Are these actions linked to specific natural communities or management units identified on natural resource maps?
' Are projects to restore degraded areas detailed?
' Are practices to maintain or improve the quality of natural communities identified (e.g., removal of invasive/exotic species, promotion of natural disturbance regimes)?
' Are methods to control the spread of exotic species described?

' Do actions minimize threats to natural features (e.g., do they avoid fragmentation and maximize interior environments?)?
' Is a public use policy outlined (e.g., access, vehicular use, interpretive services, permitted and un-permitted uses, etc.)?

H. Monitoring Plan
' Are ways to measure the effectiveness of management techniques and evaluate the health of natural communities, plants, animals, and natural processes built into the plan?
' Does the plan provide adequate detail on how monitoring will be accomplished?
' Have appropriate time frames been identified for monitoring? Will monitoring be ongoing? (e.g., monitoring after 1 year is to soon to see some ecological changes)
' Is the plan written adaptively such that the results of ongoing monitoring will be incorporated into future management and protection planning?
' Have natural resource specialists such as from agencies and universities been consulted about the best monitoring techniques for each kind of site?

I. Budget & Staffing
' Have staffing requirements, equipment, and other projected expenses associated with performing the activities in the action plan been identified (may include funding sources), or is this included in another document?
' Are responsibilities for site management clearly assigned to a particular organization and unit?

J. Appendices
' Does the plan include or reference additional documents and information, such as the following?
   ' additional maps, e.g.
      S regional context of natural area
      S depicting natural communities
      S ownership of natural areas and surrounding land
      S rare species locations
      S rendering of proposed results of the action plan
   ' aerial photographs
   ' species lists
   ' bibliography of references used in plan preparation
   ' reference to public policies (comprehensive plans, ordinances, etc.) that affect the site's natural resources values of the site
   ' glossary