

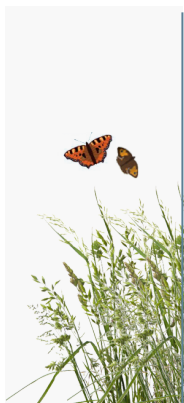


# 14.0

## Systems-Based Approach to Management of the Nature Areas

The stewardship and management of the Nature Areas forms a key component in supporting a systems-based approach to natural heritage management of the Symons Campus. They capture large portions of the UGN and provide opportunities to support many of its goals. The Nature Areas specifically have a key function in supporting and achieving the following:

- **A robust, connected system of natural areas and open spaces**
- **Integrated environmental resilience**
- **Environmental stewardship and management**
- **Strive to achieve net benefit to the system**



**Net Benefit:** Where possible, land use planning should strive to achieve a net benefit to the UGN as a whole. This may include modifications to existing conditions to support the long-term objectives of maintaining or improving habitat and biodiversity within the system (e.g., restoration, replication, etc.), management to maintain habitat types (e.g., grassland / old field areas), etc.

While these objectives extend beyond the Nature Areas, they can be used to inform and implement the NASP through a systems-based lens. To allow for the meaningful integration and interaction between management at a landscape-level / systems-level and site-specific management, stewardship of the Nature Areas will occur through two inter-related components:

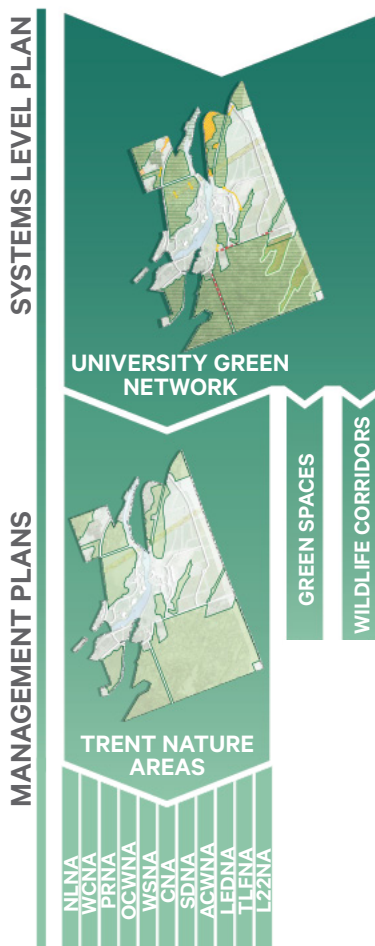
- **A systems-level plan**
- **Individual Nature Area management plans**

**The systems-level plan** will consider the Nature Areas and the UGN as a whole to identify composition and relative representation of habitat types across the Nature Areas and the UGN, and high-level opportunities for enhancement of the system (net benefit opportunities). The system-level plan also provides an opportunity to connect the Nature Areas with other objectives and initiatives for Trent (e.g., active transportation / trails). Preparation of the systems-level plan is to be completed in consideration of the goals for the UGN and the Nature Area. The systems-level plan is intended to be a 'living' document and map; it is to be updated and reviewed at regularly scheduled intervals with interim updates to mapping as individual Nature

Area management plans are generated, initiatives are completed (e.g., restoration / enhancement work) or conditions change across the UGN.

**Nature Area management plans** represent the implementation of the systems-level plan and the goals for the Nature Areas at a site-specific level. Preparation of management plans can be prioritized based on system-level opportunities, site-specific concerns or opportunities (e.g., Species at Risk), or broader land use pressures. Management plans are to be prepared for Nature Areas to facilitate implementation based on funding availability and/or priorities. A management plan may include more than one Nature Area where they are functionally connected and stewardship would be best achieved through planning for them together. The relationship between these plans is illustrated below.

**Figure 35:** Implementation Plans



## 14.1 Systems-Level Plan

The system-level plan provides context and a landscape-level view of management of the UGN, and the Nature Areas as a major system component. It sets the context, assists in prioritization, will inform preparation of management plans and is used as a 'report card' to monitor progress in stewardship of the Nature Areas and the UGN.

The systems-level plan should be composed of the following:

### Land cover assessment within the UGN and the Nature Areas

- By habitat type (e.g., wetland, woodland, thicket, etc.)
- Assess change over time (through subsequent updates)

### Stewardship / Management priorities for the UGN and the Nature Areas

- To inform prioritization of preparation of individual Nature Area management plans
- Provide guidance for regenerative opportunities and actions across the UGN
- Priorities may include opportunities for net benefit, addressing deficiencies or concerns, high pressure areas (e.g., development, high use / visitor volumes), etc.

### Opportunities to support the UGN Net Benefit objective

- System-level concerns or deficiencies that could potentially be addressed through Nature Area stewardship / management
- System-level opportunities for enhancement / restoration
- Innovative and actionable opportunities to bring ecologically regenerative elements to built and planned areas of the university

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### **A revisions summary (table) to track updates, completion of management plans, etc.**

The systems-level plan is recommended to include high-level targets for the UGN and the Nature Areas collectively to inform and provide direction for prioritization and/or preparation of individual management plans. Targets may be quantitative (e.g., provide at least one grassland habitat area >5ha) or qualitative (e.g., increase availability of grassland habitat across the Nature Areas). Regardless of the type of target, they should set to within reach. This allows for momentum to be built in stewardship of the Nature Area and the identification of additional or subsequent targets for management of the Nature Areas over time.

As a living document, it is expected that the systems-level plan will be updated on a regular schedule (e.g., every 5 years) with 'as needed' updates to mapping and analyses if / as required.

## **14.2 Management Plans**

Informed by the systems-level plan, the Nature Area management plans represent the primary implementation tool for management / stewardship of the Nature Areas. The purpose of a management plan is to develop a set of management directions specific to each Nature Area. Through the management plans, the goals for the Nature Area will be realized. The management plans provide direction on how the Nature Area will protect and/or conserve important natural heritage and cultural features, support research and education opportunities, and sustainable recreation.

Contents of the Nature Area management plans is to include:

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### **Updated / refined existing conditions: natural, current uses and management issues / concerns, including:**

- A Campus Master Archaeological Study was undertaken with the participation of Michi Saagiig First Nations monitors. The final report must be consulted during the preparation of Management Plans for the Nature Areas.

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### **Identification of significance / priority for features and associated management concerns;**

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#### **Site-specific targets**

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#### **Classification and mapping of areas within the Nature Area according to one of four management categories described in Section 15;**

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#### **Specific short- and long-term objectives for the Nature Area including:**

- Restoration and enhancement opportunities;
- Identifying education and research, recreation, opportunities that are compatible with preserving the natural heritage and cultural features of the area; and
- Infrastructure maintenance, creation and/or decommissioning.

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#### **Site-specific implementation plan and priorities;**

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#### **Opportunities for monitoring of implementation effectiveness and supporting data.**

Individual, site-specific management plans should proceed on a priority basis as informed by the system-level plan, restoration/enhancement objectives or known pressures/issues. Criteria for prioritization would be included in this section.

Management plans should be developed in collaboration with the Nature Areas Stewardship Advisory Committee, and, consistent with the guiding principles of the Trent Lands and Nature Areas Plan, engage the campus, Michi Saagiig, and local communities.

Preparation and implementation of management plans for each Nature Area should be achieved as time and budget are made available.