

# **NORTHFIELD**

## **NATURAL RESOURCES INVENTORY**

### **Executive Summary**

The Northfield Natural Resource Inventory (NRI) was undertaken in response to the significant growth and development pressures that the city is facing as the Twin Cities metropolitan area expands and outlying areas develop. City and staff recognized that effective planning considers all of the resources of the community, including natural areas and open space, and successfully balances growth with the preservation of key natural resources, and moved proactively to conduct the NRI. This inventory was designed to assess the natural areas and open space areas within the project area in order to help guide current and future planning efforts.

In February 2005, the City of Northfield retained Bonestroo Natural Resources (Bonestroo and Associates) to complete Minnesota Land Cover Classification System (MLCCS) Mapping and a Natural Resource Inventory (NRI) on all lands within the city and Urban Expansion Area (collectively referred to as the “Project Area”). In addition to completing the MLCCS mapping and natural resources inventory, the project goals also included a brief review of the streams within the project area, assessment of wildlife habitat, and identification of any rare or unique features.

Fieldwork began in June 2005, with a detailed inventory of the Hauberg Woods area. The bulk of the fieldwork was completed in July and August 2005, after the completion of landowner notification.

In all, 10,207 acres were mapped, representing 79 different cover types ranging from impervious surfaces with pavement and buildings to a rare, high quality rich fen (a type of wetland) community. Of these 10,207 acres, 3,758 acres were mapped as containing some amount of impervious surface, 750 acres as maintained areas (mainly lawn and park areas), and 3,736 acres as cropland. The remaining 1,963 acres were mapped as open space, including remnant natural communities such as oak forests, and semi-natural areas such as retired pastures, early successional wooded communities and altered forests.

High quality natural areas and unique features occur throughout the project area, but are concentrated along the stream and river corridors. The best quality natural areas documented in this study include:

- Rich fen at Hauberg Woods (also listed as a unique feature)
- High quality floodplain forests along the Cannon River
- Good quality maple-basswood and oak forests along the stream corridors, especially Heath Creek

Some of the unique features noted include:

- Rich fen at Hauberg Woods
- Spring Brook - aka Rice Creek (This site is of regional significance, as it is the only Trout Stream in Rice County, and is an uncommon resource type in southern Minnesota)
- Limestone Cliffs along Heath Creek
- Numerous scenic overlooks along the stream corridors and in some outlying areas
- Cannon River (which is itself a state Wild and Scenic River)

Finally, another category of interest is areas where there is a concentration of natural areas and/or open space. These areas are of high value ecologically, provide excellent wildlife habitat, and have potential to create recreation opportunities. Within the project area, these areas are defined in two ways: one, by the stream and river corridors of Heath Creek, Spring Brook, Spring Creek, and the Cannon River. Second, the campuses of St Olaf and Carleton Colleges also support important concentrations of open space, which have high ecological value due both to their overall size and the significant efforts that the colleges are making to restore and manage existing native habitat.

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As the City moves forward, there are many opportunities to apply the information from this NRI. First and foremost, it provides foundation information for managing sustainable growth in Northfield. Incorporating this information into the planning process can help prioritize areas where conservation, alternative development strategies, conventional development, or other approaches may be appropriate. Two specific tools include using the data as the foundation for developing a greenways corridor system, and incorporating the information into local ordinance. Other options are available as well.

These and other tactics are becoming increasingly successful as communities around the country recognize the many aesthetic, ecological, and economic benefits of a smart-growth approach.

In addition to these benefits, however, natural areas are an important part of providing identity to the places we live. They contribute to the

quality of life, and provide a *sense of place* for each of us. The information collected in this NRI will be an important part of understanding what activities and land uses the landscape can support, while preserving natural areas that define the landscape for Northfield residents.