# Forest Stewardship logoSchool Forest Stewardship Plan Template

## 

## **Prepared for:**

Elementary School

School Forest

Address

City, MN Zip code

Site Coordinators:

## **Property Location**

Section Township Range

County, MN

Stewardship Acres:

Total Parcel Acres:

## **Prepared by:**

Forester

MN DNR-Forestry

Address

City, MN Zip code

DATE

**Your stewardship goals for this property area:**

1. To improve ecological health of the woods by improving habitat for wildlife, soil and water quality, and natural aesthetic quality of the woods by managing native vegetation.

2. To provide educational and recreational use of School Forest through trail development, wildlife enhancement, and improved forest health.

3. Other goals the school has for the site.

# OVERVIEW OF THE PLAN

Forest management, in general, is providing a forest or woodland the proper care so that it remains healthy and vigorous to provide the amenities (wildlife habitat, clean air and water, recreation) and products (timber, firewood, non-timber) that you want for your school and community. Forest management involves developing a management plan that includes your long-term vision that is achieved through short-term and long-term goals, an inventory and assessment of your forest (what’s there and what condition is it in), action plan (remove buckthorn, plant trees), and a monitoring schedule to make sure things are progressing towards your long-term vision. The primary purposes of a management plan for a School Forest are to provide safe and effective education opportunities and to maintain a healthy forest.

# LANDOWNER MANAGEMENT GOALS AND OBJECTIVES:

**Long-term vision (50-100 years**): Create a landscape that enhances the natural environment while serving the needs of the school to provide for outdoor learning and is recognized by the community as an important amenity that contributes to local ecosystems and future generations.

**Short-term goals (5-10 years):**

* Continue progress on three major projects that have been successful in enhancing the natural environment and outdoor learning opportunities: the Pollinator Garden, the Main Entrance, and the Nature Acre
* Create a healthy and diverse Woodland Area
* Enhance the entire property with native plant and tree species that promotes diversity and enhances wildlife habitat, particularly for birds

# GENERAL PROPERTY DESCRIPTION:

This 25-acre stewardship site is located about 13 miles south of St. Paul in the city of X. Outside of the developed areas, the property is heavily wooded with some grass openings and wetlands included. The topography is rolling with up to 20% slopes in some areas.

# INTERACTION WITH NEARBY PROPERTIES:

The school property is located in a residential area with moderated size city lots. Trunk highway is located just west of the school’s property. The adjacent landowner to the west is land administered by the MN Dept. of Transportation. Establishing a relationship with this local public agency can add to future outdoor educational opportunities.

# Landscape Region: Oak Savanna

The enclosed Minnesota map shows our ecological landscape regions (or subsections). However, the actual boundaries are not as sharp as the lines might imply. In fact, islands of one landscape region can exist inside another, but the units have basic ecological differences between them.

Your land is located in the Oak Savanna Subsection, which is described in more detail on the following pages. The purpose of providing information about the landscape region and the interaction with nearby properties is to help you assemble a picture of how your land and your activities fit into the larger landscape. Furthermore, the conservation issues of concern are of particular note. It is likely that at least some of your activities will affect these larger-scale issues.

## http://maps1.dnr.state.mn.us/cgi-bin/mapserv64?map=ECS_SUBSECTION_MAPFILE&mode=map&layers=province_mask+section_mask+subsection_mask&province=222&section=222M&subsection=222Me&mapsize=300+400Ecological subsection

### INTRODUCTION

The Oak Savanna Subsection is located in south-central and southeastern Minnesota (Figure 3). The western boundary of the subsection consists of a series of end moraines that disrupted the spread of prairie fires from the west but did not provide sufficient protection for hardwood forests to become established. The subsection is bounded on the east by land dominated by hardwood forest. This boundary coincides with an increase in thickness of loess. The northern boundary separates calcareous gray Des Moines lobe glacial till from red Superior lobe glacial till (MN DNR 2006).

Much of this subsection is a rolling plain of loess-mantled ridges over sandstone and carbonate bedrock and till. At the southwestern edge of the subsection are moraine ridges. They are a continuation of those present in the Big Woods Subsection, but smaller. As a result, fires from the surrounding prairies to the south, west, and east burned the landscape frequently enough to maintain oak openings rather than forest (MN DNR 2006).

### CLIMATE

Annual normal precipitation ranges from 28 inches (71 cm) in the north to 31 inches (79 cm) in the south, and growing season precipitation ranges from 12.5 to 13 inches (32 to 33 cm). The average growing season length ranges from 146 to 156 days (MN DNR 2006).

Figure 3. Facts on the Oak Savanna Subsection in Minnesota (MN DNR 2006).

### LANDFORM

Much of the subsection is loess plain over bedrock or till but also consists of Late Wisconsin end moraines, stagnation moraines, and outwash. Topography is gently rolling and the subsection contains few lakes. Stagnation moraines in the southwest are not large, but slopes are often steep (MN DNR 2006).

Glacial till is generally less than 100 feet thick within the subsection, with maximum thickness of about 200 feet. Ordovician and Devonian dolomite (some limestone, sandstone, and shale) is locally exposed, especially in the dissected stream valleys at the eastern edge of the subsection (MN DNR 2006). Limestone is commonly exposed on ridges and slopes on your property and in much of the 7-Mile Woods.

### SOILS

The soils of the subsection are a mosaic of Mollisols and Alfisols. Alfisols correlate with savanna and forest vegetation, and Mollisols correlate with either upland prairie on relatively flat ridgetops or wetland prairies in broad depressions. Common soils include Aquolls (wet soils developed under prairie vegetation), Udolls (well-drained soils developed under prairie vegetation), Udalfs (well-drained soils formed under forest vegetation), and Aqualfs (wet soils developed under forest vegetation) (MN DNR 2006).

Main soil types on your property include:

Kingsley sandy loam 8-15% slopes (Map Symbol 342C)

• Use and Vegetation: Not prime farmland Native vegetation was prairie and savannah.

• Drainage: Well drained.

Kingsley-Mahtomedi-Spencer complex 15-25% slopes (Map Symbol 1058):

• Use and Vegetation: Not prime farmland. Native vegetation was prairie and savannah.

• Drainage: Excessively drained.

Urban Land-Kingsley complex 3-15% slopes (Map Symbol 861C):

• Use and Vegetation: Urban Land 65%, Kingley Soils 35% not prime farmland. Native Vegetation was oak savannah.

• Drainage: Well drained.

### HYDROLOGY

The Mississippi River is located just ¾ of a mile east of the property. Small urban ponds are also located within the vicinity. Wetlands, a critical component of oak savanna habitat, were once plentiful throughout, and along with shallow lakes provided critical habitat for a variety of wildlife.

Most of this subsection has a fairly well-developed drainage network due to the nature of landforms within the unit. The lakes are few but are present in the moraines that form the western edge of the subsection.

### Watershed & Water quality

Your property is located in the Mississippi-Twin Cities Watershed.

The Mississippi provides a home for more than 400 different species of wildlife and plays a vital role in the upper Mississippi River valley. The river is also home to more than 100 different species of freshwater fish, which allows for some of the best fishing around, and is a major drinking water supply for the Twin Cities.

Of the impaired waters conventional pollutant listings about 70% are for nutrient-impaired lakes. The main factors affecting water quality are stormwater management, nutrient management on farmland and residential/commercial areas, sediment and erosion control, protection of shoreland/riparian areas, and invasive species (e.g., carp and curly-leaf pondweed). These land uses and other factors have contributed to the introduction of large amounts of phosphorus, sediment, and bacteria to surface waters and increased nutrient, contaminant, and sedimentation loading from stormwater runoff from development and other non-point sources.

### Wetlands

The National Wetland Inventory (NWI) includes the portion of your property with Quam silt loam (map symbol 344) soils as wetland. Wetlands are a valuable feature of the landscape and provide many important functions, including wildlife habitat, flood storage, groundwater recharge, filtering of sediment and pollution from runoff, shoreline stabilization, and recreational and educational opportunities. Unfortunately, 99% of wetlands in the southern Prairie Pothole Region (Iowa and Minnesota) have been converted to agricultural uses. Protection of the remaining wetlands is critical.

### PRESETTLEMENT VEGETATION

The primary vegetation prior to European settlement was bur oak savanna, but areas of tallgrass prairie and maple-basswood forest were common. Tallgrass prairie was concentrated on level to gently rolling portions of the landscape in the center of the subsection. Bur oak savanna developed on rolling moraine ridges at the western edge of the subsection and in dissected ravines at the eastern edge. Maple-basswood forest was restricted to the portions of the landscape with the greatest fire protection—either in steep, dissected ravines or where stream orientation reduced fire frequency or severity (MN DNR 2006).

### NATURAL DISTURBANCE

Historically, fire was the most important disturbance within the Oak Savanna Subsection and maintained oak openings rather than forest. Tornados and high wind events also create significant disturbances. Periodic flooding occurs in river and stream valleys (MN DNR 2006).

### PRESENT VEGETATION AND LAND USE

Presently, most of the subsection is private agricultural land with inclusions of forested land. However, the area has a number of tracts of state land, including state parks, wildlife management areas (WMA), and scientific and natural areas (SNA), and federal land including waterfowl production areas (WPA) (Figure 3; Figure 5).

Figure 5. Current land use and land cover in the Oak Savanna Subsection (MN DNR 2006).

### CONSERVATION CONCERNS

Oak savanna is one of Minnesota’s rarest wildlife habitats. The major conservation concern in the Oak Savanna landscape is preservation and management of remnant prairies, savannas, woodlands, and wetlands. Increasing intensity of agricultural production and urban sprawl from the Twin Cities has led to further deterioration of natural communities and habitat loss. Invasive species also present a great threat to the integrity of remaining natural communities. Another major concern is the water quality of our lakes, streams, and rivers. Agricultural practices have increased sediment and phosphorous loading in water bodies, negatively impacting water quality.

# CULTURAL AND NATURAL HERITAGE INFORMATION

The State of Minnesota maintains statewide inventories of documented cultural heritage resources (historic buildings, archaeological sites, cemeteries, and traditional use areas) and natural heritage resources (rare, endangered, or otherwise significant plant and animal species/communities).

An inquiry with the Office of the State Archeologist indicated no recorded cultural features on your property. According to DNR Archeologist Mike Magner:

The legal description has been compared with the state archaeological site database maintained by the Minnesota State Historic Preservation Office. No cultural heritage sites have been documented within or adjacent to the parcel.

# RARE PLANTS, ANIMALS, AND COMMUNITIES

Some rare and natural features the DNR Natural Heritage Information System (NHIS) has recorded near (less than a mile) your property includes;

• Communities:

* Oak Forest
* Mesic Prairie

• Botanical

* Tall-nut Rush
* Tubercled Rein-orchid

• Zoological

* Red-shouldered Hawk

Because neither the DNR Natural Heritage Information System (NHIS) nor the databases of the state archeologist are the product of exhaustive inventories, lack of data does not necessarily mean no other rare features are present on your property. If you believe your property has additional natural or cultural features, please feel free to contact me about the process of further survey work.

# DESCRIPTIONS AND RECOMMENDATIONS OF COVER TYPE UNITS:

The following cover type units are associated with the designated School Forest and discussed individually with specific recommendations for each type. In 2013, the School Forest Committee developed a 10-year Action Plan for the entire school grounds, including the School Forest. Some of those items are included below. The attached map outlines the cover type units.

## **Cover Type 1 Rolling Hills Savanna**

### Cover Type Description:

This area is located in the north central portion of the property and is bounded by the Dowling Community Garden to the west, Dowling Boulevard to the north, parking to the east and natural open and wooded areas to the south. This area is characterized by gently rolling topography that was previously created as a golf course, large open areas of turf grass, large bur oak, a few large spruce, and small islands of old shrub plantings. There is an old planting that involved railroad ties that has not been maintained and a small section of paved pathway.

### Management Objective:

* Reduce turf grass and introduce or enhance native vegetation on northern edge or corner areas.
* Oak savanna restoration.

### Recommendations:

* Inventory and map the trees in this area for species, size, and health (includes safety concerns such as dead branches).
* Professionally trim/prune trees that may need it to promote long-term health and sound structure.
* Remove trees as necessary due to tree health or human safety concerns.
* Tag trees with species identification for outdoor learning.
* Plant native trees for species and age diversity. Consider cluster plantings using balled and burlap trees. Compacted soils will make planting seedlings difficult and older trees will be more successful. Mulch following the recommended guidelines found under Mulch and Tree Care in the General Considerations section below.
* Plant groupings of native shrubs for wildlife habitat and food. Mulch following the recommended guidelines found under Mulch and Tree Care in the General Considerations section below.
* Water and monitor new plantings until well established (up to 3 years).

### Additional Instruction and Information

Woodland Stewardship Book References on Aspen

**Chapter Page**

Ch.6 Managing Important Forest Types: Bur Oak 66

## **Aspen Cover Type 2**

Cover Type Acres: 0.42

### Cover Type Description:

This lowland parcel is surrounded by the upland grass cover type. Aspen is the primary species within this small wooded island. Aspen forests provide food and cover for ruffed grouse, woodcock, white-tailed deer and a variety of songbirds. Aspen as a species is a relatively short-lived species (60-70 years old maximum), that needs full sunlight to establish itself and grow. Although considered “short-lived” in regenerates especially well when harvested. Aspen regenerates from root suckering. The primary product of this softwood is used in the pulp or papermaking industry, for which your area of the state does not have reasonable access to. In addition, the small size of the aspen patch makes a harvest economically unfeasible.

### Cover Type Objectives:

1. Maintain this cover type to retain overall forest diversity within property.

### Recommended Activities to Achieve Cover Type Objective:

* Inspect area for invasive species. If found, remove.
* Leave the cover type as-is. It provides more tree diversity and habitat to the property.
  + Cut small clusters to promote natural regenerations to maintain long-term vigor in the stand

### Additional Instruction and Information

Woodland Stewardship Book References on Aspen

**Chapter Page**

Ch.6 Managing Important Forest Types: Aspen 56

## **Cover Type 3 Arboretum**

### Cover Type Acres: 2

### Cover Type Description:

The main entrance to Dowling includes a small “arboretum” of a variety of large trees. According to a map of the trees in this area, on file at the school (date unknown), there are bur oak, arborvitae, sugar maple, river birch, catalpa, Norway spruce, mugo pine, silver maple, red pine, white pine, basswood, Japanese tree lilac, crabapple, ginkgo, red cedar, red oak, green ash and an unknown species.

This area includes landscaping next to the school building and along the entryway with assistance from Metro Blooms. There is an inviting seating area just outside the main door and distant benches.

### Management Objectives:

* Manage and maintain trees this area as an arboretum for students, staff, and neighbors.
* Manage all vegetation to provide an attractive, welcoming entrance to the school.

### Recommendations:

* Update the tree inventory map. Inventory the trees in this area for species, size, and health (includes safety concerns such as dead branches).
* Plant additional trees and shrubs for increased age and species diversity, as well as wildlife value.
* Professionally trim/prune trees that may need it to promote long-term health and sound structure. Contact your DNR forester or a Certified Arborist for guidance.
* Remove trees as necessary due to tree health or human safety concerns.
* Tag trees with species identification for outdoor learning.
* Expand mulch areas to group trees for efficient lawn maintenance.

## **Cover Type 4 Pond**

### Cover Type Acres: 0.55

### Cover Type Description:

This pond/wetland feature is a unique inclusion within the property. It is considered a wetland, which includes specific laws and rules protecting this feature. Wildlife utilizes this type for a number of purposes, such as cover, forage, and nesting. Examples of wildlife that utilize this area wetland birds, such as Virginia rail, sora, waterfowl, bitterns; and songbirds like common yellowthroat, sedge wren, yellow warbler, gray catbird, and red-winged blackbird. Small mammals, reptiles, amphibians, and invertebrates also can be found in this cover type.

Wetlands were once considered wasted space, a hindrance to urban development and crop production. In Minnesota, an estimated 11 million acres of wetlands have been drained or filled over the last hundred years, leaving about 10 million acres. Wetlands are vital to the health of our environment. While this represents a 50 percent loss statewide, some areas of Minnesota have lost more than 90 percent of their original wetlands.

* Wetlands reduce flooding by slowing excess water runoff during times of heavy rainfall.
* Wetlands improve water quality by filtering sediments, nutrients and toxic substances out of water before it washes into rivers and lakes.
* Wetlands provide habitat for many fish, wildlife and plants, some of which can only survive in wetlands.
* Wetlands provide opportunities for recreation such as canoeing, hunting, hiking, fishing, and birding.
* Wetlands offer commercial uses like growing wild rice or cranberries and trapping animals.
* Wetlands are important outdoor science and art classrooms and laboratories.

A growing awareness of these benefits has led to many laws regulating wetland draining and filling, as well as the discharge of pollutants into wetlands.

### Cover Type Objectives:

1. Utilize this unique feature to promote the importance of wetlands and their importance towards water quality and wildlife habitat.

### Recommended Activities to Achieve Cover Type Objective:

* Remove and chemically treat the stumps buckthorn and other invasive species
* Plant tamarack trees in clusters throughout area.
* Wildlife viewing could be improved by installing nesting boxes in the appropriate areas
* Create trail to access site from school

### Additional Instruction and Information

Woodland Stewardship Book References:

**Chapter Page**

Ch. 6 Managing Important Forest Types-Tamarack 85

Ch. 13 Recreational Trail Design 147

# PROPERTY-WIDE/MISCELLANEOUS PROJECTS

## **Walking Trails**

### Project Objective:

1. Maintain existing walking trails to provide educational and recreational access to the property.

2. Expand trail network, as appropriate, to reach other cover type areas, meet student population numbers and accessibility requirements.

### Recommended Activities to Achieve Cover Type Objective:

* Reinforce and improve walking trails where erosion is occurring on steep slopes.
* Hazard trees will be identified along the edge of the trails on an ongoing basis for removal. Guidelines for the identification of such trees will be developed for risk management purposes. These guidelines will also serve to keep many trees surrounding the trails from being removed unnecessarily
* Develop plan for new trails if desired with assistance for your forester.

### Additional Instruction and Information

Woodland Stewardship Binder References:

Chapter Page

Ch. 13 Recreational Trail Design 147

Inserts

U of M Extension Recreational Trail Guide

## **General Wildlife Habitat Recommendations**

### Project Objective:

1. Maximize overall habitat for wildlife on your property.
2. Install bluebird boxes to encourage nesting on your property.
3. Install bat boxes to promote beneficial mosquito-eating bats on your property

### Recommended Activities to Achieve Cover Type Objective:

* Install 3 pairs of blue bird boxes (6) along the perimeter of the woods facing grassland areas.
  + Boxes are placed in pairs because tree swallows will usually occupy one of the boxes in a pair and bluebirds will occupy the other. Because both bluebirds and tree swallows are territorial with their own species, the paired arrangement increases the chances a pair of bluebirds will take up residence in one of them.
  + Paired boxes should be placed out of sight of another pair or at least 500 ft apart.
* Install bat boxes in appropriate areas. Location and direction may vary on choices of where and how you install them.
* Mast-producing trees and shrubs attract many different species of wildlife. Plant only native species that are locally adapted to the soils and climate (as opposed to exotic, non-native species). Birds particularly favor shrubs and small trees like highbush cranberry (Viburnum trilobum), juneberry (Amelanchier sp.), elderberry (Sambucus canadensis), cherries (Prunus sp.), dogwood (Cornus sp.), hazelnut (Corylus americana), mountain ash (Sorbus americana), American plum (Prunus americana), hawthorn (Crateagus sp.) and nannyberry (Viburnum lentago). Desirable hardwood trees include oaks (Quercus sp.), hickories (Carya sp.), ash (Fraxinus sp.), and basswood (Tilia americana).
* Ground-nesting birds are declining across Minnesota. Restraining household pets may help these birds.
* A diversity of forest types and age classes benefits a diversity of species of wildlife. Thinning hardwood stands creates more structural diversity by having a variety of ages in the forest. Greater structural diversity provides habitat for more species of wildlife. Do, however, preserve old-growth areas that are utilized by certain species of wildlife. Older trees contain cavities that are utilized by a myriad of wildlife (see below). Also preserve younger, brushy areas that provide habitat for a different suite of species, like common yellowthroat, flycatchers, and American woodcock.
* Create brush piles and down woody debris during management operations. Many species of wildlife utilize brush piles for cover, including rabbits, chipmunks, woodchucks, coyotes, and songbirds. Brush piles can be an easy way to improve a stand’s structural diversity.
* Coarse Woody Debris – Logs and rotting material on the forest floor provide important micro-habitat for mosses, lichens and fungi, as well as cover for small mammals, reptiles, and amphibians.
* Snags and Den Trees - Dead and dying trees are very important for woodpeckers, chickadees, nuthatches, bluebirds, squirrels, bats, wood ducks, furbearers, and many other animals. Leave most dead trees or cavity trees standing during a forestry operation, with a goal to have at least 3 per acre. Also reserve some live large-diameter trees for future snags. You can create snags by girdling (cutting through the bark all the way around the tree) undesirable trees in stands.

### School Forest Committee Objectives

The preceding current conditions and management objectives sections of the Natural Resources Management Plan for the School Forest provide a current picture, as well as a vision for the future, of the Pine Bend School Forest. This section outlines the steps necessary to bring the school forest from the current picture to the desired future state of the site.

* Annually appoint a Pine Bend School Forest Management Committee to guide the development and continued visioning of the School Forest.
* Review the goals of the Natural Resources Management Plan annually to update completed steps, current conditions, redefine desired future conditions, to address new opportunities and edit the management timeline as needed.
* Using the management timeline, develop an annual plan of work for the School Forest, which outlines the steps that will be taken the current year to meet one or more of the objectives outlined in the Natural Resources Management Plan.
* At the completion of the year, submit a report to the School Forest staff that highlights the activities, the steps taken, and objectives addressed during the year. This report should also document any unexpected outcomes or difficulties in meeting the stated objectives.

# Additional Information and Resources

Below is additional information for some of the recommendations in your plan. This is not all inclusive but provides some things to consider as you proceed to implement your management plan and outdoor education activities.

**ADA Requirements:**

Consider ADA requirements when developing trails or other areas to be accessed for outdoor learning purposes.

**Buckthorn:**

Reference MN DNR publication “Buckthorn: What You Should Know. What You Should Do” at http://www.dnr.state.mn.us/invasives/terrestrialplants/woody/buckthorn/index.html for more information on best methods to control and manage buckthorn as well as planting native replacement species. Hard copies can be obtained through the MN DNR.

It is important to understand that buckthorn is a very successful and persistent woody plant that takes time and patience to control and manage, but it can be done. The best approach is to properly identify it (as compared to native woody plants such as cherry or dogwood) and strategically remove it (female fruit-bearing plants first) as your/volunteer time and resources allow. Pulling small, manageable plants is best when the entire root system can be removed, however, chemical treatment will be necessary for larger plants that have to be cut, or the buckthorn will sprout back creating a worse problem.

**Hazard Trees:**

Reference the USDA Forest Service publication “How to Recognize Hazardous Defects in Trees” at http://www.treesaregood.com/treecare/hazards.aspx. A “hazard tree” is a tree with structural defects likely to cause failure of all or part of the, which could strike a “target” that can be a place where people (students) gather such as an interpretive sign along a trail, play equipment, picnic tables or other seating, a structure such as a building or fence, or vehicle, for example.

A trained arborist or forester should be consulted to conduct a hazard tree assessment and recommend a plan for mitigation. Ideally, because this is a school/public place, an assessment should be conducted for the entire grounds. Implementing the plan for mitigating potential hazards can be accomplished based on safety priorities and available funds.

**Monitor:**

Monitoring is to observe and check the progress or quality of (something) over a period of time; to keep under systematic review. This is critical to knowing if your projects are successful and learn what may need to be adjusted or redone. For example, it can be as simple as monitoring mulch for replacement or new plants for watering.

Monitoring can be developed into a fun and educational project for your students.

**Tree Care (General):**

There are many aspects to proper tree care and maintenance for “yard” trees or woodland trees including proper planting, fertilizing, mulching, staking, watering, pruning, and others. Information on all of these can be found at the MN DNR webpage: http://www.dnr.state.mn.us/treecare/index.html

Who provides that care is critical. Improper techniques can cause significant damage or even kill a tree, whether it is newly planted or mature. Many techniques can be learned and done by non-professionals, but there are certain situations where it is best to work with a trained arborist. An arborist is a specialist in the care of individual trees. There are also Certified Arborists who are tree care professionals certified by the International Society of Arboriculture.

* <http://www.treesaregood.org/treecare/hire_arborist.aspx>
* <http://www.treesaregood.org/findtreeservices/FindTreeCareService.aspx>

# RESOURCES AND PARTNERS:

The following list is not all inclusive, but lists some of the many resources and partners that may be able to provide technical or financial assistance, volunteer assistance, or information to help you reach your management goals and educational needs. Some of these names were provided by Dowling staff. Specific contact information was not readily available for all.

**Primary:**

Minnesota Department of Natural Resources (DNR):

* [www.mndnr.gov](http://www.mndnr.gov)
* School Forest Program
  + Karen Harrison, [Karen.harrison@state.mn.us](mailto:Karen.harrison@state.mn.us), 651-259-5903
  + http://www.dnr.state.mn.us/schoolforest/sfcontact.html
* School staff.

**Additional:**

Boy and Girl Scouts

University/Colleges

Park Board

Watershed Organization

Soil and Water Conservation District

Parents

Tree Trust

UMN Master Volunteer Programs

Other natural resource professionals or organizations in the area.