

**MEETING DATE:** September 26, 2019

**TITLE:** Approval of Wayzata Local Water Management Plan

**RES. NUMBER:** 19-087

**PREPARED BY:** Becky Christopher

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**REVIEWED BY:**  Administrator  Counsel  Program Mgr.  
 Board Committee  Engineer  Other

**WORKSHOP ACTION:**

<input type="checkbox"/> Advance to Board mtg. Consent Agenda.	<input type="checkbox"/> Advance to Board meeting for discussion prior to action.
<input type="checkbox"/> Refer to a future workshop (date):_____	<input type="checkbox"/> Refer to taskforce or committee (date):_____
<input type="checkbox"/> Return to staff for additional work.	<input type="checkbox"/> No further action requested.
<input checked="" type="checkbox"/> Other: Requesting final action on September 26, 2019	

**PURPOSE or ACTION REQUESTED:**

Approval of the City of Wayzata Local Water Management Plan

**PROJECT/PROGRAM LOCATION:**

City of Wayzata

**PROJECT TIMELINE:**

January 22, 2019	Wayzata LWMP first draft submitted to MCWD
March 19, 2019	MCWD comments and denial letter sent
June 18, 2019	Wayzata LWMP revised draft submitted to MCWD
July 19, 2019	MCWD comments sent
August 14, 2019	Wayzata LWMP final draft submitted to MCWD

**PROJECT/PROGRAM COST:**

N/A

**PAST BOARD ACTION:**

June 18, 2009	Approval of Wayzata local water management plan (09-060) and Authorization to execute Memorandum of Understanding (09-061)
January 11, 2018	Approval and adoption of MCWD Watershed Management Plan for the implementation period 2018-2027 (18-004)

## **SUMMARY:**

### Background:

MN Statutes §103B.235 and MN Rules §8410.0160 grant watershed districts the authority to review and approve local water management plans (LWMPs). Under this framework, watershed districts can assign responsibilities to local government units (LGUs) for carrying out implementation actions defined in the watershed plan. The LWMP is a required element of the LGU comprehensive land use management plan which LGU's were required to adopt by the end of 2018.

The Minnehaha Creek Watershed District (MCWD or District) adopted its new Watershed Management Plan (Plan) in January 2018. The Plan is rooted in the District's Balanced Urban Ecology policy (BUE) as the principal strategy to accomplish its mission. The BUE policy recognizes the inter-dependence of the natural and built environment and that both benefit through a holistic planning approach. The BUE policy establishes the guiding principles of focus in areas of highest resource needs, flexibility to respond to emerging opportunities as a result of land use change in real time, and pursuing clean water goals in partnership with our communities.

The Plan establishes the District as a regional water planning agency. The Plan provides rationale for subwatershed-based planning and prioritization by which to focus implementation efforts for the 2018-2027 Plan cycle. The District has prioritized the subwatersheds of Minnehaha Creek, Six Mile Creek-Halsted Bay and Painter Creek-Jennings Bay based on a combination of resource needs and opportunities for management of some of the State's most prized recreational natural resources of Lake Minnetonka and Minnehaha Creek – including the Minneapolis Chain of Lakes.

In addition to these focused planning and implementation efforts, the District's approach watershed-wide is to remain responsive to opportunities created by local land use change or partner initiatives. The District's responsive approach relies on early and effective coordination by the District's communities to help identify opportunities to integrate plans and investments. As opportunities arise, the District will evaluate them against the resource needs and priorities defined for each subwatershed in the District's Plan and determine the appropriate response. The District has a wide range of services it can mobilize to address resource needs and support partner efforts, including data collection and diagnostics, technical and planning assistance, permitting assistance, education and capacity building, grants, and capital projects.

Integration of land use and water planning is the primary focus of the LWMP requirements set forth in the District's Plan. To effectively integrate the goals of MCWD and its LGUs in a way that maximizes community benefits and effectively leverages public funds, the District has invited a partnership framework with its communities. In addition to the legally required elements of LWMPs, as defined in State statute and rules, the MCWD Plan requires communities to propose a coordination plan which describes how the LGU and MCWD will share information and work together to integrate land use and water planning. Specifically, the purpose of a MCWD/LGU coordination plan is to:

1. Establish a framework to be informed as to current LGU land use and infrastructure planning and enable early coordination of land use and water resources management
2. Foster LGU development regulation that integrates water resource protection before plans are fixed
3. Identify and capitalize on project opportunities for improved water resources outcomes while maximizing other public and private goals

As established in the District's Plan, MCWD will prioritize implementation efforts and resource deployment based on its established priorities and LGU commitment to coordination. This commitment is demonstrated through the coordination plan and its implementation by the LGU.

### Wayzata LWMP Summary:

The City of Wayzata (City) has submitted its LWMP for MCWD review and approval. District staff reviewed the LWMP and provided detailed comments regarding the goals and requirements of the District's Plan for consideration and incorporation into the LWMP. The City has revised the LWMP to address the District's comments.

The City occupies approximately 3.1 square miles and lies entirely within the MCWD (see attached map). Wayzata includes portions of the following subwatersheds: Lake Minnetonka, Gleason Lake, and Minnehaha Creek. Major waterbodies within the City include portions of Lake Minnetonka's Brown's Bay, Wayzata Bay, and Gray's Bay as well as Peavey Lake, a portion of Gleason Lake, and Gleason Creek.

The City contributes drainage to the following impaired waters: Gleason Lake (nutrients), Peavey Lake (nutrients and chloride), Lake Hiawatha (nutrients), and Minnehaha Creek (fish, macroinvertebrates, *E. coli*, and dissolved oxygen). The primary management strategies identified for this area in the District's Plan are protection through regulation, promotion of best practices for shoreline management and chloride use, and implementation of opportunity-based stormwater management projects.

Wayzata is largely developed, with some future infill development and redevelopment anticipated. The City's plan states that it will look for opportunities in developed areas to retrofit water quality improvement best management practices (BMPs) to improve the overall water quality in the City. The City is planning to implement a Parks and Trails Master Plan which would address stormwater management and sustainability within several of the City's parks. The City's plan also states that, whenever possible, efforts will be made to incorporate stormwater management into transportation, facilities, sanitary sewer, water supply, and public facilities projects.

Another priority for the City is the Lake Effect Project, which is expected to begin construction in fall 2019. The City has identified this project as a partnership opportunity with the MCWD, particularly with respect to BMP design and public education.

As a required element of the LWMP, the City has developed a MCWD-City Coordination Plan (attached) which serves as a framework to support ongoing communication and promote value-added collaboration between the City and MCWD. The Coordination Plan covers the following areas: annual meeting, land use planning, public projects, regulatory coordination, public communications and education, operations and maintenance, and others.

The City proposes to retain implementation authority for MCWD's Erosion Control, Wetland Protection, and Stormwater Management rules. A memorandum of understanding (MOU) was executed in 2009 outlining the City's obligations regarding regulatory authority, and this MOU is still in effect and included in the City's plan. The City will also continue to retain Local Government Unit authority for the Wetland Conservation Act.

### Recommendation:

Staff has verified that the LWMP meets all requirements of Minnesota Statutes §103B.235, Minnesota Rules 8410.0160, and the MCWD Watershed Management Plan and recommends approval.

### **Attachments:**

1. Wayzata Map
2. Wayzata Coordination Plan
3. Wayzata LWMP (via website)

## RESOLUTION

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**RESOLUTION NUMBER: 19-087**

**TITLE: Approval of Wayzata Local Water Management Plan**

WHEREAS, on January 11, 2018, the MCWD adopted its Watershed Management Plan (WMP) pursuant to Minnesota Statutes §103B.231 and Minnesota Rules 8410, which describes how the MCWD will fulfill its responsibilities under the Metropolitan Surface Water Management Act for implementation over the period 2018-2027, and which is guided by the organizational strategy and approach defined through the Balanced Urban Ecology policy; and

WHEREAS, the Balanced Urban Ecology policy prioritizes partnership with the land use community to integrate policy, planning, and implementation in order to leverage the value created when built and natural systems are in harmony; and

WHEREAS, the Balanced Urban Ecology policy rests on the guiding principles of focusing in areas of highest resource needs, being flexible to respond to opportunities that arise through land use changes, and working in partnership to achieve the MCWD's goals; and

WHEREAS, on watershed district adoption of its WMP, cities and towns (local government units or LGUs) within the watershed must prepare local water management plans (LWMPs) that meet content requirements of Minnesota Statutes §103B.235, Minnesota Rules 8410.0160 and the WMP; and

WHEREAS, the LWMP is a primary tool to provide a framework for increased early coordination of land use and water planning through the coordination plan that is a required component of the LWMP and the content of which is described in the WMP, Appendix A; and

WHEREAS, the MCWD will prioritize implementation efforts and resource deployment based on its established priorities and LGU commitment to coordination as demonstrated through the coordination plan and its implementation by the LGU; and

WHEREAS, the City of Wayzata (City) has revised its LWMP and submitted it to the MCWD for review and approval; and

WHEREAS, MCWD staff reviewed the draft LWMP, provided detailed written comments on the LWMP, and thereafter worked with City staff to achieve the development of a proposed LWMP for consideration by the MCWD Board of Managers; and

WHEREAS, the Metropolitan Council has reviewed the LWMP and provided its written comments to the MCWD in a letter on March 25, 2019, and the MCWD has fully considered the comments; and

WHEREAS, the City wishes to retain water resource regulatory authority within the meaning of Minnesota Statutes §103B.211, subd. 1(a)(3), and assert sole permitting jurisdiction with respect to activities subject to MCWD's Erosion Control, Wetland Protection, and Stormwater Management rules; and

WHEREAS, the City's ordinances and official controls regarding Erosion Control, Wetland Protection, and Stormwater Management were reviewed and found to provide protection of water resources at least as effective as the MCWD rules; and

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**DRAFT for discussion purposes only and subject to Board approval and the availability of funds.  
Resolutions are not final until approved by the Board and signed by the Board Secretary.**



WHEREAS, a memorandum of understanding (MOU) was executed in 2009 describing the City's obligations regarding regulatory authority, and this MOU is still in effect and included in the City's LWMP; and

WHEREAS, the MCWD will continue to exercise its present authority with respect to all District rules except Erosion Control, Wetland Protection, and Stormwater Management under authority provided by MCWD Rules and Minnesota Department of Natural Resources, and otherwise exercise its permitting and approval authority in accordance with the terms of Minnesota Statutes §103B.211, subd. 1(a)(3); and

WHEREAS, the LWMP states that the City elects to continue to act as the Local Government Unit responsible to implement the Minnesota Wetland Conservation Act; and

WHEREAS, the LWMP contains a coordination plan that meets the standards set forth in the MCWD WMP, Appendix A; and

WHEREAS, the MCWD has determined that the final revised LWMP meets the requirements of Minnesota Statutes § 103B.235, Minnesota Rules 8410.0160, and is consistent with the MCWD WMP including Appendix A, "Local Water Plan Requirements";

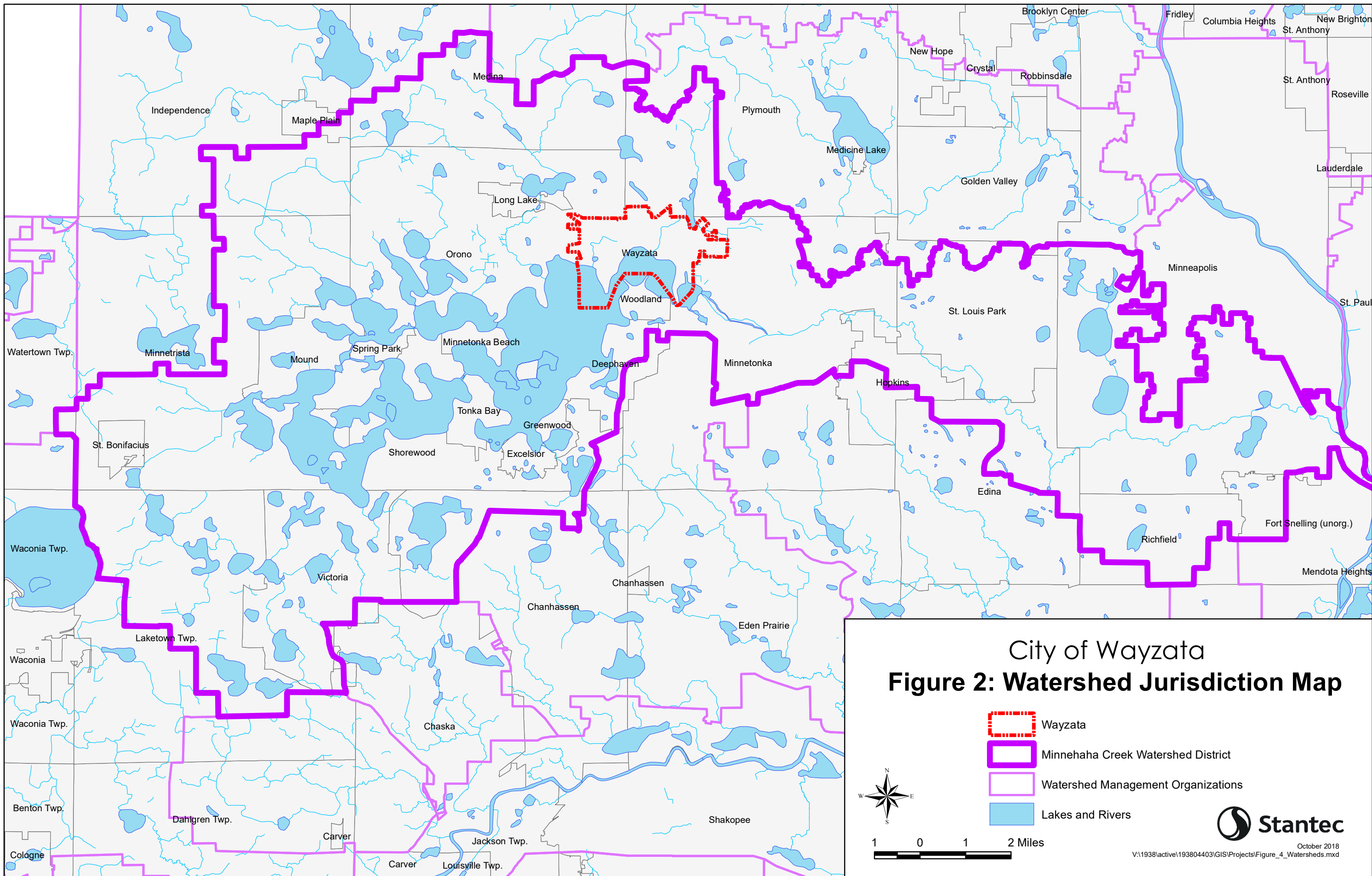
NOW, THEREFORE, BE IT RESOLVED, that the MCWD hereby approves the City of Wayzata Local Water Management Plan; and

BE IT FURTHER RESOLVED, that the Board approves the associated coordination plan and adopts it on behalf of the MCWD; and





BE IT FINALLY RESOLVED that the City is to adopt and implement its LWMP within 120 days, and to notify the MCWD within 30 days thereafter that it has done so.

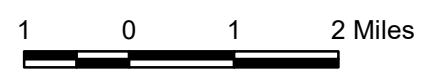
Resolution Number 19-087 was moved by Manager \_\_\_\_\_, seconded by Manager \_\_\_\_\_.  
Motion to adopt the resolution \_\_\_ ayes, \_\_\_ nays, \_\_\_ abstentions. Date: \_\_\_\_\_.

\_\_\_\_\_  
Secretary Date: \_\_\_\_\_.



**City of Wayzata**  
**Figure 2: Watershed Jurisdiction Map**

-  Wayzata
-  Minnehaha Creek Watershed District
-  Watershed Management Organizations
-  Lakes and Rivers



## MINNEHAHA CREEK WATERSHED COORDINATION PLAN

The following Coordination Plan outlines a relationship between the City of Wayzata (the City) and the Minnehaha Creek Watershed District (the MCWD). The purpose of this Coordination Plan is to maintain awareness of the needs and opportunities for successful surface water management within the City, and to promote successful partnership towards implementation of projects to meet the surface water management needs. It is anticipated that the City Engineer will be the primary contact between the City and the MCWD for the Coordination Plan. The following agreements comprise the Coordination Plan:

- Annual meeting: The City and the MCWD agree to meet annually to review progress in the *Local Surface Water Management Plan* implementation. The annual meeting will be scheduled by the City Engineer. The meeting will include review of the annual National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer Systems (MS4) report and activity from the previous year.

The annual meeting will include discussion about yearly updates to the City's Capital Improvement Program (CIP). The discussion will be a time for the MCWD to coordinate projects, discuss potential funding opportunities, including funding opportunities internal to the MCWD and through external sources, and provide comments.

- Planning Coordination: The City agrees to notify and consult with the MCWD regarding updates to road & infrastructure and parks & recreation planning efforts. Updates are to be sent by the City Engineer to the MCWD for review and comment at a minimum of once per year.
- Land Use: The City agrees to notify the MCWD with requests for land use approvals for review and comment. This includes, but is not limited to, requests for prospective development/redevelopment and receipt of preliminary plats. The MCWD agrees to notify the City upon receipt of preliminary plats. Additionally, the City and the MCWD agree to provide mutual notice of significant events related to prospective development/redevelopment.
- Small Area Plans: The City agrees to notify the MCWD with updates to the institution and completion of small area plans and other focused development/redevelopment actions. Updates are to be sent by the City Engineer to the MCWD at a minimum of once per year.
- Project Opportunities: The City agrees to engage the MCWD early in the process for potential project partnering opportunities, in order to help evaluate the opportunities against MCWD goals and priorities and determine the MCWD's role.
- MS4 System: In addition to a review of the MS4 system at the annual meeting, the City agrees to notify the MCWD of any significant alterations to the MS4 system throughout the year, for the purpose of keeping the MCWD's hydrologic and hydraulic model up to date.
- Watershed District Updates: Throughout the year, the MCWD agrees to notify the City of any amendments to the current *Watershed Management Plan*, as well as any updates to the MCWD

CIP. Additionally, the MCWD agrees to notify the City with significant events related to prospective (re)development.

- **Public Communications and Education:** The City agrees to promote the Educational Workshops and Events put on by the MCWD. The City and the MCWD agree to coordinate when possible to avoid replicating educational programs.
- **Funding:** In order to assist the City in implementing projects related to surface water management, the MCWD agrees to continue to provide information regarding upcoming grants and other funding opportunities, both internal and external to the MCWD.
- **Wetland Conservation Act:** The City wishes to retain LGU authority for the Wetland Conservation Act. The City agrees to maintain rules and regulations at least as stringent as the MCWD for wetland protection and management. The MCWD agrees to provide consultation through a Technical Evaluation Panel to guide the City in wetland protection and management regulations and projects.
- **Regulatory Coordination:** The City and the MCWD agree to coordinate activities regarding regulation of surface water management, including ensuring applicants are aware of permitting authority of both parties, holding pre-application meetings, sharing complaint information, coordinating compliance inspections, and coordinating regulatory enforcement. Coordination will be carried out between the City Engineer and MCWD staff over phone and email, and through in-person meetings if necessary.
- **Operation and Maintenance:** The City agrees to inform the MCWD on the status and schedule of operation and maintenance activities associated with partnering projects.



# Local Surface Water Management Plan



Prepared for:  
City of Wayzata, MN

Prepared by:  
Stantec Consulting Services Inc.

Project No. 193804403

August 5, 2019

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## Executive Summary

This Local Surface Water Management Plan serves as a comprehensive planning document to guide the City of Wayzata in conserving, protecting, and managing its surface water resources. This plan has been created to meet the requirements detailed in Minnesota Statutes 103B (Metropolitan Surface Water Management Act), Minnesota Rules 8410, and requirements of the local watershed management organizations.

This document provides an inventory of water resource related information including the results of assessments conducted by other governmental units, both local and state. From this inventory and assessment, Wayzata sets forth its goals and policies and implementation program.

The City of Wayzata's primary stormwater management goal is to protect its largest asset, Lake Minnetonka. Over the last 10-20 years, the City has made great strides in surface water management, including capturing sediment, updating ordinances, and managing construction. One of the priority projects, to be implemented in 2019-2020, is the Lake Effect project. This project proposes to reconstruct Lake Street between Broadway Avenue and Barry Avenue. Stormwater benefits of this project include the conversion of a parking lot to a public park, sediment control, and tree trenches. Additional priorities include protecting and preserving wetlands in the City and addressing drainage and erosion issues, and the plan identifies specific projects for these purposes. The City is fully developed, but as the City has opportunities for redevelopment, the plan provides updated goals, policies, and a tentative plan for implementation.

### The plan is organized as follows:

- **Section 1** offers an introduction to and purpose of this Plan.
- **Section 2** provides an inventory of land and water resources within the City, including a description of the physical setting, available water resources data, and land use maps.
- **Section 3** documents the regulatory agencies and their role in the City's surface water management.
- **Section 4** describes past studies and plans related to surface water management.
- **Section 5** identifies surface water management agreements between Wayzata and other entities.
- **Section 6** provides a current assessment of surface water management in Wayzata, including the NPDES permitting process. This section also includes the identification of issues and corrective actions, including flooding and stormwater system issues and upkeep.
- **Section 7** lists the goals and policies identified to address surface water management needs in the City, relating to land development and resource management.



## LOCAL SURFACE WATER MANAGEMENT PLAN

- **Section 8** summarizes capital projects planned to implement the goals and policies listed in Section 7, and potential activities and funding mechanisms.
- **Section 9** outlines the continued administration of this plan with respect to plan amendments.

### The appendices provide additional detail:

- **Appendix A** includes all figures associated with this Plan.
- **Appendix B** provides Wayzata's water resource related agreements.
- **Appendix C** provides information on Wayzata's ordinances as pertaining to erosion control, wetland protection, and stormwater management.
- **Appendix D** provides stormwater management rules set forth by the Minnehaha Creek Watershed District.
- **Appendix E** provides an inventory of Wayzata's stormwater best management practices.
- **Appendix F** provides the Protection and Management of Wetlands section of the 2009 Local Surface Water Management Plan, which remains active.
- **Appendix G** provides stormwater Best Management Practice key design considerations.
- **Appendix H** provides an example of cash dedication calculations.
- **Appendix I** contains the City's Storm Water Pollution Prevention Program (SWPPP).
- **Appendix J** provides the proposed Coordination Plan between Wayzata and the Minnehaha Creek Watershed District.



## 1.0 PURPOSE AND SCOPE

### 1.1 PURPOSE

This Local Surface Water Management Plan (LSWMP) will serve as a comprehensive planning document to guide the City of Wayzata in conserving, protecting, and managing its surface water resources. This plan has been created to meet the requirements detailed in Minnesota Statutes 103B and Minnesota Rules 8410, administered by the Minnesota Board of Water and Soil Resources. This plan is also consistent with the goals and policies of the Metropolitan Council's 2040 Water Resources Policy Plan and the requirements of the Minnehaha Creek Watershed District. This plan may be periodically amended to remain current with local practices and policies.

### 1.2 SCOPE

This Plan serves multiple purposes including statutory and rules compliance. Minnesota Statute 103B.235 defines content for Local Surface Water Management Plans. According to the statute's text, each local plan, in the degree of detail required in the watershed plan, shall:

- 1) describe existing and proposed physical environment and land use;
- 2) define drainage areas and the volumes, rates, and paths of stormwater runoff;
- 3) identify areas and elevations for stormwater storage adequate to meet performance standards established in the watershed plan;
- 4) identify regulated areas; and
- 5) set forth an implementation program, including a description of official controls and, as appropriate, a capital improvement program.

Minnesota Rules 8410, administered by the Board of Water and Soil Resources (BWSR), provide more detail on local plan content. Though the BWSR guidance applies specifically to watershed management organizations, this guidance has historically been used to frame expectations for municipal plans. According to Minnesota Rules 8410.0161, local plans must include:

1. Executive summary.
2. Water resource management-related agreements, including joint power agreements.
3. Existing and proposed physical environment and land use.
4. Existing or potential water resource-related problems.
5. A local implementation program describing solutions to the identified water resource-related problems.



## LOCAL SURFACE WATER MANAGEMENT PLAN

### 6. Amendment procedures.

The Wayzata LSWMP must address requirements of the Minnesota Pollution Control Agency's Municipal Separate Storm Sewer System (MS4) program. This program is designed to reduce the sediment and pollution that enters groundwater and surface waters to the maximum extent practicable. The MS4 program is regulated through the National Pollutant Discharge Elimination System (NPDES) permits. These NPDES permits require the development of Storm Water Pollution Prevention Programs (SWPPP).

The Wayzata LSWMP must also satisfy Metropolitan Council requirements as contained in their 2040 Water Resources Policy Plan. These requirements build on those of Minnesota Rules 8410. Beyond state level requirements and those of the Metropolitan Council, this plan must be consistent with the requirements of the Minnehaha Creek Watershed District (MCWD). Per the Memorandum of Understanding with the MCWD, the City of Wayzata retains sole regulatory authority within City boundaries with respect to erosion control, wetland protection, and stormwater management, as regulated by the MCWD. See Section 5 for more details.



## 2.0 LAND AND WATER RESOURCES INVENTORY

### 2.1 LOCATION AND HISTORY

The City of Wayzata is located in southwestern Hennepin County approximately 15 miles west of Minneapolis, shown in Figure 1. Wayzata is bounded on the north by the City of Plymouth, on the west by the City of Orono, on the east by the City of Minnetonka, and on the south by Lake Minnetonka. The City’s population expanded rapidly between 1950 and 1960 and has been relatively stable since 1980. The 2010 population of Wayzata was estimated at 3,668. Wayzata is largely a fully-developed community, with some future infill development and redevelopment anticipated. Moderate population increases are expected as the City increases residential land use (Table 2.1).

Geographically, the City lies along the north shore of Brown’s Bay, Wayzata Bay, and Gray’s Bay on Lake Minnetonka. Within the approximately three square miles that comprise the City are located more than 70 wetlands, several small lakes, wooded areas, parks, as well as portions of Lake Minnetonka. Historical water quality data show that Brown’s and Wayzata Bays consistently exhibit among the best water quality of any of the Lake Minnetonka bays. The character and general economy of Wayzata is influenced strongly by its lakeside location. The City of Wayzata lies entirely within the jurisdictional boundaries of the Minnehaha Creek Watershed District. See Figure 2 for the boundaries of the MCWD.

**Table 2.1 - Wayzata Population (Metropolitan Council)**

Year	Population	Households	Employment
2010	3,688	1,795	4,567
2020	4,140	2,100	4,800
2030	4,520	2,310	4,920
2040	4,650	2,400	5,000

Source: Metropolitan Council, 2017

Based on revised population, household, and employment estimates for 2017, the City has revised population, household, and employment forecasts for Wayzata (Table 2.2). The revised forecasts adjust for the 2010 to 2017 growth and assume the same growth rates between 2030 and 2040 that were used in the Metropolitan Council’s 2015 system statements.

**Table 2.2 - Wayzata Population (Revised)**

Year	Population	Households	Employment
2010	3,688	1,795	4,567
2020	4,893	2,471	5,127
2030	5,120	2,574	5,398
2040	5,258	2,677	5,540

Source: City of Wayzata, 2018



## 2.2 TOPOGRAPHY

Glacial activity that occurred about 11,000 years ago is largely responsible for the current topography of the City of Wayzata and the configuration of the sub-watersheds within the City. Most of Wayzata is rolling to hilly with poorly-drained depressions that hold wetlands and ponds. Many of these depressions were formed as a result of ice blocks deposited within the glacial drift that underlies much of the area. Most areas of Wayzata exhibit fairly level topography. The steep slopes that do exist are concentrated in the southwestern and eastern parts of the City. Elevations vary from 1,000 to 1,050 feet (NGVD 29) in the northwestern and north central portion of the City to approximately 930 feet along the shoreline of Lake Minnetonka.

## 2.3 SOILS

Wayzata is covered by soils of glacial origin that are between 100 and 250 feet thick over most of the City. A buried river valley with a north-south orientation extending from Brown's Bay under Peavey Lake toward Mooney Lake in Plymouth has deposits in excess of 300 feet thick. The "Surficial Geology" plate of the Geologic Atlas for Hennepin County (Minnesota Geological Survey, 1989) provides further information on the geologic origin of these soils.

A detailed soil survey for Hennepin County was prepared by the U.S. Department of Agriculture's Soil (now Natural Resources) Conservation Service. There are three general soil associations within the City of Wayzata. Most of Wayzata is underlain by the Hayden-Burnsville-Peaty muck. This association is comprised of level, organic soils and hilly to steep, moderately fine textured to moderately coarse textured soils that developed in glacial till. The eastern margin of Wayzata includes the Hayden Peaty muck association while the western portion of Wayzata is underlain by the closely related Hayden-Cordova-Peaty muck association. Both include medium to moderately fine textured soils that developed in glacial till and level organic soils.

The Hennepin County Soil Survey contains information on the general soil associations within the City. The survey contains detailed information on the soil classification types as well as erosion potential, infiltration characteristics, and suitability for a variety of land uses.

## 2.4 GROUNDWATER

The City obtains all its water supply from groundwater and has no surface water appropriations. The City completed its Wellhead Protection Plan in 2015. The next amendment to the Wellhead Protection Plan will be due in 2025, ten years after the previous version of the plan was approved by the Minnesota Department of Health (MDH). The amendment schedule could be accelerated by the MDH in the event that the City were to add a new well to their system.

In general, groundwater underlying the City of Wayzata in both the Quaternary (glacial drift) aquifers as well as the bedrock aquifers flows toward the south and southeast to the Minnesota and Mississippi



Rivers. The Prairie du Chien Group and the Jordan Sandstone together form the most heavily used aquifer in Hennepin County. The City of Wayzata has five wells that are or have been used to withdraw groundwater for the City’s water supply. Well Nos. 1 and 2 are no longer in use and have been sealed. Well No. 3 draws water from the glacial drift aquifers, while Well Nos. 4 and 5 draw water from the Prairie du Chien-Jordan aquifer.

## 2.5 CLIMATE

Climate data for the Twin Cities are published by the National Weather Service (NWS) station at Chanhassen, MN. The NWS is a branch of the National Oceanic and Atmospheric Administration (NOAA). Table 2.3 provides a summary of average precipitation data for the Twin Cities area.

**Table 2.3 - Average Monthly Precipitation (Inches), 1981-2010**

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
0.87	0.94	1.78	3.00	3.66	4.02	3.59	4.14	3.43	2.51	1.97	1.25	31.2

Rainfall frequency estimates are used as design tools in water resource projects. Rainfall frequencies are summarized in the NOAA Atlas 14 – Point Precipitation Frequency Estimates. Previously, Technical Paper No. 40, Rainfall Frequency Atlas of the United States (NOAA), was used to determine rainfall frequency estimates. The use of Atlas 14 estimates provides an advantage to Technical Paper No. 40, as estimates are based on data from denser networks with longer periods of record, and regional frequency analyses and new spatial interpolation techniques are used. Table 2.4 lists Atlas 14 rainfall frequencies applicable to the City of Wayzata.

**Table 2.4 - 24-Hour Rainfall Depths and Frequency**

Recurrence Interval (yrs)	24-hr Rainfall Depth (in)
2	2.9
5	3.6
10	4.3
50	6.3
100	7.4

## 2.6 WATER RESOURCES

### 2.6.1 Lake Minnetonka

With a surface area over 14,000 acres, Lake Minnetonka is the largest lake in the Twin Cities metropolitan area. The lake has area in both Hennepin and Carver Counties. Given its large size and many bays, there is great variety in the characteristics of Lake Minnetonka relating to aquatic species, lake bottom types, and depths. It is a popular recreation lake, and so the strain on its aquatic resources is evident in some areas of the lake.





There is a diversity and abundance of fish species in Lake Minnetonka. Species of game fish include bluegill, crappie, largemouth bass, northern pike, muskellunge and walleye. The Minnesota Department of Natural Resources (MnDNR) has instituted consumption guidelines for several species within the lake. There are several invasive species in the lake that have been of concern; curly-leaf pondweed was discovered in 1900, purple loosestrife in 1940, and Eurasian watermilfoil in 1987. Zebra mussels were discovered in the lake in 2010, and since that time there have been extensive measures in place to control their spread. In addition to invasive species, there were issues with surface runoff pollution until the 1970s. However, these conditions have improved significantly since agencies like the MnDNR, Minnesota Pollution Control Agency (MPCA), and MCWD have focused intensively on monitoring these conditions and educating landowners on the issues associated with surface runoff.

### 2.6.2 Peavey Lake

This 9-acre lake is located in southwestern Wayzata and discharges to Brown's Bay of Lake Minnetonka via an open channel. The channel provides access to Peavey Lake from Lake Minnetonka for small boats, but there is no developed public access on Peavey Lake itself. Peavey Lake is extremely deep for its surface area, with a maximum depth in excess of 45 feet. Because of the lack of accurate bathymetric data, the mean depth of Peavey Lake is unknown but likely exceeds 20 feet. The total watershed of Peavey Lake is estimated at 592 acres, with 448 acres lying within the City of Wayzata and the remainder in Orono.

### 2.6.3 Gleason Lake

Gleason Lake is located along Wayzata's northwestern boundary. Approximately 40 acres of this 156-acre lake lie within the City of Wayzata, with the remainder in the City of Plymouth. The lake has a maximum depth of 16 feet and a mean depth of under eight feet. The total watershed of Gleason Lake is approximately 2,580 acres, with about 160 acres (6.1 percent) lying within the City of Wayzata and about 2,420 acres within Plymouth. Historical water quality data indicate that water quality in the lake is fair to poor. Even with only modest water clarity, sufficient light reaches the bottom of the lake over most of its area to support dense rooted aquatic plant growth that reaches the surface over much of the lake. The MnDNR reports that the lake supports a moderately good fishery, with black bullhead, black crappie, bluegill, and northern pike abundant. Public access is located on the Luce Line Trail along the lake's north shore in Plymouth.

### 2.6.4 Wetlands

The City contains a number of wetlands, as shown in Figure 10. As a part of this report, the City's wetland naming conventions have been updated to better agree with MCWD's subwatersheds. Table 2.5 below shows the old wetland IDs (from the 2009 LSWMP) and the new IDs based on MCWD subwatersheds.



**Table 2.5 - New Wetland IDs**

Old Wetland ID	New Wetland ID	Old Wetland ID	New Wetland ID	Old Wetland ID	New Wetland ID
HOL-W3C	GB-W01	GC-W2	HL-W04	PP-W9A.2	PL-W11
HOL-W8B	GB-W02	GC-W5B	HL-W05	PP-W9A.1	PL-W12
HOL-W8A	GB-W03	GC-W6	HL-W06	PP-W9A.3	PL-W13
HOL-W3A	GB-W04	GC-W4	HL-W07	PP-W7	PL-W14
HOL-W3B	GB-W05	GC-W7	HL-W08	PP-W10A	PL-W15
HOL-W4	GB-W06	GC-W9F	MC-W01	PP-W10B	PL-W16
HOL-W5	GB-W07	GC-W9E	MC-W02	PP-W9A.4	PL-W17
HOL-W6A	GB-W08	HOL-W9A	MC-W03	PP-W11B	BB-W01
HOL-W6B.1	GB-W09	HOL-W9B	MC-W04	LAS-W2	WB-W01
HOL-W6B.2	GB-W10	HOL-W10	MC-W05	LAS-W1	WB-W02
HOL-W6C	GB-W11	HOL-W2	MC-W06	LAS-W4	WB-W03
HOL-W6D	GB-W12	HOL-W1	MC-W07	LAS-W3	WB-W04
GC-W9A	GLC-W01	GC-W1A	PL-W01	GC-W11C	WB-W05
GC-W9B	GLC-W02	PP-W1D	PL-W02	GC-W11A	WB-W06
GC-W9C	GLC-W03	PP-W1C	PL-W03	GC-W11B	WB-W07
GC-W9D	GLC-W04	PP-W1B	PL-W04	LAS-W6.2	WB-W08
GC-W8A	GLC-W05	PP-W1A	PL-W05	LAS-W6.1	WB-W09
GC-W8B	GLC-W06	PP-W3A	PL-W06	LAS-W6	WB-W10
GC-W10A	GLC-W07	PP-W3	PL-W07	DT-W4B	WB-W11
GC-W5A	HL-W01	PP-W6	PL-W08	DT-W4A	WB-W12
GC-W3.1	HL-W02	PP-W13	PL-W09	DT-W3	WB-W13
GC-W3.2	HL-W03	PP-W12	PL-W10		

### 2.6.5 Stormwater Ponds

The City contains a number of stormwater ponds, also shown in Figure 10. As a part of this report, the City’s pond naming conventions have been updated to better agree with MCWD’s subwatersheds. Table 2.6 below shows the old wetland IDs (from the 2009 LSWMP) and the new IDs based on MCWD subwatersheds.



**Table 2.6 - New Pond IDs**

Old Pond ID	New Pond ID	Old Pond ID	New Pond ID	Old Pond ID	New Pond ID
DT-P2	LM-P03	GC-W2	HL-W04	PP-W9A.2	PL-W11
DT-P1	LM-P02	GC-W5B	HL-W05	PP-W9A.1	PL-W12
DT-P4A	WB-P01	GC-W6	HL-W06	PP-W9A.3	PL-W13
DT-P6	WB-P02	GC-W4	HL-W07	PP-W7	PL-W14
GL-P1	PL-P01	GC-W7	HL-W08	PP-W10A	PL-W15
GL-P9A	GLC-P06	GC-W9F	MC-W01	PP-W10B	PL-W16
GL-P9B	GLC-P07	GC-W9E	MC-W02	PP-W11B	PL-W17

**2.6.6 Impaired Waters**

The City limits encompass a number of waterbodies listed on the MPCA’s list of impaired waters; lakes and streams in the state that do not meet federal water quality standards. Table 2.7 includes information about these impaired waterbodies, and Section 3.7 includes discussion on impaired waters and the TMDL process.

**Table 2.7 - Impaired Waters Receiving Discharge from Wayzata**

Impaired Water	Year Listed	Affected Use	Pollutant or Stressor	TMDL Approved
<b>Lake Minnetonka – Lower Lake</b> (27-0133-02)	1998	Aquatic Consumption	Mercury in fish tissue	2008
<b>Lake Minnetonka – Gray’s Bay</b> (27-0133-01)	1998	Aquatic Consumption	Mercury in fish tissue	2008
<b>Lake Hiawatha</b> (27-0018-00)	2002	Aquatic Recreation	Nutrients	2014
<b>Gleason Lake</b> (27-0095-00)	2010	Aquatic Recreation	Nutrients	2014
<b>Peavey Lake</b> (27-0138-00)	2014	Aquatic Life	Chloride	2016
	2014	Aquatic Recreation	Nutrients	2024*
<b>Minnehaha Creek</b> (07-0101-06)	2004	Aquatic Life	Fish bioassessments	2025*
	2010	Aquatic Life	Dissolved Oxygen	2025*
	2014	Aquatic Life	Aquatic Macroinvertebrate bioassessments	2025*

\*Planned TMDL completion date



## 2.7 NATURAL RESOURCES

The City of Wayzata has a number of parks, most of which are available to the public. Community parks and other open spaces with their public amenities/features are listed in Table 2.8.

**Table 2.8 - Community Parks and Open Spaces**

Park or Open Space Name	Features
<b>Bell Courts Park</b>	Bocce, pickleball, and tennis courts, grill, picnic tables
<b>Big Woods Preserve</b>	Hardwood forest, trail
<b>Children’s Garden</b>	Garden, green space, picnic areas, benches
<b>City Hall Park</b>	Garden, green space, observation deck, picnic areas, benches
<b>Gray’s Bay Causeway Park</b>	Fishing, parking
<b>Great Lawn</b>	Garden, green space, stage, benches
<b>Heritage Park</b>	Benches, garden, picnic area, trails
<b>Klapprich Park and Field</b>	Baseball/softball fields, hockey rink, picnic areas, playground, off leash dog park
<b>Margaret Circle Park</b>	Ice skating rink, green space, picnic areas
<b>Nature Center (Undeveloped)</b>	Important filter for Lake Minnetonka, closed to public
<b>Post Office Pocket Park</b>	Garden, picnic area, walking path
<b>Shaver Park</b>	Garden, picnic area, watersports, trails, volleyball, historic cabin
<b>Wayzata Beach and Marina</b>	Swimming dock, fishing, playground, Volleyball, garden, trails, concessions

In addition to these community parks, the Luce Line State Trail and Dakota Rail Regional Trail run through Wayzata. The Luce Line has a limestone surface and loops through the northern edge of Wayzata just north of Highway 12 for approximately one mile. The Dakota Rail is a paved trail that begins in eastern Wayzata and travels west of St. Bonifacius to Mayer. These trails provide a corridor for biking, walking, and running. There are also two City dock locations in town that provide public access. These docks are Depot Docks and Broadway Docks.

At the time of this report, the MnDNR, Minnesota Biological Survey does not have on record any rare, threatened, or endangered species within the City. Information from the State of Minnesota was reviewed to determine whether other unique features were present in Wayzata. Based on this review, no Outstanding Resource Value Waters, Designated Scientific and Natural Areas, State Wildlife Management Areas, or State Aquatic Management Areas are located within the City of Wayzata.



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However, Ferndale Marsh, located at the far western boundary of the City, is a remnant of original native marsh and wet meadow habitat, and is managed by the Nature Conservancy.

The MCWD 2007 Comprehensive Water Resources Management Plan (WRMP) identifies several “key conservation areas” within the City. These areas are shown in Figure 3, taken from the MCWD 2007 WRMP. The key conservation areas are generally the higher quality wetlands between Hadley and Gleason Lake, the Gleason Creek corridor, and the area around Ferndale Marsh. A more complete wetland assessment is given in Section 6.5.

### **2.8 PLANNING AND LAND USE**

Wayzata’s last comprehensive plan was adopted in 2008. The City’s 2040 Comprehensive Plan, in which this Local Surface Water Management Plan is included as an appendix, includes updates to the goals and policies related to water and natural resources. The total land area of Wayzata is approximately three square miles. Current land uses within the City are shown in Figure 4. Land uses proposed for the 2040 Comprehensive Plan are shown in Figure 5.

Potential areas of future redevelopment are shown on Figure 5. Stormwater management practices to meet current standards will be incorporated into these areas as appropriate as redevelopment occurs.

The City does not currently have any small area plans; however, such plans are called for as part of the implementation chapter of the City’s Comprehensive Plan (in process as of this writing). Future small area plans will address opportunities for stormwater management.



### 3.0 REGULATORY SETTING

#### 3.1 OVERVIEW

This section describes the City’s current surface water resources management programs and practices and the agencies and organizations having roles in the City’s management of these resources. Table 3.1 summarizes the City’s and other agencies’ respective regulatory controls related to water resources management and protection.

**Table 3.1 - Regulatory Controls**

Official Control	Responsibility	Mechanism
<b>Erosion and Sediment Control</b>	City, MPCA, MCWD	<ul style="list-style-type: none"> <li>• City Code – Part IV, Chapter 409 – Land Disturbance</li> <li>• City Code – Part X, Chapter 1006.13 – Subdivision Design Standards: Erosion and Sediment Control</li> <li>• MPCA NPDES General Permit – SWPPP Minimum Control Measure (MCM) 4 – Construction Site Runoff Control</li> <li>• NPDES General Permit – SWPPP MCM 5 – Post-construction Site Runoff Control</li> <li>• MCWD – Erosion Control Rule</li> </ul>
<b>Shoreland</b>	City, MCWD	<ul style="list-style-type: none"> <li>• City Code – Part IX, Chapter 991 – Shoreland Overlay District</li> <li>• MCWD – Shoreline and Streambank Stabilization Rule</li> </ul>
<b>Floodplain</b>	MCWD	<ul style="list-style-type: none"> <li>• City Code – Part XIII, Chapter 806 – Flood Plain Management</li> <li>• City Code – Part IX, Chapter 993 – Flood Plain Overlay District</li> <li>• MCWD – Floodplain Alteration Rule</li> </ul>
<b>Wetlands</b>	City, MPCA, MnDNR, USACE, MCWD	<ul style="list-style-type: none"> <li>• City Code – Part IX, Chapter 992 – Wetlands Overlay District</li> <li>• MPCA NPDES General Permit – SWPPP MCM 5 – Post-construction stormwater management</li> <li>• MPCA NPDES General Permit – SWPPP MCM 6 – Pollution prevention</li> <li>• MnDNR – Public Waters Work Permit</li> <li>• USACE – Section 404, Clean Water Act</li> <li>• MCWD – Wetland Protection Rule</li> <li>• MCWD – Dredging Rule</li> </ul>
<b>Illicit Discharge</b>	City, MPCA, MCWD	<ul style="list-style-type: none"> <li>• MPCA NPDES General Permit – SWPPP MCM 3 – Illicit discharge detection and elimination</li> <li>• City Code – Part IV, Chapter 410 – Stormwater and Urban Runoff Pollution Control</li> <li>• MCWD – Illicit Discharge Rule</li> </ul>
<b>Water Quality</b>	City, MPCA, MCWD	<ul style="list-style-type: none"> <li>• City Code - Part IV, Chapter 409.13 – Land Disturbance: Drainage</li> <li>• MPCA NPDES General Permit</li> <li>• MCWD – Illicit Discharge Rule</li> <li>• MCWD – Stormwater Management Rule</li> </ul>
<b>Water Quantity</b>	MPCA, MCWD	<ul style="list-style-type: none"> <li>• MPCA NPDES General Permit – SWPPP MCM 1 – Public education and outreach</li> </ul>



Official Control	Responsibility	Mechanism
		<ul style="list-style-type: none"> <li>• MPCA NPDES General Permit –SWPPP MCM 4 – Construction site stormwater runoff control</li> <li>• MCWD – Appropriations Rule</li> <li>• MCWD – Stormwater Management Rule</li> </ul>

### 3.2 CITY SERVICES

Per the Memorandum of Understanding with the MCWD, the City of Wayzata retains sole regulatory authority within City boundaries with respect to erosion control, wetland protection, and stormwater management, as regulated by the MCWD.

Residential streets, sanitary and storm sewers, waterlines, and park lands within Wayzata are maintained by the City. Drinking water within the City of Wayzata is supplied by the City through Wells 3, 4, and 5. Wastewater is collected in the City sewer system and conveyed through the Metropolitan Council trunk sanitary sewer system to Blue Lake Wastewater Treatment Plant in Shakopee. City of Wayzata water and sewer rates are available on the City’s website.

City staff coordinates with the MCWD and other outside agencies in water resource management and conservation. A collection of City residents and council members manage comprehensive planning for Wayzata. The full extent of City ordinances are available on the City’s website.

### 3.3 HENNEPIN COUNTY

Hennepin County was created in 1852 by the Minnesota Territorial Legislature and is one of Minnesota’s original nine counties. The County provides many services to Wayzata residents, including health services and property records. Hennepin County Conservation Services provides technical and funding assistance to cities within the County regarding natural resources issues.

### 3.4 WATERSHED MANAGEMENT ORGANIZATIONS (WMO)

In 1955, the Minnesota State Legislature established the Watershed Act. This act provided the means to create watershed districts, special purpose units of local government with broad authority to regulate land use planning, flood control and conservation issues, to protect and manage water resources. There are currently 46 watershed districts in the state, and 14 in the seven-county metropolitan area. Watershed districts have the authority to:

- Adopt rules with the power of the law to regulate, conserve and control the use of water resources within the district;
- Contract with units of government, as well as private and public corporations, to carry out water resources management projects;
- Hire staff and contract with consultants;
- Assess properties for benefits received and levy taxes to finance direct administration;



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- Accept public and private grant funds, and encumber debt;
- Acquire property necessary for projects;
- Construct and operate drainage systems, dams, dikes, reservoirs and waters supply systems;  
and
- Enter upon lands within and without the district to conduct investigations.

In 1982, the legislature approved the Metropolitan Surface Water Management Act, Chapter 103B of Minnesota Statutes. This act requires all local governments within the seven-county metropolitan area to address surface water management through participation in a Watershed Management Organization (WMO). A WMO can be organized as a watershed district, as a Joint Powers Agreement (JPA) among municipalities, or as a function of county government. There are 36 joint powers WMOs and ten watershed districts within the seven-county metropolitan area. These entities prepare watershed plans to:

- Protect, preserve, and use natural surface and groundwater storage and retention systems;
- Minimize public capital expenditures needed to correct flooding and water quality problems;
- Identify and plan for means to effectively protect and improve surface and groundwater quality;
- Establish more uniform local policies and officials controls for surface and groundwater management;
- Prevent erosion of soil into surface water systems;
- Promote groundwater recharge;
- Protect and enhance fish and wildlife habitat and water recreational facilities; and
- Secure the other benefits associated with the proper management of surface and groundwater.

The City of Wayzata is located within the jurisdictional boundaries of the MCWD. MCWD has authority to review and approve this Local Surface Water Management Plan.

### 3.4.1 Minnehaha Creek Watershed District (MCWD)

The MCWD is a local unit of government responsible for managing and protecting water resources within one of the most urbanized watersheds in Minnesota. The Minnehaha Creek watershed is roughly 180 square miles, which ultimately discharges into the Mississippi River. The MCWD's vision is for "a landscape of vibrant communities where the natural and built environments in balance create value and enjoyment." Goals of the MCWD include water quality, water quantity, ecological integrity, and thriving communities. The MCWD updated its 2007 Watershed Management Plan in 2017, which outlines water quality and quantity issues throughout the watershed and goals for the next ten years in terms of mitigating these issues.





### **3.5 METROPOLITAN COUNCIL**

Established by the Minnesota Legislature in 1967, the Metropolitan Council is the regional planning organization for the Twin Cities, seven-county area. The Council manages public transit, housing programs, wastewater collection and treatment, regional parks and regional water resources. Council members, of which there are seventeen members, are appointed by the Minnesota Governor.

The Metropolitan Council reviews municipal comprehensive plans, including this Local Surface Water Management Plan. The Council adopted the 2040 Water Resources Management Policy Plan in 2015, establishing expectations to be met in local plans. The Council's goals focus on water quality standards and pollution control, "to reduce the effects of non-point source pollution on the region's wetlands, lakes, streams and rivers."

### **3.6 STATE BOARD OF WATER AND SOIL RESOURCES (BWSR)**

First established in 1937 as the State Soil Conservation Committee, BWSR became part of the University of Minnesota in the 1950s, transferred to the Department of Natural Resources in 1971, and then transferred to the Department of Agriculture in 1982. In 1987, the State Legislature established the current BWSR. The Board consists of 17 members, appointed by the governor to four-year terms. Multiple state and local agencies are represented on the Board. In 1992, the BWSR adopted rules (8410), establishing the required content for Local Surface Water Management Plans.

BWSR works through local government agencies to implement Minnesota's water and soil conservation policies. BWSR is the administrative agency for soil and water conservation districts, watershed districts, watershed management organizations, and county water managers. BWSR is responsible for implementation of the Metropolitan Surface Water Management Act and the Wetland Conservation Act. Staff members are located in eight field offices throughout the state.

### **3.7 MINNESOTA POLLUTION CONTROL AGENCY (MPCA)**

The MPCA is the state's lead environmental protection agency. Created by the State Legislature in 1967, the MPCA is responsible for monitoring environmental quality and enforcing environmental regulations to protect land, air, and water in the state of Minnesota. The MPCA regulates the City's management of wastewater, stormwater and solid waste. The MPCA administers the federal Clean Water Act (CWA) in Minnesota.

The MPCA is the permitting authority in Minnesota for the Municipal Separate Storm Sewer Systems (MS4) program under the National Pollutant Discharge Elimination System (NPDES), the federal program administered by the Environmental Protection Agency to address polluted stormwater runoff. Certain MS4s in Minnesota are subject to stormwater regulation under the Clean Water Act and Minnesota Rule 7090. There are multiple ways for a City or township to be subject to the MPCA's stormwater regulation under the MPCA's general permit. The MPCA regulates the entire jurisdiction of a city (or township) that is located fully or partially within an urbanized area as determined by the latest Decennial Census and that owns or operates an MS4. Consequently, Wayzata has developed a stormwater pollution prevention



program (SWPPP) to address six minimum control measures: 1) public education, 2) public involvement, 3) illicit discharge detection and elimination, 4) construction site runoff control, 5) post-construction runoff control, and 6) pollution prevention in municipal operations. As the SWPPP is reviewed and updated as necessary on an annual basis, a copy of the SWPPP is not included in this LSWMP. A copy of the Wayzata SWPPP will be placed on the City's website and is also available at the Wayzata Public Works Building.

In addition to the NPDES program, the MPCA is required to publish a list of impaired waters; lakes and streams in the state that are not meeting federal water quality standards. For each waterbody on the list, the MPCA is required to conduct a study to determine the allowable Total Maximum Daily Load (TMDL) for each pollutant that exceeds the standards. The 2018 MPCA list of impaired waters identifies 2,627 TMDL reports needed for the lakes, rivers and streams in the state. Local governments are required to incorporate completed TMDL studies into their Local Surface Water Management Plans and review their SWPPPs to determine if additional BMPs are needed to comply with the TMDL waste load allocation. Currently, there are no listed waters within the City of Wayzata. Table 2.4 identifies impaired waters that ultimately received discharge from the City of Wayzata.

In response to these multiple regulatory activities, the MPCA published the Minnesota Stormwater Manual, providing stormwater management tools and guidance. The Manual presents a unified statewide approach to stormwater practices, and can be found at [https://stormwater.pca.state.mn.us/index.php?title=Main\\_Page](https://stormwater.pca.state.mn.us/index.php?title=Main_Page).

### **3.8 MINNESOTA DEPARTMENT OF NATURAL RESOURCES (MNDNR)**

Originally created in 1931 as the Department of Conservation, the MnDNR has regulatory authority over the natural resources of the state. MnDNR divisions specialize in waters, forestry, fish and wildlife, parks and recreation, land and minerals, and related services. The Division of Waters administers programs in lake management, shoreland management, dam safety, floodplain management, wild and scenic rivers, the Public Waters Inventory (PWI), and permitting of development activity within public waters.

### **3.9 MINNESOTA DEPARTMENT OF HEALTH (MDH)**

The MDH manages programs to protect public health, including implementation of the Safe Drinking Water Act (SDWA). The MDH has regulatory authority for monitoring water supply facilities such as water wells, surface water intakes, water treatment, and water distribution systems. The MDH is also responsible for the development and implementation of the wellhead protection program. It should be noted that the City does not have jurisdictional areas within the source water protection area for surface water intakes identified in the source water assessments conducted by the Minnesota Department of Health.



### **3.10 MINNESOTA ENVIRONMENTAL QUALITY BOARD (EQB)**

The EQB is comprised of five citizen members and the heads of ten state agencies that play an important role in Minnesota's environment and development. The EQB develops policy, creates long-range plans and reviews proposed projects that may significantly influence Minnesota's environment.

### **3.11 MINNESOTA DEPARTMENT OF TRANSPORTATION (MNDOT)**

Within the City, MnDOT administers several state highway systems. MnDOT approval is required for any construction activity within state rights-of-way. MnDOT also administers a substantial amount of funding for transportation projects completed in the City. Anticipated activities of MnDOT are periodically published in their State Transportation Improvement Plan (STIP).

### **3.12 U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)**

The EPA develops and enforces the regulations that implement environmental laws enacted by Congress, however the MPCA bears responsibility for implementing many of the resulting programs within Minnesota. The NPDES program and the Impaired Waters List are both the result of the Clean Water Act, administered by the EPA.

### **3.13 U.S. ARMY CORPS OF ENGINEERS (USACE)**

Under Section 404 of the Clean Water Act, including subsequent modifications, the EPA and the USACE regulate the placement of fill into all wetlands of the U.S. In 1993, there was a modification of the definition of "discharge of dredged material" to include incidental discharges associated with excavation. This modification meant that any excavation done within a wetland required the applicant to go through Section 404 permitting procedures. In 1998, however, this decision was modified so that excavation in wetlands is now regulated by the USACE only when it is associated with a fill action.

### **3.14 FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)**

FEMA manages federal disaster mitigation and relief programs, including the National Flood Insurance Program (NFIP). This program includes floodplain management and flood hazard mapping. Portions of Wayzata, closest to the Lake Minnetonka shore, are within Zone A and Zone AE, mapped floodplain areas. Full flood maps are available at <https://www.fema.gov/>.

### **3.15 NATURAL RESOURCES CONSERVATION SERVICE (NRCS)**

The Natural Resources Conservation Service (NRCS) is a division of the U.S. Department of Agriculture. Formerly named the Soil Conservation Service (SCS), the NRCS provides technical advice and engineering design services to local conservation districts across the nation. The Soil Survey of Hennepin County, Minnesota was published by the NRCS in 2001. The SCS also developed hydrologic calculation methods that are widely used in water resources design.



### **3.16 U.S. GEOLOGICAL SURVEY (USGS)**

The USGS provides mapping and scientific study of the nation's landscape and natural resources. USGS maps provide the basis for many local resource management efforts.

### **3.17 U.S. FISH AND WILDLIFE SERVICE (USFWS)**

The USFWS works to conserve and protect the nation's fish, wildlife, plants and habitat. The USFWS developed the National Wetlands Inventory (NWI) beginning in 1974, to support federal, state, and local wetland management work.



## 4.0 RELATED STUDIES, PLANS AND REPORTS

### 4.1 LAKE EFFECT PROJECT

The Lake Effect Project is a waterfront improvement plan aimed at revitalizing the City's shoreline on Wayzata Bay. The plan includes ecological restoration of the shoreline and hopes to preserve and improve lake quality. A boardwalk is proposed to run the length of the shoreline, encouraging pedestrians to enjoy the waterfront. The plan also includes upgraded railroad crossings to make the lake more accessible to the public.

Construction is scheduled to begin in Fall 2019. Funding will come from a mix of public and private sources, although it is estimated that two-thirds will be privately funded. Additional information can be found at <https://lakeeffectconservancy.org/>.

### 4.2 STUDIES COMPLETED BY THE MCWD

The MCWD has completed or is in the process of completing studies that are relevant to stormwater management in the City. These studies include a Hydrologic, Hydraulic, and Pollutant Loading Study (HHPLS), a Functional Assessment of Wetlands, the Curly-leaf Pondweed Management Study on Gleason Lake, Early Detection for Non-Infested Lakes Study, and Lake Minnetonka Zebra Mussel Study. The following provides information on these studies, but the full text of these studies can be found on the MCWD website (<http://minnehahacreek.org/project>).

#### Hydrologic, Hydraulic, and Pollutant Loading Study

The MCWD compiled a multi-year Hydrologic, Hydraulic, and Pollutant Loading Study in 2003. Goals of this watershed study were: 1) to document the nature of the physical and biological characteristics of the watershed, 2) to quantify the amount of water moving through the watershed and assess its quality; 3) to gather public input to assist in problem identification and determination of solutions, and 4) to provide the study results to implementation partners.

#### Functional Assessment of Wetlands

The MCWD also conducted a Functional Assessment of Wetlands in 2003. The purpose of this assessment was to provide a comprehensive inventory and assessment of wetlands in the watershed. Wetlands were assigned to one of four categories – Preserve, or Manage 1, 2, or 3. These management categories are used to determine regulation standards for each wetland based on an evaluation of their existing conditions.

#### Curly-leaf Pondweed Management Study

The Curly-leaf Pondweed Management Study on Gleason Lake was active from 2007-2012. The goals of the study were to determine if treatment with the herbicide "Aquathol K" was able to control and manage curly-leaf pondweed, and if herbicide treatments were a viable long-term solution for Gleason Lake.



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Curly-leaf pondweed is an invasive species which can out-compete native species and releases phosphorus during die-off. Past treatment efforts have included mechanical harvesting, but studies have shown that an estimated 10% of reproductive buds are still released into the sediment during harvesting – enough to continue growth next year. Over the course of this study, herbicide treatment with Aquathol K was able to significantly reduce the density of curly-leaf pondweed, while surveys showed an increase in native vegetation growth. Water quality improved, and in 2012 Gleason Lake met the State's water quality standards for total phosphorus, chlorophyll A, and water clarity. Although the results of the study are positive, other factors also contributed to the improvements in Gleason Lake, making the results difficult to interpret.

### Lake Minnetonka Zebra Mussel Study

The MCWD monitors the population of zebra mussels in Lake Minnetonka, an ongoing study that started in 2011. The goals of the study are to map the extent of zebra mussels in Lake Minnetonka, assess changes in water quality and algal communities due to zebra mussels, and provide a greater understanding for how to manage the spread of zebra mussels.

### 2003 Gleason Creek Stream Assessment

In 2003, the MCWD completed a two volume study to evaluate stream quality parameters including bank erosion, in-stream habitat, storm sewer outfalls, macroinvertebrate and fish diversity, impoundments, woody debris, and riparian land uses.

Volume one focused on providing detailed information on Minnehaha Creek, while Volume two assessed baseline conditions in streams in the upper watershed including Long Lake Creek, Painter Creek, Six Mile Creek, Classen Creek, and Gleason Creek.

### 2012 Gleason Creek Stream Assessment

In 2012, the MCWD performed a geomorphic assessment to evaluate existing stream networks, channel stability, and water quality of Minnehaha Creek and five upper watershed streams, including Gleason Creek.



## 5.0 WATER RESOURCES RELATED AGREEMENTS

Water resources agreements can include water supply and conveyance agreements, stormwater utility service agreements, joint powers agreements, and cost sharing agreements, between cities and/or WMOs. The City has two current agreements with the MCWD, which are summarized below. Should the City enter into any additional agreements with adjacent cities or other agencies, this LSWMP will be amended to include information on the details of those agreements.

### Memorandum of Understanding with MCWD (2009)

The City has a Memorandum of Understanding for Local Water Planning and Regulation with the MCWD (2009). The MOU in entirety is included in Appendix B, while select highlights are as follows:

- “Wayzata currently exercises sole regulatory authority within City boundaries with respect to matters now subject to regulation under MCWD Rules B (erosion control), D (wetland protection), and N (stormwater management) and wishes to continue to exercise sole authority.”
- “MCWD approval of a local plan requires a finding the municipal ordinances are at least as protective of water resources as the MCWD Rules.”
- “If the MCWD has reason to believe that Wayzata is not adequately implementing its regulatory program as approved, it may engage Wayzata in a review of its concerns. If the MCWD Board of Managers, after engagement with Wayzata and a public hearing, finds that Wayzata is not adequately implementing its regulatory program, it may by resolution reassert MCWD regulatory authority as to all actions that have not yet received all required approvals under Wayzata water resource ordinances.”

### Joint and Cooperative Agreement for Gleason Creek Water Management Project (1992)

The Joint Cooperative Agreement for Gleason Creek Water Management Project is an agreement between the City and the MCWD to address flooding in areas adjacent to Gleason Creek and to improve water quality in Gleason Creek, which outlets into Lake Minnetonka. Per the agreement, which is included in Appendix B, elements of the plan include:

- “Improvement of the outlet structure, where Gleason Lake flows into Gleason Creek, to maintain Gleason Lake at its current elevation, while at the same time providing greater stormwater storage.”
- “Provide greater storm water storage and construction of two water detention and treatment ponds, one in the Glenbrook area, and one adjacent to the shore of Lake Minnetonka in the downtown area of the City.”



## 6.0 CURRENT ASSESSMENT

### 6.1 OFFICIAL CONTROLS

Codes and ordinances (official controls) are necessary tools supporting implementation of this Local Surface Water Management Plan. The City employs a full time City Engineer, and will consult outside entities as necessary, to provide technical expertise to implement these official controls.

Per the Memorandum of Understanding with the MCWD, the City of Wayzata retains sole regulatory authority within City boundaries with respect to erosion control, wetland protection, and stormwater management, as regulated by the MCWD. The City’s current ordinances and regulations regarding erosion control, wetland protection, and stormwater management are included as Appendix C. The City’s Storm Water Facility Maintenance Agreement and Restrictive Covenant is also included in Appendix C. This agreement is only required when private properties are required to install stormwater treatment practices.

Additionally, the MCWD Rules are included in Appendix D. The City’s MS4 permit also includes a summary of ordinances required to comply with NPDES requirements. Where a specific watershed policy directly impacts the City of Wayzata, the policy will be incorporated into the City’s stormwater management policies in Section 7 of this LSWMP.

After adoption of this Local Surface Water Management Plan, all applicable portions of City Code will need to be updated to achieve consistency with local watershed plans. Per Minnesota Statute, this implementation step must be completed within 180 days after adoption of this plan. In addition, over time, codes must be updated to remain consistent with City goals, policies, and practices. Table 6.1 assesses the status of City codes related to surface water management.

**Table 6.1 - Surface Water Management Related Codes**

Chapter	Code Name	Status
406	Stormwater Drainage Utility	Update as needed as fees change
408	Surface Water Management Plan	No update needed
409	Land Disturbance	No update needed
410	Stormwater and Urban Runoff Pollution Control	No update needed
806	Flood Plain Management	No update needed
916.04	General Building and Performance – Grading and Drainage	No update needed





Chapter	Code Name	Status
991	Shoreland Overlay District	No update needed
992	Wetlands Overlay District	No update needed
993	Flood Plain Overlay District	No update needed
1006.10	Subdivision Design Standards - Drainage	No update needed
1006.13	Subdivision Design Standards – Erosion and Sediment Control	No update needed
1006.14	Subdivision Design Standards – Protected Areas	No update needed
1007.06	Construction - Drainage	No update needed

## 6.2 NPDES PERMITTING PROCESS

The MPCA has designated the City of Wayzata as an NPDES Phase II MS4 community (MN Rules 7090). The NPDES State Disposal System (SDS) General Permit (MNR040000) for discharges of stormwater associated with Municipal Separate Stormwater Systems (MS4s) was issued initially in 2003, and the permit is updated every five years. The permit application outlined Wayzata’s Stormwater Pollution Prevention Plan (SWPPP), to address six minimum control measures:

1. Public education and outreach
2. Public participation/involvement
3. Illicit discharge detection and elimination
4. Construction site stormwater runoff control
5. Post-construction stormwater runoff control
6. Pollution prevention in municipal operations

The City’s SWPPP contains several best management practices within each of the listed control measures. These were identified using a self-evaluation and input process with City staff.

Many of the goals and policies discussed in this Local Surface Water Management Plan are related to requirements listed in the NPDES program. Per the requirements of the MS4 Permit, the City will review its SWPPP and update as necessary on an annual basis.

The City will coordinate water resource education efforts with outside agencies to complete the City’s goals as outlined in its SWPPP, which may include fulfilling the public education requirements by obtaining educational information and assistance from local WMOs.



### 6.3 WATERSHED SUMMARY

The following sections summarize the results of the hydrologic and hydraulic model, wetlands management assessment, and stormwater quality improvement assessment for each of the major drainage districts. Figure 10 presents the locations of all subwatershed districts, stormwater ponding areas, wetlands, and recommended stormwater improvements and wetland enhancements/projects identified in these sections.

There are no specific flooding concerns in the City.

#### 6.3.1 Hydrologic and Hydraulic Model

The MCWD carried out a Hydrologic, Hydraulic, and Pollutant Loading Study (HHPLS, 2003) in order to model the entire Minnehaha Creek watershed. The model breaks up MCWD into 12 major watersheds and 453 subwatersheds. Within this model, the City is a part of seven major watersheds: Browns Bay, Peavey Lake, Wayzata Bay, Grays Bay, Gleason Lake Creek, Minnehaha Creek, and Lake Minnetonka Direct Drainage. (Browns Bay, Peavey Lake, Grays Bay, and Wayzata Bay are grouped under “minor” watersheds in the HHPLS but are referred to as distinct major watersheds for the purpose of the City’s plan.)

The HHPLS XPSWMM model provided by the MCWD calculates the peak flows and volumes of each of the subwatersheds during various rainfall events. Figure 6 shows the subwatershed boundaries and flow directions in Wayzata. Minor changes were made to the subwatershed boundaries as shown in Figure 6; however, because of their small size, these changes were not addressed in the HHPLS XPSWMM model. Since Wayzata is a fully developed city, the paths, rates, and volumes of stormwater runoff have been relatively constant. The City’s proposed 2040 Land Use Plan contains minor variations from the current land use; however, drainage areas and flow paths are not expected to change significantly, and rates and volumes of flow will be maintained in accordance with City and MCWD requirements. Due to this, the model was used as-is, although the rainfall was updated to the NOAA Atlas 14 100-year, 24-hour rainfall event. Table 6.2 shows the peak flows generated by each of the subwatersheds in Wayzata. A map of the stormwater conveyance sewers and outfalls within the City is shown in Figure 7.

**Table 6.2 - XPSWMM Results for 100-year 24-hour Rainfall Event**

Subwatershed	Peak Flow (cfs)
BB-1	316
BB-2	0
PL-1	80
PL-2	81
PL-3	98
PL-4	530
HL-4	3
HL-5	75



Subwatershed	Peak Flow (cfs)
GLC-8	176
GLC-9	128
GLC-10	129
GLC-11	165
WB-1	178
WB-2	8
WB-LM	N/A
GB-1	5
GB-LM	N/A
MC-3	11
MC-4	13
NL-LM	N/A

### 6.3.2 Lake Minnetonka Direct Drainage District (LM)

Portions of the City directly adjacent to Lake Minnetonka, and extending into downtown north of Wayzata Bay, are a part of the Lake Minnetonka Direct Drainage District. Within the HHPLS model, Wayzata is a part of subwatersheds NL-LM, WM-LM, and GB-LM. Generally, portions of the City adjacent to Browns Bay drain to Browns Bay, portions of the City adjacent to Wayzata Bay drain to Wayzata Bay, and portions of the City adjacent to Grays Bay drain to Grays Bay.

### 6.3.3 Minnehaha Creek District (MC)

The eastern tip of the City is located in the Minnehaha Creek District, which is the only portion of the City which does not drain to Lake Minnetonka. Wayzata falls within subwatersheds MC-3 through MC-5, which drain south to the creek.

There were seven wetlands inventoried within the Minnehaha Creek District. Of significance is that one of the wetlands within the district, MC-W04, is classified as Protect (see Appendix F) . Some ponds and wetlands in this district have drainage areas extending into the City of Minnetonka, but only the portion within Wayzata has been included in this LSWMP analysis.

The existing stormwater conveyance infrastructure in the Minnehaha Creek District is minimal. In general, runoff sheet drains from relatively narrow rural road sections (i.e., no curb and gutter or storm sewer) and is conveyed via overland routes to small depressions in the landscape or ponding areas. Current residents of the district appear to prefer the almost rural character of the neighborhoods and have generally not been in favor of installing traditional urban stormwater conveyance facilities. However, local flooding and/or erosion problems have developed in some locations, suggesting the need for improved stormwater management practices in these areas. One potential erosion project site has been identified in the district to address local drainage problems. It is labeled ES-2 on Figure 10. A feasibility study to assess site-specific conditions for this erosion control improvement project should be initiated.



With the relatively low runoff volumes generated within this district, it is likely that many of the stormwater problems could be resolved using local infiltration techniques or other BMPs. Two essential prerequisites for application of these techniques are a site-specific assessment of soil infiltration characteristics and an assessment of the willingness of affected residents to take responsibility for maintenance of some of the infiltration/ponding features prior to street reconstruction projects.

### 6.3.4 Grays Bay District (GB)

North of the direct drainage to Grays Bay is the Grays Bay District, of which Wayzata is part of subwatershed GB-1. This small area drains south into the direct drainage to Grays Bay (GB-LM).

The Grays Bay District is located on the far eastern side of the City of Wayzata. It borders the City of Minnetonka, with some flow discharging through that City into Lake Minnetonka. Some ponds and wetlands have drainage areas extending into City of Minnetonka, but only the portion within Wayzata has been included in this Plan's analysis.

This drainage district is characterized by the low density of development and the relatively large size of pond and wetland complexes. The existing stormwater conveyance infrastructure in the Grays Bay District is minimal. In general, runoff sheet drains from relatively narrow rural road sections (i.e., no curb and gutter or storm sewer) and is conveyed via overland routes to small depressions in the landscape or ponding areas.

There were twelve wetlands inventoried within the Grays Bay drainage district. The wetlands of specific interest are those that exist along the Grays Bay Corridor (GB-W04, GB-W05, GB-W06, GB-W07, GB-W08, GB-W11, GB-W12). Additionally, one of the three wetlands classified as "protect" for the City of Wayzata, GB-W02, lies within this corridor. The Grays Bay Corridor extends from Wetland GB-W04 to Highway 12. South of Highway 12 the designated corridor does not follow the natural drainage. This stretch of the corridor lies east of the natural drainage because of the quality of wetlands and adjacent woodland habitat that extend down to Grays Bay along the east half of the Locust Hills development.

Similar to the Minnehaha Creek District, residents of the district appear to prefer the almost rural character of the neighborhoods and have generally not been in favor of installing traditional urban stormwater conveyance facilities. Local flooding and/or erosion problems have developed in some locations, suggesting the need for improved stormwater management practices in these areas. As with the Minnehaha Creek District, it is likely that many of the stormwater problems could be resolved using local infiltration techniques or other best management practices. One potential erosion project site has been identified in the Grays Bay district to address local drainage problems. It is labeled ES-1 on Figure 10. Feasibility studies to assess site-specific conditions for this erosion control improvement projects should be initiated.

### 6.3.5 Wayzata Bay District (WB)

North of the direct drainage to Wayzata Bay is the Wayzata Bay District. This is the only watershed within the MCWD entirely confined within City limits and drains south into the direct drainage to Wayzata Bay (WB-LM). The district includes most of the downtown area as well as areas along Wayzata Bay to the



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east and west of downtown. The district includes land uses ranging from commercial and high density residential in the downtown area to rural and low density residential elsewhere in the district.

The Wayzata Bay District contains thirteen wetlands. Many of the wetlands are small and located adjacent to the railroad tracks. The most significant wetland complex in the Wayzata Bay District is Wetland WB-W01. This wetland complex is owned by the City and used to have a series of dirt trails adjacent to it and a floating boardwalk that extended through the wetland. There were also scenic overlooks for wildlife and aesthetic viewing of the wetland. The wetland has a large variety of a remnant native population of plants; however, they are scattered among the more aggressive cattail and purple loosestrife. The upland community around the wetland is very disturbed. The canopy has scattered bur oak but is generally dominated by boxelder. The shrub layer of the upland is dominated by European buckthorn that is mixed with shrub willow in the wetter areas. Buckthorn seedlings, creeping charlie, and garlic mustard dominate the ground layer.

Because of its remnant population of native plant species and the potential for public access, enhancement of this wetland is a priority for the City. Sedimentation basins could be excavated at storm sewer inlets to minimize the amount of sediment moving farther out into the wetland. The existing outlet could be replaced with a control structure that would allow the wetland to be drained periodically and then raised approximately one foot above normal water level. It also could be sized to limit bounce to 0.5 feet above preconstructed outlet conditions for 10-year storm events. This would allow for management of the plant community and reduce the impacts from bounce.

This site has an excellent potential for education due to public ownership and potential floral diversity. If restored, it could be an excellent place for an outdoor classroom. Interpretive signs could be installed to educate park users about the site. An option is to place one large sign at the entry point with artwork that is specific to the wetland. This sign would likely describe the benefits and history of the wetland along with artwork to indicate what could be found along the trails. In addition, smaller signs could be placed at educational sites along the trails.

A detailed field survey and management plan is recommended as the first phase for the restoration of this wetland. The detailed field survey would:

- Assess the distribution and abundance of remnant native communities
- Define community species composition
- Identify hydrologic alterations to wetlands
- Provide feasibility level land survey work to determine cost estimates for hydrologic restoration of wetlands
- Search for rare element occurrences on the site
- Assess the numbers and level of exotic species infestations
- Identify other considerations for long-term management



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From the information provided by the detailed field survey, a comprehensive, long-term management plan could be written for the site. Included in the management plan would be specific recommendations for the following:

- Problem species control, timing, and methods
- Method for restoration of hydrology for wetlands
- Methods for reintroduction of native species
- Species and amounts of plant material recommended for reintroduction
- Education opportunities
- Costs and phases for ecological restoration

The estimated cost for the Detailed Field Survey and Management Plan is provided in Table 8.1. It is likely that such a project could be fully or partially funded by grants from the MnDNR and/or BWSR and/or MCWD.

The downtown area is the largest contributor of total suspended solids and total phosphorus to Lake Minnetonka in the City, but it contains few suitable locations for ponds/wetlands to treat runoff. In this area, inline treatment devices such as swirl concentrators are recommended, along with focused street sweeping. Swirl concentrators are already installed at Minnetonka Avenue, Walker Avenue, and Broadway Avenue. In the eastern portion of the district, there are several ponds with high estimated removal efficiencies, so no modifications are recommended. One potential erosion project site has been identified to address local drainage problems. It is labeled ES-3 on Figure 10. Feasibility studies to assess site-specific conditions for this erosion control improvement projects should be initiated.

### 6.3.6 Gleason Lake Creek District (GLC)

North-central Wayzata is part of the Gleason Lake Creek District. Within this watershed, which drains south toward Lake Minnetonka, the City is a part of subwatersheds HL-4 & 5 and GLC-8 to 11. (HL stands for Hadley Lake, which is in the Gleason Lake Creek District.)

The main conveyance feature in this district is Gleason Creek, which both carries outflow from Gleason Lake and acts as the only conduit for all runoff generated within the district to Lake Minnetonka. This drainage also includes large areas of the cities of Orono and Plymouth. For example, the watershed of Gleason Lake includes 2,420 acres in the City of Plymouth and about 150 acres within the City of Wayzata.

There were fifteen wetlands inventoried within the Gleason Lake Creek District. The Luce Line Regional Trail provides a greenway connection between many of the wetlands for wildlife movement. All of the wetlands (HL-W02, HL-W03, HL-W07, HL-W08) along the Luce Line Regional Trail have been ditched and partially drained. This area should be a priority for restoration efforts due to the location of the wetlands along a heavily used public trail.



The highest priority wetland management project for this drainage is to conduct a detailed field survey and develop a management plan for the uplands and wetlands HL-W02, HL-W03, and HL-W07 along the portion of the regional trail located within Wayzata. Because of its location adjacent to a regional trail and the link to a state-identified Potential Greenway Connection that extends to the Baker Park Reserve, it is likely that the project would be considered for funding through one of several MnDNR grant programs. The approximate cost for the Detailed Field Survey and Management Plan is provided in Table 8.1.

Another wetland that could be the subject of an improvement project is Wetland HL-W04. The existing wetland is an extremely small (500 square feet or less) basin. Most of the wetland has been filled. It currently has a skimmer structure and outlet within a drainageway. It is located on a school site and with outlet modifications and/or excavation could be expanded and used as a wetland mitigation or banking site for the City. It could provide approximately 10,000 square feet of wetland. This is a low priority site because it is not part of a wild corridor or within a large expanse of undisturbed upland.

One potential erosion project site has been identified in the Gleason Lake Creek district to address local drainage problems. It is labeled ES-4 on Figure 10. Feasibility studies to assess site-specific conditions for this erosion control improvement projects should be initiated.

### 6.3.7 Peavey Lake District (PL)

The section of the City north of Peavey Lake is in the Peavey Lake District, which drains south toward Lake Minnetonka. Within this watershed, the City is a part of all subwatersheds.

There were seventeen wetlands inventoried within the Peavey Lake District. The wetlands of specific interest are those that exist along the Browns Bay Wildlife Corridor (PL-W11, PL-W12, PL-W13, and PL-W14). The Browns Bay Wildlife Corridor extends from Wetlands PL-W12 and PL-W14 near County Road 15 and continues along the natural drainage through a series of wetlands south to Peavey Lake and ultimately Browns Bay. This corridor is worth protecting because adjacent houses are well back from the adjacent woodlands that shelter the wetland. These large setbacks and the natural vegetation within them foster wildlife movement through the area without undue human influence. The floral diversity of these wetlands is relatively low due to the abundance of invasive species (purple loosestrife, reed canary grass, and cattail). Private ownership will likely limit restoration opportunities for these wetlands, and some may be costly to restore or enhance due to the dominance of invasive species.

This district includes Peavey Lake, which is classified as a Level 2b recreation waterbody and is, therefore, a moderate priority for water quality protection/improvement. Installation of inline swirl concentrators is recommended as part of street reconstructions in areas with direct drainage to Peavey Lake. Additionally, an investigation of internal phosphorus loading could be performed to determine whether surface water quality in the lake is being affected by release of phosphorus from bottom sediments. If internal loading impacts are found to be severe, an alum treatment or some other method to significantly reduce this load should be considered.

One potential erosion project site has been identified in the Peavey Lake District to address local drainage problems. It is labeled ES-5 on Figure 10. Feasibility studies to assess site-specific conditions for this erosion control improvement projects should be initiated.



### 6.3.8 Browns Bay District (BB)

The far western part of the City lies within the Browns Bay District, specifically subwatersheds BB-1 and BB-2. BB-1 is a landlocked subwatershed, while BB-2 drains south to the direct drainage to Browns Bay.

The Browns Bay District contains one large wetland area, BB-W01, which is mostly within the City of Orono and drains almost the entire western half of the Peavey Lake District. The upstream watersheds are mostly comprised of golf course and low density residential, but the large area produces significant pollutant loads. BB-W01 effectively removes sediments and nutrients due to its large wet volume. The pollutant discharge to Lake Minnetonka from BB-W01 is therefore very low.

## 6.4 STORMWATER MANAGEMENT PRACTICES

Within the City limits are numerous stormwater management practices, both public and private. An inventory is shown in Figure 8 and in Appendix E. The City conducts and documents maintenance on all public stormwater management practices in accordance with their SWPPP. City maintenance practices include:

- Annual storm sewer outfall inspections (25% of full system per year)
- Quarterly inspections of the Public Works Facility storage yard
- Annual storm sewer structural BMP inspections and maintenance
  - City owned BMPs: 100% of system each fall
  - Private BMPs: For several BMPs, the City has agreements in place with owner
- Annual street sweeping of entire City (and weekly as needed)

All private stormwater management practices are required to be inspected and maintained on an annual basis by the owner, via a Storm Water Facility Maintenance Agreement which is recorded against the property. If the private owner fails to maintain their facilities, the City will perform the work and bill the property owner for the appropriate services.

## 6.5 WETLAND MANAGEMENT

From the 2040 Water Resources Management Policy Plan, the Metropolitan Council requires the City to include the following in the LSWMP Update:

*'All communities need to include a wetland management plan or a process and timeline to prepare a plan. At a minimum, the wetland management plan should incorporate a function and value assessment for wetlands. Other items to address in the plan include the pretreatment of stormwater prior to discharge into all wetland types, and the use of native vegetation as buffers for high quality wetlands. Buffers should be consistent with the functions and values identified in the plan.'*





Wayzata is identified as the Local Government Unit (LGU) responsible for the administration and enforcement of the Wetland Conservation Act (WCA). WCA requires anyone proposing to drain, fill, or excavate a wetland first to try to avoid disturbing the wetland; second, to try to minimize any impact on the wetland; and, finally, to replace any lost wetland acres, functions, and values. Certain wetland activities are exempt from the Act, allowing projects with minimal impact or projects located on land where certain pre-established land uses are present to proceed without regulation.

The City currently has a Wetland Management Plan, which was prepared as part of the City's 2009 SWMP. This section of the 2009 SWMP, entitled the Protection and Management of Wetlands, along with applicable figures, is included as Appendix F. Additionally, the City's ordinances pertaining to wetlands are included in Appendix C.

### 6.6 IMPAIRED WATERS AND TMDLS

Responsibility for implementing the requirements of the Clean Water Act falls to the EPA. In Minnesota, the EPA delegates much of the program responsibility to the MPCA. Information on the MPCA program can be obtained at the following web address: <http://www.pca.state.mn.us/water/tmdl/index.html>.

Section 303(d) of the Federal Clean Water Act requires that states create impaired waters lists for waterbodies that do not meet water quality standards due to the presence of a pollutant or stressor. Impaired waters lists are published biennially, following monitoring and assessment of the waterbody.

Information for the impaired waters identified in Wayzata is provided in Table 2.7 in Section 2.6.6. The absence of a waterbody from the 303(d) list does not necessarily mean the waterbody is meeting its designated use(s). It may be that it has either not been sampled or there is not enough data to make an impairment determination.

As part of the NPDES program, the City is required to review all discharges from its MS4 system to impaired waters, as defined by the current EPA approved 303(d) list. As a part of this review, the City is required to do the following:

1. Review the Impaired Waters List to determine whether there are any impaired waters located within five miles of the City's boundaries that receive discharge from the City's MS4. For waters that are impaired only for mercury, the review process stops here.
2. Identify the location(s) of discharge(s) from the City's MS4 to the impaired waters. Discharges may include pipes, outlets, ditches, swales, street gutters, or other discrete conveyances for stormwater runoff.
3. Delineate the watershed area within the City's jurisdiction that discharges to each impaired water.
4. Prepare an impaired water evaluation addressing the hydrology, land use, and other characteristics of each watershed area delineated.
5. Prepare an impaired waters report. This report will address the results of the impaired waters evaluation along with a determination of whether changes to the City's SWPPP are warranted to reduce the impact from the City's MS4 stormwater discharge to each impaired water.



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6. The City will incorporate the changes identified in the impaired waters report into the City's SWPPP and be reported through the annual reporting process.

At some point, a strategy will be developed that will lead to attainment of the applicable water quality standards for these impaired waters. The process of developing this strategy is commonly known as the Total Maximum Daily Load (TMDL) process and involves the following phases: 1) Assessment and listing, 2) TMDL study, 3) Implementation plan development and implementation, and 4) Monitoring effectiveness of implementation efforts.

TMDLs developed for impaired waterbodies specify the maximum pollutant amount that the waterbody can receive to meet water quality standards. A TMDL is the sum of waste load allocations, load allocations, and a margin of safety. Waste load allocations are expressed in numeric form, and municipal stormwater sources fall under waste load allocations because they are regarded as point sources. Load allocations are those loads that do not fall under NPDES permit areas.

As noted in Table 2.7, TMDLs have been completed and approved for two lakes within the City: Gleason Lake (nutrients, 2014, total phosphorus waste load reduction of 11 lbs or 69%) and Peavey Lake (chlorides, 2016). A relatively small area of the City drains to Gleason Lake, consisting primarily of subwatershed GLC-9 and a strip of GLC-8 (see Figure 6). This area is largely made up of ROW (the Wayzata Boulevard/Gleason Lake Road interchange) and fully developed residential land. The City has implemented some treatment measures in the existing stormwater system, including inline treatment devices and underground storage, and will look for other opportunities to retrofit treatment practices as redevelopment or street reconstruction occurs. Minimum Control Measures implemented in accordance with the City's MS4 Permit (good housekeeping, street sweeping, construction site and post-construction BMPs) will also help the City reduce its phosphorus loading. The City also will continue to enforce its pet waste ordinance which requires that each owner be responsible for the cleanup of an animal and disposing in a sanitary manner. The City will identify other measures that it can take, in addition to the above measures, to reduce total phosphorus loading to Gleason Lake.

Regarding chloride reduction to Peavey Lake, the City has in recent years begun pre-wetting roadways before snow events. Additionally, the City annually reviews road salt application rates. Salt and salt/sand mixture are stored in a covered salt shed, located at the Public Works facility.

A TMDL has also been completed and approved for Lake Hiawatha (nutrients, 2014, total phosphorus waste load reduction of 2.6 lbs or 20%), located downstream of the City along Minnehaha Creek. As the entire City drains to the lake, the entire spectrum of stormwater, wetland, and erosion improvements implemented or proposed in this plan will help the City to address this load reduction, as will the citywide measures identified above in the Gleason Lake discussion.



## 7.0 GOALS AND POLICIES

### 7.1 SUMMARY

Surface water management issues within the City are primarily defined by the requirements of current or pending programs. The goals and policies outlined in this LSWMP are grouped by their relationship to the key issues listed below:

- **Section 7.2 – Water Quality** – Goals and policies to protect and improve water quality within the City’s lakes, ponds, and wetlands and to deliver the best quality runoff practicable to Lake Minnetonka and Minnehaha Creek.
- **Section 7.3 – Wetlands** – Goals and policies to protect and rehabilitate wetland resources in order to maintain or improve their function and value.
- **Section 7.4 – Support of Other Agencies** – Goals and policies to coordinate local surface water management with the work of watershed management organizations and state agencies.

The goals and policies listed below are consistent with the NPDES MS4 General Permit and the City of Wayzata’s SWPPP. These goals are also in alignment with the MCWD’s 2017 Watershed Management Plan.

### 7.2 WATER QUALITY

**Overall Goal:** Protect and improve water quality within the City’s lakes, ponds, and wetlands and to deliver the best quality runoff practicable to Lake Minnetonka and Minnehaha Creek.

#### 7.2.1 Waterbody Classification and Prioritization

**Goal:** Protect waterbodies affected by the City’s storm drainage system

**Policy:** The City will categorize the lakes affected by the City’s storm drainage system, establish water quality standards for each classification, and manage the drainage system to best meet the water quality standards of those classifications.

**Policy:** Priority waterbody rehabilitation projects will be pursued as needed. Subject to available funding and according to the priorities established in this plan, the City will pursue and implement projects to decrease loadings to high priority lakes and ponds that do not consistently meet the water quality standards set for their classification.

#### 7.2.2 Stormwater Treatment

**Goal:** Reduce negative effects of stormwater runoff on receiving bodies

**Policy:** The City will apply stormwater quality treatment standards to new development and redevelopment activities, when feasible. The standards must meet both City and MCWD guidelines.



**Policy:** The City will ensure adequate design of detention basins and other water quality best management practices. Detention basins will be designed based on Nationwide Urban Runoff Program (NURP) requirements and the standards listed in the City's Land Disturbance Permit. These ponds will be designed with an outlet control structure that prevents trash and floating debris from entering the downstream conveyance system. Other BMPs shall be designed in accordance with the standards set forth in Appendix G.

**Policy:** The City may require, as a condition of approval to develop vacant land or redevelop existing sites, the construction by the developer of one or more ponds or installation of appropriate best management practices. This may be required even when existing improvements or ponds already exist. The City can require these practices when it is necessary to protect the water quality of downstream priority waterbodies.

**Policy:** If stormwater treatment adequate to meet the City's pollutant removal targets for total phosphorus and total suspended solids is not included in a development or redevelopment project, the developer will be responsible for payment of a cash dedication. Whether on-site mitigation, a cash dedication in lieu of on-site mitigation, or a combination of the two is required will be at the discretion of the City. The calculation methodology for the cash dedication is presented in Section 8 and Appendix H. The cash dedication will be earmarked for water quality/wetland capital improvements within the City.

### 7.2.3 Construction Site Management

**Goal:** Minimize erosion, runoff, and surface water impairment from construction sites

**Policy:** Construction sites will be inspected to ensure compliance with the City's Land Disturbance ordinance and with the general erosion control permit under NPDES rules administered by the MPCA. A development agreement and an appropriate financial guarantee will be the primary instruments used to establish a basis for compliance.

**Policy:** Erosion and sediment control best management practices as outlined in the MPCA's Minnesota Stormwater Manual ([https://stormwater.pca.state.mn.us/index.php?title=General\\_principles\\_for\\_erosion\\_prevention\\_and\\_sediment\\_control\\_at\\_construction\\_sites\\_in\\_Minnesota](https://stormwater.pca.state.mn.us/index.php?title=General_principles_for_erosion_prevention_and_sediment_control_at_construction_sites_in_Minnesota)) will be required and must be shown on grading and building permit applications submitted to the City for approval.

**Policy:** Any street sweeping conducted by the City to remove erosion debris from streets associated with construction activity will be charged to the owner of the property.

### 7.2.4 Illegal Discharges

**Goal:** Eliminate illegal discharges which enter surface waterbodies, either directly or indirectly

**Policy:** The City prohibits, through ordinance, the discharge of foreign material into the stormwater system, including oil, gasoline, antifreeze, paint, solvents, herbicides/pesticides, grass clippings/leaves,



pet wastes, and other ecologically harmful chemicals. For more information, see Chapter 410 of the City's Code: Stormwater and Urban Runoff Pollution Control (Appendix C).

**Policy:** The City will have spill response capability. The City has a spill response program aimed at preventing the discharge of spilled material into the storm drainage system. The response program focuses on containing, neutralizing, and properly disposing spilled materials. The Fire Department and the Public Works Department have a readily available supply of response materials, including absorbent pads.

### 7.2.5 Public Education

**Goal:** Educate the public on how best to protect and improve water quality within the City, both through a public education program and through leading by example

**Policy:** The City will continue to develop and implement a public education program in cooperation with the MCWD and Hennepin County Environmental Services. The program will be directed primarily at City residents. Its objectives will be to reduce phosphorus, total suspended solids, and pesticide/herbicide loadings to waterbodies as well as to encourage ecologically sound shoreland management practices.

**Policy:** The City will set a good example for its residents regarding "housekeeping practices" on City-owned lands. The City will continue to follow best management practices in managing and maintaining City-owned land. These practices will include soil fertility testing for maintained areas and following fertilizer application recommendations based on those test results, fall application of fertilizers containing phosphorus (if needed), preservation of natural buffers between turf areas and watercourses, and preventing discharge of grass clippings from mowing operations onto paved areas.

### 7.2.6 City Employee Education

**Goal:** Educate City employees on how best to protect and improve water quality within the City

**Policy:** City staff will be educated and informed about the City's water quality management efforts. The City will present information for all City staff, especially those in the Public Works and Parks Departments, regarding the City's water quality management initiative and how they can help the City implement the policies outlined in this plan.

### 7.2.7 Street Sweeping

**Goal:** Reduce material entering surface waterbodies from urban streets

**Policy:** Street sweeping to protect water quality will, at a minimum, be carried out in the spring and fall. The City will continue to sweep all urban street sections at least twice each year, once in the spring as soon as practical and after leaf fall in the autumn. Direct drainage areas to Lake Minnetonka and other high priority waterbodies within or bordering the City will receive priority. Sweeping operations over and above these levels will be conducted on an as-needed basis as determined by the City.



## 7.3 WETLANDS

**Overall Goal:** Protect and rehabilitate wetland resources in order to maintain or improve their function and value for future generations through the Wetland Conservation Act, buffer standards, and other policies

### 7.3.1 Wetland Inventory

**Goal:** Maintain a functional and up-to-date inventory of wetlands within the City

**Policy:** The City will maintain an inventory of wetlands. The City has developed and will maintain a functional assessment of jurisdictional wetlands and classify them by function as well as susceptibility to stormwater impacts.

**Policy:** Wetland banking and mitigation opportunities will be catalogued. The City will identify and maintain a list of wetland mitigation and banking opportunities, including the location of each site, the number of acres of wetland creation and public value credits that could be generated, the owner of the site, and the approximate cost of implementing the project.

### 7.3.2 Preserve Wetlands

**Goal:** Protect and preserve wetlands to maintain their function and value

**Policy:** The City will apply wetland buffer and setback requirements. The City will continue to administer wetland buffer and setback standards which establish minimum buffer widths based on wetland classification. The wetland buffer strip and setback requirements shall apply to all property containing wetlands in the following circumstances:

1. When any new development activity occurs on the property. For purposes of this section, “new development activity” means:
  - a. Any subdivision, as defined by state law;
  - b. Any site plan or building permit review if regulated by Section 992 of the City of Wayzata Zoning Ordinance;
  - c. Any planned unit development general plan; or
2. Any project that involves the draining, filling, excavation, or alteration of a wetland; or
3. Any project that alters or fills land below the projected 100-year high water elevation of a waterbody.

**Policy:** The City will act as the responsible government unit for protection of wetlands within City boundaries. The City will continue to act as the Local Governmental Unit (LGU) responsible for administering both the Wetland Conservation Act (WCA) and the MCWD’s Wetland Protection Rule for



wetlands protection within its jurisdictional boundaries. The City will administer these programs to achieve the objective of no net loss in wetland functions and values within the City.

### 7.3.3 Enhance Wetlands

**Goal:** Enhance wetlands to improve their function and value

**Policy:** Enhancement of wetlands will be pursued. The City will look for and pursue opportunities to undertake projects to enhance the function, value, and ecological diversity of wetlands and adjacent uplands based on the priority system within this LSWMP. These activities will be subject to available funding and labor.

## 7.4 SUPPORT OF OTHER AGENCIES

**Overall Goal:** Cooperate and coordinate local surface water management with the work of the MCWD and state agencies. Section 8.6 and Appendix J of this LSWMP describe the Coordination Plan in greater detail.

**Goal:** Facilitate watershed district review of development projects and enforce watershed standards

**Policy:** The City will coordinate development review activities with the MCWD. The City will notify and include the MCWD in development concept reviews. This policy is consistent with SWPPP MCM 4 (construction site stormwater runoff control) and MCM 5 (post-construction stormwater management).

**Goal:** Cooperate with other organizations to complete management plans and studies for water resources in Wayzata

**Policy:** The City will work with the MCWD, Hennepin County, the MnDNR, BWSR, and others, when appropriate and as resources are available, to participate in resource management plans or studies that benefit water and natural resources in Wayzata.

**Goal:** Cooperate with the Minnehaha Creek Watershed District in addressing existing TMDLs and new TMDLs as they are identified for Lake Minnetonka and Minnehaha Creek

**Policy:** The City will cooperate with the MCWD in an assessment of current and future demands on the stormwater infrastructure and how it might affect future capital improvement projects. These evaluations could include:

- Analyzing the effect of a proposed project on the downstream conveyance system and drainage area.
- Identifying any future problems that may arise from additional project-related stormwater demands on the system.
- Analyzing stormwater best management practices that may be included with CIP projects. These BMPs will reduce volume demands on the stormwater conveyance system and enhance water quality.



## 8.0 SYSTEM MANAGEMENT & IMPLEMENTATION PLAN

### 8.1 STORMWATER QUALITY MITIGATION THRESHOLDS FOR NEW AND REDEVELOPMENT

The City adopts the following thresholds for the application of stormwater treatment requirements, taken from the MCWD Stormwater Management Rule (2014):

1. All new or redevelopment that creates new or replaces existing impervious surface OR
2. Changes the contours of a parcel of land in any way that affects the direction, peak rate, volume, or water quality of runoff flows OR
3. Subdivides a parcel of one acre or more in size into three or more lots OR
4. Any new or redevelopment activity that results in impervious coverage that exceeds the allowable maximums as identified in the City of Wayzata's Zoning Ordinance (excludes all exemptions) OR
5. City Engineer discretion (e.g., commercial or institutional sites with little or no existing stormwater treatment)

Exemptions to this rule:

1. Single family home construction or reconstruction
2. New development, excluding linear transportation, that results in less than 20% impervious surface or on a site less than 1 acre
3. Redevelopment, excluding linear transportation, on a site that is less than 5 acres in size or is greater than 5 acres in size and disturbs less than 40% of the land, and results in at least a 10% reduction of impervious surface
4. Linear transportation projects that create less than 10,000 square feet of new impervious surface or construct sidewalks/trails less than 12 feet in width and are bordered downgradient by a pervious buffer averaging at least one-half the width of the sidewalk or trail

### 8.2 PERFORMANCE STANDARDS

The MCWD lists several performance standards for phosphorus control, rate control, and volume control, which the City chooses to adopt. From a policy standpoint, the MCWD has departed from specific reduction requirements for total phosphorus and total suspended solids, and has instead focused more broadly on no-net-increases for phosphorus/rate control and volume abstraction, generally the first 1" of rainfall on impervious areas. Specific requirements for each control depend on the type of development, the site size, the percentage of site disturbed, and the increase/reduction in impervious surface area. Due to the various requirements for different types of sites, the entirety of the MCWD Stormwater Management Rule has been included as part of Appendix D.





## 8.3 GUIDANCE ON TREATMENT OPTIONS

### 8.3.1 Background

In urban environments, runoff from impervious coverage has long been recognized as a primary driver behind the elevated total phosphorus (TP), total suspended solids (TSS), and other pollutant loadings that come from developed areas. In general, the higher a site's impervious coverage, the more runoff and stormwater pollution that site generates. The factors behind this dynamic have been well-documented.

Traditional structural methods of stormwater treatment such as wet detention basins work reasonably well to reduce typical pollutant loadings for larger sites (such as single-family residential sites over 10 acres and commercial sites over 3-4 acres). The City will use detention basins when appropriate and has adopted design guidelines to assure that these features are properly sized and constructed (see Appendix G). However, detention basins are rarely a viable stormwater management technique for small sites. This is mainly because the size of the detention basin needed to meet minimum geometric guidelines for acceptable performance would occupy an unacceptably large portion of many small sites. This has important implications for stormwater management in the City of Wayzata because so much of the development/ redevelopment activity responsible for increases in impervious area occurs on small parcels of land.

Runoff volume reduction is now seen as another important tool in reducing the export of common runoff-derived pollutants like phosphorus. Stormwater quality mitigation for small sites has increasingly utilized several small-scale techniques aimed at reduction of runoff volumes from the impervious areas of a site. These techniques have included:

- Disconnection of impervious areas
- Use of rainwater barrels to catch and store runoff from rooftops for later irrigation use
- Installation of permeable paver systems in driveways, parking lots, or alleys
- Installation of bioretention systems (e.g., rainwater gardens), infiltration trenches, and biofiltration features to catch and infiltrate runoff from impervious surfaces

In addition, proprietary devices such as hydrodynamic separators and baffle weirs have been increasingly used to serve small sites. The devices are basically underground tanks that use hydraulic principles to separate and retain coarse sediment and associated pollutants from incoming stormwater. The treatment systems may be used as pretreatment for infiltration features, such as trenches, or they may be “stand-alone” systems if the primary interest is TSS control with some incidental TP reduction. The City has generated a detailed record of the mass of material removed each year from these systems as part of its system maintenance efforts and has also conducted chemical analysis of the material so that the mass data for solids can be converted to an estimate of phosphorus mass captured.

Extensive research over the years has shown that capturing and infiltrating relatively small amounts of runoff from each runoff event has a dramatic effect on the cumulative runoff volume and pollutant loading from a given area over a typical year.



### 8.3.2 Mitigation Options

The MCWD and Minnesota Stormwater Manual list of number of different BMP alternatives in order to achieve the no-net-increase and volume abstraction control measures. The BMPs for which the MCWD gives volume abstraction credits are:

- Surface infiltration basins
- Underground infiltration trenches
- Preservation of trees
- Planting of new trees
- Soil amendments
- Capture and reuse of stormwater
- Enhancement of pervious areas
- Filtration basins

Treatment credit for phosphorus removal should be calculated using the MIDS calculator ([https://stormwater.pca.state.mn.us/index.php?title=MIDS\\_calculator](https://stormwater.pca.state.mn.us/index.php?title=MIDS_calculator)).

### 8.3.3 Technical Guidance for Proper Installation of BMPs

In order to achieve the benefit of the above practices, they must be designed and installed properly. Appendix G presents the critical design criteria for installation of each of the practices above.

### 8.3.4 Cash Dedication in Lieu of Treatment

This section can be applied to single family residential developments under 10 acres and multifamily, commercial, and industrial developments under 4 acres where conventional BMPs may not be a viable alternative for meeting the City's performance standards. These are considered "small sites".

Where the City Engineer determines that applicable performance standards are infeasible to be fully met on a small site, this LSWMP includes provisions for collecting water quality cash dedications under certain situations and dedication of the revenue from such collections to help finance system requirements related to stormwater quality and runoff volume control. The following is intended to better define under what conditions the City can collect a cash dedication for small sites and how it will be calculated:

1. To the maximum extent practical, control standards presented in this LSWMP should be fully met on all small sites.
2. Based on guidance from the MN Department of Health and the MPCA's Minnesota Stormwater Manual, the City will not allow infiltration practices:
  - a. For runoff from fueling and vehicle maintenance facilities or runoff from other confirmed stormwater hotspots as defined in the Minnesota Stormwater Manual



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- b. Within HSG D type soils
- c. Within 100 feet of a private well, within the emergency response zone for a wellhead protection area
- d. Within 50 feet of a septic tank or drainfield
- e. On areas with less than 3 feet of vertical separation from the bottom of the infiltration system to the elevation of the seasonal high groundwater elevation or top of bedrock

At the discretion of the City Engineer, infiltration practices may not be allowed:

- a. Within a vulnerable (very high, high, or moderate vulnerability) Drinking Water Supply Management Area
3. Where the methods outlined above in Appendix G are insufficient to meet the full control standards, the following Alternative Sequencing procedure will be followed:
    - a. The applicant will provide documentation for why infiltration is not feasible or allowable
    - b. The applicant will reduce impervious surface associated with the proposed action to the maximum extent practical
  4. If the applicant has followed the Alternative Sequencing procedure and the City's standards applicable to the site are still not met, the applicant will pay a cash dedication as a last resort for mitigation.
  5. The procedure for calculating the appropriate cash dedication amount is as follows:
    - a. The volume of 1" of runoff from the total impervious coverage of the site will be calculated.
    - b. An average depth of temporary ponding of 1.5 feet will be used to convert the volume of infiltration required to an area required for the theoretical infiltration feature.
    - c. The City Council each year will adopt a unit land area price for each type of land use and a unit infiltration feature construction price that will be applied to the area of the hypothetical infiltration feature necessary to accommodate the runoff volume. The sum of the two components will be the cash dedication for the project.
    - d. To the extent that a percentage of the volume reduction can be met by the development, the infiltration cash dedication will be based on the shortfall on a pro-rata basis.
  6. For redevelopment projects, when the total impervious area on the site is increased by more than 10% compared to the existing condition or by more than 0.1 acre, the cash dedication will be based on the total impervious coverage of the site after redevelopment. The purpose of this standard is to discourage increases in impervious coverage for redevelopment which are not fully mitigated on the ground.
  7. For 2018, the recommended rates are as follows:



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- a. Construction/installation cost: \$13/ft<sup>2</sup>
  - b. Cost per acre for calculated infiltration feature surface for specific land types:

Residential	\$150,000/ac.
Schools and Churches	\$267,900/ac.
Industrial	\$117,600/ac.
Commercial	\$357,200/ac.
8. The proceeds from the cash dedication will be earmarked exclusively to finance water quality and runoff volume reduction improvements in the City.
  9. Example cash dedication calculations for 3 types of developments are presented in Appendix H.

### 8.4 IMPLEMENTATION ACTIVITIES

The City's current Capital Improvement Plan (CIP) includes several projects that address issues identified in Section 6 and goals and policies identified in Section 7. This program reflects the needs and concerns of many stakeholders including the City Council, City Staff, citizens, and MCWD. Table 8.1 summarizes the implementation items, prioritizes these items by start date, and presents a preliminary cost estimate, accounting for inflation, to complete the items based on the best available information. It should be noted that estimated costs presented in the table are preliminary and are presented for long-term budget planning purposes. A stormwater pond maintenance schedule and costs are provided in Table 8.2 in the same format. The City creates its CIP on a five-year basis and will reassess priorities and the implementation schedule annually. The CIP is not available online but can be made available upon request. For purposes of this LSWMP, the City is planning to spend an estimated \$60,000 per year on stormwater system maintenance, upgrades, and retrofits for the period 2024-2028.

#### 8.4.1 Lake Effect Project

In addition to the CIP projects listed in Table 8.1, the City, as a part of its community vision, has proposed the Lake Effect Project, as described in Section 4.1. Funding for the Lake Effect Project will come from a mix of public and private sources, although it is estimated that two-thirds will be privately funded. More information can be found at <https://www.wayzata.org/392/Wayzata-Lake-Effect>.

#### 8.4.2 City Owned Properties

City-owned real property includes the Wayzata water tower, water treatment plant, public works building, city hall, parks, and several wetland areas. Stormwater management of these facilities is contained in the City's SWPPP (provided in Appendix I). The City is planning to implement a Parks and Trails Master Plan which would address stormwater management and sustainability within several of the City's parks. Many of the City's open, natural areas are wetlands. The City will continue to monitor flow to and through these areas and will evaluate additional upstream treatment as road reconstruction occurs. There are no other water-resource related issues relevant to City-owned real property in the City.



**Table 8.1 –Capital Improvement Projects**

Activity #	Activity	Proposed Start	Projected Cost w/ Inflation	Funding Responsibility
1	Central Ave South Drainage Project	2020	\$169,900	City
2	Chicago Ave North Drainage Project	2020	\$77,300	City
3	Circle Drive East Stormwater Improvements	2019	\$158,600	City
4	Clean Ditch on North Side of Shoreline Drive	2021	\$20,600	City
5	Villa Pond Outlet	2020	\$45,400	City
6	Bovey Road Cul-De-Sac Ditch Repairs	2021	\$21,000	City
7	Replace Storm Sewer at Klapprich Park	2020	\$86,100	City
8	N. Broadway Wetland Bank Site Phase 2	2020	\$31,100	City
9	N. Broadway Wetland Enhancement – Pond Site	2022	\$315,300	City
10	Methodist Center to TH12 Stormwater Improvements	2023	\$92,400	City
11	Detailed Field Survey and Management Plan for Wetland WB-W01	2019	\$18,000	City
12	Detailed Field Survey and Management Plan for Wetlands HL-W02, W03, W07, and W08	2019	\$12,000	City
13	Repair erosion off Holdridge Circle (ES-1)	TBD*	TBD*	City
14	Repair erosion north of Holdridge Road West (ES-2)	TBD*	TBD*	City
15	Repair erosion off Central Avenue South (ES-3)	TBD*	TBD*	City



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Activity #	Activity	Proposed Start	Projected Cost w/ Inflation	Funding Responsibility
16	Repair erosion off Hollybrook Road (ES-4)	TBD*	TBD*	City
17	Repair erosion on Ferndale Woods Rd (ES-5)	TBD*	TBD*	City

\* These projects will be coordinated with other future projects as they arise in adjacent areas.

**Table 8.2 –Stormwater Pond Maintenance**

Activity #	Activity	Proposed Start	Projected Cost w/ Inflation	Responsibility
1	Glenbrook Pond Maintenance Excavation (COMPLETED 2018)	2017	\$463,500	City
2	Hollybrook Rd Pond Maintenance Excavation	2019	\$77,200	City
3	LaSalle Street Pond Maintenance Excavation	2020	TBD	City
4	Lakeside Pond Maintenance Excavation	To be coordinated with Phase 2 of the City's Lake Effect Project	\$101,500	City

### 8.4.3 Coordination with Other City Planning

The City of Wayzata updates its CIP on an annual basis. The CIP covers transportation facilities, sanitary sewer, water supply, parks, and public facilities. The most recent plan was adopted by the City Council in 2018. Whenever possible, efforts are made to incorporate stormwater management into these other projects.

The City is not actively looking to acquire land. However, through development, the City does acquire land through the statutory park dedication process. This land is usually provided by a developer and ultimately owned and maintained by the City. Additionally, the City has one property currently under a conservation easement with the Minnesota Land Trust.



### 8.5 POTENTIAL FUNDING

Below is a listing of various sources of revenue that the City may use to fund the implementation of the proposed activities in Tables 8.1 and 8.2:

- Stormwater Improvement Fund
- Grant and partnership monies possibly secured from various agencies for projects (e.g., BWSR Clean Water Legacy funding)
- General fund, reserve fund
- General Obligation Bonds
- Project funds could be obtained from watershed district levies as provided for in Minnesota Statutes Chapter 103D.905 for those projects being completed by, or in cooperation with, the MCWD
- Special assessments for local improvements performed under authority of Minnesota Statutes Chapter 429
- Revenue generated by Watershed Management Special Tax Districts provided for under Minnesota Statutes Chapter 473.882
- Other sources potentially including tax increment financing, tax abatement, state aid, and others.

The City's Stormwater Improvement Fund is the primary source for the studies, programs, and improvements identified in this LSWMP.

#### 8.5.1 MCWD Partnering

The City will look for opportunities in developed areas to retrofit water quality improvement BMPs to improve the overall water quality in the City. Grant programs are identified in the MCWD watershed plan that could provide partnering opportunities to locate, design, and install retrofit BMPs. The MCWD has expressed a desire to be engaged in project development with its partners rather than just providing grant funding, so it is in the process of developing more of a partnership program that will:

- Coordinate with cities to identify opportunities early in the process
- Evaluate those opportunities against the MCWD's goals and priorities
- Determine how the MCWD will respond through a range of services (e.g., technical and planning assistance, financial support, securing state/other grants, etc.)

One specific project that the City has identified for potential partnering with the MCWD is the Lake Effect Project (see Section 8.4.1). In particular, there is the potential for partnering on the BMP design and public education component.



## 8.6 COORDINATION PLAN

Communication and coordination between the City and the MCWD are essential to effective water resource management. A draft of a Coordination Plan, based on Section 5 of Appendix A of the MCWD Watershed Management Plan, is included in Appendix J. The Coordination Plan outlines a relationship between the City and the MCWD, with the purpose of maintaining awareness of needs and opportunities and successfully implementing projects in partnership to meet these needs. The City Engineer will communicate with the MCWD regarding the Coordination Plan.

The City and MCWD would like to continue to be partners on projects, as opportunity arises. In the past, initiatives such as the MCWD's Low Impact Development grant have served as great, collaborative efforts. In the first year of the City's plan, the agencies should work to provide additional information on MCWD funding, timing of coordination at preliminary planning and concept stages, regulatory coordination, and coordination of known initiatives including Lake Effect and operation and maintenance of past projects.





## 9.0 ADMINISTRATION

### 9.1 REVIEW AND ADOPTION PROCESS

Review and adoption of this Local Surface Water Management Plan will follow the procedure outlined in Minnesota Statutes 103B.235:

‘After consideration but before adoption by the governing body, each local government unit shall submit its water management plan to the watershed management organization[s] for review for consistency with the watershed plan. The organization[s] shall have 60 days to complete its review.’

‘Concurrently with its submission of its local water management plan to the watershed management organization, each local government unit shall submit its water management plan to the Metropolitan Council for review and comment. The council shall have 45 days to review and comment upon the local plan. The council’s 45-day review period shall run concurrently with the 60-day review period by the watershed management organization. The Metropolitan Council shall submit its comments to the watershed management organization and shall send a copy of its comments to the local government unit.’

‘After approval of the local plan by the watershed management organization[s], the local government unit shall adopt and implement its plan within 120 days, and shall amend its official controls accordingly within 180 days.’

### 9.2 AMENDMENTS TO PLAN AND FUTURE UPDATES

This Local Surface Water Management Plan will be incorporated into the City’s 2040 Comprehensive Plan update and will be applicable until 2028, at which time an updated plan will be required. This timeline marks a change from previous updates; previously, Local Surface Water Management Plan updates were done when the water districts or water management organizations updated their Watershed Management Plans. Periodic amendments may be required to incorporate changes in local practices. Changes to the MCWD Watershed Management Plan may also necessitate amendments to this plan. Plan amendments will be incorporated by following the review and adoption steps outlined above.



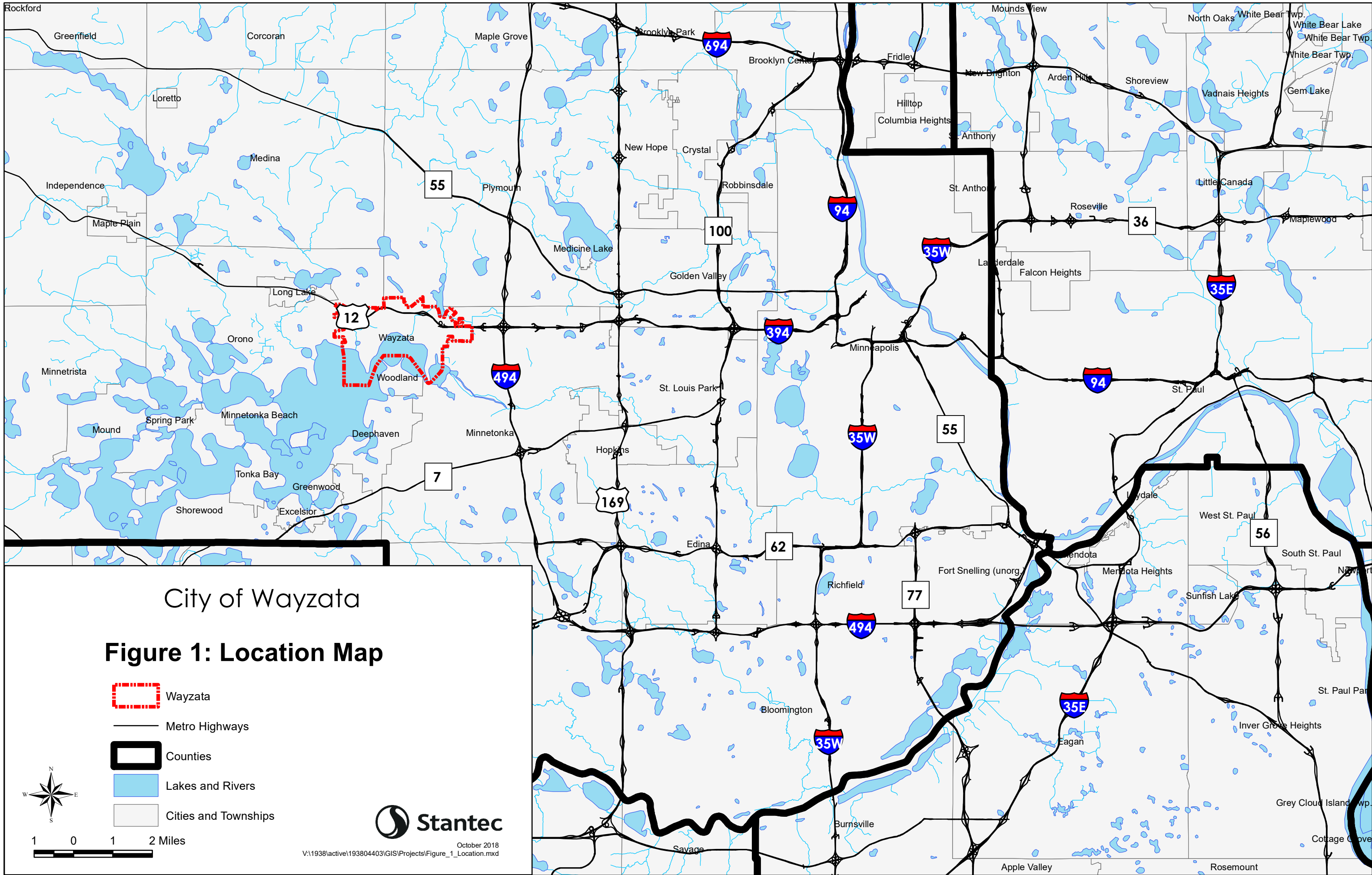
## LOCAL SURFACE WATER MANAGEMENT PLAN

Appendix A 1/9/2019 12:00:00 AM 1/16/2019 12:00:00 AM

### Appendix A FIGURES

- A.1 FIGURE 1 LOCATION MAP
- A.2 FIGURE 2 WATERSHED JURISDICTION MAP
- A.3 FIGURE 3 KEY CONSERVATION AREAS
- A.4 FIGURE 4 CURRENT LAND USE
- A.5 FIGURE 5 FUTURE LAND USE
- A.6 FIGURE 6 SUBWATERSHEDS
- A.7 FIGURE 7 STORMWATER CONVEYANCE MAP
- A.8 FIGURE 8 STORMWATER BMP MAP
- A.9 FIGURE 9 CITY OWNED PROPERTY
- A.10 FIGURE 10 WETLAND AND POND INVENTORY

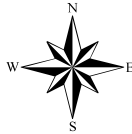




# City of Wayzata

## Figure 1: Location Map

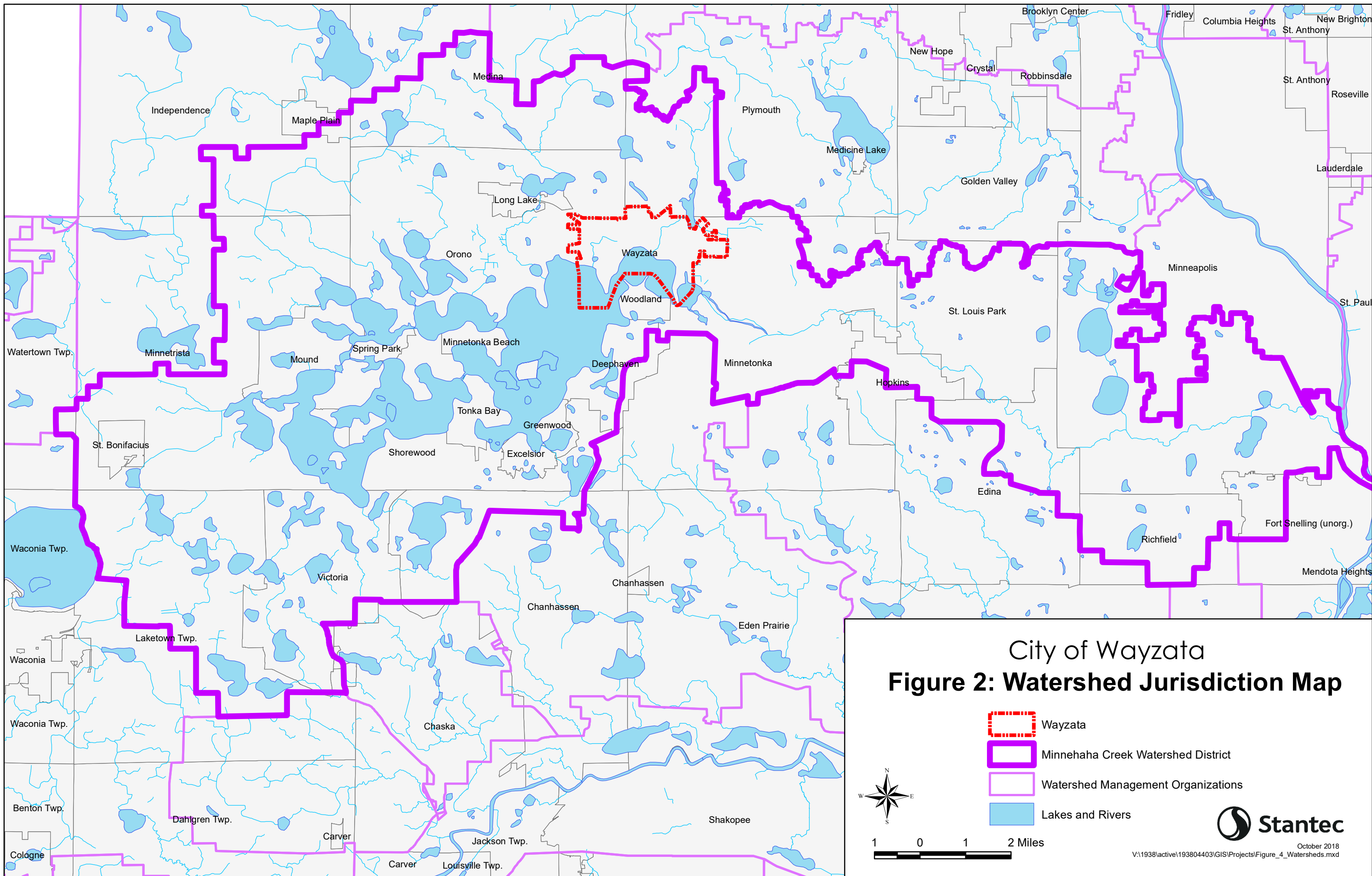
- Wayzata
- Metro Highways
- Counties
- Lakes and Rivers
- Cities and Townships



1 0 1 2 Miles



October 2018  
 V:\1938\active\193804403\GIS\Projects\Figure\_1\_Location.mxd



Independence

Maple Plain

Medina

Plymouth

Medicine Lake

New Hope

Crystal

Robbinsdale

Brooklyn Center

Fridley

Columbia Heights

New Brighton

St. Anthony

Roseville

Lauderdale

Minneapolis

St. Paul

St. Louis Park

Watertown Twp.

Minnetrista

Mound

Spring Park

Minnetonka Beach

Deephaven

Minnetonka

Hopkins

St. Bonifacius

Shorewood

Tonka Bay

Greenwood

Excelsior

Edina

Fort Snelling (unorg.)

Waconia Twp.

Victoria

Chanhassen

Mendota Heights

Laketown Twp.

Chanhassen

Eden Prairie

Waconia

Chaska

Waconia Twp.

Benton Twp.

Dahlgren Twp.

Carver

Shakopee

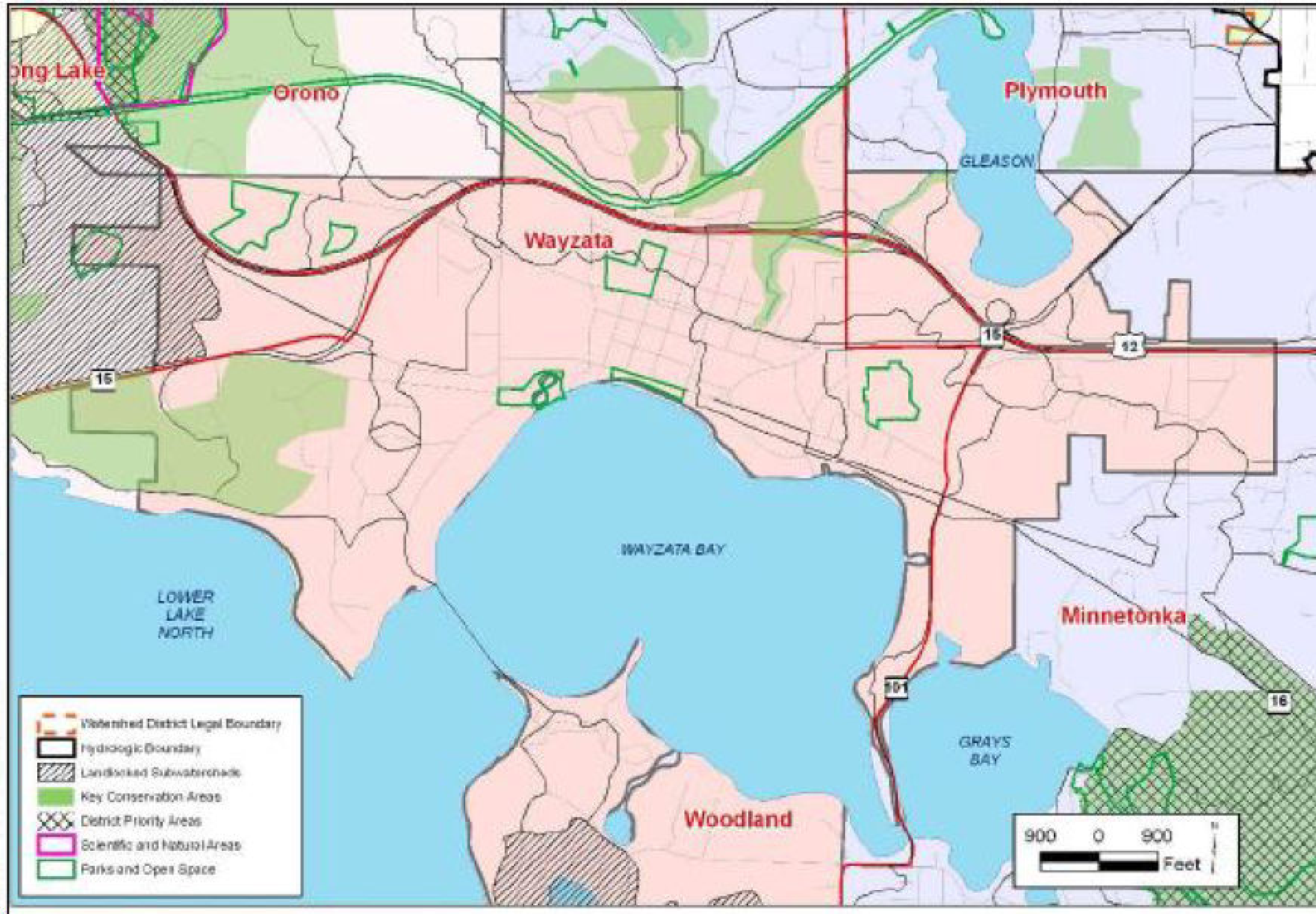
Cologne

Jackson Twp.

Carver

Louisville Twp.



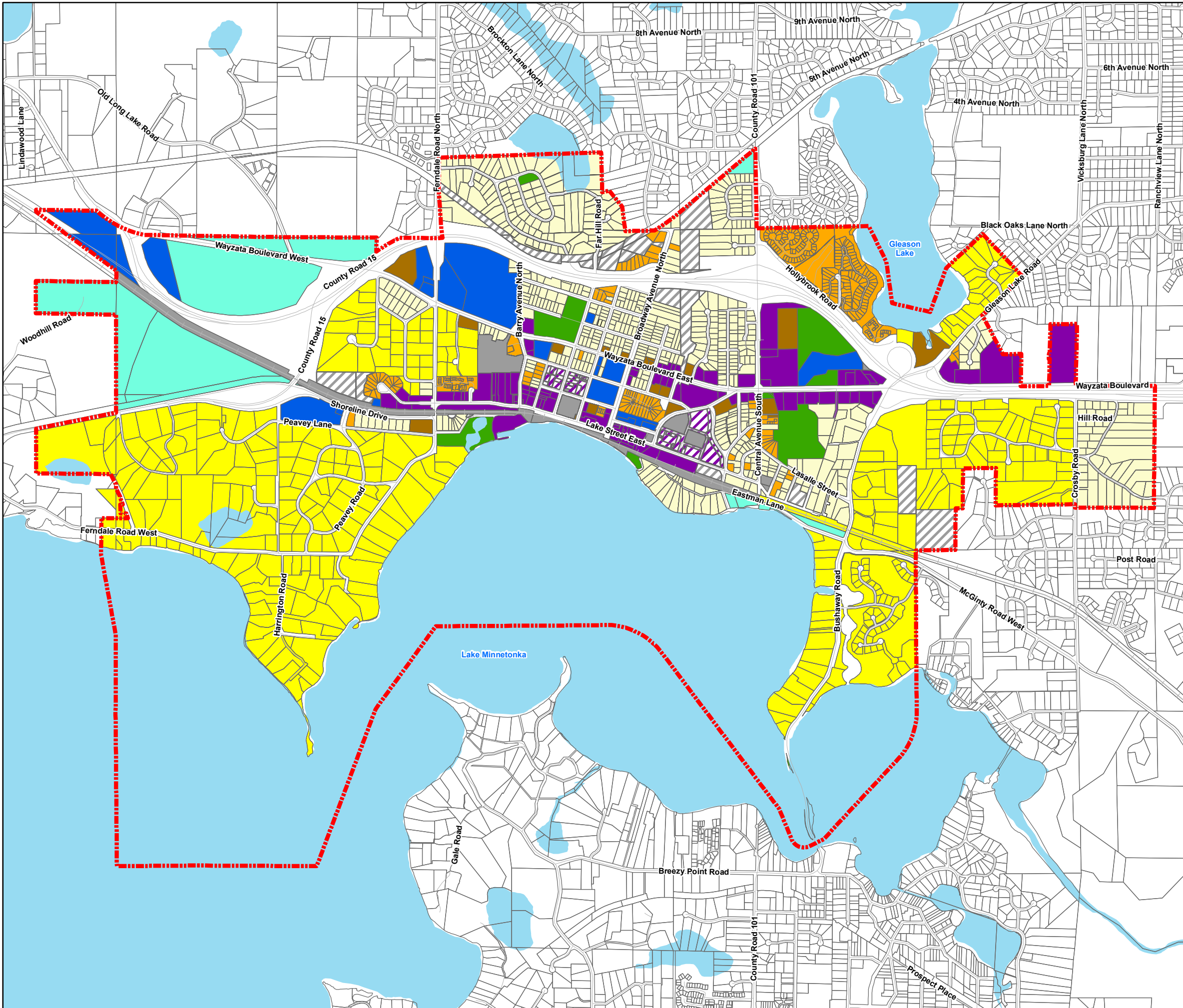
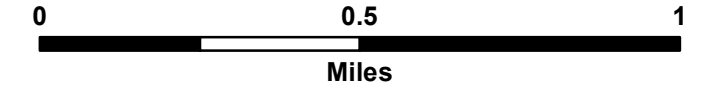
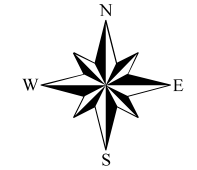


City of Wayzata

**Figure 3:  
Key Conservation  
Areas**

# City of Wayzata

## Figure 4: Current Land Use

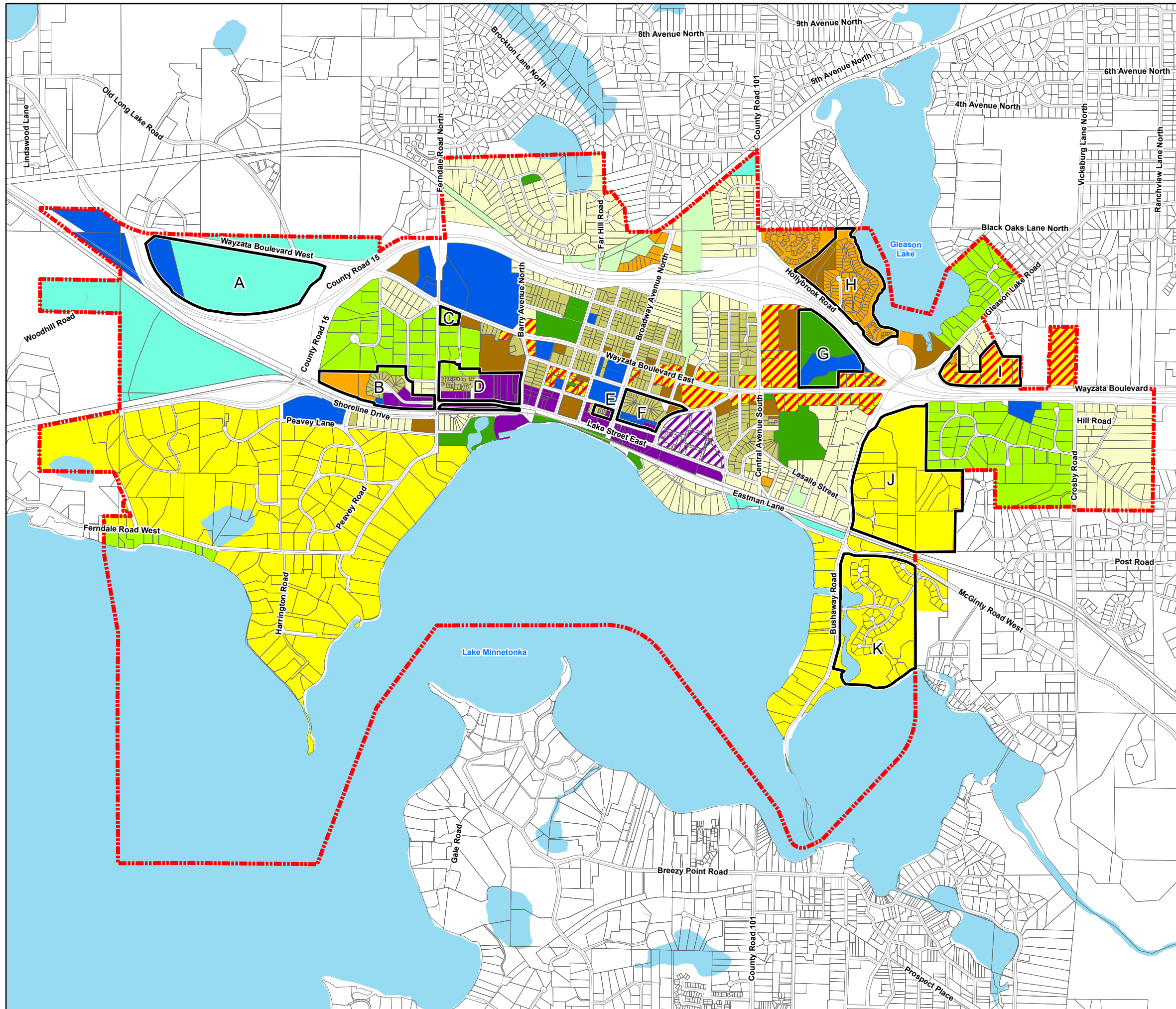
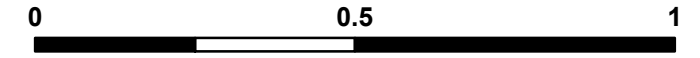
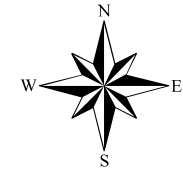


- City Boundary
- Undefined
- Commercial
- Estate Single Family
- High Density Residential
- Institutional/Public
- Low Density Residential
- Medium Density Residential
- Mixed Use - Commercial/Residential
- Park
- Semi-Public/Private
- Vacant



# City of Wayzata

## Figure 5: Future Land Use



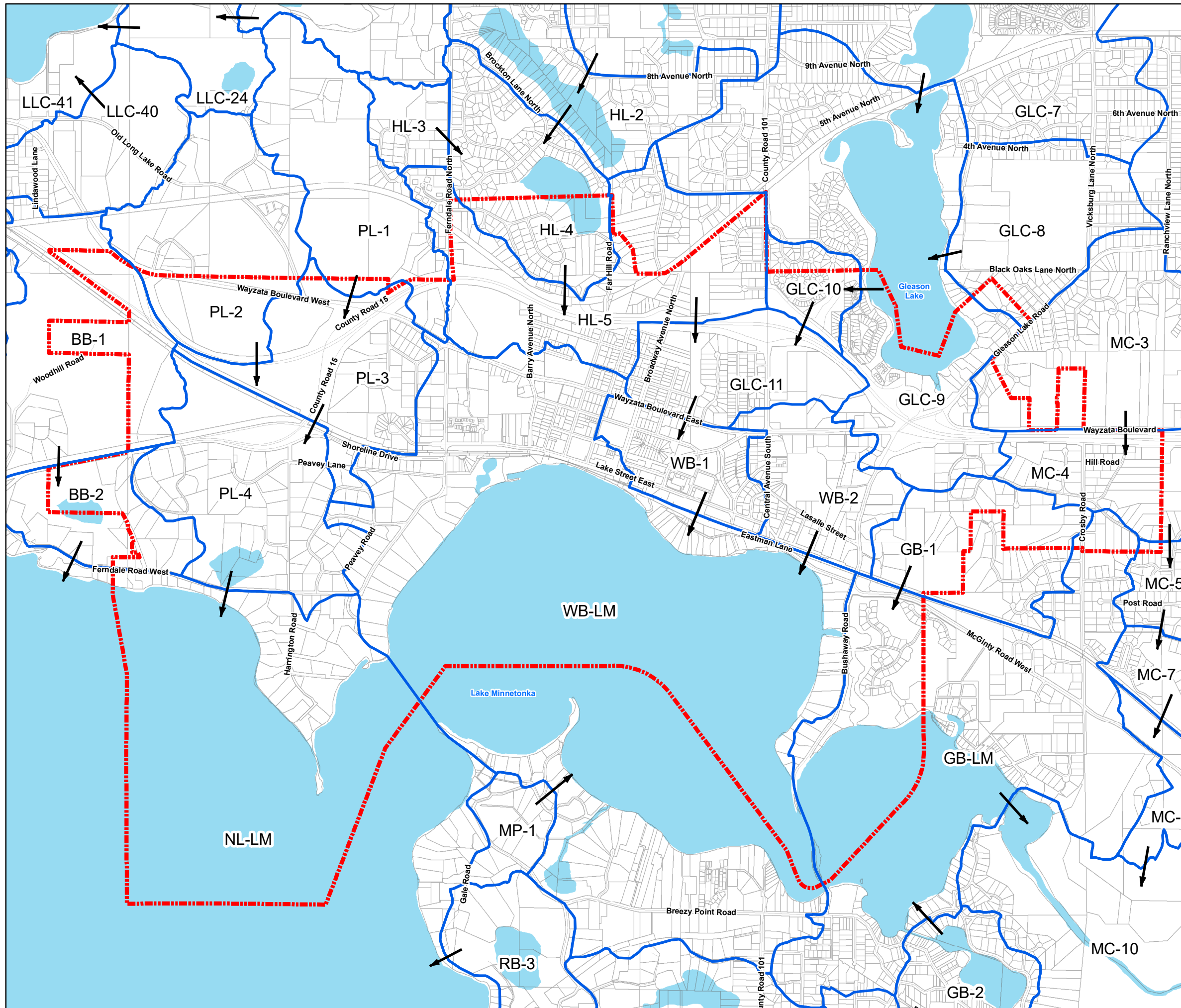
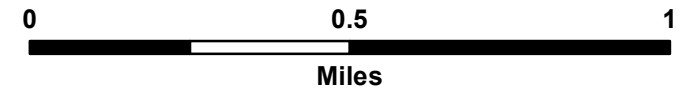
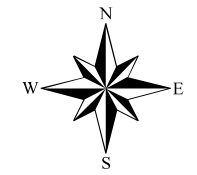
- City Boundary
- Redevelopment Areas
- Estate Single Family
- One Acre Single Family
- Low Density Residential
- Low-Medium Density Residential
- Medium Density Residential
- High Density Residential
- Mixed-Use - Commercial/Residential
- Central Business District
- Downtown Mixed Use District
- Institutional/Public
- Semi-Public/Private
- Park
- Public Open Space
- Lakes

May 2019





**Figure 6:  
Subwatersheds**

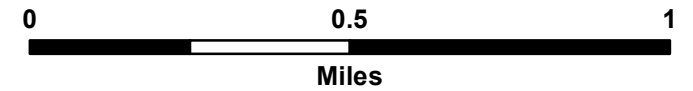
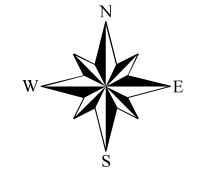


- Flow Direction
- Subwatersheds
- City Boundary
- Lakes

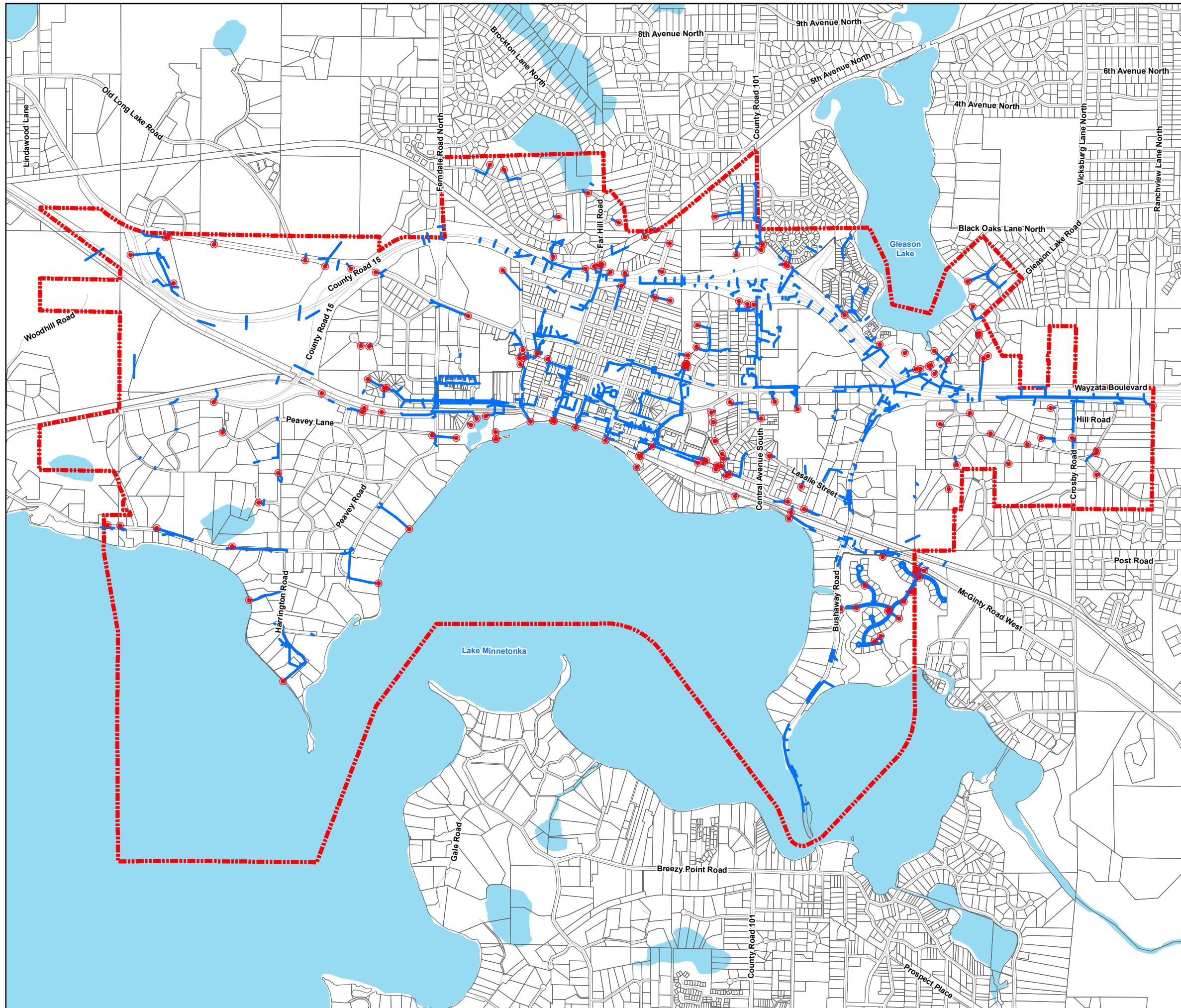


# City of Wayzata

## Figure 7: Stormwater Conveyance Map



- Storm Outfall Point
- Storm Sewer Lines
- City Boundary

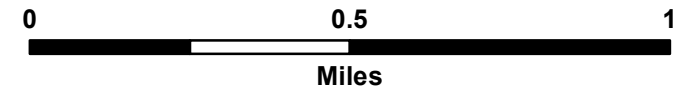
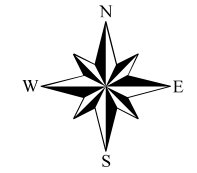


October 2018

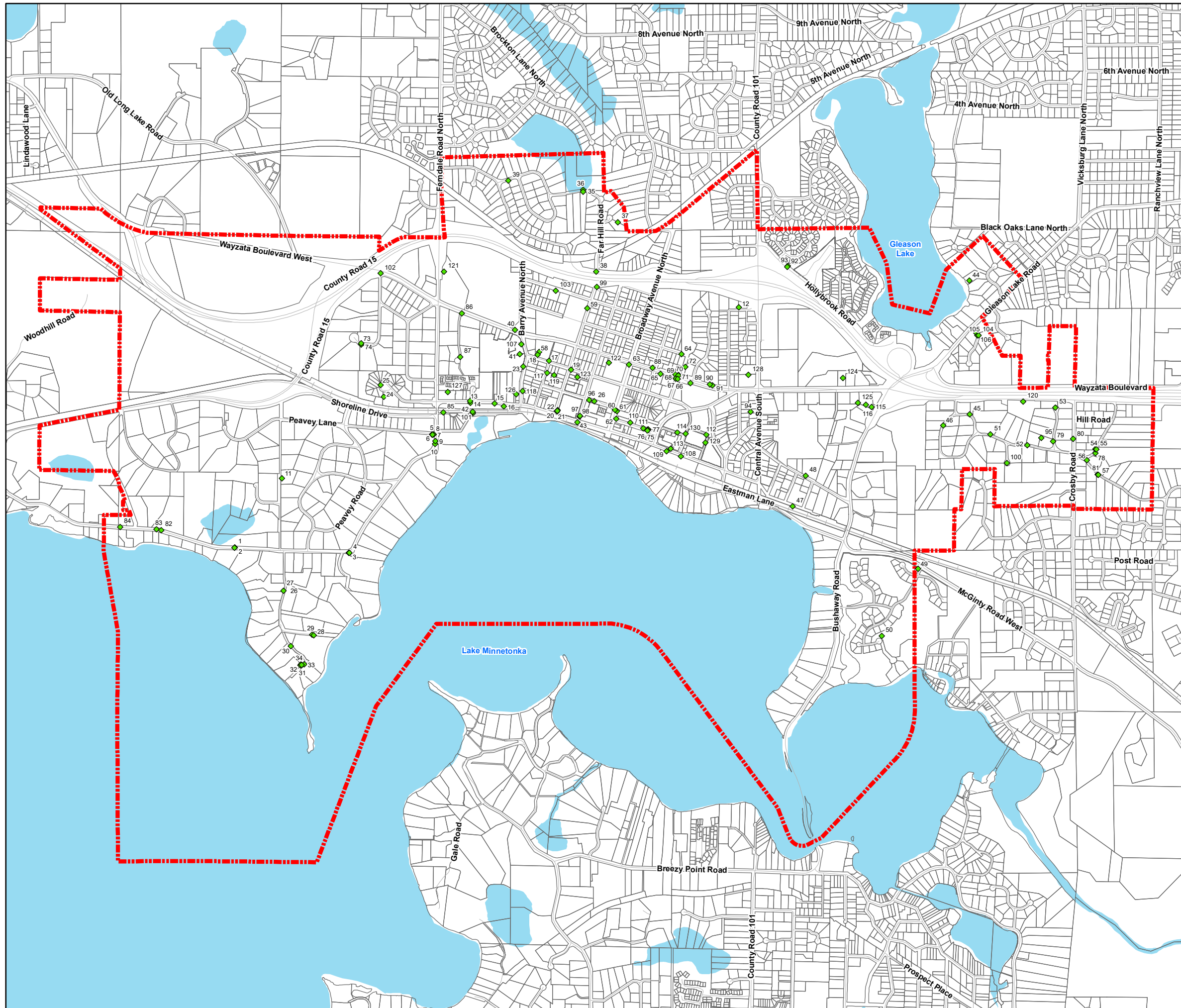




**Figure 8:  
Stormwater BMP Map**



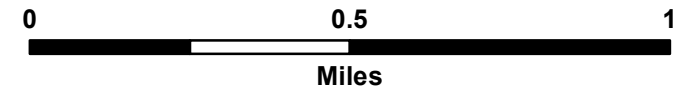
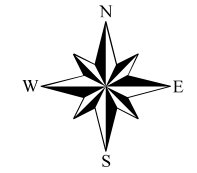
- ◆ Stormwater BMP
- ▭ City Boundary





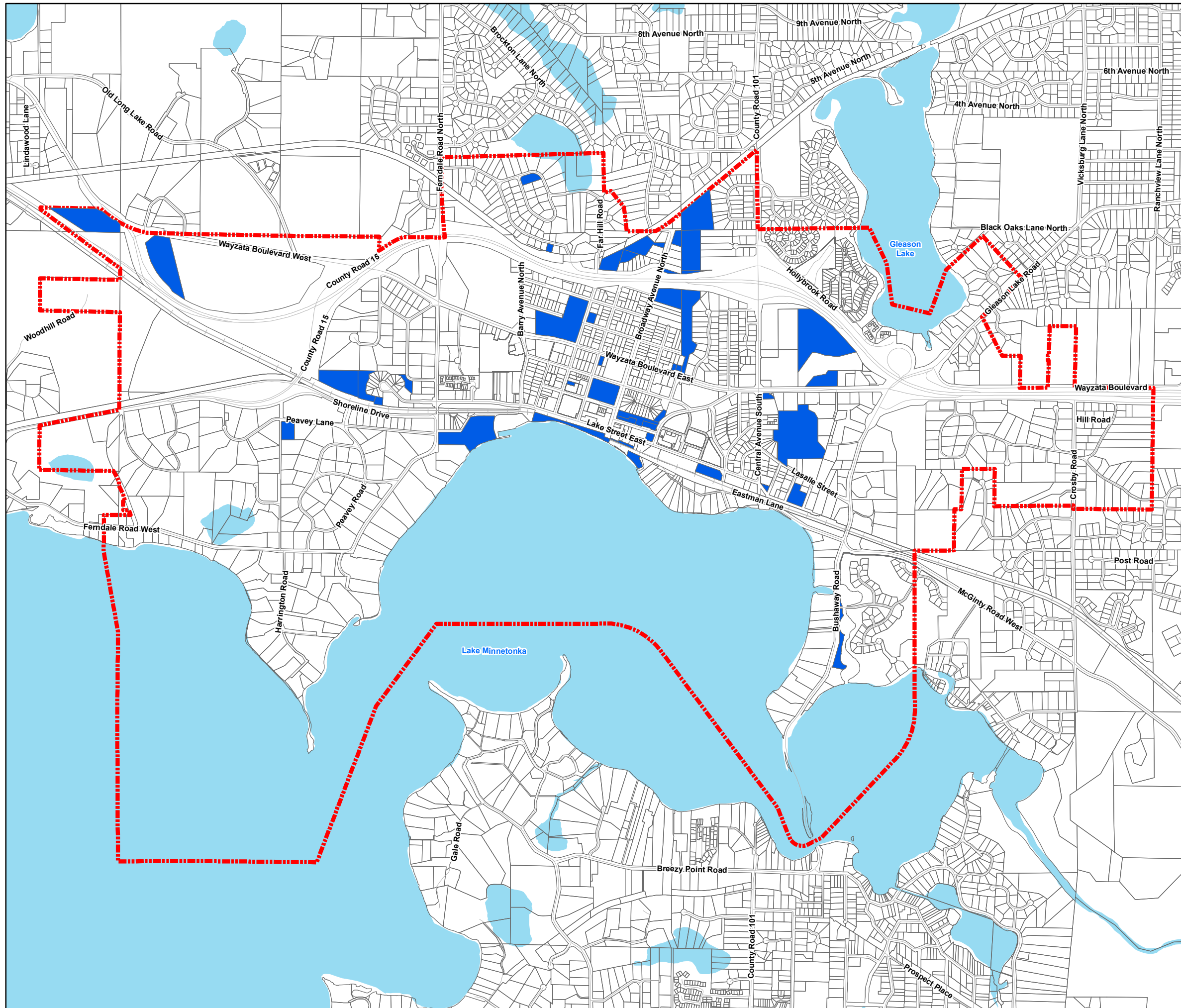


# City of Wayzata

## Figure 9: City Owned Property



-  City Owned Parcels August 2018
-  City Boundary



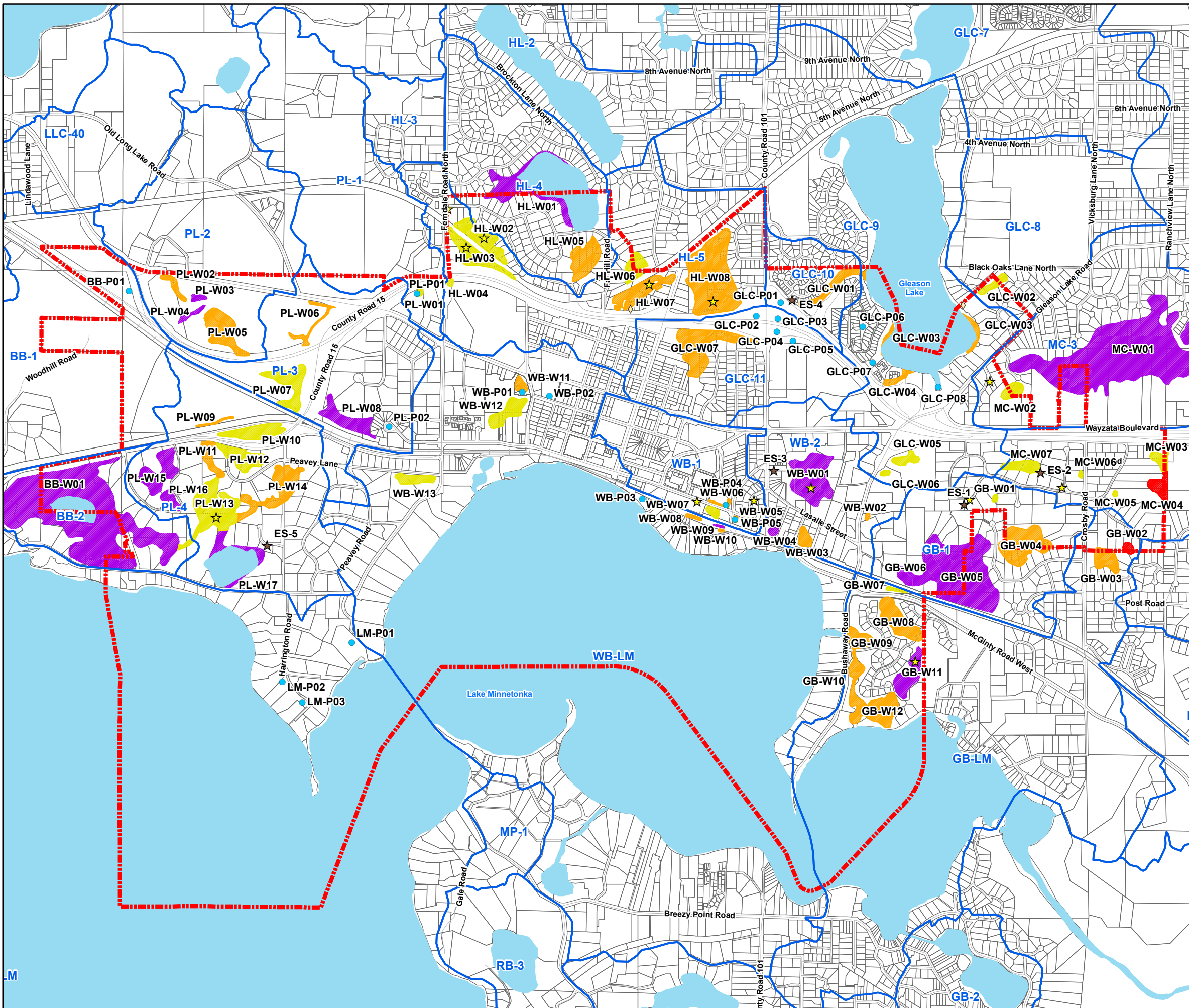
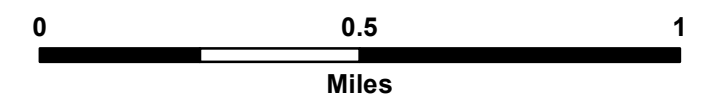
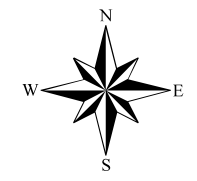
October 2018





# City of Wayzata

## Figure 10: Wetland and Pond Inventory Map



★	Stormwater Improvement Site
★	Erosion Improvement Site
●	Stormwater Pond
◆	Sediment Basin
▭	Subwatersheds
▭	City Boundary
<b>Wetland Sensitivity</b>	
▭	High
▭	Moderate
▭	Slight
▭	Least

December 2018



**LOCAL SURFACE WATER MANAGEMENT PLAN**

Appendix B 1/9/2019 12:00:00 AM 1/16/2019 12:00:00 AM

**Appendix B WATER RESOURCE RELATED AGREEMENTS**



**MEMORANDUM of UNDERSTANDING  
Local Water Planning and Regulation**

**Minnehaha Creek Watershed District and the City of Wayzata**

This Memorandum of Understanding (MOU) is made by and between the Minnehaha Creek Watershed District, a watershed district with purposes and powers as set forth at Minnesota Statutes Chapters 103B and 103D (MCWD), and the City of Wayzata, a body corporate and politic and a home charter city in the State of Minnesota.

**Recitals and Statement of Purpose**

WHEREAS in 2007 the MCWD revised its watershed management plan (WMP) under Minnesota Statutes §103B.231, which details the existing physical environment, land use and development in the watershed and establishes a plan to regulate water resource use and management to protect water resources, improve water quality, prevent flooding and otherwise achieve the goals of Minnesota Statutes Chapters 103B and 103D;

WHEREAS the WMP incorporates the Rules adopted by the MCWD to protect water resources, improve water quality, prevent flooding and otherwise achieve the goals of Minnesota Statutes Chapters 103B and 103D;

WHEREAS Wayzata has developed a local water management plan under Minnesota Statutes §103B.235 that describes the existing and proposed physical environment and land use within Wayzata and sets forth a regional subwatershed based capital improvement implementation plan for bringing local water management into conformance with the WMP;

WHEREAS on June 18, 2009, the MCWD Board of Managers approved Wayzata's local water management plan by adoption of Resolution 09-060, attached and incorporated herein and that requires, as a precondition of approval, that Wayzata and the MCWD enter into this MOU to memorialize their respective roles as to water resource protection and management within city boundaries;

WHEREAS Wayzata currently exercises sole regulatory authority within city boundaries with respect to matters now subject to regulation under MCWD Rules B



(erosion control), D (wetland protection), and N (stormwater management) and wishes to continue to exercise sole authority;

WHEREAS MCWD approval of a local plan requires a finding that municipal ordinances are at least as protective of water resources as the MCWD Rules;

WHEREAS the finding by the MCWD Board of Managers that Wayzata's municipal ordinances meet this criterion rests on Wayzata's commitment to adopt ordinances that are materially equivalent to MCWD Rules B (erosion control), D (wetland protection), and N (stormwater management);

NOW THEREFORE it is mutually agreed by and between the parties that they enter into this MOU in order to document the understanding of the parties as to the roles and responsibilities of each.

#### 1.0 Responsibilities of Wayzata

1.1 Wayzata retains and may exercise all municipal authority to issue permits for and regulate activities within its boundaries that affect water resources.

1.2 Within 180 days of June 18, 2009, Wayzata will adopt an ordinance or ordinances meeting the terms of this MOU, with the written determination of MCWD staff that the ordinance(s) is or are materially equivalent to MCWD Rule B, D, or N. If this requirement is not met, the MCWD will reassert its regulatory authority under Rules B, D, and N for activities that have not received all required approvals under Wayzata's water resource ordinances as of that date.

1.3 In accordance with Minnesota Statutes §103B.211, subdivision 1(a)(3)(ii), the MCWD must approve the granting of any variance under a Wayzata ordinance for which the MCWD has ceased to exercise regulatory authority.

1.4 Within 180 days of written MCWD notice that it has revised a rule for which Wayzata exercises sole authority pursuant to paragraph 1.2, Wayzata must revise its ordinance(s) to maintain material equivalence and obtain MCWD concurrence in the revision. MCWD will provide the City of Wayzata with Rule language as part of this notification. Alternatively, Wayzata may ask the MCWD to reassert its own regulatory authority as to that rule.

1.5 Wayzata will designate a staff member as the official point of contact for regulatory matters under this MOU. Wayzata will:

- a. Maintain a log of permits issued or considered under its water resource ordinance(s), and include in the log the permit site location, the date the application was received and /or issued, and a brief description of the project. This log will be forwarded to the District annually and made available upon request.
- b. Notify the MCWD of work by Wayzata subject to the ordinances governed by this MOU prior to initiation of work.
- c. Include the MCWD as a recipient of any public notices as provided in the ordinances governed by this MOU for MCWD staff to review and forward comments on the project.
- d. Provide available project plans and specifications to the MCWD on request.

Wayzata and the MCWD will meet by March 1st annually to review Wayzata's regulatory activity under this MOU.

1.6 Annually, by the date specified for Wayzata's submittal of its annual report under its NPDES municipal stormwater permit, Wayzata will submit to the MCWD a concise but specific report describing:

- a. Progress on the local water management plan implementation program.
- b. Progress on meeting phosphorus load reduction requirements of the WMP.
- c. Any adjustments to the implementation and/or capital improvement program in the local water management plan.
- d. The permit log described in paragraph 1.5, above.
- e. A listing, with further specific available information as the MCWD may request, of grading and structural alterations approved or occurring within city boundaries since the last annual report (both private and public alterations) that could measurably affect hydraulic and hydrologic model outcomes.



Wayzata may incorporate its annual report into its NPDES MS4 annual report, provided it addresses the above items with specificity.

## 2.0 Responsibilities of the MCWD

2.1 The MCWD will continue to apply and enforce its Rules, as they may be amended from time to time, to activity within Wayzata, except as provided under paragraph 1.2, above. Specifically, but not exclusively, the MCWD will continue to apply its rules: (a) other than those regarding erosion control, wetland protection, and stormwater management; and (b) to actions by parties to whom Wayzata's ordinances do not apply. The MCWD will continue to perform NPDES compliance monitoring pursuant to its joint powers agreement with the Minnesota Pollution Control Agency and may perform similar regulatory activities by agreement with other public bodies.

2.2 Wayzata and the MCWD will meet at least annually to review Wayzata's regulatory activity under this MOU.

2.3 The MCWD retains all authority that it may possess under Minnesota Statutes Chapters 103B and 103D and any other provision of law, except as explicitly withdrawn under this MOU, including but not limited to authority set forth at Minnesota Statutes §§103B.211, subdivision 1(a); 103D.335 and 103D.341. The MCWD may use its authority under Minnesota Statutes §103D.335, subdivision 14, to inspect work subject to Wayzata permits whether or not the work is subject to an MCWD permit.

## 3.0 General

3.1 If the MCWD has reason to believe that Wayzata is not adequately implementing its regulatory program as approved, it may engage Wayzata in a review of its concerns. If the MCWD Board of Managers, after engagement with Wayzata and a public hearing, finds that Wayzata is not adequately implementing its regulatory program, it may by resolution reassert MCWD regulatory authority as to all actions that have not yet received all required approvals under Wayzata water resource ordinances. The Board may consider whether: (a) ordinances have been adopted and conform to standards approved by the MCWD; (b) ordinances have been applied as written and MCWD approval of variances has been sought per §103B.211; (c) technical expertise and

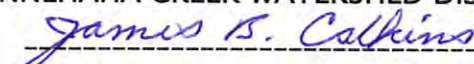
program resources as described in the local plan have been maintained; and (d) compliance has been reasonably monitored and enforced.

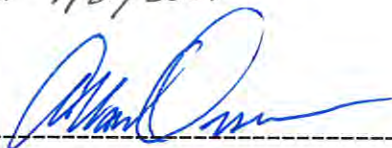
3.2 The MOU is effective on the date that it has been executed by both parties, will remain in effect for five years, and will be extended automatically for five-year terms unless terminated by agreement of the parties. Notwithstanding, Wayzata will continue to be subject to applicable statutes and rules requiring that it revise its local water management plan in response to MCWD revisions of the WMP.

3.3 This MOU may be amended only by a writing signed by both parties.

IN WITNESS WHEREOF, the parties hereto have executed this Memorandum of Understanding.

CITY OF Wayzata  
By   
Mayor


MINNEHAHA CREEK WATERSHED DISTRICT  
By   
President, Board of Managers

Date: 7/21/2009  
By   
City Manager

Date: 8-6-09

Date: 7/22/2009

APPROVED AS TO FORM AND EXECUTION

By   
Its Attorney

## RESOLUTION

---

RESOLUTION NUMBER: 09-060

**TITLE: City of Wayzata Local Water Resources Management Plan - Approval**

- WHEREAS, on July 5, 2007, the MCWD adopted amendments to its comprehensive watershed management plan under Minnesota Statutes § 103B.231, which, as amended, details the existing physical environment, land use and development in the watershed and established a plan to manage water resources and regulate water resource use to improve water quality, prevent flooding and otherwise achieve the goals of Minnesota Statutes Chapters 103B and 103D; and
- WHEREAS, the MCWD Comprehensive Water Resources Management Plan, as amended incorporates the Rules adopted by the MCWD to protect water resources, improve water quality, prevent flooding and otherwise achieve the goals of Minnesota Statutes Chapters 103B and 103D; and
- WHEREAS, the City of Wayzata completed a draft Local Water Management Plan and submitted it to the MCWD for review and approval in 2009; and
- WHEREAS, MCWD reviewed the draft Plan and provided detailed review comments to the City for consideration and incorporation into the Plan; and
- WHEREAS, the City of Wayzata subsequently prepared and submitted final revisions for the Local Water Management Plan to MCWD which incorporated MCWD review comments; and
- WHEREAS, the MCWD has determined that the final revised Plan, on occurrence of the conditions stated below, will be consistent with the MCWD Water Resources Management Plan; and
- WHEREAS, the Metropolitan Council has received the Local Water Management Plan and has provided its written comments to the MCWD in a letter on January 5, 2009 and the District has fully considered the comments; and
- WHEREAS the MCWD has determined that the Plan generally meets the requirements for local plan approval set forth in the MCWD's watershed management plan; and
- WHEREAS the City wishes to continue to exercise authority as the Local Government Unit for the Minnesota Wetland Conservation Act; and
- WHEREAS the City presently exercises, and wishes to continue to exercise, sole regulatory authority for activities subject to MCWD Rules B, D, and N; and
- WHEREAS the MCWD's ability to approve the Plan rests on the City's agreement to continue to enforce ordinances that implement all of the requirements in MCWD Rules B, D, and N within those parts of the City where the MCWD has jurisdiction, as well as the City's agreement to update said ordinances within 180 days of the revision and adoption of Rules B, D, or N by MCWD;

NOW, THEREFORE, BE IT RESOLVED, that the MCWD hereby approves the City of Wayzata Local Water Management Plan, effective on the fulfillment of the following conditions:

- a. MCWD and the City of Wayzata execute the Memorandum of Understanding included as Resolution 09-061 in this Packet or a substantially equivalent Memorandum within 60 days of the passage of this resolution, establishing implementation and annual reporting responsibilities between the MCWD and the City.

Resolution Number 09-060 was moved by Manager \_\_\_\_\_ seconded by Manager \_\_\_\_\_  
Motion to adopt the resolution \_\_\_\_\_ ayes, \_\_\_\_\_ nays, \_\_\_\_\_ abstentions. Date: \_\_\_\_\_

\_\_\_\_\_  
Lee Keeley, Secretary Date: \_\_\_\_\_

SEP 15 2000

JOINT AND COOPERATIVE AGREEMENT  
FOR  
GLEASON CREEK WATER MANAGEMENT PROJECT

WENCK ASSOCIATES, INC.

JOINT AND COOPERATIVE AGREEMENT FOR GLEASON CREEK WATER MANAGEMENT PROJECT, made and entered into as of this ~~29<sup>th</sup>~~ day of October, 1992, by and between the Minnehaha Creek Watershed District, a political subdivision of the State of Minnesota (the "District") and the City of Wayzata, a Minnesota municipal corporation (the "City").

RECITALS

1. On or about March 13, 1992, the City petitioned the District, pursuant to the provisions of Minnesota Statutes, Sections 103D.605, 103D.705, and 103D.905(3), for the improvement of the existing storm water drainage system providing storm water discharge from Gleason Lake, through Gleason Creek, to Lake Minnetonka. The City submitted its amended petition, dated March 13, 1992, for a priority project of the District on the basis that it is eligible for project financing in accordance with existing District policy as reflected in the District's Overall Plan and the updated 509 Plan prepared pursuant to Chapter 509, Laws of Minnesota, 1982.
2. The engineers for the District completed the report required under Minnesota Statutes Section 103D.711, which report, as subsequently amended (the "Report"), was received by the District at its July 16, 1992 meeting.
3. The Report was filed by the District with the Director of the Division of Waters of the Department of Natural Resources and with the Board of Water and Soil Resources, and advisory reports were received from both agencies, as required by Minnesota Statutes, Sections 103D.605(2) and 103D.711(5).
4. On August 20, 1992, a final public hearing was held by the District at the offices of the City, after appropriate notice, and at the District meeting following such public hearing, the District issued its Findings, Conclusions, and Order to Establish Project dated August 20, 1992 (the "Order"). The Order, incorporating the Report by reference, approves and orders construction of the Gleason Creek Water Management Project (the "Project"), which is identified as Alternative One in the Report.
5. The Project is required to minimize historic flooding problems which have occurred adjacent to Gleason Creek in the Glenbrook and downtown areas of the City of Wayzata, and to improve the water quality of the Gleason Creek tributary to Lake Minnetonka. Elements of the Project include: (i) improvement of the outlet structure (the "Outlet Structure"), where Gleason Lake flows into Gleason Creek, to maintain Gleason Lake at its current

elevation, while at the same time providing greater storm water storage; and (ii) providing greater storm water storage and construction of two water detention and treatment ponds, one in the Glenbrook area, and one adjacent to the shore of Lake Minnetonka in the downtown area of the City.

6. The portions or aspects of the Project to be funded by the District is a basic water management project identified in the Minnehaha Creek Watershed District Management Plan. The Project will increase upper Watershed storage and improve water quality of streams contributory to Lake Minnetonka, two fundamental goals which are identified in the Overall Plan for Water Management of the District. Portions of the Project are specifically identified in the Watershed's Water Resources Management Plan.

7. The District has determined that, pursuant to Minnesota Statutes, Section 103D.721(4), the District's share of costs for the Project is attributable entirely to the basic water management features of the Project, and should be financed by special assessments levied pursuant to Minnesota Statutes, Section 103D.905(3).

8. The petition of the City was submitted with the approval of the Wayzata City Council, and the City continues to support the Project as described in the amended Report.

9. The City and the District, both political subdivisions of the State of Minnesota, desire to enter into this Joint and Cooperative Agreement, pursuant to Minnesota Statutes, Section 471.59, in order to maximize the efficient use of public resources, utilizing the engineering work performed by the City in presenting its petition for the Project and by the District engineers in preparing the Report, and to allocate responsibility for and agree to the preparation of engineering plans and specifications, and for bidding, supervising the construction of, and maintaining and paying for, the improvements required to complete the Project.

#### AGREEMENT

In consideration of the mutual covenants and agreements contained herein, the parties hereto agree as follows:

1. Plans and Specifications. The City will be responsible for preparation of all plans and specifications for the Project. All proposed plans and specifications, and any modifications thereto, shall be submitted to the District for its review and approval in accordance with District Rules, provided that the District will either approve or disapprove, citing specific objections, such plans and specifications within ten days of receipt of such plans and specifications from the City. The plans and specifications for the Outlet Structure shall satisfy the following objective: limiting the outflow discharge from Gleason Lake such that this discharge, combined with the outflow from the local



tributary drainage area, will not result in a 100 year frequency flood elevation anywhere in the Glenbrook area (downstream from Gleason Lake) in excess of 936.3 M.S.L. The City will provide an opportunity for public review and comment upon the plans and specifications for which it is responsible. The final plans and specifications shall be approved by the City Council and the District Board. All plans and specifications shall reflect good engineering practices and basic plans and policies of the District, with an aim toward maximizing cost-effectiveness and efficiency.

2. Permits. The City shall obtain all necessary permits for the construction of the Project improvements, provided, however, that the District shall obtain any necessary permits for Project improvements located in Gleason Lake, Plymouth, and the City of Minnetonka, and will obtain any permission, approvals or permits required from the Department of Natural Resources and other regulatory agencies for construction of the Outlet Structure on Gleason Lake and the inlet pond to Gleason Lake, identified as Phase II in the District's Order, if such inlet pond is constructed. The City will cooperate with the District, and the District will cooperate with the City, in obtaining any permits required for the Project, and each shall direct its staff and contractors to provide any engineering information required to obtain such permits.

3. Bids and Contracts. The City shall advertise for bids for the construction of the Project improvements, including the Outlet Structure, receive and open bids pursuant to said advertisement, accept or reject any or all of the bids, and enter into a contract with the lowest responsible bidder at the unit price specified in the bid of such bidder, all in accordance with statutory provisions applicable to the City and to the District. The contract will be in a form approved by the City and the District, and will include only the plans and specifications approved by the City and the District. The bidder to whom the contract is awarded must provide a bond, with ample security, conditioned by satisfactory completion of the contract, and must meet all other applicable City and District requirements for insurance and related matters. No bids will be considered which, in the aggregate, exceed by more than 30% the total estimated cost of construction as set forth in Table 4 of the amended Report. Upon failure by a contractor to complete the Project improvements within the time or in the manner specified in the contract, the City may, in its discretion, upon consultation with the District, extend the time for completion, refuse any extension of time, cancel the contract, readvertise for new bids and award a new contract, require a surety for the contractor to complete the Project improvements, proceed to have the contract otherwise completed at the expense of the contractor and the surety, or take other appropriate action in the interests of the City and the District. The City may make changes in the approved plans and specifications or in the construction contract which are within the scope of the Project and are reasonably necessary to have the Project improvements function effectively or to cause the construction to be performed and completed on a timely basis,

provided that the City shall obtain prior approval of the District for any material change in the plans, specifications or contract.

4. Construction Supervision. All contracts for construction of Project improvements shall be supervised by the City, which shall, through its employees and/or independent contractors, administer the contracts and inspect the construction of such improvements. The District staff may observe or review the work in progress, and shall promptly notify the City in writing of any defects or deficiencies in construction. The City agrees to cooperate with the District staff in accomplishing the purposes of this Agreement. Representatives of the District shall have the right to enter upon the areas where the Project improvements are being constructed for the purpose of making reasonable tests and inspections.

5. Easements. The City shall obtain any necessary easements for Project improvements which are downstream from the Outlet Structure, provided, however, that if the City determines that certain easements are not required, based upon provisions of existing City ordinances, then the City shall agree to indemnify the District from any loss, costs (including, without limitation, reasonable attorneys' fees and litigation expenses), claim or liability asserted by the owners of properties downstream from the Outlet Structure whose properties are adversely affected by the Project improvements located downstream from the Outlet Structure. The City shall obtain, for the benefit of the City and the District, easements permitting the maintenance of, and access to for maintenance purposes, the Project improvements which are downstream from the Outlet Structure. The District shall obtain flowage easements over properties on the shore of Gleason Lake, which easements shall permit, on the properties subject thereto, any flooding or related damage which is due to increases in the elevation of Gleason Lake resulting or alleged to have resulted from construction and operation of the new Outlet Structure, or other improvements in or on Gleason Lake. In addition, the District shall obtain any easements and fee interests required for acquisition of the site of the Outlet Structure, and the right to construct and maintain the Outlet Structure, as well as access thereto for such purposes.

6. Repair, Ownership and Maintenance. Subsequent to completion of construction of the Project improvements, the District shall be the owner of the Outlet Structure and any other improvements related thereto or otherwise located in or on Gleason Lake, whether or not part of the Project, and shall be responsible for all maintenance, repair and replacement of such improvements. The City, subsequent to completion of the Project improvements lying downstream of the Outlet Structure, shall be the owner of all such improvements, and shall be responsible for all repair, maintenance and replacement required therefor. After completion of the Project improvement, neither the City nor the District shall alter or change the Project improvements within their control or ownership, other



than to maintain the improvements consistent with the original plans and specifications therefor approved by both parties. Notwithstanding anything in this paragraph to the contrary, if the Outlet Structure has not been completed within one year after completion of the Project improvements lying downstream thereof for any reason other than the failure of the City to timely perform its obligations under this Agreement, the District shall be solely responsible for the cost of any repairs, maintenance or replacement of the Project improvements located downstream from the Outlet Structure until the Outlet Structure is completed.

7. Records. Each party shall keep an accurate account of all expenses incurred in relation to the Project, including all such expenses incurred by the City from and including the costs of preparing its original petition to the District, and including the compensation of all engineers, appraisers, attorneys, and other independent contractors and employees employed by the City or the District in relation to the Project. The expenses of employees of the City and District shall be estimated based on the total compensation and benefits paid to the relevant employees, with a portion of such costs allocated to the Project costs based on the proportion of the employees' time spent on the Project. The records and accounting reports of both parties shall be open for inspection and review at all times by either party. Record keeping of both parties shall provide for strict accountability of all funds and reporting of all receipts and disbursements.

8. Allocation of Project Costs.

*Missing*

a. Attached hereto as Exhibit A is Table 4 from the amended Report. The first 15 items listed on Table 4 detail the specific construction costs estimated for 15 separate aspects of the Project improvements, and allocates the costs for those 15 items between the parties. Each party shall be responsible for payment of the costs for which it has been assigned payment responsibility in Table 4. The costs stated on Table 4 are only estimates, and the unit prices set forth in the contract with the successful bidder and the final quantities as measured by the City shall govern in computing the final total contract construction cost for apportioning Project costs between the parties. If the actual cost for one or more items is less or greater than the estimate indicated in Table 4, then the responsible party shall pay the actual cost therefor. If both parties are responsible for a proportionate share of one of the 15 itemized expenses, and the actual cost of such item is greater than that estimated in Table 4, then each party shall pay a proportionate share of the excess cost. Similarly, if the actual cost of a shared item is less than estimated in Table 4, the savings shall be shared proportionately by the parties.

b. Five items of land and easement acquisition costs are also indicated in Table 4. Each party shall be responsible for the total or proportionate cost of such items as indicated in said Table 4. In addition, the District shall also be responsible for all land

and easement acquisition costs associated with the Outlet Structure, which shall include any easement immediately downstream from the Outlet Structure over property owned by the same party which owns the property on which the Outlet Structure is located. As with the 15 itemized construction costs, any increase or decrease in actual costs, as compared to the cost estimates in Table 4, shall be borne by the responsible party, or, if shared, shall be allocated between the parties proportionately.

c. All administration costs of the parties for the Project shall be totalled, and shall be allocated between the parties in proportion to their share of the total costs of the 15 construction items listed in Table 4.

9. Progress Payments. The District shall levy appropriate special assessments on a timely basis, pursuant to Minnesota Statutes, Section 103.D.901(3), to fund its share of the Project costs. To the extent that funding from special assessments will not be timely, in light of the construction contract for the Project improvements to be entered into by the City, and with respect to administrative, easement and land acquisition costs, and other expenses incurred by the parties with respect to the Project, then the District shall obtain an agreement with Hennepin County to loan sufficient funds to the District to satisfy the District's payment obligations under this Agreement on a timely basis. The City shall have no responsibility for entering into any construction contracts for the Project improvements until such time as the District has evidenced, to the reasonable satisfaction of the City, that an appropriate loan has been agreed to by the County so that the District can pay its proportionate share of the required construction and other costs as such costs become payable. Such loan shall provide that the District's share of all Project expenses shall be deposited with the City, or paid directly to the contractors, when such funds may be required under the construction contract(s) for the Project improvements, consistent with appropriate timetables providing for the possibility of improvements (and required payments therefor) being completed prior to scheduled completion deadlines. The City will keep the District informed concerning construction progress and payment timetables, and will forward itemized disbursement requests to the District for approval at least five days prior to actual disbursement to contractor(s). After completion of construction of the Project improvements, and payment of all construction, land and easement acquisition and administrative costs, any surplus funds deposited by one party with the other party shall be refunded.

10. Phase II and Gleason Lake Improvements. Notwithstanding any provisions in this Agreement to the contrary, the District shall be solely responsible for the preparation of plans and specifications, all engineering evaluations, all construction, land and easement acquisition costs, and all other costs and expenses related to the water quality treatment pond in the area of the inlet to Gleason Lake identified as "Phase II" in the District's Order.\*

\* Assume to include future repair and maintenance.

Additionally, the District shall be solely responsible for payments to the Gleason Lake Improvement Association for the cost of moving its aeration pumping stations to elevations above expected high water, and for any costs incurred by the District in contracting with the Gleason Lake Improvement Association to clean the skimmer at the north end of Gleason Lake, monitor the Outlet Structure for proper operation, monitor water quality and record elevations of Gleason Lake.

11. District Regulation of Gleason Lake. The parties acknowledge that the design and effectiveness of the Project improvements is based on the existing rate and volume of runoff discharged into Gleason Lake. The District shall continue to manage and regulate development within the tributary watershed of Gleason Lake to ensure that any increased rate and volume of runoff generated from urbanizing areas will not exceed the design and performance parameters for the Outlet Structure, as designed pursuant to this Agreement. The City agrees to manage development within the City to ensure that any increased rate and volume of runoff will not exceed the design or performance parameters of the Project improvements lying downstream from the Outlet Structure.

12. Liability and Indemnification.

a. Subject to the provisions of subparagraph 11.b. below, the City agrees to defend, save and keep the District, its officers, agents, and employees, harmless from all claims, demands, judgments, fines, penalties, expenses, actions or causes of action and expenses (including, without limitation, reasonable attorneys' fees and disbursements incurred in the defense thereof) arising out of claims made by property owners, or other third parties, who are located downstream from the Outlet Structure and claim to have been injured or damaged as a result of the Project improvements; and the District agrees to defend, save and keep the City, its officers, agents, and employees harmless from all claims, demands, judgments, fines, penalties, expenses, actions, or causes of actions and expenses (including, without limitation, reasonable attorneys' fees and disbursements incurred in the defense thereof) arising out of claims brought by property owners and others who are located on or adjacent to the Outlet Structure or Gleason Lake and claim to have been injured or damaged as a result of the Project improvements.

b. Notwithstanding anything in this Agreement to the contrary, the District will indemnify and defend the City for any and all claims arising out of the conduct of employees or agents of the District related to the Project or to an obligation of the District under this Agreement; the City will indemnify the District for any and all claims arising out of the conduct of employees or agents of the City related to the Project or to an obligation of the City under this Agreement.

13. Arbitration. In the event of a dispute between the parties, or an inability of the parties to agree resulting in a deadlock, or in the event that either party wishes to make a claim

against the other party for breach or nonperformance of its obligations under this Agreement, either party may seek resolution of such dispute by arbitration. Resolution of the dispute shall be made by a Board of Arbitration, which shall consist of three persons; one to be appointed by the City, one to be appointed by the District, and the third to be appointed by the two so selected. In the event the two persons so selected do not appoint the third person in 15 days after their appointment, then the Chief Judge of the District Court of Hennepin County shall have jurisdiction to appoint, upon application of either or both of the two earlier selected, the third person to the Board. The arbitrators' expenses and fees, together with the other expenses, not including attorneys fees, incurred in connection with the arbitration shall be divided equally between the City and the District. Arbitration shall be conducted in accordance with the Uniform Arbitration Act, Chapter 572 of Minnesota Statutes. Notwithstanding the foregoing, in the event that a dispute arises between the parties hereto as a result of litigation initiated by some third party, any and all claims between the parties hereto related to the litigation brought by such third party shall be resolved pursuant to and in the course of such litigation.

14. Amendment, Termination. This Agreement may only be amended by a written agreement approved by the Wayzata City Council and the Board of Managers of the District, and executed by the Mayor of the City and the Chairman of the District's Board. This Agreement shall continue until rescinded or terminated by a written agreement executed by the City and the District, unless sooner terminated pursuant to a decision of the Board of Arbitration as provided in paragraph 12 hereof.

15. Notice. All notices required or given pursuant to or in connection with this Agreement shall be provided by certified mail or personal delivery to the parties at the following addressed:

If to the City:                   City Manager  
  City of Wayzata  
  600 East Rice Street  
  Wayzata, Minnesota   55391

with a copy to:                   Gregory D. Soule  
  Best & Flanagan  
  3500 IDS Center  
  80 South Eighth Street  
  Minneapolis, MN   55402

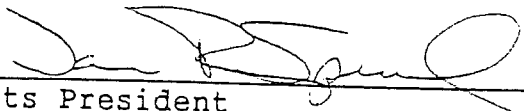
If to the District:                President  
  Minnehaha Creek Watershed District  
  14600 Minnetonka Boulevard  
  Minnetonka, MN   55345

with a copy to:

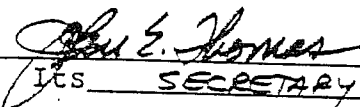
Mr. Louis Smith  
Popham, Haik, Schnobrich,  
Kaufman, Ltd.  
3300 Piper Jaffrey Tower  
Minneapolis, MN 55402

IN WITNESS WHEREOF, the undersigned governmental units, by action of their governing bodies, have caused this Agreement to be executed in accordance with the authority of Minnesota Statutes, Section 471.59.

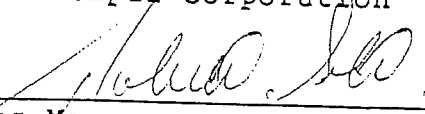
MINNEHAHA CREEK WATERSHED  
DISTRICT, a political sub-  
division of the State of  
Minnesota

By   
Its President

and

By   
Its SECRETARY

CITY OF WAYZATA, a Minnesota  
municipal corporation

By   
Its Mayor

and

By   
Its City Manager

3522u  
12/07/92

**LOCAL SURFACE WATER MANAGEMENT PLAN**

Appendix C 1/9/2019 12:00:00 AM 1/16/2019 12:00:00 AM

**Appendix C WAYZATA CITY ORDINANCES**



## CHAPTER 408 - SURFACE WATER MANAGEMENT PLAN

## 408.01 - Wayzata Surface Water Management Plan.

Pursuant to the legislative authority set forth in Minn. Stats. §§ 462.351, 103B and 103D, the 2011 Update of the Wayzata Surface Water Management Plan is hereby adopted by reference, and all notations, references and other matters shown therein shall be as much a part of this Chapter as if such notations, references and other matter were all fully set forth herein. Said Plan shall be amended in the same manner as this Chapter and shall be made available to the general public at the office of the City Clerk.

*(Ord. 622 [7-26-2000]; Ord. 643 [3-22-2003]; Ord. 700 [9-1-2009]; Ord. 717 [8-23-2011])*

## CHAPTER 410 - STORMWATER AND URBAN RUNOFF POLLUTION CONTROL

## 410.01 - Purpose.

The purpose of this Chapter is to provide for the health, safety, and general welfare of the citizens of Wayzata through the regulation of non-stormwater discharges to the storm drainage system to the maximum extent practicable as required by federal and state law. This Chapter establishes methods for controlling the introduction of pollutants into the municipal separate storm sewer system (MS4) in order to comply with requirements of the National Pollutant Discharge Elimination System (NPDES) permit process. The objectives of this Chapter are:

- A. To regulate the contribution of pollutants into the MS4 by stormwater discharges by any user;
- B. To prohibit illicit connections and discharges to the MSR; and
- C. To establish legal authority to carry out all inspection, surveillance and monitoring procedures necessary to ensure compliance with this Chapter.

*(Ord. 692 [12-1-2008])*

## 410.02 - Definitions.

For the purposes of this Chapter, the following shall mean:

- A. "**Best Management Practices (BMPs)**" means schedules of activities, prohibitions of practices, general good housekeeping practices, pollution prevention and educational practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants directly or indirectly to stormwater, receiving waters, or stormwater conveyance systems. BMPs also include treatment practices, operating procedures, and practices to control site runoff, spillage or leaks, sludge or water disposal, or drainage from raw materials storage.
- B. "**Illegal Discharge**" means any direct or indirect non-stormwater discharge to the storm drain system, except as exempted in section 410.06 of this Chapter.
- C. "**Illicit Connections**" means an illicit connection is defined as either of the following:
  1. Any drain or conveyance, whether on the surface or subsurface, which allows an illegal discharge to enter the storm drain system including, but not limited to, any conveyances which allow any non-stormwater discharge including sewage, process wastewater, and wash water to enter the storm drain system and any connections to the storm drain system from indoor drains and sinks, regardless of whether said drain or connection had been previously allowed, permitted, or approved by the City; or
  2. Any drain or conveyance connected from a commercial or industrial land use to the



storm drain system which has not been documented in plans, maps, or equivalent records and approved by an authorized enforcement agency.

- D. **"National Pollutant Discharge Elimination System (NPDES) Stormwater Discharge Permit"** means a permit issued by EPA (or by a State under authority delegated pursuant to 33 USC 5 1342(b)) that authorizes the discharge of pollutants to waters of the United States, whether the permit is applicable on an individual, group, or general area-wide basis.
- E. **"Non-Stormwater Discharge"** means any discharge to the storm drain system that is not composed entirely of stormwater.
- F. **"Person"** means any individual, association, organization, partnership, firm, corporation or other entity recognized by law and acting as either the owner or as the owner's agent.
- G. **"Pollutant"** means anything which causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes, yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure; and noxious or offensive matters of any kind.
- H. **"Storm Drainage System"** means publicly-owned facilities by which stormwater is collected and/or conveyed, including, but not limited to, any roads with drainage systems, municipal streets, gutters, curbs, inlets, piped storm drains, pumping facilities, retention and detention basins, natural and human-made or altered drainage channels, reservoirs, and other drainage structures.
- I. **"Stormwater"** means any surface flow, runoff, and drainage consisting entirely of water from any form of natural precipitation, and resulting from such precipitation.

*(Ord. 692 [12-1-2008])*

#### 410.03 - Applicability.

This Chapter shall apply to all water entering the storm drain system generated on any developed and undeveloped lands unless explicitly exempted by the City.

*(Ord. 692 [12-1-2008])*

#### 410.04 - Severability.

The provisions of this Chapter are hereby declared to be severable. If any provision, clause, sentence, or paragraph of this Chapter or the application thereof to any person, establishment, or circumstances shall be held invalid, such invalidity shall not affect the other provisions or application of this Chapter.

*(Ord. 692 [12-1-2008])*

#### 410.05 - Illegal Disposal.

No person shall throw, deposit, place, leave, maintain, or keep or permit to be thrown, placed, left, maintained or kept, any refuse, rubbish, garbage, or any other discarded or abandoned objects, articles, or accumulations, in or upon any street, alley, sidewalk, storm drain, inlet, catch basin conduit or drainage structure, business place, or upon any public or private plot of land in the community, so that the same might be or become a pollutant, except in designated containers, recycling bags, or another lawfully established waste disposal facility.

No person shall intentionally dispose of grass, leaves, dirt, or other landscape debris into a water resource, buffer, street, road, alley, catch basin, culvert, curb, gutter, inlet, ditch, natural watercourse, flood control channel, canal, storm drain or any fabricated natural conveyance.

*(Ord. 692 [12-1-2008])*

#### 410.06 - Illegal Discharges.

No person shall discharge or cause to be discharged into the municipal storm drain system or watercourses any materials containing any pollutants that cause or contribute to a violation of applicable water quality standards, other than stormwater. The commencement, conduct or continuance of any illegal discharge to the storm drain system is prohibited except as described as follows:

- A. The following discharges are exempt from discharge prohibitions established by this Chapter: discharges associated with firefighting activities, water line flushing, landscape and irrigation water, diverted stream flows, rising ground water, uncontaminated groundwater infiltration, uncontaminated pumped groundwater, discharges from potable ground water sources, foundation and footing drains, air conditioning condensation, individual car washing, flows from riparian habitats and wetlands, de-chlorinated swimming pool discharges, street wash water, and any other water source not containing pollutants.
- B. Discharges specified in writing by the City as being necessary to protect public health and safety.
- C. Dye testing, as long as the City receives verbal notification prior to the time of the test.
- D. The prohibition shall not apply to any non-stormwater discharge permitted under an NPDES permit, waiver, or waste discharge order issued to the discharger and administered under the authority of the Federal Environmental Protection Agency, provided that the discharger is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations and, provided that written approval has been granted for any discharge to the storm drain system.

*(Ord. 692 [12-1-2008])*

#### 410.07 - Illicit Connections.

- A. The construction, use, maintenance or continued existence of illicit connections to the storm drain system is prohibited.
- B. This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.
- C. A person is considered to be in violation of this Chapter if the person connects a line conveying sewage to the MS4, or knowingly allows such a connection to continue.

*(Ord. 692 [12-1-2008])*

#### 410.08 - Suspension of MS4 Access.

- A. **Suspension Due to Illicit Discharges in Emergency Situations.** The City may, without prior notice, suspend MS4 discharge access to a person when such suspension is necessary to stop an actual or threatened discharge which presents or may present imminent and substantial danger to the environment, or to the health or welfare of persons, or to the MS4 or Waters of the United States. If the violator fails to comply with a suspension order issued in an emergency, the City may take such steps as deemed necessary to prevent or minimize damage to the MS4 or Waters of the United States, or to minimize danger to persons.
- B. **Suspension Due to the Detection of Illicit Discharge.** Any person discharging to the MS4 in violation of this Chapter may have their MS4 access terminated if such termination would abate or reduce an illicit discharge. The City will notify a violator of the proposed termination of its MS4 access. The violator may petition the City for reconsideration and a hearing on the matter.

*(Ord. 692 [12-1-2008])*

#### 410.09 - Monitoring of Discharges.

- A. **Access to Facilities.**
  - 1. Duly authorized City employees bearing proper identification shall, at reasonable times, be permitted to enter upon properties served by the MS4 for the purpose of inspection, measurement, sampling and testing in connection with operation of the MS4.
  - 2. The City shall be permitted to enter and inspect facilities subject to regulation under this Chapter as often as may be necessary to determine compliance with this Chapter.
  - 3. If the City has been refused access to any part of the premises from which stormwater is discharged, and a duly authorized City employee is able to demonstrate probable

cause to believe that there may be a violation of this Chapter, or that there is a need to inspect and/or sample as part of a routine inspection and sampling program designed to verify compliance with this Chapter or any order issued hereunder, or to protect the overall public health, safety, and welfare of the community, then the City may seek issuance of a search warrant from any court of competent jurisdiction.

*(Ord. 692 [12-1-2008])*

#### 410.10 - Notification of Spills.

Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation has information of any known or suspected release of materials which are resulting or may result in illegal discharges or pollutants discharging into stormwater, the MS4, or water of the U.S. said person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release. In the event of such a release of hazardous materials said person shall immediately notify emergency response agencies of the occurrence via emergency dispatch services. In the event of a release of non-hazardous materials, said person shall notify the City in person or by phone or facsimile no later than the next business day. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to the City within three business days of the phone notice. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and the actions taken to prevent its recurrence.

Such records shall be retained for at least three years.

*(Ord. 692 [12-1-2008])*

#### 410.11 - Notice of Violation.

Whenever the City finds that a person has violated a prohibition or failed to meet a requirement of this Chapter, the City may order compliance by written notice of violation to the responsible person. Such notice may require without limitation:

- A. The performance of monitoring, analyses, and reporting;
- B. The elimination of illicit connections or discharges;
- C. That violating discharges, practices, or operations shall cease and desist;
- D. The abatement or remediation of stormwater pollution or contamination hazards and the restoration of any affected property;
- E. Payment of a fine to cover administrative and remediation costs; and
- F. The implementation of source control or treatment BMPs.

If abatement of a violation and/or restoration of affected property is required, the notice shall set forth a deadline within which such remediation or restoration must be completed. Said notice shall further advise that, should the violator fail to remediate or restore within the established deadline, the work will be done by a designated governmental agency or a contractor and the expense thereof shall be charged to the violator.

*(Ord. 692 [12-1-2008])*

#### 410.12 - Appeal of Notice and Violation.

Any decision in the enforcement of this Chapter may be appealed to the City Council by filing a written petition with the City Manager within 30 days of the ruling. The petition shall specify in detail the matter, or matters, involved and every ground or basis on which objections are made. The petition shall show the names, addresses and telephone numbers of all objectors and their attorney at law or spokesman. The filing of a petition shall stay all proceedings unless the City Engineer shall file with the City Manager within 72 hours after the filing of a petition, a certificate stating that a stay would cause peril to life or property of specifying other good reason.

*(Ord. 692 [12-1-2008])*

#### 410.13 - Enforcement Measures After Appeal.

If the violation has not been corrected pursuant to the requirements set forth in the Notice of Violation, or, in the event of an appeal, within 15 days of the decision of the City Council upholding the decision of the City, then representatives of the City shall enter upon the subject private property and are authorized to take any and all measures necessary to abate the violation and/or restore the property. It shall be unlawful for any person, owner, agent or person in possession of any premises to refuse to allow the City or designated contractor to enter upon the premises for the purposes set forth above.

*(Ord. 692 [12-1-2008])*

#### 410.14 - Cost of Abatement of the Violation.

**Civil Damages**—Any user violating any of the provisions of this section or who has a discharge which causes a deposit, obstruction, damage or other impairment to the MS4 shall be liable to the City for any expense, loss, or damage caused by the violation or discharge. The City Engineer may add to the user's charges and fees the cost assessed for any cleaning, repair, or replacement work caused by the violation or discharge. Refusal to pay the assessed costs is a violation of this section.

*(Ord. 692 [12-1-2008])*

#### 410.15 - Injunctive Relief.

It shall be unlawful for any person to violate any provision or fail to comply with any of the requirements of this Chapter. If a person has violated or continues to violate the provisions of this Chapter, the City may petition for a preliminary or permanent injunction restraining the person from activities which would create further violations or compelling the person to perform abatement or remediation of the violation.

*(Ord. 692 [12-1-2008])*

#### 410.16 - Violations Deemed a Public Nuisance.

In addition to the enforcement processes and penalties provided, any condition caused or permitted to exist in violation of any of the provisions of this Chapter is a threat to public health, safety, and welfare, and is declared and deemed a nuisance, and may be summarily abated or restored at the violator's expense, and/or a civil action to abate, enjoin, or otherwise compel the cessation of such nuisance may be taken.

*(Ord. 692 [12-1-2008])*

#### 410.17 - Penalty.

Any person who is found to be in violation of any provision this Chapter, shall be guilty of a misdemeanor and punished accordingly, including the payment of all appropriate costs as prescribed in this Chapter.

*(Ord. 692 [12-1-2008])*

CHAPTER 406 - STORMWATER DRAINAGE UTILITY

406.01 - Stormwater Drainage Utility.

- A. **Stormwater Drainage Utility Established.** The municipal storm sewer system shall be operated as a public utility pursuant to Minn. Stats. § 444.075 from which revenues will be derived subject to the provisions of this Chapter and Minnesota Statutes. The stormwater drainage utility will be part of the Public Works Department and under the administration of the City Manager.
- B. **Definitions.**
  - 1. **"Residential Equivalent Factor (REF)."** One REF is defined as the ratio of the average discharge rate generated by one acre of a land use to the discharge rate generated by one acre of typical single family residential land, during a standard ten year, one-half hour, rainfall event.

*(Ord. 540 [2-28-1991])*

406.02 - Stormwater Drainage Fees.

Stormwater drainage fees for parcels of land shall be determined by multiplying the REF for a parcel's land use by the parcel's acreage and then multiplying the resulting product by the stormwater drainage rate. The REF values for various land uses are as follows:

Class	Land Uses	REF
1	Single, Duplex and Triplex	1.00
2	Multiple	3.00
<u>3</u>	Commercial/Institutional	5.00
<u>4</u>	Schools	1.25
<u>5</u>	Churches	3.00
<u>6</u>	Parks	.25
<u>7</u>	Golf Courses	.25

8	Cemeteries	.25
<u>9</u>	Open Space/Undeveloped	.25
10	Industrial	5.00

For the purpose of calculating stormwater drainage fees, all developed single, duplex, and triplex parcels shall be considered to have an acreage of one-third acre. The stormwater drainage rate per REF-acre shall be established per resolution of the Council. All single, duplex and triplex parcels in excess of one-third acre shall be charged at one REF, plus open space charge for remaining acreage.

- A. **Adjustments.** The Council may adopt policies, by resolution, for adjustment of the stormwater drainage fee for parcels based upon hydrologic data to be supplied by property owners, which data demonstrates a hydrologic response substantially different from the standards used by City to establish the REF. Such adjustments of stormwater drainage fees shall not be made retroactively.
- B. **Exemptions.** The following land uses are exempt from stormwater drainage fees:
1. Public rights-of-way;
  2. Railroad rights-of-way;
  3. All land that is at or below the existing and/or proposed normal elevation of a wetland/stormwater detention basin as designated in the Stormwater Management Plan for the City of Wayzata, dated May 1988, or the most recent revision thereof.

*(Ord. 540 [2-28-1991])*

#### 406.03 - Payment of Fee.

Statements for stormwater drainage fees shall be computed every month and invoiced by the Finance/Utility Department for each account on or about the 20th day of the month following the billing period. Such statement shall be due on or before the day of the month stated on the billing. Any prepayment or overpayment of charges shall be retained by the City and applied against subsequent fees.

- A. **Recalculation of Fee.** If a property owner or person responsible for paying the stormwater drainage fee questions the correctness of an invoice for such charge, such person may have the determination of the charge recomputed by written request to the City Manager made within 60 days of mailing of the invoice in question by the City.
- B. **Penalty of Late Payment.** Each billing for stormwater drainage fees not paid when due shall



incur a penalty charge per month of 1½ percent of the amount past due or up to that amount allowed by law, whichever is less.

- C. **Certification of Past Due Fees on Taxes.** Any past due stormwater drainage fees in excess of 90 days past due on October 1 of any year may be certified to the County Auditor for collection with real estate taxes in the following year pursuant to Minn. Stats. § 444.075, Subd. 3. In addition, the City shall also have the right to bring a civil action or to take other legal remedies to collect unpaid fees.

*(Ord. 540 [2-28-1991])*

#### 406.04 - Drainage Fee.

The City Council may, by resolution, increase, diminish or change the amount and basis of the drainage fee herein established, from time to time.

*(Ord. 540 [2-28-1991])*

## CHAPTER 806 - FLOOD PLAIN MANAGEMENT

## 806.01 - Statutory Authorization.

The legislature of the State of Minnesota has, in Minn. Stats. Ch. 103F and Minn. Stats. Ch. 462 delegated the responsibility to local governmental units to adopt regulations designed to minimize flood losses.

*(Ord. 652 [9-2-2004])*

## 806.02 - Findings of Fact.

- A. The flood hazard areas of Wayzata, Minnesota, are subject to periodic inundation which results in potential loss of life, loss of property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare.
- B. This Chapter is based upon a reasonable method of analyzing flood hazards which is consistent with the standards established by the Minnesota Department of Natural Resources.
- C. This Chapter is adopted to comply with the rules and regulations of the National Flood Insurance Program codified as 44 CFR parts 59—78, as amended, so as to maintain the community's eligibility in the National Flood Insurance Program.

*(Ord. 652 [9-2-2004])*

## 806.03 - Statement of Purpose.

It is the purpose of this Chapter to promote the public health, safety, and general welfare and to minimize those losses described in Section 806.02.A. by provisions contained herein.

*(Ord. 652 [9-2-2004])*

## 806.04 - Lands to Which Chapter Applies.

This Chapter shall apply to all lands within the jurisdiction of the City of Wayzata shown on the Official Zoning Map and/or the attachments thereto as being located within the boundaries of the Floodway, Flood Fringe or General Flood Plain Districts.

## 806.05 - Establishment of Official Zoning Map.

The Official Zoning Map together with all materials attached thereto is hereby adopted by reference and declared to be a part of this Chapter. The attached material shall include the Flood Insurance Study, Volume 1 of 2 and Volume 2 of 2, Hennepin County, Minnesota, All Jurisdictions and the Flood Insurance Rate Map panels numbered 27053C0306E, 27053C0307E, 27053C0308E, 27053C0309E, 27053C0326E, and 27053C0328E for the City of Wayzata, dated September 2, 2004, as developed by the Federal Emergency Management Agency. The Official Zoning Map shall be on file in the office of the City Manager.

*(Ord. 652 [9-2-2004])*

## 806.06 - Regulatory Flood Protection Elevation.

The regulatory flood protection elevation shall be an elevation no lower than one foot above the elevation of the regional flood plus any increases in flood elevation caused by encroachments on the flood plain that result from designation of a floodway.

*(Ord. 652 [9-2-2004])*

#### 806.07 - Interpretation.

- A. In their interpretation and application, the provisions of this Chapter shall be held to be minimum requirements and shall be liberally construed in favor of the Governing Body and shall not be deemed a limitation or repeal of any other powers granted by state statutes.
- B. The boundaries of zoning districts shall be determined by scaling distances on the Official Zoning Map. Where interpretation is needed as to the exact location of the boundaries of the district as shown on the Official Zoning Map, as for example where there appears to be a conflict between a mapped boundary and actual field conditions and there is a formal appeal of the decision of the Zoning Administrator, the Board of Adjustment shall make the necessary interpretation. All decisions will be based on elevations on the regional (100-year) flood profile, the ground elevations that existed on the site at the time the Community adopted its initial floodplain ordinance, and other available technical data. Persons contesting the location of the district boundaries shall be given a reasonable opportunity to present their case to the Board of Adjustment and to submit technical evidence.

*(Ord. 652 [9-2-2004])*

#### 806.08 - Abrogation and Greater Restrictions.

It is not intended by this Chapter to repeal, abrogate or impair any existing easements, covenants or deed restrictions. However, where this Chapter imposes greater restrictions, provisions of this Chapter shall prevail. All other ordinances inconsistent with this Chapter are hereby repealed to the extent of the inconsistency only.

*(Ord. 652 [9-2-2004])*

#### 806.09 - Warning and Disclaimer of Liability.

This Chapter does not imply that areas outside the flood plain districts or land uses permitted within such districts will be free from flooding or flood damages. This Chapter shall not create liability on the part of the City of Wayzata or any officer or employee thereof for any flood damages that result from reliance on this Chapter or any administrative decision lawfully made thereunder.

*(Ord. 652 [9-2-2004])*

#### 806.10 - Severability.

If any section, clause, provision or portion of this Chapter is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of this Chapter shall not be affected thereby.

*(Ord. 652 [9-2-2004])*

#### 806.11 - Definitions.

Unless specifically defined below, words or phrases used in this Chapter shall be interpreted so as to give them the same meaning as they have in common usage and so as to give this Chapter its most reasonable application:

- A. **"Accessory Use or Structure"** means a use or structure on the same lot with, and of a nature customarily incidental and subordinate to, the principal use or structure.
- B. **"Basement"** means any area of a structure, including crawl spaces, having its floor or base subgrade (below ground level) on all four sides, regardless of the depth of excavation below ground level.
- C. **"Conditional Use"** means a specific type of structure or land use listed in the official control that may be allowed but only after an in-depth review procedure and with appropriate conditions or restrictions as provided in the official zoning controls or building codes and upon a finding that:
  1. Certain conditions as detailed in the zoning ordinance exist.
  2. The structure and/or land use conform to the comprehensive land use plan if one exists and are compatible with the existing neighborhood.
- D. **"Equal Degree of Encroachment"** means a method of determining the location of floodway boundaries so that flood plain lands on both sides of a stream are capable of conveying a proportionate share of flood flows.
- E. **"Flood"** means a temporary increase in the flow or stage of a stream or in the stage of a wetland or lake that results in the inundation of normally dry areas.
- F. **"Flood Frequency"** means the frequency for which it is expected that a specific flood stage or discharge may be equaled or exceeded.
- G. **"Flood Fringe"** means that portion of the flood plain outside of the floodway. Flood fringe is synonymous with the term "floodway fringe" used in the Flood Insurance Study for the City of Wayzata.
- H. **"Flood Plain"** means the beds proper and the areas adjoining a wetland, lake or watercourse which have been or hereafter may be covered by the regional flood.
- I. **"Flood Proofing"** means a combination of structural provisions, changes or adjustments to properties and structures subject to flooding, primarily for the reduction or elimination of flood damages.
- J. **"Floodway"** means the bed of a wetland or lake and the channel of a watercourse and those portions of the adjoining flood plain which are reasonably required to carry or store the regional flood discharge.
- K. **"Lowest Floor"** means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, used solely for parking of vehicles, building access, or storage in an area other than a basement area, is not considered a building's lowest floor.
- L. **"Manufactured Home"** means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term "manufactured home" does not include the term "recreational vehicle."
- M. **"Obstruction"** means any dam, wall, wharf, embankment, levee, dike, pile, abutment, projection, excavation, channel modification, culvert, building, wire, fence, stockpile, refuse, fill, structure, or matter in, along, across or projecting into any channel, watercourse or regulatory flood plain which may impede, retard or change the direction of the flow of water, either in itself or by catching or collecting debris carried by such water.
- N. **"Principal Use or Structure"** means all uses or structures that are not accessory uses or structures.
- O. **"Reach"** means a hydraulic engineering term to describe a longitudinal segment of a stream or river influenced by a natural or manmade obstruction. In an urban area, the segment of a stream or river between two consecutive bridge crossings would most typically constitute a reach.
- P. **"Recreational Vehicle"** means a vehicle that is built on a single chassis, is 400 square feet or less when

measured at the largest horizontal projection, is designed to be self-propelled or permanently towable by a light duty truck, and is designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use. For the purposes of this Chapter, the term recreational vehicle shall be synonymous with the term travel trailer/travel vehicle.

- Q. "**Regional Flood**" means a flood which is representative of large floods known to have occurred generally in Minnesota and reasonably characteristic of what can be expected to occur on an average frequency in the magnitude of the 100-year recurrence interval. Regional flood is synonymous with the term "base flood" used in the Flood Insurance Study.
- R. "**Regulatory Flood Protection Elevation**" means the regulatory flood protection elevation shall be an elevation no lower than one foot above the elevation of the regional flood plus any increases in flood elevation caused by encroachments on the flood plain that result from designation of a floodway.
- S. "**Structure**" means anything constructed or erected on the ground or attached to the ground or on-site utilities, including, but not limited to, buildings, factories, sheds, detached garages, cabins, manufactured homes, recreational vehicles not meeting the exemption criteria specified in Section 806.31.C.1 of this Chapter and other similar items.
- T. "**Substantial Damage**" means damage of any origin sustained by a structure where the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.
- U. "**Substantial Improvement**" means within any consecutive 365-day period, any reconstruction, rehabilitation (including normal maintenance and repair), repair after damage, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures that have incurred "substantial damage," regardless of the actual repair work performed. The term does not, however, include either:
1. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to ensure safe living conditions.
  2. Any alteration of an "historic structure," provided that the alteration will not preclude the structure's continued designation as an "historic structure." For the purpose of this Chapter, "historic structure" shall be as defined in CFR part 59.1.
- V. "**Variance**" means a modification of a specific permitted development standard required in an official control including this Chapter to allow an alternative development standard not stated as acceptable in the official control, but only as applied to a particular property for the purpose of alleviating a hardship, practical difficulty or unique circumstance as defined and elaborated upon in a community's respective planning and zoning enabling legislation.

*(Ord. 652 [9-2-2004])*

#### 806.12 - Establishment of Zoning Districts.

- A. **Floodway District.** The Floodway District shall include those areas designated as floodway on the Flood Insurance Rate Map adopted in Section 806.05.
- B. **Flood Fringe District.** The Flood Fringe District shall include those areas designated as floodway fringe. The Flood Fringe District shall include those areas shown on the Flood Insurance Rate Map as adopted in Section 806.05 as being within Zone AE, Zone A0, or Zone AH but being located outside of the floodway.

- C. **General Flood Plain District.** The General Flood Plain District shall include those areas designated as Zone A or Z Zone A0, or Zone AH without a floodway on the Flood Insurance Rate Map adopted in Section 806.05.

*(Ord. 652 [9-2-2004])*

#### 806.13 - Compliance.

No new structure or land shall hereafter be used and no structure shall be located, extended, converted or structurally altered without full compliance with the terms of this Chapter and other applicable regulations which apply to uses within the jurisdiction of this Chapter. Within the Floodway, Flood Fringe and General Flood Plain Districts, all uses not listed as permitted uses or conditional uses in Sections 806.14—806.17 and 806.18—806.22, and 806.23—806.24 that follow, respectively, shall be prohibited. In addition, a caution is provided here that:

- A. New manufactured homes, replacement manufactured homes and certain travel trailers and travel vehicles are subject to the general provisions of this Chapter and specifically Section 806.31.
- B. Modifications, additions, structural alterations, normal maintenance and repair, or repair after damage to existing nonconforming structures and nonconforming uses of structures or land are regulated by the general provisions of this Chapter and specifically Section 806.36.
- C. As-built elevations for elevated or flood proofed structures must be certified by ground surveys and flood proofing techniques must be designed and certified by a registered professional engineer or architect as specified in the general provisions of this Chapter and specifically as stated in Sections 806.31—806.35 of this Chapter.

*(Ord. 652 [9-2-2004])*

#### 806.14 - Floodway District (FW).

##### Permitted Uses.

- A. General farming, pasture, grazing, outdoor plant nurseries, horticulture, truck farming, forestry, sod farming, and wild crop harvesting.
- B. Industrial-commercial loading areas, parking areas and airport landing strips.
- C. Private and public golf courses, tennis courts, driving ranges, archery ranges, picnic grounds, boat launching ramps, swimming areas, parks, wildlife and nature preserves, game farms, fish hatcheries, shooting preserves, target ranges, trap and skeet ranges, hunting and fishing areas and single or multiple purpose recreational trails.
- D. Residential lawns, gardens, parking areas and play areas.

*(Ord. 652 [9-2-2004])*

#### 806.15 - Standards for Floodway Permitted Uses.

- A. The use shall have a low flood damage potential.
- B. The use shall be permissible in the underlying zoning district if one exists.
- C. The use shall not obstruct flood flows or increase flood elevations and shall not involve structures, fill, obstructions, excavations or storage of materials or equipment.

*(Ord. 652 [9-2-2004])*

## 806.16 - Conditional Uses.

- A. Structures accessory to the uses listed in Section 806.14 above and the uses listed in Sections 806.16.B—806.16.H below:
- B. Extraction and storage of sand, gravel, and other materials.
- C. Marinas, boat rentals, docks, piers, wharves and water control structures.
- D. Railroads, streets, bridges, utility transmission lines and pipelines.
- E. Storage yards for equipment, machinery, or materials.
- F. Placement of fill or construction of fences.
- G. Recreational vehicles either on individual lots of record or in existing or new subdivisions or commercial or condominium type campgrounds, subject to the exemptions and provisions of Section 806.31.C of this Chapter.
- H. Structural works for flood control such as levees, dikes and floodwalls constructed to any height where the intent is to protect individual structures and levees or dikes where the intent is to protect agricultural crops for a frequency flood event equal to or less than the 10-year frequency flood event.

*(Ord. 652 [9-2-2004])*

## 806.17 - Standards for Floodway Conditional Uses.

- A. All Uses. No structure (temporary or permanent), fill (including fill for roads and levees), deposit, obstruction, storage of materials or equipment, or other uses may be allowed as a conditional use that will cause any increase in the stage of the 100-year or regional flood or cause an increase in flood damages in the reach or reaches affected.
- B. All floodway conditional uses shall be subject to the procedures and standards contained in Section 806.35 of this Chapter.
- C. The conditional use shall be permissible in the underlying zoning district if one exists.
- D. Fill.
  - 1. Fill, dredge spoil, and all other similar materials deposited or stored in the flood plain shall be protected from erosion by vegetative cover, mulching, riprap or other acceptable method.
  - 2. Dredge spoil sites and sand and gravel operations shall not be allowed in the floodway unless a long-term site development plan is submitted which includes an erosion/sedimentation prevention element to the plan.
  - 3. As an alternative, and consistent with Subsection 2 immediately above, dredge spoil disposal and sand and gravel operations may allow temporary, on-site storage of fill or other materials which would have caused an increase to the stage of the 100-year or regional flood but only after the Governing Body has received an appropriate plan which ensures the removal of the materials from the floodway based upon the flood warning time available. The conditional use permit must be title registered with the property in the Office of the County Recorder.
- E. Accessory Structures.
  - 1. Accessory structures shall not be designed for human habitation.
  - 2. Accessory structures, if permitted, shall be constructed and placed on the building site so as to offer the minimum obstruction to the flow of flood waters:
    - a) Whenever possible, structures shall be constructed with the longitudinal axis parallel to the



direction of flood flow; and

- b) So far as practicable, structures shall be placed approximately on the same flood flow lines as those of adjoining structures.
3. Accessory structures shall be elevated on fill or structurally dry flood proofed in accordance with the FP-1 or FP-2 flood proofing classification in the State Building Code. As an alternative, an accessory structure may be flood proofed to the FP-3 or FP-4 flood proofing classification in the State Building Code provided the accessory structure constitutes a minimal investment, does not exceed 500 square feet in size at its largest projection, and for a detached garage, the detached garage must be used solely for parking of vehicles and limited storage. All flood proofed accessory structures must meet the following additional standards:
    - a) The structure must be adequately anchored to prevent flotation, collapse or lateral movement of the structure and shall be designed to equalize hydrostatic flood forces on exterior walls;
    - b) Any mechanical and utility equipment in a structure must be elevated to or above the regulatory flood protection elevation or properly flood proofed; and
    - c) To allow for the equalization of hydrostatic pressure, there must be a minimum of two "automatic" openings in the outside walls of the structure having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding. There must be openings on at least two sides of the structure and the bottom of all openings must be no higher than one foot above the lowest adjacent grade to the structure. Using human intervention to open a garage door prior to flooding will not satisfy this requirement for automatic openings.
- F. Storage of Materials and Equipment.
1. The storage or processing of materials that are, in time of flooding, flammable, explosive or potentially injurious to human, animal or plant life is prohibited.
  2. Storage of other materials or equipment may be allowed if readily removable from the area within the time available after a flood warning and in accordance with a plan approved by the Governing Body.
- G. Structural works for flood control that will change the course, current or cross section of protected wetlands or public waters shall be subject to the provisions of Minn. Stats. Ch. 103G. Community-wide structural works for flood control intended to remove areas from the regulatory flood plain shall not be allowed in the floodway.
- H. A levee, dike or floodwall constructed in the floodway shall not cause an increase to the 100-year or regional flood and the technical analysis must assume equal conveyance or storage loss on both sides of a stream.

*(Ord. 652 [9-2-2004])*

#### 806.18 - Flood Fringe District (FF).

Permitted uses shall be those uses of land or structures listed as permitted uses in the underlying zoning use district(s). If no pre-existing, underlying zoning use districts exist, then any residential or non-residential structure or use of a structure or land shall be a permitted use in the Flood Fringe District provided such use does not constitute a public nuisance. All permitted uses shall comply with the standards for Flood Fringe District "Permitted Uses" listed in Section 806.19 and the "Standards for all Flood Fringe Uses" listed in Section 806.22.

*(Ord. 652 [9-2-2004])*

#### 806.19 - Standards for Flood Fringe Permitted Uses.

- A. All structures, including accessory structures, must be elevated on fill so that the lowest floor including basement floor is at or above the regulatory flood protection elevation. The finished fill elevation for structures shall be no lower than one foot below the regulatory flood protection elevation and the fill shall extend at such elevation at least 15 feet beyond the outside limits of the structure erected thereon.
- B. As an alternative to elevation on fill, accessory structures that constitute a minimal investment and that do not exceed 500 square feet at its largest projection may be internally flood proofed in accordance with Section 806.17.E.3.
- C. The cumulative placement of fill where at any one time in excess of 1,000 cubic yards of fill is located on the parcel shall be allowable only as a conditional use, unless said fill is specifically intended to elevate a structure in accordance with Section 806.19.A of this Chapter.
- D. The storage of any materials or equipment shall be elevated on fill to the regulatory flood protection elevation.
- E. The provisions of Section 806.22 of this Chapter shall apply.

*(Ord. 652 [9-2-2004])*

#### 806.20 - Conditional Uses.

Any structure that is not elevated on fill or flood proofed in accordance with Section 806.19.A or B and/or any use of land that does not comply with the standards in Section 806.19.C or D shall only be allowable as a conditional use. An application for a conditional use shall be subject to the standards and criteria and evaluation procedures specified in Sections 806.21, 806.22 and 806.35 of this Chapter.

*(Ord. 652 [9-2-2004])*

#### 806.21 - Standards for Flood Fringe Conditional Uses.

- A. Alternative elevation methods other than the use of fill may be utilized to elevate a structure's lowest floor above the regulatory flood protection elevation. These alternative methods may include the use of stilts, pilings, parallel walls, etc., or above-grade, enclosed areas such as crawl spaces or tuck under garages. The base or floor of an enclosed area shall be considered above-grade and not a structure's basement or lowest floor if:
  - 1. The enclosed area is above-grade on at least one side of the structure;
  - 2. It is designed to internally flood and is constructed with flood resistant materials; and
  - 3. It is used solely for parking of vehicles, building access or storage. The above-noted alternative elevation methods are subject to the following additional standards:
    - a) Design and Certification. The structure's design and as-built condition must be certified by a registered professional engineer or architect as being in compliance with the general design standards of the State Building Code and, specifically, that all electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities must be at or above the regulatory flood protection elevation or be designed to prevent flood water from entering or accumulating within these components during times of flooding.
    - b) Specific Standards for Above-Grade, Enclosed Areas. Above-grade, fully enclosed areas such as crawl spaces or tuck under garages must be designed to internally flood and the design plans must stipulate:
      - 1) A minimum area of openings in the walls where internal flooding is to be used as a flood

proofing technique. There shall be a minimum of two openings on at least two sides of the structure and the bottom of all openings shall be no higher than one foot above grade. The automatic openings shall have a minimum net area of not less than one square inch for every square foot subject to flooding unless a registered professional engineer or architect certifies that a smaller net area would suffice. The automatic openings may be equipped with screens, louvers, valves, or other coverings or devices, provided that they permit the automatic entry and exit of flood waters without any form of human intervention; and

- 2) That the enclosed area will be designed of flood resistant materials in accordance with the FP-3 or FP-4 classifications in the State Building Code and shall be used solely for building access, parking of vehicles or storage.
- B. Basements, as defined by Section 806.11.B of this Chapter, shall be subject to the following:
1. Residential basement construction shall not be allowed below the regulatory flood protection elevation.
  2. Non-residential basements may be allowed below the regulatory flood protection elevation provided the basement is structurally dry flood proofed in accordance with Section 806.21.C of this Chapter.
- C. All areas of non-residential structures including basements to be placed below the regulatory flood protection elevation shall be flood proofed in accordance with the structurally dry flood proofing classifications in the State Building Code. Structurally dry flood proofing must meet the FP-1 or FP-2 flood proofing classification in the State Building Code and this shall require making the structure watertight with the walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy. Structures flood proofed to the FP-3 or FP-4 classification shall not be permitted.
- D. When at any one time more than 1,000 cubic yards of fill or other similar material is located on a parcel for such activities as on-site storage, landscaping, sand and gravel operations, landfills, roads, dredge spoil disposal or construction of flood control works, an erosion/sedimentation control plan must be submitted unless the community is enforcing a state approved shoreland management ordinance. In the absence of a state approved shoreland ordinance, the plan must clearly specify methods to be used to stabilize the fill on site for a flood event at a minimum of the 100-year or regional flood event. The plan must be prepared and certified by a registered professional engineer or other qualified individual acceptable to the Governing Body. The plan may incorporate alternative procedures for removal of the material from the flood plain if adequate flood warning time exists.
- E. Storage of Materials and Equipment:
1. The storage or processing of materials that are, in time of flooding, flammable, explosive or potentially injurious to human, animal, or plant life is prohibited.
  2. Storage of other materials or equipment may be allowed if readily removable from the area within the time available after a flood warning and in accordance with a plan approved by the Governing Body.
- F. The provisions of Section 806.22 of this Chapter shall also apply.

*(Ord. 652 [9-2-2004])*

#### 806.22 - Standards for All Flood Fringe Uses.

- A. All new principal structures must have vehicular access at or above an elevation not more than two feet below the regulatory flood protection elevation. If a variance to this requirement is granted, the Board of Adjustment must specify limitations on the period of use or occupancy of the structure for times of flooding and only after

determining that adequate flood warning time and local flood emergency response procedures exist.

- B. Commercial Uses means accessory land uses, such as yards, railroad tracks, and parking lots may be at elevations lower than the regulatory flood protection elevation. However, a permit for such facilities to be used by the employees or the general public shall not be granted in the absence of a flood warning system that provides adequate time for evacuation if the area would be inundated to a depth and velocity such that when multiplying the depth (in feet) times velocity (in feet per second) the product number exceeds four upon occurrence of the regional flood.
- C. Manufacturing and Industrial Uses means measures shall be taken to minimize interference with normal plant operations especially along streams having protracted flood durations. Certain accessory land uses such as yards and parking lots may be at lower elevations subject to requirements set out in Section 806.22.B above. In considering permit applications, due consideration shall be given to needs of an industry whose business requires that it be located in flood plain areas.
- D. Fill shall be properly compacted and the slopes shall be properly protected by the use of riprap, vegetative cover or other acceptable method. The Federal Emergency Management Agency (FEMA) has established criteria for removing the special flood hazard area designation for certain structures properly elevated on fill above the 100-year flood elevation; FEMA's requirements incorporate specific fill compaction and side slope protection standards for multi-structure or multi-developments. These standards should be investigated prior to the initiation of site preparation if a change of special flood hazard area designation will be requested.
- E. Flood plain developments shall not adversely affect the hydraulic capacity of the channel and adjoining flood plain of any tributary watercourse or drainage system where a floodway or other encroachment limit has not been specified on the Official Zoning Map.
- F. Standards for recreational vehicles are contained in Section 806.31.C.
- G. All manufactured homes must be securely anchored to an adequately anchored foundation system that resists flotation, collapse and lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable state or local anchoring requirements for resisting wind forces.

*(Ord. 652 [9-2-2004])*

#### 806.23 - General Flood Plain District.

##### Permissible Uses.

- A. The uses listed in Section 806.14 of this Chapter shall be permitted uses.
- B. All other uses shall be subject to the floodway/flood fringe evaluation criteria pursuant to Section 806.24 below. Sections 806.14—806.17 shall apply if the proposed use is in the Floodway District and Sections 806.18—806.22 shall apply if the proposed use is in the Flood Fringe District.

*(Ord. 652 [9-2-2004])*

#### 806.24 - Procedures for Floodway and Flood Fringe Determination within the General Flood Plain District.

- A. Upon receipt of an application for a permit or other approval within the General Flood Plain District, the applicant shall be required to furnish such of the following information as is deemed necessary by the Zoning Administrator for the determination of the regulatory flood protection elevation and whether the proposed use is within the Floodway or Flood Fringe District:
  1. A typical valley cross-section(s) showing the channel of the stream, elevation of land areas adjoining each

side of the channel, cross-sectional areas to be occupied by the proposed development, and high water information.

2. Plan (surface view) showing elevations or contours of the ground, pertinent structure, fill, or storage elevations, the size, location, and spatial arrangement of all proposed and existing structures on the site, and the location and elevations of streets.
  3. Photographs showing existing land uses, vegetation upstream and downstream, and soil types.
  4. Profile showing the slope of the bottom of the channel or flow line of the stream for at least 500 feet in either direction from the proposed development.
- B. The applicant shall be responsible to submit one copy of the above information to a designated engineer or other expert person or agency for technical assistance in determining whether the proposed use is in the Floodway or Flood Fringe District and to determine the regulatory flood protection elevation. Procedures consistent with Minnesota Regulations 1983, Parts 6120.5000—6120.6200 and 44 CFR part 65 shall be followed in this expert evaluation. The designated engineer or expert is strongly encouraged to discuss the proposed technical evaluation methodology with the respective Department of Natural Resources' Area Hydrologist prior to commencing the analysis. The designated engineer or expert shall:
1. Estimate the peak discharge of the regional flood.
  2. Calculate the water surface profile of the regional flood based upon a hydraulic analysis of the stream channel and overbank areas.
  3. Compute the floodway necessary to convey or store the regional flood without increasing flood stages more than 0.5 foot. A lesser stage increase than 0.5 foot shall be required if, as a result of the additional stage increase, increased flood damages would result. An equal degree of encroachment on both sides of the stream within the reach shall be assumed in computing floodway boundaries.
- C. The Zoning Administrator shall present the technical evaluation and findings of the designated engineer or expert to the Governing Body. The Governing Body must formally accept the technical evaluation and the recommended Floodway and/or Flood Fringe District boundary or deny the permit application. The Governing Body, prior to official action, may submit the application and all supporting data and analyses to the Federal Emergency Management Agency, the Department of Natural Resources or the Planning Commission for review and comment. Once the Floodway and Flood Fringe District Boundaries have been determined, the Governing Body shall refer the matter back to the Zoning Administrator who shall process the permit application consistent with the applicable provisions of Sections 806.14—806.17 and 806.18—806.22 of this Chapter.

*(Ord. 652 [9-2-2004])*

#### 806.25 - Subdivisions Review Criteria.

No land shall be subdivided which is unsuitable for the reason of flooding, inadequate drainage, water supply or sewage treatment facilities. All lots within the flood plain districts shall be able to contain a building site outside of the Floodway District at or above the regulatory flood protection elevation. All subdivisions shall have water and sewage treatment facilities that comply with the provisions of this Chapter and have road access both to the subdivision and to the individual building sites no lower than two feet below the regulatory flood protection elevation. For all subdivisions in the flood plain, the Floodway and Flood Fringe District boundaries, the regulatory flood protection elevation and the required elevation of all access roads shall be clearly labeled on all required subdivision drawings and platting documents.

*(Ord. 652 [9-2-2004])*

This Section is not intended as a substitute for a comprehensive city or county subdivision ordinance. It can, however, be used as an interim control until the comprehensive subdivision ordinance can be amended to include necessary flood plain management provisions.

806.26 - Floodway/Flood Fringe Determinations in the General Flood Plain District.

In the General Flood Plain District, applicants shall provide the information required in Section 806.24 of this Chapter to determine the 100-year flood elevation, the Floodway and Flood Fringe District boundaries and the regulatory flood protection elevation for the subdivision site.

*(Ord. 652 [9-2-2004])*

806.27 - Removal of Special Flood Hazard Area Designation:

The Federal Emergency Management Agency (FEMA) has established criteria for removing the special flood hazard area designation for certain structures properly elevated on fill above the 100-year flood elevation. FEMA's requirements incorporate specific fill compaction and side slope protection standards for multi-structure or multi-lot developments. These standards should be investigated prior to the initiation of site preparation if a change of special flood hazard area designation will be requested.

*(Ord. 652 [9-2-2004])*

806.28 - Public Utilities, Railroads, Roads, and Bridges.

All public utilities and facilities such as gas, electrical, sewer, and water supply systems to be located in the flood plain shall be flood proofed in accordance with the State Building Code or elevated to above the regulatory flood protection elevation.

*(Ord. 652 [9-2-2004])*

806.29 - Public Transportation Facilities:

Railroad tracks, roads, and bridges to be located within the flood plain shall comply with Sections 806.14—806.17 and 806.18—806.22 of this Chapter. Elevation to the regulatory flood protection elevation shall be provided where failure or interruption of these transportation facilities would result in danger to the public health or safety or where such facilities are essential to the orderly functioning of the area. Minor or auxiliary roads or railroads may be constructed at a lower elevation where failure or interruption of transportation services would not endanger the public health or safety.

*(Ord. 652 [9-2-2004])*

806.30 - On-Site Sewage Treatment and Water Supply Systems.

Where public utilities are not provided:

- A. On-site water supply systems must be designed to minimize or eliminate infiltration of flood waters into the systems; and
- B. New or replacement on-site sewage treatment systems must be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters and they shall not be subject to impairment or contamination during times of flooding. Any sewage treatment system designed in accordance with the State's current statewide standards for on-site sewage treatment systems shall be determined to be in compliance with this Section.

(Ord. 652 [9-2-2004])

806.31 - Manufactured Homes and Manufactured Home Parks and Placement of Recreational Vehicles.

- A. New manufactured home parks and expansions to existing manufactured home parks shall be subject to the provisions placed on subdivisions by Sections ~~806.25~~—806.26 of this Chapter.
- B. The placement of new or replacement manufactured homes in existing manufactured home parks or on individual lots of record that are located in flood plain districts will be treated as a new structure and may be placed only if elevated in compliance with Sections ~~806.18~~—806.22 of this Chapter. If vehicular road access for pre-existing manufactured home parks is not provided in accordance with Sections ~~806.18~~—806.22, then replacement manufactured homes will not be allowed until the property owner(s) develops a flood warning emergency plan acceptable to the Governing Body.
  1. All manufactured homes must be securely anchored to an adequately anchored foundation system that resists flotation, collapse and lateral movement. Methods of anchoring may include, but are not to be limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable state or local anchoring requirements for resisting wind forces.
- C. Recreational vehicles that do not meet the exemption criteria specified in Section 806.31.C.1 below shall be subject to the provisions of this Chapter and as specifically spelled out in Sections 806.31.D—806.31.E below.
  1. Exemption—Recreational vehicles are exempt from the provisions of this Chapter if they are placed in any of the areas listed in Section 806.31.C.2 below and further they meet the following criteria:
    - a) Have current licenses required for highway use.
    - b) Are highway ready meaning on wheels or the internal jacking system, are attached to the site only by quick disconnect type utilities commonly used in campgrounds and recreational vehicle parks and the recreational vehicle has no permanent structural type additions attached to it.
    - c) The recreational vehicle and associated use must be permissible in any pre-existing, underlying zoning use district.
  2. Areas Exempted for Placement of Recreational Vehicles:
    - a) Individual lots or parcels of record.
    - b) Existing commercial recreational vehicle parks or campgrounds.
    - c) Existing condominium type associations.
- D. Recreational vehicles exempted in Section 806.31.C.1 lose this exemption when development occurs on the parcel exceeding \$500.00 for a structural addition to the recreational vehicle or exceeding \$500.00 for an accessory structure such as a garage or storage building. The recreational vehicle and all additions and accessory structures will then be treated as a new structure and shall be subject to the elevation/flood proofing requirements and the use of land restrictions specified in Sections ~~806.14~~—806.17 and ~~806.18~~—806.22 of this Chapter. There shall be no development or improvement on the parcel or attachment to the recreational vehicle that hinders the removal of the recreational vehicle to a flood free location should flooding occur.
- E. New commercial recreational vehicle parks or campgrounds and new residential type subdivisions and condominium associations and the expansion of any existing similar use exceeding five units or dwelling sites shall be subject to the following:
  1. Any new or replacement recreational vehicle will be allowed in the Floodway or Flood Fringe Districts provided said recreational vehicle and its contents are placed on fill above the regulatory flood



protection elevation and proper elevated road access to the site exists in accordance with Section 806.22.A of this Chapter. No fill placed in the floodway to meet the requirements of this Section shall increase flood stages of the 100-year or regional flood.

2. All new or replacement recreational vehicles not meeting the criteria of A above may, as an alternative, be allowed as a conditional use if in accordance with the following provisions and the provisions of Section 806.35 of this Chapter. The applicant must submit an emergency plan for the safe evacuation of all vehicles and people during the 100-year flood. Said plan shall be prepared by a registered engineer or other qualified individual, shall demonstrate that adequate tie and personnel exist to carry out the evacuation, and shall demonstrate the provisions of Section 806.31.C.1.a) and 806.31.C.1.b) of this Chapter will be met. All attendant sewage and water facilities for new or replacement recreational vehicles must be protected or constructed so as to not be impaired or contaminated during times of flooding in accordance with Section 806.30 of this Chapter.

*(Ord. 652 [9-2-2004])*

#### 806.32 - Zoning Administrator.

A Zoning Administrator or other official designated by the Governing Body shall administer and enforce this Chapter. If the Zoning Administrator finds a violation of the provisions of this Chapter the Zoning Administrator shall notify the person responsible for such violation in accordance with the procedures stated in Section 806.37 of this Chapter.

*(Ord. 652 [9-2-2004])*

#### 806.33 - Permit Requirements.

- A. **Permit Required.** A Permit issued by the Zoning Administrator in conformity with the provisions of this Chapter shall be secured prior to the erection, addition, modification, rehabilitation (including normal maintenance and repair), or alteration of any building, structure, or portion thereof; prior to the use or change of use of a building, structure or land; prior to the construction of a dam, fence, or on-site septic system; prior to the change or extension of a nonconforming use; prior to the repair of a structure that has been damaged by flood, fire, tornado, or any other source; and prior to the placement of fill, excavation of materials, or the storage of materials or equipment.
- B. **Application for Permit.** Application for a permit shall be made in duplicate to the Zoning Administrator on forms furnished by the Zoning Administrator and shall include the following where applicable: plans in duplicate drawn to scale, showing the nature, location, dimensions, and elevations of the lot; existing or proposed structures, fill or storage of materials; and the location of the foregoing in relation to the stream channel.
- C. **State and Federal Permits.** Prior to granting a permit or processing an application for a conditional use permit or variance, the Zoning Administrator shall determine that the applicant has obtained all necessary state and federal permits.
- D. **Certificate of Zoning Compliance for a New, Altered, or Nonconforming Use.** It shall be unlawful to use, occupy or permit the use or occupancy of any building or premises or part thereof hereafter created, erected, changed, converted, altered, or enlarged in its use or structure until a certificate of zoning compliance shall have been issued by the Zoning Administrator stating that the use of the building or land conforms to the requirements of this Chapter.
- E. **Construction and Use to be as Provided in Applications, Plans, Permits, Variances and Certificates of**

**Zoning Compliance.** Permits, conditional use permits, or certificates of zoning compliance issued on the basis of approved plans and applications authorize only the use, arrangement, and construction set forth in such approved plans and applications, and no other use, arrangement, or construction. Any use, arrangement, or construction at variance with that authorized shall be deemed a violation of this Chapter, and punishable by Section 806.37 of this Chapter.

- F. **Certification.** The applicant shall be required to submit certification by a registered professional engineer, registered architect, or registered land surveyor that the finished fill and building elevations were accomplished in compliance with the provisions of this Chapter. Flood proofing measures shall be certified by a registered professional engineer or registered architect.
- G. **Record of First Floor Elevation.** The Zoning Administrator shall maintain a record of the elevation of the lowest floor (including basement) of all new structures and alterations or additions to existing structures in the flood plain. The Zoning Administrator shall also maintain a record of the elevation to which structures or alterations and additions to structures are flood proofed.
- H. **Notifications for Watercourse Alterations.** The Zoning Administrator shall notify, in riverine situations, adjacent communities and the Commissioner of the Department of Natural Resources prior to the community authorizing any alteration or relocation of a watercourse. If the applicant has applied for a permit to work in the beds of public waters pursuant to Minn. Stats. Ch. 103G, this shall suffice as adequate notice to the Commissioner of Natural Resources. A copy of said notification shall also be submitted to the Chicago Regional Office of the Federal Emergency Management Agency (FEMA).
- I. **Notification to FEMA When Physical Changes Increase or Decrease the 100-Year Flood Elevation.** As soon as is practicable, but not later than six months after the date such supporting information becomes available, the Zoning Administrator shall notify the Chicago Regional Office of FEMA of the changes by submitting a copy of said technical or scientific data.

*(Ord. 652 [9-2-2004])*

#### 806.34 - Board of Adjustment.

- A. **Rules.** The Board of Adjustment shall adopt rules for the conduct of business and may exercise all of the powers conferred on such Boards by State law.
- B. **Administrative Review.** The Board of Adjustment shall hear and decide appeals where it is alleged there is error in any order, requirement, decision, or determination made by an administrative official in the enforcement or administration of this Chapter.
- C. **Variations.** The Board of Adjustment may authorize upon appeal in specific cases such relief or variance from the terms of this Chapter as will not be contrary to the public interest and only for those circumstances such as hardship, practical difficulties or circumstances unique to the property under consideration, as provided for in the respective enabling legislation for planning and zoning for cities or counties as appropriate. In the granting of such variance, the Board of Adjustment shall clearly identify in writing the specific conditions that existed consistent with the criteria specified in this Chapter, any other zoning regulations in the Community, and in the respective enabling legislation that justified the granting of the variance. No variance shall have the effect of allowing in any district uses prohibited in that district, permit a lower degree of flood protection than the regulatory flood protection elevation for the particular area, or permit standards lower than those required by state law. The following additional variance criteria of the Federal Emergency Management Agency must be satisfied:
  - 1. Variations shall not be issued by a community within any designated regulatory floodway if any increase

in flood levels during the base flood discharge would result.

2. Variances shall only be issued by a community upon:
    - a) A showing of good and sufficient cause;
    - b) A determination that failure to grant the variance would result in exceptional hardship to the applicant; and
    - c) A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.
  3. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
- D. **Hearings.** Upon filing with the Board of Adjustment of an appeal from a decision of the Zoning Administrator, or an application for a variance, the Board of Adjustment shall fix a reasonable time for a hearing and give due notice to the parties in interest as specified by law. The Board of Adjustment shall submit by mail to the Commissioner of Natural Resources a copy of the application for proposed variances sufficiently in advance so that the Commissioner will receive at least ten days' notice of the hearing.
- E. **Decisions.** The Board of Adjustment shall arrive at a decision on such appeal or variance within 30 days. In passing upon an appeal, the Board of Adjustment may, so long as such action is in conformity with the provisions of this Chapter, reverse or affirm, wholly or in part, or modify the order, requirement, decision or determination of the Zoning Administrator or other public official. It shall make its decision in writing, setting forth the findings of fact and the reasons for its decisions. In granting a variance the Board of Adjustment may prescribe appropriate conditions and safeguards such as those specified in Section 806.35.F, which are in conformity with the purposes of this Chapter. Violations of such conditions and safeguards, when made a part of the terms under which the variance is granted, shall be deemed a violation of this Chapter punishable under Section 806.37. A copy of all decisions granting variances shall be forwarded by mail to the Commissioner of Natural Resources within ten days of such action.
- F. **Appeals.** Appeals from any decision of the Board of Adjustment may be made, and as specified in this community's official controls and also by Minnesota Statutes.
- G. **Flood Insurance Notice and Record Keeping.** The Zoning Administrator shall notify the applicant for a variance that:
1. The issuance of a variance to construct a structure below the base flood level will result in increased premium rates for flood insurance up to amounts as high as \$25.00 for \$100.00 of insurance coverage; and
  2. Such construction below the 100-year or regional flood level increases risks to life and property. Such notification shall be maintained with a record of all variance actions. A community shall maintain a record of all variance actions, including justification for their issuance, and report such variances issued in its annual or biennial report submitted to the Administrator of the National Flood Insurance Program.

*(Ord. 652 [9-2-2004])*

#### 806.35 - Conditional Uses.

The City Council shall hear and decide applications for conditional uses permissible under this Chapter. Applications shall be submitted to the Zoning Administrator, who shall forward the application to the Planning Commission for consideration.

- A. **Hearings.** Upon filing with the City of Wayzata an application for a conditional use permit, the Zoning

Administrator shall submit by mail to the Commissioner of Natural Resources a copy of the application for proposed conditional use sufficiently in advance so that the Commissioner will receive at least ten days' notice of the hearing.

- B. **Decisions.** The City Council shall arrive at a decision on a conditional use within 60 days. In granting a conditional use permit the City Council shall prescribe appropriate conditions and safeguards, in addition to those specified in Section 806.35.F, which are in conformity with the purposes of this Chapter. Violations of such conditions and safeguards, when made a part of the terms under which the conditional use permit is granted, shall be deemed a violation of this Chapter punishable under Section 806.37. A copy of all decisions granting conditional use permits shall be forwarded by mail to the Commissioner of Natural Resources within ten days of such action.
- C. **Procedures to Be Followed by the City Council in Passing on Conditional Use Permit Applications Within all Flood Plain Districts.**
1. Require the applicant to furnish such of the following information and additional information as deemed necessary by the City Council for determining the suitability of the particular site for the proposed use:
    - a) Plans in triplicate drawn to scale showing the nature, location, dimensions, and elevation of the lot, existing or proposed structures, fill, storage of materials, flood proofing measures, and the relationship of the above to the location of the stream channel; and
    - b) Specifications for building construction and materials, flood proofing, filling, dredging, grading, channel improvement, storage of materials, water supply and sanitary facilities.
  2. Transmit one copy of the information described in subsection C.1 of this section to a designated engineer or other expert person or agency for technical assistance, where necessary, in evaluating the proposed project in relation to flood heights and velocities, the seriousness of flood damage to the use, the adequacy of the plans for protection, and other technical matters.
  3. Based upon the technical evaluation of the designated engineer or expert, the City of Wayzata shall determine the specific flood hazard at the site and evaluate the suitability of the proposed use in relation to the flood hazard.
- D. **Factors Upon Which the Decision of the City of Wayzata Shall Be Based.** In passing upon conditional use applications, the City Council shall consider all relevant factors specified in other sections of this Chapter, and:
1. The danger to life and property due to increased flood heights or velocities caused by encroachments.
  2. The danger that materials may be swept onto other lands or downstream to the injury of others or they may block bridges, culverts or other hydraulic structures.
  3. The proposed water supply and sanitation systems and the ability of these systems to prevent disease, contamination and unsanitary conditions.
  4. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner.
  5. The importance of the services provided by the proposed facility to the community.
  6. The requirements of the facility for a waterfront location.
  7. The availability of alternative locations not subject to flooding for the proposed use.
  8. The compatibility of the proposed use with existing development and development anticipated in the foreseeable future.
  9. The relationship of the proposed use to the comprehensive plan and flood plain management program for the area.

10. The safety of access to the property in time of flood for ordinary and emergency vehicles.
  11. The expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters expected at the site.
  12. Such other factors which are relevant to the purposes of this Chapter.
- E. **Time for Acting on Application.** The City Council shall act on an application in the manner described above within 60 days from receiving the application, except that where additional information is required pursuant to Section 806.35.D of this Chapter. The City Council shall render a written decision within 30 days from the receipt of such additional information.
- F. **Conditions Attached to Conditional Use Permits.** Upon consideration of the factors listed above and the purposes of this Chapter, the City Council shall attach such conditions to the granting of conditional use permits as it deems necessary to fulfill the purposes of this Chapter. Such conditions may include, but are not limited to, the following:
1. Modification of waste treatment and water supply facilities.
  2. Limitations on period of use, occupancy and operation.
  3. Imposition of operational controls, sureties, and deed restrictions.
  4. Requirements for construction of channel modifications, compensatory storage, dikes, levees, and other protective measures.
  5. Flood proofing measures, in accordance with the State Building Code and this Chapter. The applicant shall submit a plan or document certified by a registered professional engineer or architect that the flood proofing measures are consistent with the regulatory flood protection elevation and associated flood factors for the particular area.

*(Ord. 652 [9-2-2004])*

#### 806.36 - Continuation of a Nonconforming Use.

A structure or the use of a structure or premises which was lawful before the passage or amendment of this Chapter but which is not in conformity with the provisions of this Chapter may be continued subject to the following conditions. Historic structures, as defined in Section 806.11.U.2 of this Chapter, shall be subject to the provisions of Sections 806.36.A—806.36.E of this Chapter.

- A. No such use shall be expanded, changed, enlarged, or altered in a way which increases its nonconformity.
- B. Any structural alteration or addition to a nonconforming structure or nonconforming use which would result in increasing the flood damage potential of that structure or use shall be protected to the Regulator Flood Protection Elevation in accordance with any of the elevation on fill or flood proofing techniques (i.e., FP-1 thru FP-4 flood proofing classifications) allowable in the State Building Code, except as further restricted in 806.11.1.C and 806.36.F below.
- C. The cost of any structural alterations or additions to any nonconforming structure over the life of the structure shall not exceed 50 percent of the market value of the structure unless the conditions of this Section are satisfied. The cost of all structural alterations and additions constructed since the adoption of the Community's initial flood plain controls must be calculated into today's current cost which will include all costs such as construction materials and a reasonable cost placed on all manpower or labor. If the current cost of all previous and proposed alterations and additions exceeds 50 percent of the current market value of the

structure, then the structure must meet the standards of Sections 806.14—806.17 and 806.18—806.22 of this Chapter for new structures depending upon whether the structure is in the Floodway or Flood Fringe District, respectively.

- D. If any nonconforming use is discontinued for 12 consecutive months, any future use of the building premises shall conform to this Chapter. The Assessor shall notify the Zoning Administrator in writing of instances of nonconforming uses which have been discontinued for a period of 12 months.
- E. If any nonconforming use or structure is substantially damaged, as defined in Section 806.11.T of this Chapter, it shall not be reconstructed except in conformity with the provisions of this Chapter. The applicable provisions for establishing new uses or new structures in Sections 806.14—806.17 and 806.18—806.22, or 806.23—806.24 will apply depending upon whether the use or structure is in the Floodway, Flood Fringe or General Flood Plain District, respectively.
- F. If a substantial improvement occurs, as defined in Section 806.11.U of this Chapter, from any combination of a building addition to the outside dimensions of the existing building or a rehabilitation, reconstruction, alteration, or other improvement to the inside dimensions of an existing nonconforming building, then the building addition (as required by Section 806.36.B above) and the existing nonconforming building must meet the requirements of Sections 806.14—806.17 and 806.18—806.22 of this Chapter for new structures, depending upon whether the structure is in the Floodway or Flood Fringe District, respectively.

*(Ord. 652 [9-2-2004])*

#### 806.37 - Penalties for Violation.

- A. Violation of the provisions of this Chapter or failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with grants of variances or conditional uses) shall constitute a misdemeanor and shall be punishable as defined by law.
- B. Nothing herein contained shall prevent the City of Wayzata from taking such other lawful action as is necessary to prevent or remedy any violation. Such actions may include, but are not limited to:
  1. In responding to a suspected Chapter violation, the Zoning Administrator and Local Government may utilize the full array of enforcement actions available to it including, but not limited to, prosecution and fines, injunctions, after-the-fact permits, orders for corrective measures or a request to the National Flood Insurance Program for denial of flood insurance availability to the guilty party. The Community must act in good faith to enforce these official controls and to correct Code violations to the extent possible so as not to jeopardize its eligibility in the National Flood Insurance Program.
  2. When a Code violation is either discovered by or brought to the attention of the Zoning Administrator, the Zoning Administrator shall immediately investigate the situation and document the nature and extent of the violation of the official control. As soon as is reasonably possible, this information will be submitted to the appropriate Department of Natural Resources' and Federal Emergency Management Agency Regional Office along with the Community's plan of action to correct the violation to the degree possible.
  3. The Zoning Administrator shall notify the suspected party of the requirements of this Chapter and all other official controls and the nature and extent of the suspected violation of these controls. If the structure and/or use is under construction or development, the Zoning Administrator may order the construction or development immediately halted until a proper permit or approval is granted by the Community. If the construction or development is already completed, then the Zoning Administrator may either:

- a) Issue an order identifying the corrective actions that must be made within a specified time period to b structure into compliance with the official controls; or
  - b) Notify the responsible party to apply for an after-the-fact permit/development approval within a specified period of time not to exceed 30 days.
4. If the responsible party does not appropriately respond to the Zoning Administrator within the specified period of time, each additional day that lapses shall constitute an additional violation of this Chapter and shall be prosecuted accordingly. The Zoning Administrator shall also upon the lapse of the specified response period notify the landowner to restore the land to the condition which existed prior to the violation of this Chapter.

*(Ord. 652 [9-2-2004])*

#### 806.38 - Amendments.

The flood plain designation on the Official Zoning Map shall not be removed from flood plain areas unless it can be shown that the designation is in error or that the area has been filled to or above the elevation of the regulatory flood protection elevation and is contiguous to lands outside the flood plain. Special exceptions to this rule may be permitted by the Commissioner of Natural Resources if he determines that, through other measures, lands are adequately protected for the intended use.

All amendments to this Chapter, including amendments to the Official Zoning Map, must be submitted to and must be approved by the Commissioner of Natural Resources prior to adoption. Changes in the Official Zoning Map must meet the Federal Emergency Management Agency's (FEMA's) Technical Conditions and Criteria and must receive prior FEMA approval before adoption. The Commissioner of Natural Resources must be given ten days' written notice of all hearings to consider an amendment to this Chapter and said notice shall include a draft of the Chapter amendment or technical study under consideration.

*(Ord. 652 [9-2-2004])*

*(7-21-81 Code; Chapter repealed and replaced by Ord. 652 [9-2-2004])*



CHAPTER 993 - FLOODPLAIN OVERLAY DISTRICT (FP)

993.01 - Statutory Authorization.

The Legislature of the State of Minnesota has, in Minn. Stats. Ch. 103F and 462, delegated the responsibility to local governmental units to adopt regulations designed to minimize flood losses.

993.02 - Purpose.

- A. This Ordinance regulates development in the flood hazard areas of the City of Wayzata. The flood hazard areas of the City are subject to periodic inundation which results in potential loss of life, loss of property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affects the public health, safety and general welfare. It is the purpose of this Ordinance to promote the public health, safety, and general welfare by minimizing these losses and disruptions.
- B. National Flood Insurance Program Compliance. This Ordinance is adopted to comply with the rules and regulations of the National Flood Insurance Program codified as 44 CFR parts 59—78, as amended, so as to maintain the community's eligibility in the National Flood Insurance Program.
- C. This Ordinance is also intended to preserve the natural characteristics and functions of watercourses and floodplains in order to moderate flood and stormwater impacts, improve water quality, reduce soil erosion, protect aquatic and riparian habitat, provide recreational opportunities, provide aesthetic benefits and enhance community and economic development.

993.03 - General Provisions.

- A. **Lands to Which Regulations Apply.** The Floodplain Overlay District shall apply to all lands within the jurisdiction of the City shown on the official Zoning Map as being located within the boundaries of the Floodway, Flood Fringe or General Floodplain Districts. The Floodplain Overlay District shall be applied to and superimposed as an overlay upon all districts as existing or amended by the text and map of this Ordinance. The regulations and requirements imposed by the Floodplain Overlay District shall be in addition to those established by all other districts of this Ordinance. Where the floodplain regulations and requirements conflict with the base zoning district, the more restrictive regulations will be applied.
- B. **Incorporation of Maps by Reference.** The following maps together with all attached material are hereby adopted by reference and declared to be a part of the Official Zoning Map and this Ordinance. The attached material includes the Flood Insurance Study for Hennepin County, Minnesota, and Incorporated Areas, dated November 4, 2016, and the Flood Insurance Rate Map panels enumerated below, dated November 4, 2016, all prepared by the Federal Emergency Management Agency. These materials are on file in the office of the City Manager. Effective Flood Insurance Rate Map panels.

27053C0306F	27053C0308F	27053C0326F
27053C0307F	27053C0309F	27053C0328F

- C. **Regulatory Flood Protection Elevation.** The regulatory flood protection elevation shall be an elevation no lower than one foot above the elevation of the regional flood, plus any increases in flood elevation caused by

encroachments on the floodplain that result from designation of a floodway.

- D. **Interpretation.** The boundaries of a zoning district shall be determined by scaling distances on the Flood Insurance Rate Map.
1. Where interpretation is needed as to the exact location of the boundaries of any district, for example where a conflict exists between the floodplain limits illustrated on the official Zoning Map and actual field conditions, the flood elevations shall be the governing factor. The Zoning Administrator must interpret the boundary location based on the ground elevations that existed on the site on the date of the first National Flood Insurance Program map showing the area within the regulatory floodplain, and other available technical data.
  2. Persons contesting the location of the district boundaries will be given a reasonable opportunity to present their case to the City Council and to submit technical evidence.
- E. **Abrogation and Greater Restrictions.** It is not intended by this Ordinance to repeal, abrogate, or impair any existing easements, covenants, or other private agreements. However, where this Ordinance imposes greater restrictions, the provisions of this Ordinance prevail. All other Ordinances inconsistent with this Ordinance are hereby repealed to the extent of the inconsistency only.
- F. **Warning and Disclaimer of Liability.** This Ordinance does not imply that areas outside the Floodplain Overlay District or land uses permitted within such districts will be free from flooding or flood damages. This Ordinance shall not create liability on the part of the City or any officer or employee thereof for any flood damages that result from reliance on this Ordinance of any administrative decision lawfully made thereunder.
- G. **Severability.** If any section, clause, provision, or portion of this Ordinance is adjudged unconstitutional or invalid by a court of law, the remainder of this Ordinance shall not be affected and shall remain in full force.

#### 993.04 - Districts Established.

- A. **Districts.** The floodplain areas within the Floodplain Overlay District are hereby divided into the following three districts:
1. **Floodway District.** The Floodway District shall include those areas within Zones AE that have a floodway delineated as shown on the Flood Insurance Rate Map adopted in Section 993.03.B. For lakes, wetlands and other basins within Zones AE that do not have a floodway delineated, the Floodway District also includes those areas that are at or below the ordinary high water level as defined in Minn. Stats. § 103G.005, Subd. 14.
  2. **Flood Fringe District.** The Flood Fringe District shall include those areas within Zones AE that have a floodway delineated on the Flood Insurance Rate Map adopted in Section 993.03.B, but are located outside of the floodway. For lakes, wetlands and other basins within Zones AE that do not have a floodway delineated, the Flood Fringe District also includes those areas below the one percent annual chance (100-year) flood elevation but above the ordinary high water level as defined in Minn. Stats. § 103G.005, Subd. 14.
  3. **General Floodplain District.** The General Floodplain District shall include those areas within Zone A that do not have a delineated floodway as shown on the Flood Insurance Rate Map adopted in Section 993.03.B.
- B. **Applicability.** Within the floodplain districts established in this Ordinance, the use, size, type and location of development must comply with the terms of this Ordinance and other applicable regulations. In no cases shall floodplain development adversely affect the efficiency or unduly restrict the capacity of the channels or floodways of any tributaries to the main stream, drainage ditches, or any other drainage facilities or systems. All uses not listed as permitted uses or conditional uses in Sections 993.05, 993.06, and 993.07 are prohibited.

#### 993.05 - Floodway District (FW).

- A. **Permitted Uses.** The following uses, subject to the standards set forth in Section 993.05.B, are permitted within the Floodway District, if the use is allowed in the underlying zoning district and any applicable overlay district:
1. Residential lawns, gardens, parking areas and play areas.

2. Private and public recreational uses such as golf courses, tennis courts, driving ranges, archery ranges, picnic grounds, boat launching ramps, swimming areas, parks, wildlife and nature preserves, game farms, fish hatcheries, trap and skeet ranges, shooting preserves, target ranges, and single or multiple purpose recreational trails.
  3. Industrial or commercial accessory uses such as loading areas and parking areas.
  4. General farming, pasture, grazing, outdoor plant nurseries, horticulture, truck farming, forestry, sod farming, and wild crop harvesting.
  5. Railroads, streets, bridges, utility transmission lines and pipelines, provided that the Department of Natural Resources' Area Hydrologist is notified at least ten days prior to issuance of any permit.
- B. **Floodway District Standards.** Permitted uses within the Floodway District must meet the following standards.
1. The use must have low flood damage potential.
  2. The use must not obstruct flood flows or cause any increase in flood elevations.
  3. The use must not include structures, fill, obstructions, excavations, or storage of materials or equipment.
  4. Any facility that will be used by employees or the general public must be designed with a flood warning system that provides adequate time for evacuation if the area is inundated to a depth and velocity such that the depth (in feet) multiplied by the velocity (in feet per second) would exceed a product of four upon occurrence of the one percent chance or regional flood.
- C. **Conditional Uses.** The following uses may be allowed as conditional uses in the Floodway District if the use is also allowed in the underlying zoning district and in any applicable overlay district, and the use meets the standards and procedures in Section 993.13.
1. Structures accessory to a permitted or conditional use in the Floodway District.
  2. Placement of fill.
  3. Extraction or storage of sand, gravel, and other materials.
  4. Marinas, boat rentals, docks, piers, wharves, and water control structures.
  5. Storage yards for equipment, machinery, or materials.
  6. Structural works for flood control such as levees, dikes, and floodwalls constructed to any height where the intent is to protect individual structures.
- D. **Conditional Use Permit Standards for Uses in the Floodway District.** All conditional uses in the Floodway District must meet the conditional use permit procedures and standards in Chapter 904 and Section 993.13, and must meet all of the following standards:
1. The use must not cause any increase in the stage of the one percent chance or regional flood, or cause an increase in flood damage in the reach or reaches affected.
  2. All accessory structures must meet the following requirements:
    - a) Accessory structures must not be intended for human habitation
    - b) Accessory structures must have low flood damage potential
    - c) Accessory structures must be constructed and placed so as to offer a minimal obstruction to the flow of flood waters.
    - d) Service utilities such as electrical and heating equipment within the structures must be elevated to or above the regulatory flood protection elevation or properly flood-proofed.
    - e) Accessory structures must meet one of the following:
      - 1) The structure must be elevated on fill or structurally dry flood-proofed in accordance with the FP1 and FP2 flood-proofing classifications in the State Building Code. All flood-proofed structures must be adequately anchored to prevent flotation, collapse, or lateral movement, and designed to

- equalize hydrostatic flood forces on exterior walls.
- 2) As an alternative, an accessory structure may be internally/wet flood-proofed to the FP3 or FP4 flood-proofing classifications in the State Building Code, provided that the accessory structure constitutes a minimal investment and does not exceed 576 square feet in size. Designs for meeting this requirement must either be certified by a registered professional engineer or meet or exceed the following criteria:
    - (a) To allow for the equalization of hydrostatic pressure, there must be a minimum of two automatic openings in the outside walls of the structure, with a total net area of not less than one square inch for every square foot of enclosed area subject to flooding; and
    - (b) There must be openings on at least two sides of the structure, and the bottom of all openings must be no higher than one foot above the lowest adjacent grade to the structure. Using human intervention to open a garage door prior to flooding will not satisfy this requirement for automatic openings.
  3. All fill and storage of materials or equipment must meet the following requirements:
    - a) The storage or processing of materials that are, in time of flooding, flammable, explosive, or potentially injurious to human, animal, or plant life is prohibited.
    - b) Fill, dredge spoil, and other similar materials deposited or stored in the floodplain must be protected by vegetative cover, mulching, riprap, or other acceptable method. Permanent sand and gravel operations and similar uses must be covered by a long-term site development plan.
    - c) Temporary placement of fill, other materials, or equipment which would cause an increase to the stage of the one percent chance or regional flood may only be allowed if the City has approved a plan that assures removal of the materials from the floodway based upon the flood warning time available.
  4. Flood control structures that will change the course, current, or cross section of protected wetlands or public water must meet the provisions of Minn. Stats. § 103G.245.
  5. A levee, dike, or floodwall constructed in the floodway must not cause an increase to the one percent chance or regional flood. The technical analysis must assume equal conveyance or storage loss on both sides of a stream.
  6. Floodway developments must not adversely affect the hydraulic capacity of the channel and adjoining floodplain of any tributary watercourse or drainage system.

#### 993.06 - Flood Fringe District (FF).

- A. **Permitted Uses.** Permitted uses within the Flood Fringe District are those uses allowed in the underlying zoning districts that comply with the standards in Section 993.06.B.
- B. **Standards for Flood Fringe District.**
  1. Permitted uses within the Flood Fringe District must meet all of the following requirements:
    - a) All structures, including accessory structures, must be constructed on fill so that the lowest floor, as defined, is at or above the regulatory flood protection elevation. The finished fill elevation for structures must be no lower than one foot below the regulatory flood protection elevation, and the fill must extend at the same elevation at least 15 feet beyond the outside limits of any structure. All fill shall be properly compacted and the slopes shall be properly protected by riprap, vegetative covering, or other acceptable method.
    - b) The storage of any materials or equipment must be elevated on fill to the Regulatory Flood Protection Elevation.
    - c) The cumulative placement of fill or similar material on a parcel must not exceed 1,000 cubic yards, unless

the fill is specifically intended to elevate a structure in accordance with Section 993.06.B.1.a).

2. All uses within the Flood Fringe District must meet all of the following requirements:
    - a) All service utilities, including ductwork, must be elevated or water-tight to prevent infiltration of floodwaters.
    - b) The storage or processing of materials that are, in time of flooding, flammable, explosive, or potentially injurious to human, animal or plant life, is prohibited.
    - c) All new principal structures must have vehicular access at or above an elevation not more than two feet below the regulatory flood protection elevation, or must have a flood warning and emergency evacuation plan acceptable to the City Engineer.
    - d) Commercial Uses. Accessory land uses, such as yards, railroad tracks and parking lots, may be at elevations lower than the regulatory flood protection elevation. However, any facilities used by employees or the general public shall be designed with a flood warning system that provides adequate time for evacuation if the area would inundate to a depth (in feet) multiplied by the velocity (in feet per second) would exceed a product of four upon occurrence of a one percent chance or regional flood.
- C. **Conditional Uses.** The following uses may be allowed as conditional uses in the Flood Fringe District, if they are also allowed in the underlying zoning district and any applicable overlay district. All conditional uses in the Flood Fringe District must meet the conditional use permit standards in Chapter 904 and Section 993.13.
1. Any structure that is not elevated on fill in accordance with Section 993.06.B.1.a), if it meets the following requirements:
    - a) The use must comply with all Flood Fringe District standards in Section 993.06.B.2.
    - b) Basements, as defined by Section 902.02, shall be subject to the following:
      - 1) Residential basement construction shall not be allowed below the Regulatory Flood Protection Elevation.
      - 2) All areas of non-residential structures, including basements, may be located below the Regulatory Flood Protection Elevation provided the structure is flood-proofed in accordance with the structurally dry flood-proofing classifications in the State Building Code. Structurally dry flood-proofing must meet the FP1 or FP2 flood-proofing classification in the State Building Code and this shall require making the structure watertight with the walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy. Structures flood-proofed to the FP3 or FP4 classification shall not be permitted.
  2. Storage of any material or equipment below the regulatory flood protection elevation, if it meets the following requirements:
    - a) The use must comply with all Flood Fringe District standards in Section 993.06.B.2.
    - b) The storage or processing of materials that are, in time of flooding, flammable, explosive, or potentially injurious to human, animal, or plant life is prohibited.
    - c) Storage of other materials or equipment may be allowed if readily removable from the area within the time available after a flood warning and in accordance with a plan approved by the City Council.
  3. The cumulative placement of more than 1,000 cubic yards of fill or other similar material, other than for the purpose of elevating a structure to the regulatory flood protection elevation, provided the following requirements are met:
    - a) The use must comply with all Flood Fringe District standards in Section 993.06.B.2.
    - b) A erosion and sedimentation control plan is required which includes the following:
      - 1) The plan must clearly specify methods to be used to stabilize the fill on site for a flood event at a

minimum of the regional (one percent chance) flood event.

- 2) The plan must be prepared and certified by a registered professional engineer or other qualified individual acceptable to the City Engineer.
- 3) The plan may incorporate alternative procedures for removal of the material from the floodplain if adequate flood warning time exists.
- 4) Any structure that uses alternative methods to elevate a structure above the regulatory flood protection elevation other than through the use of fill, such as stilts, pilings, parallel walls, or above-grade, enclosed areas such as crawl spaces or tuck under garage. The alternative elevation methods must meet the following requirements:
  - (a) The base or floor of an enclosed area shall be considered above-grade not a structure's basement or lowest floor if:
    - (1) The enclosed area is above-grade on at least one side of the structure;
    - (2) It is designed to internally flood and is constructed with flood resistant materials; and
    - (3) It is used solely for parking of vehicles, building access or storage. The above-noted alternative elevation methods are subject to the following additional standards.

D. **Design and Certification.** The structure's design and as-built condition must be certified by a registered professional engineer or architect as being in compliance with the general design standards of the State Building Code and, specifically, that all electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities must be at or above the Regulatory Flood Protection Elevation or be designed to prevent flood water from entering or accumulating within these components during times of flooding.

E. **Specific Standards for Above-Grade, Enclosed Areas.** Above-grade, fully enclosed areas such as crawl spaces or tuck under garages must be designed to internally flood and the design plans must stipulate:

1. The minimum area of openings in the walls where internal flooding is to be used as a flood proofing technique. There shall be a minimum of two automatic openings on at least two sides of the structure and the bottom of all openings shall be no higher than one foot above grade. The automatic openings shall have a minimum net area of not less than one square inch for every square foot of enclosed area subject to flooding unless a registered professional engineer or architect certifies that a smaller net area would suffice. The automatic openings may be equipped with screens, louvers, valves, or other coverings or devices, provided that they permit the automatic entry and exit of flood waters without any form of human intervention.
2. That the enclosed area will be designed of flood resistant materials in accordance with the FP3 or FP4 classifications in the State Building Code and shall be used solely for building access, parking of vehicles or storage.

#### 993.07 - General Floodplain District (GF).

- A. **Permitted Uses.** Permitted uses within the General Floodplain District are the same as the permitted uses for the Floodway District as outlined in Section 993.05.A.
- B. **Other Uses.** The General Floodplain District includes the entire Floodplain and does not differentiate between those areas that are in the Floodway District and those areas that are in the Flood Fringe District. Because of this, the City shall determine whether the proposed use is in the Floodway District or Flood Fringe District using procedures established in Section 993.07.C. If it is determined that the use lies in the Floodway District, the provisions of Section 993.05 shall apply. If it is determined that the proposed use lies in the Flood Fringe District, the provisions of Section 993.06 shall apply.
- C. **Procedures for Floodway and Flood Fringe Determinations.**
  1. Upon receipt of an application for a permit or other approval within the General Floodplain District, the Zoning

Administrator must obtain, review and reasonably utilize any regional flood elevation and floodway data available from a federal, state, or other source.

2. If regional flood elevation and floodway data are not readily available, the applicant must furnish additional information, as needed, to determine the regulatory flood protection elevation and whether the proposed use would fall within the Floodway or Flood Fringe District. Information must be consistent with accepted hydrological and hydraulic engineering standards and the standards in Section 993.07.C.3 below.
3. The determination of floodway and flood fringe must include the following components, as applicable:
  - a) Estimate the peak discharge of the regional (one percent chance) flood.
  - b) Calculate the water surface profile of the regional flood based upon a hydraulic analysis of the stream channel and overbank areas.
  - c) Compute the floodway necessary to convey or store the regional flood without increasing flood stages more than one-half foot. A lesser stage increase than one-half foot is required if, as a result of the stage increase, increased flood damages would result. An equal degree of encroachment on both sides of the stream within the reach must be assumed in computing floodway boundaries.
4. The Zoning Administrator will review the submitted information and assess the technical evaluation and the recommended Floodway and/or Flood Fringe District boundary. The assessment must include the cumulative effects of previous floodway encroachments. The Zoning Administrator may seek technical assistance from a designated engineer or other expert person or agency, including the Department of Natural Resources. Based on this assessment, the Zoning Administrator may approve or deny the application.
5. Once the Floodway and Flood Fringe District boundaries have been determined, the Zoning Administrator must process the permit application consistent with the applicable provisions of Sections 993.06 and 993.06.

#### 993.08 - Subdivision Standards.

- A. **Subdivisions.** No land may be subdivided which is unsuitable for reasons of flooding or inadequate drainage, water supply, or sewage treatment facilities. In addition to the requirements in Part X, Subdivisions, the following additional requirements apply to all subdivisions located in the Floodplain Overlay District:
  1. All lots within a subdivision that are located within the Floodplain Overlay District must be able to contain a building site outside of the Floodway District and which is at or above the regulatory flood protection elevation.
  2. All subdivisions must have road access both to the subdivision and to the individual building sites no lower than two feet below the regulatory flood protection elevation, unless a flood warning emergency plan for the safe evacuation of all vehicles and people during the regional (one percent chance) flood has been approved by the City Council. The plan must be prepared by a registered engineer or other qualified individual acceptable to the City Engineer, and must demonstrate that adequate time and personnel exist to carry out the evacuation.
  3. For all subdivisions in the Floodplain Overlay District, the Floodway and Flood Fringe District boundaries, the regulatory flood protection elevation, and the required elevation of all access roads must be clearly labeled on all required subdivision drawings and platting documents.
  4. In the General Floodplain District, applicants must provide the information required in Section 993.07.C to determine the regional flood elevation, the Floodway and Flood Fringe District boundaries, and the regulatory flood protection elevation for the subdivision site.
  5. If a subdivision proposal is in a flood prone area, any such proposal must be reviewed to ensure that:
    - a) All such proposals are consistent with the need to minimize flood damage within the flood prone area,
    - b) All public utilities and facilities, such as sewer, gas, electrical, and water systems are located and

- constructed to minimize or eliminate flood damage, and
- c) Adequate drainage is provided to reduce exposure of flood hazard.
6. If a proposed building site is in a flood prone area, all new construction and substantial improvements must be:
- a) Designed (or modified) and adequately anchored to prevent floatation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;
  - b) Constructed with materials and utility equipment resistant to flood damage;
  - c) Constructed by methods and practices that minimize flood damage; and
  - d) Constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

993.09 - Public Utilities and Public Transportation Facilities.

- A. **Public Utilities.** All public utilities and facilities, such as gas, electrical, sewer and water supply systems, to be located in a floodplain shall be flood proofed in accordance with the State Building Code or elevated to or above the regulatory flood protection elevation.
- B. **On-Site Water Supply and Sewage Treatment Systems.** Where public utilities are not provided:
  1. On-site water supply systems must be designed to minimize or eliminate infiltration of flood waters into the systems and are subject to the provisions in Minn. R. Ch. 4725.4350, as amended; and
  2. New or replacement on-site sewage treatment systems must be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters, they must not be subject to impairment or contamination during times of flooding, and are subject to the provisions in Minn. R. Ch. 7080.2270, as amended.
- C. **Public Transportation Facilities.** Railroad tracks, roads and bridges to be located within the Floodway District shall comply with Section 993.05. These transportation facilities must be elevated to the regulatory flood protection elevation where failure or interruption of these transportation facilities would result in danger to the public health, safety or welfare or where such facilities are essential to orderly functioning of the area. Minor or auxiliary roads or railroads may be constructed at a lower elevation where failure or interruption of transportation services would not endanger the public health, safety or welfare.

993.10 - Manufactured Homes, Manufactured Home Parks, and Recreational Vehicles.

- A. **Manufactured Homes.** New manufactured homes, new manufactured home parks, and expansions to existing manufactured home parks are prohibited in any floodplain district.
- B. **Recreational Vehicles.** New recreational vehicle parks or campgrounds and expansions to existing recreational vehicle parks or campgrounds are prohibited in any floodplain district.

993.11 - Floodplain Use Permit.

- A. **Floodplain Use Permit Required.** A floodplain use permit issued by the Zoning Administrator in conformity with the provisions of this Ordinance shall be secured prior to the conducting the following activities within the Floodplain Overlay District:
  1. Erection, addition or alteration of any building, structure, or portion thereof. Normal maintenance and repair also requires a permit if such work, separately or in conjunction with other planned work, constitutes a substantial improvement as defined in this Ordinance.
  2. The use or change of use of a building, structure, or land.



3. The construction of a dam, fence, or on-site septic system.
  4. Any changes to a non-conforming use, structure, or occupancy of land.
  5. The repair of a structure that has been damaged by flood, fire, tornado, or any other source.
  6. Placement of fill, excavation of materials, or storage of materials and equipment within a floodplain district.
  7. Relocation or alteration of a watercourse, including new or replacement culverts and bridges, unless a public waters work permit has been applied for and approved by the Minnesota Department of Natural Resources.
  8. Any other type of development as defined in this Ordinance.
- B. **Application for Floodplain Use Permit.** Application for a floodplain use permit shall be made to the Zoning Administrator on forms furnished by him or her, and shall include the following where applicable:
1. A site plan showing all pertinent dimensions, existing and proposed buildings, structures, and significant natural features having an influence on the permit.
  2. Location of fill or storage of materials in relation to the stream channel.
  3. Copies of any required municipal, county, state or federal permits or approvals.
  4. Other relevant information requested by the Zoning Administrator as necessary to properly evaluate the permit application.
- C. **Certificate of Zoning Compliance for a New, Altered or Non-Conforming Use.** It shall be unlawful to use, occupy, or permit the use or occupancy of any building or premises or part thereof hereafter created, erected, changed, converted, altered or enlarged in its use or structure until a Certificate of Zoning Compliance shall have been issued by the Zoning Administrator, stating that the use of the building or land conforms to the requirements of this Section.
- D. **Certification.** The applicant is required to submit certification by a registered professional engineer, registered architect, or registered land surveyor that the finished fill and building elevations were accomplished in compliance with the provisions of this Ordinance. Flood-proofing measures must be certified by a registered professional engineer or registered architect.
- E. **Record of First Floor Elevation.** The Zoning Administrator must maintain a record of the elevation of the lowest floor (including basement) of all new structures and alterations or additions to existing structures in the floodplain. The Zoning Administrator must also maintain a record of the elevation to which structures and alterations or additions to structures are flood-proofed.
- F. **Notifications for Watercourse Alterations.** Before authorizing any alteration or relocation of a river or stream, the Zoning Administrator must notify adjacent communities. If the applicant has applied for a permit to work in public waters pursuant to Minn. Stats. § 103G.245, this will suffice as adequate notice. A copy of the notification must also be submitted to the Chicago Regional Office of the Federal Emergency Management Agency (FEMA).
- G. **Notification to FEMA When Physical Changes Increase or Decrease Base Flood Elevations.** As soon as is practicable, but not later than six months after the date such supporting information becomes available, the Zoning Administrator must notify the Chicago Regional Office of FEMA of the changes by submitting a copy of the relevant technical or scientific data.

#### 993.12 - Variances.

- A. **Variance Applications.** An application for a variance to the provisions of the Floodplain Overlay District will be processed and reviewed in accordance with applicable State Statutes and Chapter 905.
- B. **Adherence to State Floodplain Management Standards.** A variance must not allow a use that is not allowed in that district, permit a lower degree of flood protection than the regulatory flood protection elevation for the particular area, or permit standards lower than those required by State law.
- C. **Additional Variance Criteria.** The following additional variance criteria of the Federal Emergency Management

Agency must be satisfied:

1. Variances must not be issued by a community within any designated regulatory floodway if any increase in flood levels during the base flood discharge would result.
  2. Variances may only be issued by a community upon:
    - a) A showing of good and sufficient cause;
    - b) A determination that failure to grant the variance would result in exceptional hardship to the applicant; and
    - c) A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or Ordinances.
  3. Variances may only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
- D. **Flood Insurance Notice.** The Zoning Administrator must notify the applicant for a variance that:
1. The issuance of a variance to construct a structure below the base flood level will result in increased premium rates for flood insurance up to amounts as high as \$25.00 for \$100.00 of insurance coverage; and
  2. Such construction below the base or regional flood level increases risks to life and property.
  3. Such notifications must be maintained with a record of all variance actions.
- E. **Submittal of Hearing Notices to the Department of Natural Resources (DNR).** The Zoning Administrator must submit hearing notices for proposed variances to the DNR sufficiently in advance to provide at least ten days' notice of the hearing. The notice may be sent by electronic mail or U.S. Mail to the respective DNR area hydrologist.
- F. **Submittal of Final Decisions to the DNR.** A copy of all decisions granting variances must be forwarded to the DNR within ten days of such action. The notice may be sent by electronic mail or U.S. Mail to the respective DNR area hydrologist.
- G. **Record-Keeping.** The Zoning Administrator must maintain a record of all variance actions, including justification for their approval, and must report such variances in an annual or biennial report to the Administrator of the National Flood Insurance Program, when requested by the Federal Emergency Management Agency.

#### 993.13 - Conditional Use Permits.

- A. **Review Process and Procedure.** An application for a conditional use permit under the provisions of this Ordinance will be processed and reviewed in accordance with Chapter 904.
- B. **Factors Used in Decision-Making.** In reviewing conditional use permit applications, the City Council must consider all relevant factors specified in other Sections of this Ordinance, and the following factors in granting and imposing conditions on conditional use permits in the Floodplain Overlay District:
  1. The potential danger to life and property due to increased flood heights or velocities caused by encroachments.
  2. The danger that materials may be swept onto other lands or downstream to the injury of others.
  3. The proposed water supply and sanitation systems, if any, and the ability of these systems to minimize the potential for disease, contamination and unsanitary conditions.
  4. The susceptibility of any proposed use and its contents to flood damage and the effect of such damage on the individual owner.
  5. The importance of the services to be provided by the proposed use to the community.
  6. The requirements of the facility for a waterfront location.
  7. The availability of viable alternative locations for the proposed use that are not subject to flooding.

8. The compatibility of the proposed use with existing development and development anticipated in the foreseeable future.
  9. The relationship of the proposed use to the Comprehensive Plan and flood plain management program for the area.
  10. The safety of access to the property in times of flood for ordinary and emergency vehicles.
  11. The expected heights, velocity, duration, rate of rise and sediment transport of the flood waters expected at the site.
- C. **Conditions Attached to Conditional Use Permits.** The City Council may attach such conditions to the granting of conditional use permits as it deems necessary to fulfill the purposes of this Ordinance. Such conditions may include, but are not limited to, the following:
1. Modification of waste treatment and water supply facilities.
  2. Limitations on period of use, occupancy, and operation.
  3. Imposition of operational controls, sureties, and deed restrictions.
  4. Requirements for construction of channel modifications, compensatory storage, dikes, levees, and other protective measures.
  5. Flood-proofing measures, in accordance with the State Building Code and this Ordinance. The applicant must submit a plan or document certified by a registered professional engineer or architect that the flood-proofing measures are consistent with the regulatory flood protection elevation and associated flood factors for the particular area.
- D. **Submittal of Hearing Notices to the Department of Natural Resources (DNR).** The Zoning Administrator must submit hearing notices for conditional use permit applications to the DNR sufficiently in advance to provide at least ten days' notice of the hearing. The notice may be sent by electronic mail or U.S. Mail to the respective DNR area hydrologist.
- E. **Submittal of Final Decisions to the DNR.** A copy of all decisions granting conditional use permits must be forwarded to the DNR within ten days of such action. The notice may be sent by electronic mail or U.S. Mail to the respective DNR area hydrologist.

#### 993.14 - Non-Conformities.

- A. **Non-Conforming Uses, Structures, or Occupancies.** A use, structure, or occupancy of land which was lawful before the passage or amendment of this Ordinance but which is not in conformity with the provisions of the Floodplain Overlay District may be continued subject to the following conditions. Historic structures, as defined in Section 902.02 of this Ordinance, are subject to the provisions of Sections 993.14.A.1 through 993.14.A.6.
1. Expansion or enlargement of uses, structures, or occupancies within the Floodway District is prohibited.
  2. A nonconforming use, structure, or occupancy must not be expanded, changed, enlarged, or altered in a way that increases its flood damage potential or degree of obstruction to flood flows. Any addition or structural alteration to a nonconforming structure or nonconforming use that would result in increasing its flood damage potential must be protected to the regulatory flood protection elevation in accordance with any of the elevation on fill or flood-proofing techniques (i.e., FP1 through FP4 flood-proofing classifications) allowable in the State Building Code, except as further restricted in Sections 993.14.A.3 through 993.14.A.7 below.
  3. If the cost of all previous and proposed alterations and additions exceeds 50 percent of the market value of any nonconforming structure, it shall be considered substantial improvement, and the entire structure must meet the standards of Section 993.05 or 993.06 of this Ordinance for new structures, depending upon whether the structure is in the Floodway or Flood Fringe District, respectively. The cost of all structural alterations and additions must include all costs such as construction materials and a reasonable cost placed on all labor.
  4. If any nonconforming use, or any use of a nonconforming structure, is discontinued for more than one year,

any future use of the property or structure must conform to this Ordinance. The City Assessor must notify the Zoning Administrator in writing of instances of nonconformities that have been discontinued for a period of more than one year.

5. If any nonconformity is substantially damaged, as defined in Section 902.02, the nonconformity may not be reconstructed except in conformity with the provisions of this Ordinance. The applicable provisions for establishing new uses or new structures in Section 993.05 or 993.06 shall apply depending upon whether the use or structure is in the Floodway or Flood Fringe, respectively.
6. If any nonconforming use or structure experiences a repetitive loss, as defined in Section 902.02, it must not be reconstructed except in conformance with the provisions of this Ordinance.
7. Any substantial improvement, as defined in Section 902.02, to a nonconforming structure requires that the existing structure and any additions must meet the requirements of Section 993.05 or 993.06 for new structures, depending upon whether the structure is in the Floodway or Flood Fringe District, respectively.

#### 993.15 - Violations and Enforcement.

- A. **Violations.** Violation of the provisions of this Ordinance or failure to comply with any of its requirements, including violations of conditions and safeguards established in connection with approvals of variances or conditional uses permits, shall be penalized in accordance with Chapter 908.
- B. **Enforcement.** Violations of the provisions of this Ordinance will be investigated and resolved in accordance with the provisions of Chapter 908. In responding to a suspected Ordinance violation, the Zoning Administrator and City may utilize the full array of enforcement actions available to it including, but not limited to, prosecution and fines, injunctions, after-the-fact permits, orders for corrective measures, or a request to the National Flood Insurance Program for denial of flood insurance availability to the guilty party. The City must act in good faith to enforce these official controls and to correct Ordinance violations to the extent possible so as not to jeopardize its eligibility in the National Flood Insurance Program.
- C. **Other Lawful Action.** Nothing in this Ordinance restricts the City from taking such other lawful action as is necessary to prevent or remedy any violation. If the responsible party does not appropriately respond to the Zoning Administrator within the specified period of time, each additional day that lapses will constitute an additional violation of this Ordinance and will be prosecuted accordingly.

#### 993.16 - Amendments.

- A. **Ordinance Amendment.** All map revisions must meet the process, procedure, and standards of Chapter 903.
- B. **Restrictions on Removal.** The floodplain designation on the Official Zoning Map must not be removed from floodplain areas unless it can be shown that the designation is in error or that the area has been filled to or above the regulatory flood protection elevation and is contiguous to lands outside the floodplain. Special exceptions to this rule may be permitted by the Commissioner of the Department of Natural Resources (DNR) if the Commissioner determines that, through other measures, lands are adequately protected for the intended use.
- C. **Amendments Require DNR Approval.** All amendments to this Ordinance must be submitted to and approved by the Commissioner of the Department of Natural Resources (DNR) prior to adoption. The Commissioner must approve the amendment prior to community approval.
- D. **Map Revisions Require Ordinance Amendments.** The floodplain overlay district regulations must be amended to incorporate any revisions by the Federal Emergency Management Agency (FEMA) to the floodplain maps adopted in Section 993.03.B of this Ordinance.

CHAPTER 991 - S SHORELAND OVERLAY DISTRICT

991.01 - Purpose.

The intent of this Section is to reduce the effects of overcrowding, to prevent pollution of waters of the community, to minimize flood damages, to maintain property values, and to maintain natural characteristics of shorelands and adjacent water areas by controlling lot sizes, placement of structures on lots, and alteration of shoreland areas.

991.02 - Statutory Authorization.

This Section is adopted pursuant to the authorization and policies contained in Minn. Stats. Ch. 105, Minnesota Regulations, Parts 6120.2500—6120.3900, and the planning and zoning enabling legislation in Minn. Stats. Ch. 462.

991.03 - Shoreland Districts.

The shorelands within the City of Wayzata are hereby designated as shoreland districts and the requirements set forth in this Section shall govern development and other activities within these districts. The classification of the shoreland areas shall govern the use, alteration and development of these areas according to said classification as per Minn. Stats. 104.485 and Minn. R. NR 82-84.

991.04 - District Application.

The "S" District shall be applied to and superimposed upon all zoning districts as contained herein as existing or amended by the Zoning Ordinance text and Official Zoning Map. The regulations and requirements imposed by the "S" District shall be in addition to those established for the base zoning districts which jointly apply. Under the joint application of standards, the more restrictive requirements shall apply.

991.05 - Boundaries.

The boundaries of the Shoreland District are established within the following distances from the ordinary high water mark of the surface water depending on the size of the surface water as indicated on the Wayzata Shoreland District Map.

SURFACE WATER	DISTANCE (FEET) <sup>1</sup>
Greater than ten acres	1,000
Rivers and streams (draining an area greater than two square miles)	300 <sup>2</sup>

<sup>1</sup> The practical distance may be less whenever the waters involved are bounded by topographical divides which extend landward from the waters for lesser distances and prevent flowage toward the surface water.

<sup>2</sup> The distance requirement shall be increased to the limit of the floodplain when the floodplain is greater than 300 feet.

991.06 - Shoreland Classification System.

The surface waters affected by this Section and which require controlled development of their shoreland (Shoreland District) shall be shown on the map designated as the official "Zoning Map of the City of Wayzata" which is properly approved and made a part of this Section and filed with the Zoning Administrator. Surface waters generally greater than ten acres and given an identification number by the State of Minnesota shall be defined in Section 902.02 of this Ordinance and listed below. Other surface waters affected by this Section, generally having less than ten acres, shall be classified as stormwater treatment and control areas and thus regulated under the provisions of Chapter 992 of this Ordinance.

**A. Lakes Classification System.**

**SURFACE WATER DISTRIBUTION**

General Development Lakes	
<i>DNR Identification Number</i>	<i>Name</i>
27-133	Lake Minnetonka
Recreational Development Lakes	
<i>DNR Identification Number</i>	<i>Name</i>
27-95	Gleason Lake
27-138	Peavey Lake

991.07 - Land Use Districts.

The land uses allowable for the Shoreland Overlay District shall follow the permitted interim, accessory, and conditional use designations as defined and outlined in the base zone districts, as found in Sections 51—86 of this Ordinance, as may be amended, referred to as the Wayzata Zoning Regulations, and shall be properly delineated on the Official Zoning Map for the shorelands of Wayzata. These land use districts are in conformance with the criteria specified in Minnesota Regulation, Part 6120.3200, Subp. 3.

991.08 - Minimum Lot Size and Width.

The following chart sets forth the minimum lot sizes and width standards within the Shoreland Overlay District. Where these standards conflict with the standards of the base zoning districts, the more restrictive standard shall prevail.

**Sewered Lots**

**A. Low Density (R-1A, R-1, R-2A, R-2, R-3A, R-3, R-4A, R-4, R-5).**

RD Recreational Development		GD General Development	
Area	Width	Area	Width

1. Riparian Lots				
Single	20,000	75	10,000	75
Duplex	35,000	100	26,000	100
Triplex	50,000	125	38,000	125
Quad	65,000	150	49,000	150
2. Non-Riparian Lots				
Single	15,000	75	10,000	75
Duplex	26,000	100	17,500	100
Triplex	38,000	125	25,000	125
Quad	49,000	150	32,500	150

- B. Institutional (INS)—(See Chapter 970, INS Institutional District of this Ordinance).
- C. Commercial (C-1, C-2, C-3, C-4, C-4A, C-4B)—(See Chapters 975—980 of this Ordinance).
- D. Research and Development (RD)—(See Chapter 985 Research and Development District of this Ordinance).
- E. Business/Warehousing (B-W)—(See Chapter 986 Business/Warehouse District of this Ordinance).
- F. Substandard Lots of Record. Any lot of record filed in the office of the Hennepin County Register of Deeds on or before January 1, 1983, which does not meet the dimensional requirements of this Ordinance may be allowed as a building site subject to approval of a shoreland impact plan/conditional use permit, as provided in Section 991.19 of this Ordinance and provided:
1. The lot meets all standards of the applicable base zoning district.
  2. The lot is in separate ownership from abutting lands.
  3. All dimensional requirements of the Shoreland Overlay District are complied with insofar as practical in compliance with requirements for legal non-conforming lots found in Section 915.02.M of this Ordinance.
- G. Lots intended as controlled accesses to public waters or as recreation areas for use by owners of non-riparian lots within subdivisions are permissible, provided they are consistent with the district regulations of the Zoning Ordinance and a conditional use permit is issued consistent with Chapter 904 and Section 991.19 of this Ordinance.
1. The lot must meet the width and size requirements for riparian residential lots, and be suitable for the intended uses of controlled access lots.
  2. If docking, mooring, or over-water storage of more than six watercraft is to be allowed, the width of the lot must be increased by five percent of the minimum width requirement for riparian residential lots for each watercraft beyond six.
  3. The lot must be jointly owned by all owners of non-riparian lots in the subdivision who are provided riparian access right on the access lot.

4. Covenants must be developed that specify which lot owners have authority to use the access lot and what activities. The activities may include watercraft launching, loading, storage, beaching, mooring, or docking. They may also include outdoor recreational activities that do not significantly conflict with general public use of the public water or the normal property rights by adjacent property owners. The covenants must limit the total number of vehicles allowed and the total number of watercraft allowed to be continuously moored, docked, or stored over water.

Note—Lots developed with five or more dwelling units require approval of a planned unit development conditional use in accordance with Chapter 933 and Section 991.17 of this Ordinance.

991.09 - Minimum Setback Requirement.

The following chart sets forth the minimum setback standards within the Shoreland Overlay District. Where these standards conflict with the standards of the base zoning districts, the more restrictive standard shall prevail.

		RD Recreational Development	GD General Development
A.	Setback from Ordinary High Water Mark		
	1. Structures Sewered	75 feet	75 feet
B.	Side Yard Setbacks (Subject to individual district requirements.)		
C.	Additional Structure Setbacks		
	1. Top of Bluff	30 feet	30 feet
	2. Unplatted Cemetery	50 feet	50 feet
	Right-of-Way Line of Federal, State, or County Highway	30 feet	30 feet
	Right-of-Way Line of Public Street, or Other Roads or Streets Not Classified	(Subject to individual district requirements)	

D. Lake Shore Setbacks.

1. The setback requirements of Section 991.09 shall not apply to piers and docks. Setback requirements for water-oriented accessory structures are regulated in Section 991.13.B of this Ordinance.
2. No principal structure or building addition other than a water oriented accessory structure as specified above shall be located closer to the ordinary high water mark than the greater of:
  - a) Seventy-five feet;
  - b) A line which is drawn between the two closest riparian principal structures on either side of a proposed



- building site;
- c) The average setback of the two closest riparian principal structures on either side of a proposed building site; or
  - d) The average setback line shall be measured parallel to the ordinary high water level. In all circumstances, the setback shall be established by measuring the distance from the ordinary high water level to that part of the said principal structure that is closest to the lake.
3. The required setback distance may be reduced by a variance if the following conditions are met:
- a) The minimum setback from the ordinary high water mark is at least 75 feet;
  - b) The setback shall not adversely impact views of the shoreline or lake for adjacent neighboring principal structures;
  - c) The reduction of setback requirements is based upon a specific need or circumstance which is unique to the property in question and which, if approved, will not set a precedent which is contrary to the intent of this Ordinance. However, any structure built as a result of an issued variance shall be considered in determining the proper setback of future construction on adjacent lots;
  - d) A shoreland impact plan is submitted and approved as required and set forth in Section 991.19 of this Ordinance;
  - e) The conditions of Chapter 905 and Section 991.20 of this Ordinance are considered and satisfactorily met.

#### 991.10 - Building/Structure Height.

The minimum building structure height for either lake classification shall follow the individual district requirements of the base zoning districts but shall not exceed 35 feet. Building heights of over 35 feet may be allowed through approval of a shoreland impact plan/conditional use permit as regulated under Section 991.19 of this Ordinance.

#### 991.11 - Impervious Surface Coverage.

##### A. Allowable Coverage.

1. Impervious surface coverage for lots in all zoning districts shall not exceed 25 percent of the lot area, except as provided below:
  - a) Where appropriate and where structures and practices are in place for the treatment of stormwater runoff and/or prevent stormwater from directly entering a public water in compliance with the Stormwater Management Plan for the City of Wayzata, May 1988 as may be amended, or as approved by the City Engineer, impervious surface coverage may be allowed to exceed 25 percent impervious surface coverage to a maximum of 75 percent on any one site.
  - b) Impervious surface coverage may be allowed to exceed 75 percent of the total lot area when the following stipulations are met:
    - 1) All structures and practices are in place for the treatment of stormwater runoff.
    - 2) A shoreland impact plan/conditional use permit is submitted and approved as provided for in Section 991.19.A of this Ordinance, subject to the conditions listed in Section 991.19.C of this Ordinance.
2. Measures for the treatment of stormwater runoff and/or prevention of stormwater from directly entering a public water include such appurtenances as sediment basins (debris basins, desilting basins, or silt traps), installation of debris guards and microsilt basins on storm sewer inlets, oil skimming devices, etc.

#### 991.12 - Residential Density.

In cases where the residential density requirements, as specified in Section 991.08 of this Ordinance, shall be exceeded, the maximum allowed density shall be that set forth by the base zoning district of the subject property. For high density residential, including planned unit development, the density may not exceed the density standards as specified in the R-5 District provided in Chapter 959 of this Ordinance. Development which exceeds the residential density requirements, as specified in Section 991.08 of this Ordinance, shall be in conformance with the Shoreland Management Plan and subject to a conditional use permit and shoreland impact plan set forth in Section 991.19., subject to the conditions listed in Section 991.19.D of this Ordinance and subject to approval of the plan by the Minnehaha Creek Watershed District and the City Engineer.

#### 991.13 - Design Criteria for Structures.

##### A. Design Criteria for Structures.

1. High Water Elevations. Structures shall be placed in accordance with any floodplain regulations applicable to the site. Where these controls do not exist, the elevation to which the lowest floor, including basement, is placed or flood-proofed shall be determined as follows:
  - a) For lakes, by placing the lowest floor at a level at least three feet above the highest known water level, or three feet above the ordinary high water level, whichever is higher;
  - b) For rivers and streams, by placing the lowest floor at least three feet above the flood of record, if data is available. If data is not available, by placing the lowest floor at least three feet above the ordinary high water level, or by conducting a technical evaluation to determine effects of proposed construction upon flood stages and flood flows and to establish a flood protection elevation. Under all three approaches, technical evaluations shall be done by a qualified engineer or hydrologist consistent with Minn. Stats. Parts 6120.500 to 6120.6200 governing the management of floodplain areas. If more than one approach is used, the highest flood protection elevation determined shall be used for placing structures and other facilities; and
  - c) Water-oriented accessory structures may have the lowest floor placed lower than the determined elevation if the structure is constructed of flood-resistant materials to the elevation, electrical and mechanical equipment is placed above the determined elevation and, if long duration flooding is anticipated, the structure is built to withstand ice action and wind-driven waves and debris.

##### B. Water-Oriented Accessory Structures. As may be allowed by the respective base zoning district, each lot may have one water-oriented accessory structure not meeting the normal structure setback in Section 991.09 of this Ordinance if this water-oriented accessory structure complies with the following provisions:

1. The structure or facility shall not exceed ten feet in height, exclusive of safety rails, and cannot occupy an area greater than 250 square feet. Detached decks shall not exceed eight feet above grade at any point;
2. The setback of the structure or facility from the ordinary high water level shall be at least ten feet;
3. The structure or facility shall be treated to reduce visibility as viewed from public waters and adjacent shorelands by vegetation, topography, increased setbacks or color, assuming summer, leaf-on conditions;
4. The roof may be used as a deck with safety rails, but shall not be enclosed or used as a storage area;
5. The structure or facility shall not be designed or used for human habitation and shall not contain water supply or sewer treatment facilities; and
6. As an alternative for general development and recreational development water bodies, water-oriented accessory structures used solely for watercraft storage, and including storage of related boating and water-oriented sporting equipment, may occupy an area up to 400 square feet, provided the maximum width of the structure shall be 20 feet as measured parallel to the configuration of the shoreline.

##### C. Stairways, Lifts, and Landings. Stairways and lifts are the preferred alternative to major topographic alterations for achieving access up and down bluffs and steep slopes to shore areas. Stairways and lifts shall meet the following

design requirements:

1. Stairways and lifts shall not exceed four feet in width on residential lots. Wider stairways may be used for commercial properties, and planned unit developments;
  2. Landings for stairways and lifts on residential lots shall not exceed 32 square feet in area. Landings larger than 32 square feet may be used for commercial properties, public open space recreational properties, and planned unit developments;
  3. Canopies or roofs shall not be allowed on stairways, lifts, or landings;
  4. Stairways, lifts, and landings may be either constructed above the ground on posts or pilings, or placed into the ground, provided they are designed and built in a manner that ensures control of soil erosion;
  5. Stairways, lifts, and landings shall be located in the most visually inconspicuous portions of lots, as viewed from the surface of the public waters assuming summer, leaf-on conditions, whenever practical; and
  6. Facilities such as ramps, lifts, or mobility paths for physically handicapped persons shall also be allowed for achieving access to shore areas, provided that the dimensional and performance standards of items 1 to 5 listed above are complied with in addition to the requirements of Minnesota Regulations, Chapter 1340.
- D. **Significant Historic Sites.** No structure may be placed on a significant historic site in a manner that affects the values of the site unless adequate information about the site has been documented in a public repository.
- E. **Steep Slopes.** The Zoning Administrator shall evaluate possible soil erosion impacts and development visibility from public waters before issuing a permit for construction of roads, driveways, structures, or other improvements on steep slopes. When determined necessary, conditions shall be attached to permits to prevent erosion and preserve existing vegetation screening of structures, vehicles, and other facilities as viewed from the surface of public waters, assuming summer, leaf-on vegetation.
- F. **Bluff Impact Zones.** Structures and accessory facilities, except stairways and landings, shall not be placed within bluff impact zones.
- G. **Standards for Commercial, Industrial, Public, and Semi-Public Uses.**
1. Surface water-oriented commercial uses and industrial, public, or semi-public uses with similar needs to have access to and use of public waters may be located on parcels or lots with frontage on public waters. Those uses with water-oriented needs shall meet the following standards:
    - a) In addition to meeting impervious coverage limits, setbacks, and other zoning standards in this Ordinance, the uses shall be designed to incorporate topographic and vegetative screening of parking areas and structures.
    - b) Uses that require short term watercraft mooring for patrons shall centralize these facilities and design them to avoid obstructions of navigation and to be the minimum size necessary to meet the need.
    - c) Uses that depend on patrons arriving by watercraft may use signs and lighting to convey needed information to the public, subject to the following general standards:
      - 1) No advertising signs or supporting facilities for signs shall be placed in or upon public waters. Signs conveying information or safety messages shall be placed in or on public waters by a public authority or under a permit issued by the County Sheriff.
      - 2) Signs may be placed, when necessary, within the shore impact zone if they are designed and sized to be the minimum necessary to convey needed information. They shall only convey the location and name of the establishment and the general types of goods or services available. The signs shall not contain other detailed information such as product brands and prices, shall be in conformance with Chapter 927 of this Ordinance, but under no circumstance shall they be located higher than

ten feet above the ground, and shall not exceed 32 square feet in size. If illuminated by artificial lights, the lights shall be shielded or directed to prevent excessive illumination out across public waters or on shore.

- 3) Other outside lighting may be located within the shore impact zone or over public waters if it is used primarily to illuminate potential safety hazards and is shielded or otherwise directed to prevent excessive illumination out across public waters or on shore. This does not preclude use of navigational lights.
2. Uses without water-oriented needs shall be located on lots or parcels without public waters frontage, or if located on lots or parcels with public waters frontage, shall either be set back double the normal ordinary high water level setback or be substantially screened from view from the water by vegetation or topography, assuming summer leaf on conditions.

#### 991.14 - Shoreland Alterations.

Alterations of vegetation and topography shall be regulated to prevent erosion into public waters, fix nutrients, preserve shoreland aesthetics, preserve historic values, prevent bank slumping, and protect fish and wildlife habitat.

##### A. **Vegetation Alterations.**

1. Vegetation alteration necessary for the construction of structures and the construction of roads and parking areas regulated by Section 991.14.C of this Ordinance are exempt from the vegetation alteration standards that follow:
  - a) Intensive vegetation clearing within the shore and bluff impact zones and on 2. Removal or alteration of vegetation shall be allowed subject to the following standards:
    - 1) Steep slopes shall not be allowed.
    - b) In shore and bluff impact zones and on steep slopes, limited clearing of trees and shrubs and cutting, pruning, and trimming of trees shall be allowed to provide a view to the water from the principal dwelling site and to accommodate the placement of stairways and landings, picnic areas, access paths, beach and watercraft access areas, and permitted water-oriented accessory structures or facilities, provided that:
      - 1) The screening of structures, vehicles, or other facilities as viewed from the water, assuming summer, leaf-on conditions, shall not be substantially reduced;
      - 2) The above provisions are not applicable to the removal of trees, limbs, or branches that are dead, diseased, or pose safety hazards.

##### B. **Topographic Alterations/Grading and Filling.**

1. Grading and filling, and excavations necessary for the construction of structures, and driveways under approved construction permits for these facilities shall not require the issuance of a separate grading and filling permit. However, the grading and filling standards in this section shall be incorporated into the issuance of permits for construction of structures, and driveways.
2. Notwithstanding items A and B above, a shoreland permit shall be required from the Zoning Administrator for:
  - a) The movement of more than ten cubic yards of material on steep slopes or within shore or bluff impact zones; and
  - b) The movement of more than 50 cubic yards of material outside of steep slopes and shore and bluff impact zones.
3. The following considerations and conditions shall be adhered to during the issuance of permits, conditional use permits, variances and subdivision approvals:
  - a) Grading or filling in any type two, three, four, five, six, seven, or eight wetland shall be evaluated to determine how extensively the proposed activity would affect the following functional qualities of the

wetland. \*

- 1) Sediment and pollution trapping and retention;
- 2) Storage of surface runoff to prevent or reduce flood damage;
- 3) Fish and wildlife habitat;
- 4) Recreational use;
- 5) Shoreline or bank stabilization; and
- 6) Noteworthiness, including special qualities such as historic significance, critical habitat for endangered plants and animals, or others.

\* This evaluation shall also include a determination of whether the wetland alteration being proposed requires permits, reviews, or approvals by other local, state, or federal agencies such as the Minnehaha Creek Watershed District, the Minnesota Department of Natural Resources, or the United States Army Corps of Engineers. The applicant shall be so advised.

- b) Alterations shall be designed and conducted in a manner that ensures only the smallest amount of bare ground is exposed for the shortest time possible;
  - c) Mulches or similar materials shall be used, where necessary, for temporary bare soil coverage, and permanent vegetation cover shall be established as soon as possible.
  - d) Methods to minimize soil erosion and to trap sediments before they reach any surface water feature shall be used;
  - e) Altered areas shall be stabilized to acceptable erosion control standards consistent with the field office technical guides of the local soil and water conservation districts and the United States Soil Conservation Service;
  - f) Fill or excavation material shall not be placed in a manner that creates an unstable slope;
  - g) Plans to place fill or excavate material on steep slopes shall be reviewed by qualified professionals for continued slope stability and shall not create finished slopes of 30 or greater;
  - h) Fill or excavated material shall not be placed in bluff impact zones;
  - i) Any alterations below the ordinary high water level of public waters shall first be authorized by the Commissioner under Minn. Stats. § 105.42.
  - j) Alterations of topography shall only be allowed if they are accessory to permitted or conditional uses and shall not adversely affect adjacent or nearby properties; and
  - k) Placement of natural rock riprap, including associated grading of the shoreline and placement of a filter blanket, shall be permitted if the finished slope does not exceed three feet horizontal to one foot vertical, and the landward extent of the riprap is within ten feet of the ordinary high water level, and the height of the riprap above the ordinary high water level does not exceed three feet.
4. Connections to Public Waters. Excavation where the intended purpose is connection to a public water, such as boat slips, canals, lagoons, and harbors, shall be controlled by local shoreland controls. Permission for excavations may be given only after the Commissioner has approved the proposed connection to public waters.

**C. Placement and Design of Roads, Driveways, and Parking Areas.**

1. Public and private roads and parking areas shall be designed to take advantage of natural vegetation and topography to achieve maximum screening from view from public waters. Documentation shall be provided by a qualified individual that all roads and parking areas are designed and constructed to minimize and control erosion to public waters consistent with the guidelines of the Minnehaha Creek Watershed District.
2. Roads, driveways, and parking areas shall meet structure setbacks and shall not be placed within bluff and

shore impact zones, when other reasonable and feasible placement alternatives exist. If no alternatives exist, they may be placed within these areas, and shall be designed to minimize adverse impacts.

3. Public and private watercraft access ramps, approach roads, and access-related parking areas shall be placed within shore impact zones provided the vegetative screening and erosion control conditions of this sub-part are met. For private facilities, the grading and filling provisions of Section 991.14.B of this Ordinance shall be met.

**D. Stormwater Management.** All development within the Shoreland Overlay District shall be consistent with the Stormwater Management Plan for the City of Wayzata, May 1988 as may be amended and the following general and specific standards.

**1. General Standards.**

- a) When possible, existing natural drainageways, wetlands, and vegetated soil surfaces shall be used to convey, store, filter, and retain stormwater runoff before discharge to public waters.
- b) Development shall be planned and conducted in a manner that will minimize the extent of disturbed areas, runoff velocities, erosion potential, and reduce and delay runoff volumes. Disturbed areas shall be stabilized and protected as soon as possible and facilities or methods used to retain sediment on the site.
- c) When development density, topographic features, and soil and vegetation conditions are not sufficient to adequately handle stormwater runoff using natural features and vegetation, various types of constructed facilities such as diversions, settling basins, skimming devices, dikes, waterways, and ponds may be used. Preference must be given to designs using surface drainage, vegetation, and infiltration rather than buried pipes and manmade materials and facilities.

**E. Specific Standards.**

1. When constructed facilities are used for stormwater management, documentation shall be provided by a qualified individual that they are designed and installed consistent with the field guidelines of the Minnehaha Creek Watershed District.
2. Newly constructed stormwater outfalls to public waters shall provide for filtering or settling of suspended solids and skimming of surface debris before discharge.

**991.15 - Non-Conformities.**

All legally established non conformities as of the date of this Ordinance may continue, but they shall be managed according to applicable state statutes and regulations of Chapter 915 of this Ordinance regulating non-conformities for the subjects of alterations and additions, repair after damage, discontinuance of use, and intensification of use, except that the following standards shall also apply in shoreland areas.

**A. Additional/Expansions to Non-Conforming Structures.**

1. All additions or expansions to the outside dimensions of an existing non-conforming structure shall meet the setback, height, and other requirements of Section 991.08, 991.09 and 991.10 of this Ordinance. Any deviation from these requirements shall be authorized by a variance pursuant to Section 991.20 of this Ordinance.
2. Deck additions may be allowed without a variance to a structure not meeting the required setback from the ordinary high water level if all of the following criteria and standards are met:
  - a) The structure existed on the date the structure setbacks were established;
  - b) A thorough evaluation of the property and structure reveals no reasonable location for a deck meeting or exceeding the existing ordinary high water level setback of the structure;
  - c) The deck encroachment toward the ordinary high water level does not exceed 15 percent of the existing setback of the structure from the ordinary high water level or does not encroach closer than 30 feet,

whichever is more restrictive; and

- d) The deck is constructed primarily of wood, and is not roofed or screened.

991.16 - Administration.

- A. **Compliance.** The use of any shoreland of public waters; the size and shape of lots; the use, size, type and location of structures on lots; the installation and maintenance of water supply and waste removal systems, the grading and filling of any shoreland area; the cutting of shoreland vegetation; and the subdivision of land shall be in full compliance with the terms of this Section and Ordinance and other applicable regulations. In cases where standards conflict with the standards of the base zoning districts, the more restrictive standard will prevail.
- B. **Relationship to Floodplain.** Placement of all structures shall comply with Chapter 992 of this Ordinance.
- C. **Shoreland Permits Required.** A shoreland permit shall be required for the construction of buildings or building additions (and including such related activities as construction of decks and signs), and those grading and filling activities not exempted by Section 991.14.B of this Ordinance. Application for a permit shall be made to the Zoning Administrator on the forms provided.
- D. **Certificate of Zoning Compliance.** The Zoning Administrator shall issue a certificate of occupancy as regulated by Chapter 907 of this Ordinance upon compliance with each activity requiring a shoreland permit as specified in Section 991.96.C of this Ordinance. Any use, arrangement, or construction at variance with that authorized by permit shall be deemed a violation of this Section and shall be punishable as provided in Chapter 908 of this Ordinance.

991.17 - Residential Planned Unit Development (PUD).

Residential planned unit development conditional uses are allowed for new projects on undeveloped land, redevelopment of previous built sites or conversion of existing buildings and land. All lots developed with five or more dwelling units require approval of a planned unit development conditional use in compliance with this Ordinance. Planned unit development shall comply with the following criteria.

- A. Residential planned unit development shall be processed as a conditional use in accordance with Chapter 933 of this Ordinance.
- B. Application for a residential planned unit development shall follow the guidelines in Chapter 933 of this Ordinance.
- C. Site "Suitable Area" Evaluation. Proposed residential planned unit developments shall be evaluated using the following procedures and standards to determine the suitable area for the dwelling unit/dwelling site density evaluation in Section 991.17.D, E, and F of this Ordinance.
  - 1. The development parcel shall be divided into tiers by locating one or more lines approximately parallel to a line that identifies the ordinary high water level at the following intervals, proceeding landward.

Shoreland Tier Dimensions	
	Sewered (Feet)
General Development Lakes—First Tier	200
General Development Lakes and Additional Tiers—Second	200
Recreational Development Lakes	267

2. The suitable area within each tier is next calculated by excluding from the tier area all wetlands, bluffs, or land before the ordinary high water level of public waters. This suitable area and the proposed development are then subjected to the residential planned unit development density evaluation steps to arrive at an allowable number of dwelling units or sites.
- D. PUD Density Evaluation. The procedures for determining the "base" density of a PUD and density increase multipliers are as follows: Allowable densities may be transferred from any tier to any other tier further from the water body, but shall not be transferred to any other tier closer.
- E. PUD "Base" Density Evaluation. The suitable area within each tier is divided by the single residential lot size standard for lakes. Proposed locations and numbers of dwelling units or sites for the residential planned unit developments are then compared with the tier, density, and suitability analyses herein and the design criteria in Section 991.18.G of this Ordinance.
- F. Density Increase Multipliers.
1. Increases to the dwelling unit or dwelling site base densities previously determined shall be allowed if the dimensional standards in Section 991.08 of this Ordinance are met or exceeded and the design criteria in Section 991.17.G of this Ordinance are satisfied. The allowable density increases in item 2 below shall only be allowed if structure setbacks from the ordinary high water level are increased to at least 50 percent greater than the minimum setback, or the impact on the water body is reduced an equivalent amount through vegetative management, topography, or additional means acceptable to the local unit of government and the setback is at least 25 percent greater than the minimum setback.
  2. Allowable dwelling unit or dwelling site density increases for planned unit development.

Density Evaluation Tiers	Maximum Density Increase Within Each Tier(Percent)
First	50
Second	100
Third	200
Fourth	200
Fifth	200

- G. Maintenance and Design Criteria.
1. Before final approval of a residential planned unit development, adequate provisions shall be developed for preservation and maintenance in perpetuity of open spaces and for the continued existence and functioning of the development.
  2. Open Space Preservation. Deed restrictions, covenants, permanent easements, public dedication and acceptance, or other equally effective and permanent means shall be provided to ensure long-term preservation and maintenance of open space. The instruments shall include all of the following protections.
    - a) Commercial use prohibited (for residential PUDs); and
    - b) Vegetation and topographic alterations other than routine maintenance prohibited; and



- c) Construction of additional buildings or storage of vehicles and other materials prohibited; and
  - d) Uncontrolled beaching of watercraft prohibited.
- 3. Development organization and functioning. Unless an equally effective alternative community framework is established, when applicable, all residential planned unit developments shall use an owners association with the following features.
  - a) Membership shall be mandatory for each dwelling unit or site purchaser and any successive purchasers;
  - b) Each member shall pay a pro rata share of the association's expenses, and unpaid assessments can become liens on units or sites;
  - c) Assessments shall be adjustable to accommodate changing conditions; and
  - d) The association shall be responsible for insurance, taxes, and maintenance of all commonly owned property and facilities.
- H. Open Space Requirements. Residential planned unit developments shall contain open space meeting the following criteria.
  - 1. At least 30 percent of the total development area shall be preserved as open space;
  - 2. Dwelling units or sites, land covered by road surfaces, parking areas, or structures are developed areas and shall not be included in the computation of minimum open space;
  - 3. Open space shall include areas with physical characteristics unsuitable for development in their natural state, and areas containing significant historic sites or unplatted cemeteries;
  - 4. The appearance of open space areas, including topography, vegetation, and allowable uses, shall be preserved by use of restrictive deed covenants, permanent easements, public dedication and acceptance, or other equal effective and permanent means; and
  - 5. The shore impact zone, based on normal structure setbacks, shall be included as open space. For residential PUDs, at least 50 percent of the shore impact zone area of existing developments or at least 70 percent of the shore impact zone area of new developments shall be preserved in its natural or existing state.
- I. Erosion Control and Stormwater Management. Erosion control and stormwater management plans shall be developed and the residential planned unit development shall.
  - 1. Be designed, and the construction managed, to minimize the likelihood of serious erosion occurring either during or after construction. This shall be accomplished by limiting the amount and length of time of bare ground exposure. Temporary ground covers, sediment entrapment facilities, vegetated buffer strips, or other appropriate techniques shall be used to minimize erosion impacts on surface water features. Erosion control plans approved by a soil and water conservation district may be required if project size and site physical characteristics warrant; and
  - 2. Be designed and constructed to effectively manage reasonably expected quantities and qualities of stormwater runoff.
- J. Centralization and Design of Facilities. Centralization and design of facilities and structures shall be done according to the following standards:
  - 1. Dwelling units or sites shall be clustered into one or more groups and located on suitable areas of the development. They shall be designed and located to meet or exceed the following dimensional standards for the relevant shoreland classification setback from the ordinary high water level, elevation above the surface water features, and maximum height. Setbacks from the ordinary high water level shall be increased in accordance with Section 991.17.F of this Ordinance for developments with density increases;
  - 2. Structures, parking areas, and other facilities shall be treated to reduce visibility as viewed from public waters and adjacent shorelands by vegetation, topography, increased setbacks, or color, assuming summer, leaf-on conditions. Vegetative and topographic screening shall be preserved, if existing, or may be required to be

provided;

3. Accessory structures and facilities shall meet the required principal structure setback and shall be centralized.

#### 991.18 - Planned Unit Development District.

Mixed use planned unit development is allowed for integration and coordination of land parcels as well as the combination of varying types of residential and commercial uses.

- A. **Application/Procedures.** Applications and procedures for a planned unit development district in the shoreland area shall be consistent with Chapters 990 and 933 and Section 991.17 regarding planned unit development. The DNR shall be notified of rezoning to a PUD as required in Section 991.22.

#### 991.19 - Shoreland Impact Plan/Conditional Use Permit.

- A. **Shoreland Impact Plan.** Except for situations listed below, landowners or developers desiring to develop land or construct any dwelling or any other artificial obstruction on land located within any Shoreland District within the City of Wayzata shall first submit a conditional use permit application as regulated by Chapter 904 of this Ordinance and a plan of development, hereinafter referred to as "Shoreland Impact Plan," which shall set forth proposed provisions for sediment control, water management, maintenance of landscaped features, and any additional matters intended to set forth proposed changes requested by the applicant and affirmatively disclose what, if any, change will be made in the natural condition of the earth, including loss of change of earth ground cover, destruction of trees, grade courses and marshes. The plan shall minimize tree removal, ground cover change, loss of natural vegetation, and grade changes as much as possible, and shall affirmatively provide for the relocation or replanting of as many trees as possible which are proposed to be removed. The purpose of the shoreland impact plan shall be to eliminate and minimize as much as possible potential pollution, erosion and siltation.
- B. **Exceptions.**
  1. No conditional use permit or shoreland impact plan shall be required for the development of permitted accessory uses contained within the R-1A, R-1, R-2 and R-3 Districts.
  2. No conditional use permit or shoreland impact plan shall be required for the development of permitted principal uses contained within the zoning districts, provided that such uses are constructed on standard lots and in compliance with the standards of this Ordinance and that all such uses are serviced with public sanitary sewer.
- C. **Conditions.** All conditional use permits for consideration under this Section shall be subject to the following stipulations.
  1. The projects shall be analyzed to determine the impact of impervious surfaces, stormwater runoff, floodplain, and water quality implications. Only those projects shall be allowed where the adverse impacts have been mitigated through approved means to the extent possible.
  2. Stormwater treatment measures including, but not limited to, sediment basins (debris basins), desilting basins or silt traps, installation of debris guards, and microsilt basins on stormwater inlets, oil skimming devices, etc. shall be required subject to the review of the City Engineer and the Minnehaha Creek Watershed District on projects where applicable.
  3. Projects shall be analyzed in terms of provisions for maintenance and enhancement of landscape features, and change in the natural condition of the soil, trees, grade courses and marshes. The vegetative planting plan shall contain trees, when fully mature, that will exceed the building height. The plan shall also minimize tree removal, ground cover change, loss of natural vegetation, and grade changes as much as possible. It shall further provide for the relocation or replanting of trees which are proposed to be removed.
  4. Projects shall be analyzed in terms of the appearance of the structure when viewed from the lake's surface.

Building materials, and color shall be analyzed to determine which facade and roof materials minimize the appearance and blend the structure into the shoreland and vegetation.

5. Building heights shall be analyzed to determine the impact on surrounding structures and views from the lake surface or other shores. Structures shall not be allowed to exceed a height beyond that is allowed by the base zoning district or cannot be screened by landscaping or other design measures.
6. Residential densities on a project basis shall not be allowed to exceed the maximum allowed density of the base zoning district for which the project is proposed. For higher density residential development and planned unit developments, the density shall not be allowed to exceed the density standards as specified in the R-5 District of this Ordinance.
7. Lot coverage on a project basis shall be restricted to the provisions for maximum impervious surface coverage as provided for in this Ordinance.
8. Overall residential densities in the shoreland area shall not exceed the surplus development capacity for residential density, as calculated for Lake Minnetonka, Gleason and Peavey Lakes, as specified in the Wayzata Comprehensive Plan/Shoreland Management Plan, as may be amended.
9. Overall lot coverage in the shoreland area shall not exceed the surplus development capacity for impervious surface coverage calculated for Lake Minnetonka, Gleason and Peavey Lakes, as specified in the Wayzata Comprehensive Plan/Shoreland Management Plan, as may be amended.
10. All projects shall be in conformance with the Stormwater Management Plan for the City of Wayzata, May 1988, as may be amended and/or approved by the City Engineer.
11. All projects shall be in conformance with the Wayzata Comprehensive Plan/Shoreland Management Plan, as may be amended.
12. All projects shall be subject to the review of the Minnehaha Creek Watershed District.

#### 991.20 - Variance.

Variations may be granted by the City Council in accordance with Chapter 905 of this Ordinance in extraordinary cases, but only when the proposed use is determined to be in the public interest. The following additional criteria shall apply within shoreland areas:

- A. Result in the placement of an artificial obstruction which shall restrict the passage of storm and flood water in such a manner as to increase the height of flooding, except obstructions approved by the U.S. Army Corps of Engineers in conjunction with sound floodplain management.
- B. Result in incompatible land uses or which shall be detrimental to the protection of surface and ground water supplies.
- C. Be not in keeping with land use plans and planning objectives for the City of Wayzata or which shall increase or cause danger to life or property.
- D. Be inconsistent with the objectives of encouraging land uses compatible with the preservation of the natural land forms, vegetation and the marshes and wetlands within the City of Wayzata.
- E. Shall constitute a hardship as defined in Chapter 905 of this Ordinance.
- F. No permit or variance shall be issued unless the applicant has submitted a Shoreland Impact Plan as required and set forth in this Ordinance. In granting any variance, the City Council may attach such conditions as they deem necessary to ensure compliance with the purpose and intent of this Section.

#### 991.21 - Subdivision/Platting Provisions.

- A. **Land Suitability.** Each lot created through subdivision, including planned unit developments authorized under Section 991.17 of this Ordinance, shall be suitable in its natural state for the proposed use with minimal alteration.

Suitability analysis by the local unit of government shall consider susceptibility to flooding, existence of wetlands, soil and susceptibility to flooding, existence of wetlands, soil and rock formations with severe limitations for development, severe erosion potential, steep topography, inadequate water supply or sewage removal capabilities, near shore aquatic conditions unsuitable for water based recreation, important fish and wildlife habitat, presence of significant historic sites, or any other feature of the natural land likely to be harmful to the health, safety, or welfare of future residents of the proposed subdivision or of the community.

- B. **Consistency with Other Controls.** Subdivisions shall conform to all provisions for subdivision, found as Part X of this Code. A subdivision shall not be approved where a later variance from one or more standards in official controls would be needed to use the lots for their intended purposes.
- C. **Information Requirements.** Sufficient information must be submitted by the applicant for the community to make a determination of land suitability. The information shall include the provisions found as Part X of this Code and the following additional evaluation criteria and conditions:
1. The surface water features required in Minn. Stats. § 505.02, Subd. 1, to be shown on plats;
  2. Information regarding adequacy of domestic water supply; extent of anticipated vegetation and topographic alterations; near-shore aquatic conditions, including depths, types of bottom sediments, and aquatic vegetation; and proposed methods for controlling stormwater runoff and erosion, both during and after construction activities;
  3. Location of 100-year floodplain areas and floodway districts from existing adopted maps or data; and
  4. A line or contour representing the ordinary high water level, the "toe" and the "top" of bluffs, and the minimum building setback distances from the top of the bluff and the lake or stream.
- D. **Dedications.** When a land or easement dedication is a condition of subdivision approval, the approval shall provide easements over natural drainage or ponding areas for management of stormwater and significant wetlands.

#### 991.22 - Notifications to the Department of Natural Resources.

- A. Copies of all notices of any public hearings to consider subdivisions/plats, variances, amendments, or conditional uses resulting from the requirements of Chapter 991 of this Ordinance shall be sent to the Commissioner or the Commissioner's designated representative and postmarked at least ten days before the hearings. Notices of hearings to consider proposed subdivisions/plats shall include copies of the subdivision/plat.
- B. A copy of approved amendments and subdivisions/plats, and final decisions granting variances or conditional uses under this Shoreland Ordinance shall be sent to the Commissioner or the Commissioner's designated representative and postmarked within ten days of final action.

#### 991.23 - Effect of Permit.

The granting of any permit, variance or subdivision approval under provisions of this Ordinance shall in no way affect the owner's capability to obtain the approval required by any other statute, ordinance or legislation of any state agency or subdivision thereof. Approval may be expressly given in conjunction with other permits applied for, but no approval shall be implied from the grant of such permits nor from the necessity to apply for a permit as described herein.

## CHAPTER 992 - W WETLANDS OVERLAY DISTRICT

## 992.01 - Purpose.

It is the purpose and intent of this Section to protect and conserve wetland resources in the City of Wayzata in view of the facts that they serve as beneficial wildlife habitat, and that they also provide an effective, natural treatment, and control, of the City of Wayzata's stormwater runoff. Certain low lying and/or wetland areas of the City act as natural stormwater treatment control areas by detaining stormwater runoff, by allowing suspended sediment to settle from such water, and by removing nutrients from the runoff. These detention and drainageways thereby beneficially control both quantity and quality of stormwater runoff, and provide habitat for wildlife. A development or alteration of such areas could severely reduce the overall effectiveness of the City's stormwater treatment and control system by increasing potential pollution of Lake Minnetonka and increasing the flood damage potential to areas adjacent to the natural drainage areas. The preservation of areas containing low lands, marshes, wetlands, drainage areas, water bodies and waterways necessary to implement the Wayzata Comprehensive Stormwater Management Plan is essential to the health, safety and general welfare of the City's residents. The Wayzata Comprehensive Stormwater Management Plan is on file at Wayzata City Hall and was adopted on August 2, 1988, by the Wayzata City Council.

## 992.02 - District Application.

- A. All wetlands and their flood envelopes within the City of Wayzata are hereby designated as part of the Wayzata Wetlands Overlay District, and the requirements set forth in this Ordinance shall govern development and other activities within these districts.
- B. The Wetland System District Map shall be on file in the office of the City Engineer Department, together with all explanatory matter thereon or attached thereto, and declared to be part of this Ordinance. The map shall be open to inspection by the public during normal business hours of the City Hall.
- C. The Wayzata Wetlands Overlay District shall be applied to and superimposed upon all zoning districts as contained herein as existing or amended by the text and map of this Ordinance. The regulations and requirements imposed by the Wayzata Wetlands Overlay District shall be in addition to those established for districts which jointly apply. Under the joint application of districts, the more restrictive requirements shall apply.
- D. The boundaries of wetlands and flood envelopes within the City may be changed by the City Council when it can be demonstrated by registered site survey and topographic work, and hydrologic analysis performed by registered engineer or land surveyor that the established boundaries shown on the Wetland System District Map are incorrect.

## 992.03 - Permitted Uses.

- A. Conservation of soil, vegetation, water, fish and wildlife.
- B. Scientific research and educational activities teach principles of ecology and conservation.
- C. General outdoor recreation and leisure activities that are not inconsistent with the intent of this Ordinance and do not adversely affect the district's wildlife habitat or stormwater runoff quality enhancement values as measured by methodologies used in the "Stormwater Management Plan for the City of Wayzata."

#### 992.04 - Conditional Uses.

The following operations and uses are allowed in the Wetlands Overlay District by conditional use permit.

- A. Excavation or filling within any Wetland Overlay District which, as determined by the City Council, will mitigate or enhance previous actions, activities or conditions in an altered wetland. This may include actions which will improve the condition of wildlife habitat and/or stormwater runoff values in the wetlands district. Conditional uses within the Wetland Overlay District must also meet the standards outlined in Section 992.07.

#### 992.05 - Permitted Uses in Flood Envelope.

The following operations and uses are permitted in the flood envelope as a matter of right, subject to any other applicable codes, ordinances or law:

- A. Grazing, farming, nurseries, gardening, and harvesting of crops.
- B. Residential uses such as lawns, gardens, and play areas, but excluding structures and buildings except those permitted as conditional uses (Section 992.06).
- C. Parking for commercial uses, provided that the established quality and quantity standards for specific wetlands will be maintained or exceeded.

#### 992.06 - Conditional Uses in Flood Envelope.

The following operations and uses are allowed in the flood envelope by conditional use permit which require processing pursuant to Chapter 904 of this Ordinance:

- A. Digging, dredging, extraction of any material from water bodies, water courses, wetlands, floodplain or natural drainage system.
- B. Creation of ponds, dam or relocation of any water course or changes to the natural drainage system.
- C. Storage yards for equipment, machinery or materials.
- D. Accessory buildings or structures.
- E. Railroads, streets, parking lots, bridges, utility transmission lines and pipelines.
- F. The construction or placement of structures for human habitation on fill, provided the

requirements of Section 992.07 are met.

992.07 - Restrictions on Issuance of Conditional Use Permits in the Flood Envelope of the Wayzata Wetlands Overlay District.

No conditional use permit shall be issued unless the following provisions are complied with:

- A. No structure (temporary or permanent), fill (including fill for roads and levies), obstruction, storage of materials or equipment, or other uses may be allowed as a conditional use, which acting alone or in combination with existing or reasonably anticipated future uses, adversely affects the capacity of a floodway or wetland, or increases water levels beyond permitted (see Section 992.07.D) levels.
- B. No permit shall be issued with results in a use or obstruction detrimental to the protection of surface and groundwater supplies.
- C. No permit shall be issued which will result in an obstruction or use incompatible with preservation of those natural land forms, vegetation and adjacent marshes and wet areas contiguous to stormwater detention areas or channels in the City which are principal factors in the management of surface water runoff throughout the year.
- D. No permit shall be issued which results in development of land in stormwater detention areas necessary for temporary withholding of excessive runoff of surface water, or of land and water areas which provide groundwater infiltration, and which development will or may decrease the capacity or to provide such groundwater infiltration.
- E. No permit shall be issued unless the proposed use, alteration or obstruction has received the approval of all governmental bodies having jurisdiction over such use or obstruction, including the appropriate watershed district, as the case may be, if such approval is required by the statutes, ordinances, rules or regulations applicable to such governmental bodies, and to such use or obstruction.
- F. Structures shall be firmly anchored to prevent flotation which may result in damage to other structures and/or restriction of bridge openings and other narrow sections of water courses.
- G. Electrical and heating equipment shall be installed at or above the regulatory flood protection elevation for the particular area or adequately flood proofed in accordance with the State Building Code.
- H. Fill. The placement of fill in any area within the flood envelope of the Wayzata Wetlands Overlay District or stormwater detention basin shall be governed by the following limitations:
  - 1. Fill shall be limited to what is needed to grade or landscape for the proposed use, and shall not in any way obstruct the flow of stormwaters.
  - 2. Spoil from dredging or sand and gravel operations shall not be deposited unless it can be done in accordance with H.1. above.

3. Fill shall be protected from erosion by vegetative cover.
  4. Fill within the flood envelope will be permitted if compensating flood volume is provided within the Wetlands Overlay District and if, based upon submission of a Wetland Systems Impact Plan (see Section 71.7.2), the City agrees that environmental degradation will not occur. A percentage of total allowable encroachment into the flood envelope of the Wetlands Overlay District will be allocated to riparian land owners in amounts of proportional to their percentage of ownership of the total flood envelope area with:
    - a) A total maximum allowable rise in the calculated flood elevation of 0.5 feet, or
    - b) A total increase in the calculated flood elevation rising to an elevation that is 1.0 foot below the elevation where structural damage of existing structures would occur, whichever is less.
  5. It is the responsibility of the applicant to obtain written approval for filling in the Wayzata Wetlands Overlay District or stormwater basins from all property owners whose lands would be impacted by the subsequent rise of the established 100-year flood elevation prior to receiving approval of filling by the City.
- I. Accessory Structures. Accessory structures permitted as a conditional use shall be governed by the following limitations:
1. Such structures shall not be designed for human habitation.
  2. Such structures, if permitted, shall be constructed and placed on the building site so as to offer the minimum obstruction to stormwaters:
    - a) Whenever possible, such structures shall be constructed with the longitudinal axis parallel to the direction of stormwater flows.
  3. Such structures shall be flood proofed in accordance with the State Building Code.
  4. Accessory structures connected by tunnel, walkway, or a similar conveyance shall be considered part of the principal use, and shall not be permitted within the flood envelope.
- J. Structure on Lakes, Ponds, or Flowages. For lakes, ponds or flowages, no structure, except boathouses, piers and docks, shall be placed at an elevation such that the lowest floor, including basement floor, is less than 2½ feet above the calculated 100-year frequency flood elevation. The regulatory flood protection elevation shall serve as the highest known water level. In those instances where sufficient data on known high water levels are not available, the elevation of the line of permanent shoreland vegetation shall be used as the estimated high water elevation. When fill is required to meet this elevation, the fill shall be allowed to stabilize, and construction shall not begin until the property has been inspected and approved by the Building Official.
- K. Storage of Materials or Equipment Within the Wayzata Wetlands Overlay District. The storage



or processing of materials that are, in time of flooding or rain inundation, flammable, explosive or potentially injurious to human, animal or plant life is prohibited.

L. Wetland Systems Impact Plan.

1. As part of the application for a conditional use permit for a use within the Wayzata Wetlands Overlay District, the applicant must furnish a Wetland Systems Impact Plan. A copy of said plan shall be transmitted to an engineer or other expert person or agency, as designated by the City for technical assistance in determining whether the proposed use is consistent with the water quality and wildlife habitat recommendations contained in the "Stormwater Management Plan for the City of Wayzata" and, therefore, permissible within the Wayzata Wetlands Overlay District or stormwater detention basin.
2. Contents of Plan. A Wetland Systems Impact Plan shall contain such of the following information as is deemed necessary by the City to fulfill the purposes of the Wetland Systems Impact Plan:
  - a) Said plan shall identify the calculated 100-year frequency flood elevation, and shall set forth proposed provisions for erosion and sediment control, water management, impacts on drainage and floodplain uses, maintenance of landscape features and any additional matters intended to improve or maintain the quality of the environment.
  - b) Evidence that the proposed development in the Wetland Systems Overlay District shall not reduce the district's scores for wildlife habitat and stormwater runoff quality enhancement values as calculated by methodologies presented in the "Stormwater Management Plan for the City of Wayzata" under conditions of the 100-year frequency (one percent probability) flood event.
  - c) Evidence that a development within the Wetland Systems Overlay District serves to maintain or increase the wetland criteria scores through compensatory measures, and provided that all other requirements are met.
  - d) Affirmatively set forth the changes requested by the applicant and affirmatively disclose what, if any, change will be made in the natural conditions of the earth (including loss or change of earth ground cover or destruction of trees, if any) or upon lakes, streams, water courses and marshes, low lands and wetlands in the area.
  - e) Evidence that the plan minimizes tree removal, ground cover change, loss of natural vegetation, and grade changes as much as possible and affirmatively provides for the relocation or replanting of as many trees as possible, which are proposed to be removed.
  - f) Evidence that the applicant has, to the greatest extent possible, eliminated

potential pollution, erosion, siltation, or flooding, which may result from the proposed development.

- M. Approved conditional use permits shall not adversely impact environmentally sensitive areas. This shall include, but not be limited to, spawning beds, nesting areas or habitat of endangered or threatened species. The City may limit the implementation season of an approved conditional use permit so as not to disturb or interfere with nesting or spawning seasons of the wildlife within the Wetland Overlay District or flood envelope.
- N. Application for a conditional use permit shall comply with the standards and provisions outlined in Chapter 904 of this Ordinance.

992.08 - Variances to the Provisions of Wetland Overlay District.

- A. All applications for variances to the requirements of this Ordinance shall comply with and follow the procedures and criteria for approval as outlined in Chapter 905 of this Ordinance.
- B. The City Council may grant a variance from the requirements of this Ordinance if the proposed plan of the applicant provides mitigative measures to recreate, to an equal or greater degree, the environmental and hydrological function of the wetland area that is proposed to be altered.

## CHAPTER 409 - LAND DISTURBANCE

## 409.01 - Purpose.

The purpose of this Chapter is to safeguard life, limb, property, public welfare and the environment by regulating land disturbing activities and controlling erosion and sedimentation within the City.

*(Ord. 658 [2-22-2005])*

## 409.02 - Scope.

This Chapter sets forth rules and regulations to control land disturbing activities, erosion and sedimentation; establishes the requirements and administrative procedures for issuance of permits; provides for review of plans and inspection of land disturbing activities; and provides procedures for enforcement of noncompliance.

*(Ord. 658 [2-22-2005])*

## 409.03 - Definitions.

For the purposes of this Chapter the definitions listed hereunder shall be construed as specified in this section.

- A. "**Applicant**" is any person or group that applies for a permit to allow land disturbing activities. Applicant also means that person's agents, employees, and others acting under this person's or group's direction. The term "applicant" also refers to the permit holder or holders and the permit holder's agents, employees, and others acting under this person's or group's direction.
- B. "**Approval**" shall mean the proposed work or completed work conforms to this Chapter in the opinion of the City.
- C. "**As-Graded**" is the extent of surface conditions on completion of grading.
- D. "**Bedrock**" is in-place solid rock.
- E. "**Bench**" is a relatively level step excavated into earth material on which fill is to be placed.
- F. "**Borrow**" is earth material acquired from an off-site location for use in grading on a site.
- G. "**City**" is the administrative staff, or its agent, of the City of Wayzata.
- H. "**City Council**" is the elected governing board of the City of Wayzata.
- I. "**Civil Engineer**" is a professional engineer licensed by the Minnesota Board of Architecture, Engineering, Land Surveying, Landscape Architecture, Geoscience, and Interior Design to practice in the field of civil engineering.
- J. "**Civil Engineering**" is the application of the knowledge of the forces of nature, principles of mechanics and the properties of materials to the evaluation, design and construction of civil works for the beneficial uses of mankind.
- K. "**Common Plan of Development of Sale**" is contiguous area where multiple separate and distinct land disturbing activities may be taking place at different times, or on different schedules, but under one proposed plan including, but not limited to, mass site grading, utility installation, street construction and home or building construction. This item is broadly defined to include design, permit application, advertisement or physical demarcation indicating that land disturbing activities may occur.
- L. "**Compaction**" is the densification of a soil by removal of air, which requires mechanical energy.
- M. "**Discharge**" is the release, conveyance, channeling, runoff, or drainage, of stormwater, including snowmelt

and dewatering water, from a site.

- N. **"Earth Material"** is any rock, natural soil or fill and/or any combination thereof.
- O. **"Engineering Geologist"** is a geologist experienced and knowledgeable in engineering geology.
- P. **"Engineering Geology"** is the application of geologic knowledge and principles in the investigation and evaluation of naturally occurring rock and soil for use in the design of civil works.
- Q. **"Erosion"** is the wearing away of the ground surface as a result of the movement of wind, water and/or ice.
- R. **"Erosion Control"** refers to methods employed to prevent erosion. Examples include soil stabilization practices, horizontal slope grading, temporary or permanent cover, and construction phasing.
- S. **"Excavation"** is the mechanical removal of earth material.
- T. **"Fill"** is a deposit of earth material placed by artificial means.
- U. **"Final Stabilization"** means that all soil disturbing activities on the site or common plan of development or sale have been completed, and that a uniform (evenly distributed, e.g., without large bare areas) perennial vegetative cover with a density of at least 80 percent of the cover for unpaved areas and areas not covered by permanent structures has been established, or equivalent permanent stabilization measures have been employed, and that all temporary erosion control devices are removed, including silt fence, temporary sedimentation basins, and temporary standpipes. Simply sowing grass seed and/or mulch is not considered final stabilization. Final stabilization of a "common plan of development or sale" includes completion of building or home construction along with final restoration of all yards and adjacent drainage ways.
- V. **"Geotechnical Engineer"** is a professional engineer licensed by the Minnesota Board of Architecture, Engineering, Land Surveying, Landscape Architecture, Geoscience, and Interior Design to practice in the field of geotechnical engineering.
- W. **"Geotechnical Engineering"** is the application of the principles of soils mechanics in the investigation, evaluation and design of civil works involving the use of earth materials and the inspection and/or testing of the construction thereof.
- X. **"Grade"** is the vertical location of the ground surface.
- Y. **"Existing Grade"** is the grade prior to grading or land disturbing activities.
- Z. **"Rough Grade"** is the stage at which the grade approximately conforms to the approved plan.
- AA. **"Finish Grade"** is the final grade of the site, within 0.2 feet, that conforms to the approved plan.
- BB. **"Grading"** is any excavating or filling or combination thereof.
- CC. **"Hydric Soils"** are soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper layers.
- DD. **"Hydrophytic Vegetation"** is macrophytic (large enough to be observed by the naked eye) plant life growing in water, soil or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content.
- EE. **"Land Disturbance Activity"** is any land change that may result in soil erosion from water or wind and the movement of sediments into or upon waters or lands within of the City of Wayzata's jurisdiction, including construction, clearing and grubbing, grading, excavating, transporting and filling of land.
- FF. **"Land Disturbance Plan and Implementation Requirements"** are the plan and requirements prepared by and available from the City Engineer implementing the provisions of this Chapter.
- GG. **"Permanent Controls"** are long-term methods employed to prevent erosion and sedimentation. Examples of such protection are swales, ponds, sediment basins, turf reinforcement mats, storm sewer systems, and riprap.

- HH. "**Permanent Cover**" means "final stabilization." Examples include grass, gravel, asphalt, and concrete. See also the definition of "final stabilization."
- II. "**Permit**" is a written warrant or license granted for land disturbing activities.
- JJ. "**Sediment**" is the product of an erosion process; solid material both mineral and organic, that is in suspension, is being transported, or has been moved by water, wind, or ice, and has come to rest on the earth's surface either above or below water level.
- KK. "**Sedimentation**" is the process or action of depositing sediment.
- LL. "**Sediment Control**" is the methods employed to prevent sediment from leaving a site. Examples of sediment control practices are silt fences, sediment traps, earth dikes, drainage swales, check dams, subsurface drains, pipe slope drains, storm drain inlet protection, and temporary or permanent sedimentation basins.
- MM. "**Site**" is any lot or parcel of land or contiguous combination thereof, under the same ownership, where a land disturbing activity is performed or permitted.
- NN. "**Slope**" is an inclined ground surface the inclination of which is expressed as a ratio of horizontal distance to vertical distance.
- OO. "**Soil**" is naturally occurring superficial deposits overlying bedrock.
- PP. "**Stabilized**" shall mean the exposed ground surface after it has been covered by perennial vegetation, sod, erosion control blanket, riprap, pavement or other material that prevents erosion. Simply sowing grass seed is not considered stabilization.
- QQ. "**Stormwater**," as defined under Minn. R. 7077.0105, subpart 41b stormwater, "means precipitation runoff, stormwater runoff, snow melt runoff, and any other surface runoff and drainage."
- RR. "**Stormwater Pollution**" prevention plan is a joint stormwater and erosion and sediment control plan that is a document containing the requirements of this Chapter and the City of Wayzata Land Disturbance Plan and Implementation Requirements, that when implemented will decrease soil erosion on a parcel of land and off-site nonpoint pollution. It involves both temporary and permanent controls.
- SS. "**Temporary Controls**" are short-term methods employed to prevent erosion and sedimentation. Examples of such protection are silt fence, temporary sediment basins, check dams, straw, mulch, erosion control blankets, wood chips, and erosion netting.
- TT. "**Terrace**" is a relatively level step constructed in the face of a graded slope surface for drainage and maintenance purposes.
- UU. "**Wetlands**," as defined in Minn. R. 7050.0130, subpart F, are those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Constructed wetlands designed for wastewater treatment are not waters of the state. Wetlands must have the following attributes:
1. A predominance of hydric soils;
  2. Inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in a saturated soil condition; and
  3. Under normal circumstances support a prevalence of such vegetation.

*(Ord. 658 [2-22-2005])*

The owner of a site or common plan of development or sale shall be responsible for maintaining any land disturbing activity in such a way as not to create a hazard to life and limb; or endanger the environment; or endanger property; or adversely affect the safety, use or stability of a property, public way or drainage channel; or deposit sediment on or into adjacent properties, right-of-ways, drainage systems or wetlands until final stabilization, as defined in section 409.03, has been achieved.

Whenever the City determines that any land disturbing activity has become a hazard to life and limb; or endangers the environment; or endangers property; or adversely affects the safety, use or stability of a property, public way or drainage channel; or deposits sediment on or into adjacent properties, right-of-ways, drainage systems or wetlands, the owner of the property upon which the land disturbance activity is located, or other person or agent in control of said property, upon receipt of notice in writing from the City, shall within the period specified therein repair or eliminate such land disturbing activity so as to eliminate the hazard and be in conformance with the requirements of this Chapter and City Code. The City may inspect any property within the City of Wayzata for conformance with this Chapter.

*(Ord. 658 [2-22-2005])*

#### 409.05 - Land Disturbance Permit Required.

No person shall do any land disturbing activity within the City of Wayzata without first having obtained a land disturbance permit from the City, except for the following:

- A. A land disturbing activity which meets all of the following requirements:
  1. The land disturbing activity is located in an isolated, self-contained area.
  2. The land disturbing activity does not present a danger to private or public property.
  3. The land disturbing activity does not infringe upon any wetland or ponding area or impede any drainage course.
  4. The total area of disturbance is less than 5,000 square feet.

*(Ord. 718 [08-23-2011])*

5. The total volume of earth material disturbed, stockpiled, disposed of, or used as fill in connection with the land disturbing activity does not exceed 50 cubic yards.
6. The land disturbing activity is an excavation that is less than two feet in depth and does not create a cut slope greater than five feet in height, or is steeper than two horizontal to one vertical or is a fill that is less than two feet in depth and placed on natural terrain with a slope flatter than three horizontal to one vertical, or is less than three feet in depth, not intended to support structures.

Types of activities which may meet these requirements include minor landscaping and the installation and maintenance of home gardens, fences, signs and mailboxes.

- B. An excavation below finished grade for basements and footings of a building, retaining wall or other structure authorized by a valid building permit. This shall not exempt the requirement for a permit for a land disturbing activity resulting from the material from such excavation nor exempt any excavation having an unsupported height greater than five feet after the completion of such structure.
- C. Cemetery graves.
- D. Refuse disposal sites controlled by other regulations, laws or City Code.
- E. Excavations for wells or tunnels or utilities controlled by other regulations, laws or City Code.

- F. Mining, quarrying, excavating, processing, stockpiling of rock, sand, gravel, aggregate or clay where established and provided for by law or ordinance. This shall not exempt these types of activities from the special use permit requirements set forth by City Code.
  - G. Tilling, planting, or harvesting of agricultural, horticultural or silvicultural (forestry) crops. This shall not exempt these types of activities from the other permit requirements set forth by City Code.
  - H. Exploratory excavations and borings under the direction of geotechnical engineers or engineering geologists.
  - I. Emergency work necessary to protect life, limb, or property.
  - J. City, county, state or federal agency projects whose plans and specifications meet the requirements of this Ordinance and are reviewed and approved by the City under a separate process.
- Exemption from the permit requirements of this Chapter shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this Chapter.

*(Ord. 658 [2-22-2005]; Ord. 718 [08-23-2011])*

#### 409.06 - Land Disturbance Permit Requirements.

- A. **Permits Required.** Except as exempted in Section 409.05 of this Chapter, no person shall do any land disturbing activity without first obtaining a land disturbance permit from the City. A separate permit shall be required for each site or common plan of development or sale, and may cover both excavations and fills. Changes or deviation from previously reviewed plans shall require an amended permit, which must be applied for and approved before any work is performed.
- B. **When Permit May Be Applied For and Issued.** A land disturbance permit may be applied for at any time. A land disturbance permit may not be issued until after the City Council has granted the applicant all other necessary approvals, including preliminary plat and site plan or equivalent approval, and all permit conditions have been completed to the satisfaction of the City. For individual isolated land disturbing activities, the City may grant a land disturbance permit without City Council approval of a preliminary plat, site plan, or equivalent approval.
- C. **Application.** To obtain a permit, the applicant shall first file an application in writing on a form furnished by the City for that purpose. Every such application shall:
  1. Identify and describe the work to be covered by the permit for which application is made.
  2. Describe the land on which the proposed work is to be done by legal description, street address or similar description that will readily identify and definitely locate the proposed building or work.
  3. Indicate the purpose of the proposed work.
  4. Be accompanied by plans, diagrams, computations and specifications and other data as required in subsection (e) of this section.
  5. State the valuation of the work.
  6. Be signed by the applicant or authorized agent.
  7. Give such other data and information as may be required by the City.
- D. **Plans and Specifications.** Each application for a grading permit shall be accompanied by copies of the Land Disturbance Plan consisting of a grading plan, phasing plan, pond detail sheets, stormwater pollution prevention plan, standard detail sheets, specifications, and supporting data. The plans, specifications and

reports shall be prepared and signed by a person registered by the Minnesota Board of Architecture, Engineering, Land Surveying, Landscape Architecture, and Interior Design unless specifically exempted by the City.

- E. **Information on Plans and In Specifications.** Plans shall be drawn to scale and shall be of sufficient clarity to indicate the nature and extent of the work proposed and show in detail that they will conform to the provisions of this Chapter and all relevant laws, ordinances, rules and regulations. The first sheet of each set of plans shall give the location of the work and the name and address of the owner and the person by whom they were prepared. As a minimum, the plans shall include the information set forth in this Chapter and the City of Wayzata Land Disturbance Plan and Implementation Requirements developed by the City. The Land Disturbance Plan shall consist of the following components.
1. **Grading Plan.** A grading plan shall be provided that clearly indicates the proposed land disturbing activities. Both existing and proposed topography shall be shown and have a maximum contour interval of two feet. Drainage patterns shall be clearly shown using arrows depicting direction of flow. Other information shall be shown as required by the City based on specific project characteristics.
  2. **Phasing Plan.** A phasing plan shall be provided that clearly indicates the areas in the order they are to be disturbed and restored. The phasing plan shall consider minimization of area and duration of exposed soil and unstable conditions, minimization of the disturbance of natural soil cover and vegetation, erosion and sediment control measure installation, weather conditions and the schedule for temporary and permanent restoration. The area and duration of each phase shall be indicated on the plan.
  3. **Pond Detail Sheet.** A pond detail sheet shall be provided for each constructed stormwater pond that shows detailed pond design including normal water level, high water level, aquatic bench, maintenance bench, outlet structures, emergency overflow locations and other project specific data required by the City.
  4. **Stormwater Pollution Prevention Plan.** The stormwater pollution prevention plan shall consist of three components, a temporary erosion and sediment control plan, a permanent erosion and sediment control plan, and a narrative.
    - a) A temporary erosion and sediment control plan shall be provided that indicates the location of perimeter controls, construction fence, temporary sedimentation basins, inlet protection, areas to be seeded, areas to be mulched or blanketed, location of construction waste control (dumpsters, chemical storage, concrete washout, portable restroom facilities, etc.) and all other required temporary erosion and sediment control measures. This plan shall also indicate staging of temporary erosion control measures.
    - b) A permanent erosion and sediment control plan shall be provided that indicates areas to be seeded and sodded, sediment ponds, storm sewer systems and all other required permanent erosion and sediment control measures. Permanent stormwater pollution controls including, but not limited to, ponds, vegetated buffers and structural measures shall be designed and constructed in accordance with other chapters of the City Code and requirements of other agencies having jurisdiction.
    - c) A narrative shall be provided that describes, at a minimum, the nature of construction activity, person(s) responsible for inspection and maintenance of site erosion and sediment control including contact information, project phasing, schedules, along with the timing, installation and maintenance of erosion and sediment control measures and specifications necessary to carry out the project.
  5. **Standard Detail Sheet.** A standard detail sheet shall be provided that consists of applicable construction



details for approved erosion and sediment control measures as developed by the City. Other techniques may be used upon prior approval by the City with details provided by the designer.

6. **Specifications.** Specifications for land disturbing activities shall be provided as necessary to carry out the project in accordance with this Chapter and all other applicable ordinances, laws or agency requirements.
- F. **Alternate Materials and Methods of Construction.** The provisions of this Chapter are not intended to prevent the use of any material or method of construction not specifically prescribed by this Chapter, provided any alternate has been approved and its use authorized by the City. The City may approve any such alternate, provided the City finds the proposed design is satisfactory and complies with the provisions of this Chapter and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in this Code in suitability, strength, effectiveness, fire resistance, durability, safety and sanitation. The City shall require that sufficient evidence or proof be submitted to substantiate any claims that may be made regarding its use. The details of any action granting approval of an alternate shall be recorded and entered in the files of the City.
- G. **Modifications.** Whenever there are practical difficulties involved in carrying out the provisions of this Chapter, the City may grant modifications for individual cases, provided the City shall first find that a special individual reason makes the strict letter of this Chapter impractical and that the modification is in conformity with the intent and purpose of this Chapter. The details of any action granting modifications shall be recorded and entered in the files of the City.
- H. **Tests.** Whenever there is insufficient evidence of compliance with any of the provisions of this Chapter or evidence that any material or construction does not conform to the requirements of this Chapter the City may require tests as proof of compliance to be made at no expense to the City. Test methods shall be as specified by this Chapter or by other recognized test standards. If there are no recognized and accepted test methods for the proposed alternate, the City shall determine test procedures.
- I. **Geotechnical Engineering Report.** The geotechnical engineering report, when required, shall include data regarding the nature, distribution and strength of existing soils, conclusions and recommendations for grading procedures and design criteria for corrective measures, and opinions and recommendations covering adequacy of sites to be developed by the proposed grading, including the stability of slopes. Recommendations included in the report and reviewed by the City shall be incorporated in the grading plans or specifications.
- J. **Engineering Geology Report.** The engineering geology report, when required, shall include an adequate description of the geology of the site, conclusions and recommendations regarding the effect of geologic conditions on proposed development, and opinions and recommendations covering the adequacy of sites to be developed by the proposed grading. Recommendations included in the report and reviewed by the City shall be incorporated in the grading plans or specifications.
- K. **Review and Issuance of Permit.** The application, plans, specifications, computations and other data filed by an applicant for permit shall be reviewed by the City. Such plans may be reviewed by other agencies to verify compliance with any applicable laws under their jurisdiction. If the City finds that the work described in an application for a permit and the plans, specifications and other data filed therewith conform to the requirements of this Chapter and other pertinent laws and ordinances, and that the fees and security requirements for said permit have been provided, the City may issue a permit to the applicant. When the City issues the permit where plans are required, the City shall endorse in writing or stamp the plans and specifications "Approved." Such approved plans and specifications shall not be changed, modified or altered without authorization from the City, and all work shall be done in accordance with the approved plans. The

City may issue a provisional permit for a land disturbing activity before the entire plans and specifications have been submitted or reviewed, provided adequate information and detailed statements have been filed complying with all pertinent requirements of this Chapter. The holder of such provisional permit shall proceed at his own risk without assurance that the permit for the entire project will be granted. The issuance of a land disturbance permit by the City does not exempt the applicant from the requirements and permitting authority of other agencies having jurisdiction over the work performed.

- L. **Retention of Plans.** One set of reviewed plans, specifications and computations shall be retained by the City for a period of not less than one year from date of completion of the work covered therein; and one set of reviewed plans and specifications shall be returned to the applicant, and said set shall be kept on the site of the building or work at all times during which the work authorized thereby is in progress.
- M. **Validity of Permit.** The issuance or granting of a permit or approval of plans, specifications and computations shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of this Chapter or of any other ordinance of the City. No permit presuming to give authority to violate or cancel the provisions of this Chapter shall be valid. The issuance of a permit based upon plans, specifications and other data shall not prevent the City from thereafter requiring the correction of errors in said plans, specifications and other data, or from preventing land disturbing activities from being carried out thereunder when in violation of this Chapter or of any other ordinance of the City.
- N. **Expiration.** Every permit issued by the City under the provisions of this Chapter shall expire by limitation and become null and void if the work authorized by such permit is not commenced within 90 days from the date of issuance of such permit, or if the work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of more than 180 days. Before such work can be recommenced, a new permit shall be first obtained to do so, and the fee therefore shall be one-half the amount required for a new permit for such work, provided no changes have been made or will be made in the original plans and specifications for such work; and provided further that such suspension or abandonment has not exceeded one year. In order to renew action on a permit after expiration, the permittee shall pay a new full permit fee. Any permittee holding an unexpired permit may apply for an extension of the time within which the permittee may commence work under that permit when the permittee is unable to commence work within the time required by this section for good and satisfactory reasons. The City may extend the time for action by the permittee for a period not exceeding 180 days upon written request by the permittee showing that circumstances beyond the control of the permittee have prevented action from being taken. No permit shall be extended more than once.
- O. **Suspension or Revocation.** The City may, in writing, suspend or revoke a permit issued under the provisions of this Chapter whenever the permit is issued in error or on the basis of incorrect information supplied, or is found to be in violation of any ordinance or regulation or any of the provisions of this Chapter.

*(Ord. 658 [2-22-2005])*

#### 409.07 - Land Disturbance Permit Fees.

- A. **Generally.** Fees shall be charged in accordance with the provisions of this Chapter and shall be in the amounts set forth in the fee schedule adopted by the City Council by ordinance.
- B. **Plan Review Fees.** When a plan or other data is required to be submitted, a plan review fee shall be paid at the time of submitting plans and specifications for review. Said plan review fee shall be as established by the City Council by ordinance.
- C. **Land Disturbance Permit Fees.** A fee for each land disturbance permit shall be paid to the City as established

by City Council by ordinance.

*(Ord. 658 [2-22-2005])*

#### 409.08 - Land Disturbance Permit Financial Security.

- A. **Generally.** The City will require financial security in such form and amounts as deemed necessary to ensure that the work, if not completed in accordance with the reviewed plans and specifications, will be corrected to eliminate conditions posing a danger to public health, safety and welfare, adjacent property and the environment. The security shall be in the form of a surety bond, cash bond, or an irrevocable letter of credit. The financial security must be in place prior to any work. The amount of financial security required shall be equal to 1½ times the estimated cost for erosion control, grading, and related items, including administrative costs, based on the work detailed in the plans and specifications. The City may require a portion of the security to be provided as a cash escrow based on the proposed work.
- B. **Action against Financial Security.** The City may act against the financial security, if any of the following conditions exist. The City shall use funds from this security to finance any corrective or remedial work undertaken by the City or a contractor under contract with the City and to reimburse the City for all direct cost incurred in the process of remedial work including, but not limited to, staff time and legal fees.
1. The applicant ceases land disturbing activities and abandons the work site prior to the completion of the City approved plans and specifications.
  2. The applicant fails to conform to any City approved plans and specifications, or related supplementary instructions including permit conditions of approval and corrective action notices.
  3. Emergency action for circumstances that exists such that noncompliance with this Chapter poses an immediate danger to public health, safety and welfare, or the environment as determined by the City. The City will take every reasonable action possible to contact and direct the applicant to take any necessary action, prior to the City taking action.
- C. **Reduction of Financial Security.** If requested by the applicant, the amount of the financial security may be reduced by the City. Said reduction will be based upon the extent to which the grading and restoration have been completed and shall consider the continued need for erosion control. At no time prior to final completion, as defined in section 409.16, shall the security be reduced to less than ten percent of the total original security amount.
- D. **Final Release of Financial Security.** Any unspent amount of the financial security deposited with the City for faithful performance of the plans and specifications and any related remedial work will be released after the completion and inspection of all such measures and the establishment of final stabilization, as defined in section 409.03, for the permitted site or common plan of development or sale.

*(Ord. 658 [2-22-2005])*

#### 409.09 - Amended Land Disturbance Permits.

Any changes desired to be made to the land disturbance plan by the applicant following the issuance of a land disturbance permit shall be submitted to the City for review. No changes may be implemented by the applicant unless approved by the City. Any desired change to the land disturbance plan shall be supported by information showing the change desired, the reasons for the change, the effect the change would have upon buildings, structures, adjacent property, drainage facilities and patterns. The request shall be accompanied by geotechnical engineering and geology report as necessary. If the changes requested by the applicant are acceptable, the City will issue an amendment to the land disturbance permit.

*(Ord. 658 [2-22-2005])*

409.10 - Cuts.

- A. **Generally.** Unless otherwise recommended in the approved geotechnical engineering and/or engineering geology report, cuts shall conform to the provisions of this section and the City of Wayzata Land Disturbance Plan and Implementation Requirements. In the absence of an approved geotechnical engineering report, these provisions may be waived by the City for minor cuts not intended to support structures.
- B. **Slope.** The slope of cut surfaces shall be no steeper than is safe for the intended use and shall be no steeper than two horizontal to one vertical, for a short term interim period, unless the owner furnishes a soils engineering or an engineering geology report, or both, stating that the site has been investigated and giving an opinion that a cut at a steeper slope will be stable and not create a hazard to public or private property. Unless specifically approved, permanent slopes shall be no steeper than three horizontal to one vertical.

*(Ord. 658 [2-22-2005])*

409.11 - Fills.

- A. **Generally.** Unless otherwise recommended in the approved geotechnical engineering report, fills shall conform to the provisions of this section and the City of Wayzata Land Disturbance Plan and Implementation Requirements. In absence of an approved geotechnical engineering report, these provisions may be waived for minor fills not intended to support structures.
- B. **Clearing Area to Be Filled.** All timbers, logs, trees, brush and rubbish shall be removed from the site prior to placing the fill. No burning of the debris will be allowed unless a burning permit is issued by the City.
- C. **Preparation of Ground.** The ground surface shall be prepared to receive fill by removing vegetation, non-complying fill, topsoil and other unsuitable materials, scarifying to provide a bond with the new fill and, where slopes are steeper than five to one and the height is greater than five feet, by benching into sound bedrock or other competent material as determined by the geotechnical engineer. The bench under the toe of a fill on a slope steeper than five to one shall be at least ten feet wide. The area beyond the toe of fill shall be sloped for sheet overflow or an approved drainage facility installed. When fill is to be placed over a cut, the bench under the toe of fill shall be at least ten feet wide but the cut shall be made before placing the fill and accepted by the geotechnical engineer or engineering geologist or both as a suitable foundation for fill.
- D. **Fill Material.** Organic material shall not be permitted in building pad or roadway areas. Except as permitted by the City, no rock or similar irreducible material with a maximum dimension greater than 12 inches shall be buried or placed in fills. Exception: The City may permit placement of larger rock when the geotechnical engineer properly devises a method of placement, continuously inspects its placement and approves the fill stability. The following conditions shall also apply:
  - 1. Prior to issuance of the grading permit, potential rock disposal areas shall be delineated on the grading plan.
  - 2. Rock sizes greater than 12 inches in maximum dimension shall be ten feet or more below grade, measured vertically.
  - 3. Rocks shall be placed so as to ensure filling of all voids with fines.
- E. **Compaction.** All fills shall be compacted to a minimum 95 percent of maximum density as determined by the specified density method. In-place density shall be determined in accordance with ASTM D698-70.
- F. **Slope.** The slope of fill surfaces shall be no steeper than is safe for the intended use or three horizontal to one

vertical, whichever is less.

*(Ord. 658 [2-22-2005])*

#### 409.12 - Setbacks.

- A. **Generally.** Cut and fill slopes shall be set back from site boundaries in accordance with this section and the City of Wayzata Land Disturbance Plan and Implementation Requirements. Setback dimensions shall be horizontal distances measured perpendicular to the site boundary. Setback dimensions shall be shown on the land disturbance plan.
- B. **Top of Cut Slope.** The top of cut slopes shall be made not nearer to a site boundary line than one-fifth of the vertical height of cut with a minimum of two feet and a maximum required setback of ten feet. The setback may need to be increased for any required drainage facility.
- C. **Toe of Fill Slope.** The toe of fill slopes shall be made not nearer to the site boundary line than one-half the height of the slope with a minimum of two feet and a maximum required setback of 20 feet. Where a fill slope is to be located near the site boundary and the adjacent off-site property is developed, special precautions shall be incorporated in the work as the City deems necessary to protect the adjoining property from damage as a result of such land disturbance. These precautions may include, but are not limited to:
  - 1. Additional setbacks.
  - 2. Provision for retaining walls.
  - 3. Mechanical or chemical treatment of the fill slope surface to minimize erosion.
  - 4. Provisions for the control of surface waters through additional temporary and permanent erosion and sediment controls.
- D. **Modification of Slope Location.** The City may approve alternate setbacks. The City may require an investigation and recommendation by a qualified engineer or engineering geologist to demonstrate that the intent of this section has been satisfied.

*(Ord. 658 [2-22-2005])*

#### 409.13 - Drainage.

- A. **Generally.** Drainage facilities shall be provided to control surface and subsurface waters to the satisfaction of the City. All drainage facilities shall conform to the provisions of this Chapter, the City of Wayzata standard details, construction plans and specifications, and the City of Wayzata Land Disturbance Plan and Implementation Requirements.
- B. **Discharge.** Prior to discharging any surface water to any receiving water, discharge shall be treated for sediment and nutrients as required by ordinance, law, or other agency requirements and as approved by the City. Erosion of soil in the area of discharge shall be prevented by installing temporary and permanent erosion control measures as necessary. Building pads and swales shall have a minimum gradient of two percent toward approved drainage facilities. Surface water treatment shall be provided in accordance with this Chapter, other ordinances and the requirements of other agencies having jurisdiction.

*(Ord. 658 [2-22-2005])*

#### 409.14 - Erosion and Sediment Control.

- A. **Generally.** All sites with land disturbing activities shall be prepared and maintained to control against erosion as set forth in this Chapter and the City of Wayzata Land Disturbance Plan and Implementation Requirements.

- B. **Erosion and Sediment Control.** Temporary and permanent erosion and sediment control measures shall be installed on all sites as necessary to prevent erosion and sedimentation from impacting any adjacent property, rights-of-way, drainage system, lake, pond, wetland, watercourse, natural resource or other protected area.
- C. **Implementation of Stormwater Pollution Prevention Plan.** All erosion and sediment control measures will be operational prior to the start of any land disturbing activity as specified in the stormwater pollution prevention plan, construction plans and specifications, the City of Wayzata Land Disturbance Plan and Implementation Requirements, or as deemed necessary by the City based on actual site conditions.
- D. **Inspection.** Inspection of the stormwater pollution prevention plan measures will be carried out as required by Section 409.15 or as required by the City approved land disturbance permit conditions of approval and the City of Wayzata Land Disturbance Plan and Implementation Requirements.
- E. **Maintenance.** All erosion and sediment control measures will be maintained throughout the duration of the project. Deficiencies found through inspection of a site shall be repaired as necessary to bring the site into conformance with this Chapter, the plans and specifications, the City of Wayzata Land Disturbance Plan and Implementation Requirements and as set forth in the land disturbance permit conditions of approval.

At minimum, stormwater pollution prevention plan items shall be maintained as follows:

1. If a perimeter erosion control device is found to have sediment accumulation in excess of one-third of the total device height, the sediment shall be removed within 24 hours of discovery.
2. If an erosion control device is found to be nonfunctional, it shall be repaired or replaced within 24 hours of discovery.
3. Temporary sediment basins shall be maintained when sediment reaches one-half the outlet height or one-half the storage volume within 72 hours after discovery.
4. Additional erosion and sediment control measures shall be installed as directed by the City as found necessary to protect life and limb, the environment, properties or the stability of a property until final stabilization, as defined in section 409.03, has been achieved.

*(Ord. 658 [2-22-2005])*

#### 409.15 - Inspection and Testing.

- A. **Generally.** All land disturbing activities shall be subject to inspection by the City. Inspection of land disturbance operations and special testing shall be performed by the applicant as set forth in this Chapter, City of Wayzata Land Disturbance Plan and Implementation Requirements and as set forth in the land disturbance permit conditions of approval.
- B. **Inspector.** The inspector acting on behalf of the applicant shall be a qualified person who shall demonstrate his competence, to the satisfaction of the City, for inspection of the particular type of land disturbing activity, testing procedure or operation requiring inspection.
- C. **Duties and Responsibilities.** Duties and responsibilities of the inspector (For projects resulting in land disturbance equal to or greater than one acre).
  1. The inspector shall observe the work assigned for conformance with the reviewed design drawings and specifications.
  2. All discrepancies shall be brought to the immediate attention of the contractor for correction, then, if uncorrected, to the proper design authority and to the City.
  3. The inspector shall submit inspection reports stating whether the work or test requiring inspection was in

conformance with the reviewed plans and specifications. The inspection reports shall be furnished to the City and other designated persons as required in the approved land disturbance plan.

4. Periodic inspection. Some inspections may be made on a periodic basis and satisfy the requirements of continuous inspection, provided this periodic scheduled inspection is performed as outlined in the land disturbance plans and specifications and approved by the City.
  5. Stormwater pollution prevention plan items shall be inspected as required by this section, section 409.14, and as required by the land disturbance permit conditions of approval. At a minimum, these inspections shall be done weekly by the applicant and within 24 hours after every rainfall event five-tenths inches or greater in 24 hours. Inspection reports shall include, at a minimum, date and time of inspection, name of person conducting inspection, findings of inspection including any recommended corrective actions, corrective actions taken since previous inspection, and the date and amount of rainfall events of five-tenths inches or greater.
- D. **Grading Requirements.** It shall be the responsibility of the designer who prepares the reviewed grading plan to incorporate all recommendations from the geotechnical engineering and engineering geology reports into the grading plan. The designer shall be responsible for the professional inspection and approval of the grading. This responsibility shall include, but need not be limited to, inspection and approval as to the establishment of line, grade and drainage of the site. The designer shall act as the coordinating agent in the event the need arises for liaison between the other professionals, the contractor and the City. The designer also shall be responsible for the preparation of revised plans and the submission of as-graded grading plans upon completion of the work. The grading contractor shall submit in a form prescribed by the City a statement of compliance to said as-graded plan.

Soils engineering and engineering geology reports shall be required as specified in Section 409.06. During grading all necessary reports, compaction data and geotechnical engineering and engineering geology recommendations shall be submitted to the designer and the City by the geotechnical engineer and the engineering geologist. The geotechnical engineer's area of responsibility shall include, but need not be limited to, the professional inspection and approval concerning the preparation of ground to receive fills, testing for required compaction, stability of all finish slopes and the design of buttress fills, where required, incorporating data supplied by the engineering geologist. The engineering geologist's area of responsibility shall include, but need not be limited to, professional inspection and approval of the adequacy of natural ground for receiving fills and the stability of cut slopes with respect to geological matters and the need for subdrains or other groundwater drainage devices.

The City shall inspect the project at the various stages of the work requiring approval to determine that adequate control is being exercised by the professional consultants acting on behalf of the applicant.

- E. **Notification of Noncompliance.** If, in the course of fulfilling their responsibility under this Chapter, the inspector, the designer, the geotechnical engineer, the engineering geologist or the testing agency finds that the work is not being done in conformance with this Chapter or the reviewed plans and specifications, the discrepancies shall be reported immediately in writing to the person in charge of the work and to the City. Recommendations for corrective measures, if necessary, shall be submitted to the City for review and approval.
- F. **Transfer of Responsibility for Approval.** If the inspector, designer, the soils engineer, the engineering geologist or the testing agency of record is changed during the course of the work, the work shall be stopped until the replacement has agreed to accept the responsibility within the area of his technical competence for approval upon completion of the work.

*(Ord. 658 [2-22-2005])*

#### 409.16 - Completion of Work.

- A. **Generally.** Work will be considered complete when the site or common plan of sale or development has undergone final stabilization, as defined in Section 409.03, is constructed to finish grade, as defined in Section 409.03; is in conformance with the approved plans and specifications; and is in conformance with all permit conditions of approval to the satisfaction of the City.
- B. **Final Reports.** Upon completion of the rough grading work and at the final completion of the work the City will require the following reports and drawings and supplements thereto:
1. An as-graded grading plan prepared by the designer including original ground surface elevations, as-graded ground surface elevations, lot drainage patterns and locations and elevations of all surface and subsurface drainage facilities. The designer shall state that to the best of his knowledge the work was done in accordance with the final reviewed grading plan.
  2. A geotechnical-grading report, if required, prepared by the geotechnical engineer, including locations and elevations of field density tests, summaries of field and laboratory tests and other substantiating data and comments on any changes made during grading and their effect on the recommendations made in the soils engineering investigation report. The soil engineer shall render a finding as to the adequacy of the site for the intended use.
  3. A geologic grading report, if required, prepared by the engineering geologist, including a final description of the geology of the site and any new information disclosed during the grading and the effect of same on recommendations incorporated in the approved grading plan. The geologic engineer shall render a finding as to the adequacy of the site for the intended use as affected by geologic factors.
  4. Any other reports or drawings as required by a permit's.
- C. **Notification of Completion.** The permittee or his agent shall notify the City when the land disturbing operations are ready for final inspection. Final approval shall not be given until all work, including installation of all drainage facilities and their protective devices, and all erosion-control measures, have been completed and final stabilization has occurred in accordance with this Chapter and the final reviewed land disturbance plan and the required reports have been submitted.

*(Ord. 658 [2-22-2005])*

#### 409.17 - Penalty.

Any person convicted of violating this Chapter shall be guilty of a misdemeanor and shall be subject to a fine or imprisonment in the county jail, or both, as specified by State Statute. Such penalty may be imposed in addition to suspension or revocation of the land disturbance permit.

*(Ord. 658 [2-22-2005]; Ord. 718 [08-23-2011])*



**STORM WATER FACILITIES MAINTENANCE AGREEMENT  
AND RESTRICTIVE COVENANT**

This Storm Water Facilities Maintenance Agreement and Restrictive Covenant is made this \_\_\_\_\_ day of \_\_\_\_\_, 201\_\_, by and between the City of Wayzata, a Minnesota municipal corporation (hereinafter the "City"), and \_\_\_\_\_, owner of the property located at \_\_\_\_\_ (hereinafter "Owner").

**R E C I T A L S**

WHEREAS, Owner is the owner of fee title or a substantial beneficial interest in certain real property located in Wayzata, Minnesota, commonly described as \_\_\_\_\_, (hereinafter the "Property") and legally described in **Exhibit A**, which is attached hereto and incorporated herein by this reference; and

WHEREAS, in connection with the Owner's proposed development of the Property, the City has required and the Owner has agreed to construct a storm water collection and detention system; and

WHEREAS, such drainage system is described and shown on a construction drawing prepared by the engineering firm of \_\_\_\_\_ on MONTH xx, 201\_\_ (hereinafter the "Drainage System Drawing"), for the Owner's Property, a copy of which is attached hereto as **Exhibit B** and incorporated herein by this reference; and

WHEREAS, as a condition of project approval and/or as a condition of the City's utilization of the Owner's storm drainage system, the parties have entered into this Maintenance Agreement and Restrictive Covenant, in order to ensure that the drainage system will be constructed and maintained in accordance with the approved plans and the City's development standards;

NOW, THEREFORE, in consideration of the mutual agreements contained herein, as well as other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Owner and the City hereby agree as follows:

## T E R M S

Section 1. Construction and Maintenance. Owner agrees to construct and maintain a drainage system on its Property, as shown on the Drainage System Drawing, **Exhibit B**. The drainage system shall be maintained and preserved by the Owner until such time as the City, its successors or assigns, agree that the system should be altered in some manner or eliminated.

Section 2. No Removal. No part of the drainage system shall be dismantled, revised, altered or removed, except as necessary for maintenance, repair or replacement.

Section 3. Access. The City shall have the right to ingress and egress over those portions of the Property described in **Exhibit A** in order to access the drainage system for inspection and to reasonably monitor the system for performance, operational flows or defects.

Section 4. Reporting. The Property Owner shall be responsible for inspecting and maintaining the storm water treatment and conveyance system, at minimum, on an annual basis. The Property Owner shall be responsible for providing a letter to the City Engineer, by September 1<sup>st</sup> of each year, stating that inspection and maintenance have been completed.

Section 5. Repairs, Failure of Owner to Maintain. If at any time the City Engineer does not receive this inspection and maintenance report and the City determines that maintenance or repair work is required to be performed on the system, the City Engineer or his/her designee shall give notice to the Owner of the noted deficiency. The Engineer shall also set a reasonable time in which the Owner shall perform such work. If the repair or maintenance required by the Engineer is not completed within the time set by the Engineer, the City may perform the required maintenance and/or repair. Written notice will be sent to the Owner, stating the City's intention to perform such repair or maintenance, and such work will not commence until at least 15 days after such notice is mailed, except in situations of emergency. If, within the sole discretion of the Engineer, there exists an imminent or present danger to the system, the City's facilities or the public health and safety, such 15 day period will be waived and maintenance and/or repair work will begin immediately.

Section 6. Cost of Repairs and/or Maintenance. The Owner shall assume all responsibility for the cost of any maintenance and for repairs to the drainage system. Such responsibility shall include reimbursement to the City within 30 days after the City mails an invoice to the Owner for any work performed by the City. Overdue payments will require payment of interest by the Owner at the current legal rate as liquidated damages.

Section 7. Notice to City of Repairs and/or Maintenance. The Owner is hereby required to obtain written approval from the City Engineer prior to filling, piping, cutting or removing vegetation (except in routine landscape maintenance) in open vegetated drainage facilities (such as swales, channels, ditches, ponds, etc.), or performing any alterations or modifications to the drainage system.

Section 8. Rights Subject to Permits and Approvals. The rights granted herein are subject to permits and approvals granted by the City affecting the Property subject to this Maintenance Agreement and Covenant.

Section 9. Terms Run with the Property. The terms of this Maintenance Agreement and Covenant are intended to be and shall constitute a covenant running with the Property and shall inure to the benefit of and be binding upon the parties hereto and their respective heirs, successors and assigns.

Section 10. Notice. All notices required or permitted hereunder shall be in writing and shall either be delivered in person or sent by certified U.S. Mail, return-receipt requested, and shall be deemed delivered on the sooner of actual receipt of three (3) days after deposit in the mail, postage prepaid, addressed to the City or the Owner at the addresses set forth below:

To the City:  
City Engineer  
City of Wayzata  
600 Rice Street East  
Wayzata, MN 55391

To the Owner:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Section 11. Severability. Any invalidity, in whole or in part, of any provision of this Maintenance Agreement and Covenant shall not affect the validity of any other provision.

Section 12. Waiver. No term or provision herein shall be deemed waived and no breach excused unless such waiver or consent is in writing and signed by the party claimed to have waived or consented.

Section 13. Integration. This Maintenance Agreement and Covenant constitutes the entire agreement between the parties on this subject matter, and supersedes all prior discussions, negotiations, and all other agreements on the same subject matter, whether oral or written.

Section 14. Modification. This Agreement may be terminated, amended or modified only by registering with the Registrar of Titles for Hennepin County, Minnesota, a document executed by the parties (or their respective successors and assigns) representing their unanimous consent to such amendment or modification. This consent may require City Council action.

IN WITNESS WHEREOF, the parties have caused this Maintenance Agreement and Covenant to be executed this \_\_\_\_ day of \_\_\_\_\_, 201 \_\_\_\_.

OWNER:

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

STATE OF MINNESOTA)

) ss.

COUNTY OF HENNEPIN)

I certify that I know or have satisfactory evidence that \_\_\_\_\_ is the person who appeared before me, and said person acknowledged that (he/she) signed this instrument, on oath stated that (he/she) was authorized to execute the instrument and acknowledged it as the \_\_\_\_\_ of \_\_\_\_\_, to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

Date: \_\_\_\_\_

Notary Public, State of \_\_\_\_\_

My Commission Expires \_\_\_\_\_

CITY OF WAYZATA  
A Minnesota municipal corporation

By: \_\_\_\_\_  
Kenneth Willcox  
Its: Mayor

CITY OF WAYZATA  
A Minnesota municipal corporation

By: \_\_\_\_\_  
Allan Orsen  
Its: City Manager

STATE OF MINNESOTA)  
) ss.  
COUNTY OF HENNEPIN)

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 2010, by Kenneth Willcox, Mayor of the City of Wayzata, a Minnesota municipal corporation, on behalf of the corporation.

By: \_\_\_\_\_  
Notary Public, State of \_\_\_\_\_  
My Commission Expires \_\_\_\_\_

STATE OF MINNESOTA)  
) ss.  
COUNTY OF HENNEPIN)

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 2010, by Allan Orsen, City Manager of the City of Wayzata, a Minnesota municipal corporation, on behalf of the corporation.

By: \_\_\_\_\_  
Notary Public, State of \_\_\_\_\_  
My Commission Expires \_\_\_\_\_

**EXHIBIT A – LEGAL DESCRIPTION**

**EXHIBIT B – APPROVED DRAINAGE SYSTEM PLAN**

# **LAND DISTURBANCE PLAN AND IMPLEMENTATION REQUIREMENTS**

For any site that disturbs land through excavation, embankment or grading activities, as defined by the city's Land Disturbance Ordinance, the owner shall, at minimum, conform to the provisions of these requirements, applicable permits, relevant laws, ordinances, rules and regulations. In the case of conflicting requirements, the most restrictive shall apply.

## **Section I. Land Disturbance Plan Submittal**

A land disturbance plan submittal shall consist of the following components:

- A. Grading Plan
- B. Phasing Plan
- C. Pond Detail Sheet
- D. Storm Water Pollution Prevention Plan (SWPPP)
- E. Standard Detail Sheet

## **Section II. Land Disturbance Plan Implementation**

- A. Implementation of SWPPP
- B. Site Inspection and Maintenance
- C. As-Built or Record Grading Plan

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## **Section I. Land Disturbance Plan Submittal**

All pages of the land disturbance plan shall be drawn to a minimum scale of one-inch equals fifty-feet (1-inch = 50-feet), unless otherwise specified, and shall be of sufficient clarity to indicate the nature and extent of the proposed work and show in detail that the proposed work shall conform to the provisions of these requirements, all relevant laws, ordinances, rules and regulations. A north arrow shall be provided on each sheet with north toward the top or left of the sheet.

The first sheet of the land disturbance plan shall show the following information: location map indicating the general vicinity of the proposed site within the City of Wayzata along with the name, address, telephone and fax numbers of the design engineer, developer and owner if different than the developer. This sheet may be a separate cover sheet from the required land disturbance plan sheets.

### **A. Grading Plan**

1. Indicate the total area of the site and the area of proposed disturbance in either acres or square feet. Clearly indicate any areas that will not be disturbed as part of the project.
2. Topographical mapping shall be field surveyed for horizontal and vertical control and include contours and spot elevations with enough detail to depict the following:
  - a. All features such as buildings, walls, trees, fences, roads, driveways, septic systems, wells and other structures.
  - b. All existing utilities, both public and private (if reasonable available).
  - c. Topography and drainage patterns for the entire parcel including one hundred (100) feet beyond the property limits.
  - d. All existing wetlands, ponds, lakes, streams or other existing water features either wholly or partially encompassed by the project perimeter.
3. Topographical contours must be shown on the plan as follows:
  - a. Maximum contour interval of two (2) feet.
  - b. Existing contours shown as dashed lines.
  - c. Proposed contours shown as solid lines.
  - d. All major contours, ten (10) foot contours, shall be shown as a bolder line than minor contours.



## **LAND DISTURBANCE PLAN AND IMPLEMENTATION REQUIREMENTS**

- e. All contours, existing and proposed, shall be labeled with elevations at an appropriate interval to allow easy determination of the contour elevation.
- f. Drainage patterns shall be clearly indicated with arrows to depict direction of flow.
4. Indicate the percent grade and elevations for all streets and parking areas.
5. The following details shall be required for existing wetlands, ponds, lakes, streams and other water bodies:
  - a. Normal water level (NWL) and 100-year high water level (HWL).
  - b. Ponding easements for existing and proposed water features shall be established one (1) foot above the HWL as set forth in the POND DETAIL SHEET section.
  - c. Where ponds, streams, other water bodies or drainage features extend beyond the property line, show entire drainage feature and topography extending two hundred (200) feet on all sides of the feature.
  - d. Wetland delineation boundary if applicable.
6. Details of topsoil removal, stockpiling and re-spreading must be noted on the plan, along with appropriate erosion control devices encompassing any stockpile areas.
7. Details of all the proposed surface and subsurface drainage devices, ponds, ditches, storm sewers, swales, retaining walls, cribbing, dams, and other protective devices to be constructed with, or as a part of, the proposed project.
8. Orange construction fence shall be required along the perimeter of all projects adjacent to existing buildings, roads, ponds, or as directed by the City of Wayzata. Orange silt fence shall not be accepted as a substitute for orange construction fence.
9. Emergency overflow (EOF) high point elevations and directions of flow must be shown for all street and rear yard catch basins, parking areas, ponds, lakes, wetlands, ditches, and streams.

*Note: An Emergency Overflow (EOF) is defined as a feature designated to handle storm water drainage if rainfall, snow melt or emergencies cause storm water runoff to exceed the design capacity of adjacent storm sewer, drainage way or storm water pond.*
10. The lowest ground elevation adjacent to surrounding homes or structures must be a minimum of one and one half foot (1.5') above any adjacent EOF.
11. A maximum of one and one half foot (1.5') separation must be maintained between a street low point elevation (taken at the centerline) and the corresponding EOF elevation.
12. For altered or created water features, see POND DETAIL SHEET information section. This information shall also be shown on the overall grading plan sheet.
13. Identify all wetland mitigation areas. The seeding specifications for these areas shall be shown on the grading plan.
14. Identify all park areas. The seeding specifications for these areas shall be shown on the grading plan.
15. Park pathways need to be graded so as to be in compliance with Americans with Disabilities Act (ADA) requirements.
16. For each lot indicate the following:
  - a. The type of structure, i.e. walk out (WO), look out (LO), full basement (FB,) rambler (R), etc. Provide a legend as to the structure type naming convention.
  - b. The proposed elevation of the finished garage floor needs to meet all other applicable standards and code.
  - c. The garage slab to street elevation difference is governed by City of Wayzata Zoning Ordinance. The garage slab shall be at least one (1) foot above the crown of the abutting street, upon which the property fronts. The maximum slope shall be ten percent (10%) at any point along the driveway.
  - d. The lowest ground elevation adjacent to the building.
  - e. Proposed spot elevations at each lot corner.
  - f. Proposed spot elevations at mid point along the side lot line.

## **LAND DISTURBANCE PLAN AND IMPLEMENTATION REQUIREMENTS**

- g. Proposed spot elevations at any high point or drainage break.
  - h. Proposed spot elevations where any drainage swales intersect with lot lines.
  - i. Proposed spot elevation where any drainage and utility easements intersect with the lot lines.
  - j. Proposed drainage with flow direction arrows.
17. Elevation separations of buildings with respect to ponds, lakes, streams and storm water features shall be designed as follows:
- a. The lowest ground elevation adjacent to homes and buildings must be a minimum of three feet (3') above an adjacent water body's 100-year HWL.
  - b. The lowest ground elevation adjacent to homes and buildings must be a minimum of one and one half foot (1.5') above any adjacent EOF.
  - c. Landlocked ponds, lakes or other water bodies shall require a minimum of five (5) feet of separation from the corresponding 100-year HWL and the lowest ground elevation adjacent to home or structure. Landlocked ponds, lakes, streams, ditches and drainage structures must be avoided wherever possible.
  - d. Outlots and drainage easements for ponds, lakes, streams, and other water bodies must be established to encompass all area below an elevation that is one (1) foot above the established 100-year HWL.
18. A tree inventory shall be provided in accordance with City code.
19. All conditions of preliminary plat or other similar approval related to grading, if applicable, shall be addressed on the Final Grading Plan.
20. No deviations shall be made from the elevations shown on the approved grading plan, without prior approval from the City.
21. Provide specifications containing information necessary to construct the project in accordance with the plans including construction methods and material requirements.
22. Any project specific information as requested by the City.

### **B. Phasing Plan**

1. Projects with a land disturbance in excess of 5 acres shall be subject to phasing. The total area of disturbance shall generally be limited to 5 acres, meaning additional area may be opened after permanent or temporary restoration and erosion and sediment control items are in place, on completed areas. The owner shall be required to implement site specific phasing requirements set by the City. The City shall review and approved the phasing plan based on, but not limited to, the following criteria:
- a. Owner proposed phasing of activities. Stockpile and borrow areas that are adequately protected or do not have direct runoff to other areas of the site or off site may not be considered as disturbed area.
  - b. Schedule for completion of permanent and/or temporary erosion and sediment control measures.
  - c. Site topography, existing and proposed land slopes and off site storm water discharge.
  - d. Land disturbing activities that extend beyond October 15<sup>th</sup>.
2. All projects, regardless of acreage, which continue beyond or begin after October 15<sup>th</sup> shall be subject to further phasing restrictions. Restrictions can include, but are not limited to the following:
- a. Severely limited area of allowable land disturbance.
  - b. Additional erosion and sediment control best management practices.
  - c. Dormant seeding at higher application rates.
  - d. Additional mulching at higher application rates.
  - e. Additional temporary sedimentation basins.
  - f. Use of approved erosion control blanket.
  - g. Any other erosion control strategy necessary to protect the site.

## **LAND DISTURBANCE PLAN AND IMPLEMENTATION REQUIREMENTS**

3. All phases of land disturbance shall be clearly delineated with a contrasting line type and boldness and be numbered.
4. The area of each phase shall be indicated on the phasing plan.
5. If phasing needs to be changed during the course of land disturbing activity based on a change of anticipated site conditions, the owner must submit to the City a revised staging plan for review and approval.
6. Completed areas must be reviewed and approved by the City prior to opening additional area within a future phase, as shown on the most current approved phasing plan.

### **C. Pond Detail Sheet**

1. A separate one (1) inch equals twenty (20) feet (1-inch = 20-feet) scale drawing with a one foot (1') contour interval shall be provided for each ponding area. For this requirement, a ponding area is defined as any constructed or altered stormwater pond, rain garden, wetland or wetland mitigation area or any other applicable drainage feature.
2. All applicable "GRADING PLAN" requirements shall also apply.
3. Indicate the normal water level (NWL) and 100-year high water level (HWL) for each ponding area.
4. An aquatic bench must be provided that extends ten feet (10') horizontally below the NWL at a slope of ten (10) to one (1).
5. A maintenance bench must extend fifteen (15) feet horizontally above the NWL at a slope of fifteen (15) to one (1) if directed by the City.
6. Four foot (4') high orange construction fence shall be installed at the top edge of the maintenance bench prior to the grading contractor leaving the site. The construction fence shall be installed with six (6) foot long metal "T" posts or equivalent spaced at a twelve (12) to fifteen (15) foot interval.
7. Pond maintenance accesses shall have a maximum slope of ten (10) to one (1). The maintenance access outlot or easement shall be a minimum of thirty (30) feet wide. If more than one access is provided, easements or outlots may be reduced to twenty (20) feet wide.
8. Pond maintenance accesses shall be clearly indicated on the plan with shading or hatching.
9. Pond maintenance accesses shall be sufficiently compacted and either paved or vegetated as necessary to allow for vehicle access.
10. Ponding outlots shall encompass the ponding area up to one (1) foot above the 100-year HWL.
11. The depth of a constructed or altered ponding area shall be no greater than six (6) feet, without prior approval by the City.
12. Any hold down of pond bottoms, to allow for sediment storage, shall be kept to a maximum of one-half (0.5) foot, without prior approval by the City. Any pond hold down shall be indicated on the plans.
13. All conservation easements shall be shown.

### **D. Storm Water Pollution Prevention Plan (SWPPP)**

1. The SWPPP shall consist of the following components:
  - a. Temporary erosion and sediment control plan including location of:
    - 1) Perimeter controls
    - 2) Construction fence
    - 3) Temporary sedimentation basins
    - 4) Inlet protection
    - 5) Areas to be seeded (indicate type and application rate)
    - 6) Areas to be mulched or blanketed

## **LAND DISTURBANCE PLAN AND IMPLEMENTATION REQUIREMENTS**

- 7) Location of construction waste control (dumpsters, chemical storage, concrete washout, portable restroom facilities, etc.)
- 8) Other required temporary erosion and sediment control measures.

Indicate staging of temporary erosion control measures if applicable.

- b. Permanent erosion and sediment control plan including areas to be seeded (indicate type and application rate), sodded, sediment ponds, storm sewer system and all other required permanent erosion and sediment control measures. Permanent storm water pollution controls including, but not limited to ponds, vegetated buffers and structural measures shall be designed and constructed in accordance City code.
- c. Narrative describing, at minimum, the nature of construction activity, person(s) responsible for inspection and maintenance of site erosion and sediment control, including contact information, project phasing, estimated schedules, timing, installation and maintenance of erosion and sediment control measures and specifications necessary to carry out the plan.
- d. Owner shall be responsible for applying for and obtaining all other applicable agency permits

*Note: For projects with land disturbances equal to or greater than one (1) acre, a National Pollution Discharge Elimination System (NPDES) Construction Activity storm water permit shall be required. This permit program is administered by the Minnesota Pollution Control Agency (MPCA).*

2. The following requirements shall be considered for the preparation of the SWPPP components listed above. The requirements below are meant to be a general guideline and do not account for all possible site conditions or situations. Additional measures may be necessary to meet the intent of the City code. It is the obligation of the owner and designer to consider all factors affecting erosion and sediment control on the project site and include appropriate Best Management Practices. Strict adherence to these requirements does not guarantee compliance with the City code.
  - a. Refer to standard details, as applicable, for approved installation practices for typical erosion and sediment control measures mentioned herein.
  - b. All debris created in the process of clearing and grading the site shall be removed from the site. This includes trees, shrubs, miscellaneous debris and existing buildings, including footings. Under no circumstances shall this type of material be buried or burned on the site.
  - c. All private wells on-site shall be abandoned and sealed in accordance with Minnesota Department of Health requirements. A copy of the sealing records and a location map shall be forward to the City of Wayzata Utility Suerintendent, for their records.
  - d. Rock construction entrances shall be constructed at all City approved entrances. Construction accesses not approved by the City should be adequately blocked to prevent unwanted traffic. Site access roads shall be graded or otherwise protected with silt fences, diversion channels, or dikes and pipes to prevent sediment from exiting the site via the access roads. Individual lots shall each be required to install and maintain a rock construction entrance throughout building construction until a paved driveway has been installed.
  - e. Soil tracked from site onto paved surfaces shall be cleaned daily from paved roads as per City code.
  - f. All topsoil shall be stripped and salvaged for re-spreading on the site. A minimum of six (6) inches of topsoil, after compaction, shall be re-spread prior to seeding and mulching. Excess topsoil may be removed from the site providing there is adequate topsoil remaining to properly finish the site as noted above. The topsoil stripping, stockpiling and re-spreading shall be done in accordance to, and noted on, the approved grading plan.
  - g. All grading operations shall be conducted in a manner as to minimize the potential for site erosion. Erosion control measures shall be installed to prevent sediment from running off onto adjacent properties, wetlands, ponds, lakes or other sensitive areas. Any damage to adjacent properties or natural resources must be corrected and restored as soon as permission is granted from the property owners(s).
  - h. Stockpiles must be located at least twenty-five (25) feet from any road, wetland, protected water, drainage channel, or storm sewer inlet. Stockpiles left for more than fourteen (14) days must be stabilized with mulch, vegetation, tarps or other approved means. Stockpiles left for less than fourteen (14) days must be controlled with silt fence or other approved means.

## **LAND DISTURBANCE PLAN AND IMPLEMENTATION REQUIREMENTS**

- i. Two rows of flotation silt curtain, spaced ten (10) feet apart, shall be installed and maintained in lakes and major ponding areas within or adjacent to the area to be graded, or at storm sewer outlets, until the area tributary to the lakes and major ponding areas is restored.
- j. All areas disturbed during construction shall be restored as detailed in these requirements. Each type of permanent restoration shall be clearly shown on the plan including, but not limited to sod, seed, impervious cover, and structures. Areas which topsoil has been placed and finish graded or areas that have been disturbed and for which other grading or site building construction operations are not actively underway shall be temporarily or permanently restored as set forth in the following requirements:
  1. Areas with slopes of less than three (3) to one (1) shall be seeded and mulched within fourteen (14) days of completing land disturbing activities.
  2. Areas with slopes greater than or equal to three (3) to one (1) shall be seeded and erosion control blanket placed within seven (7) days of completing land disturbing activities.
  3. All seeded areas shall be mulched and disc-anchored or covered by erosion control blanket to protect seed and limit erosion. Temporary or permanent mulch shall be disc-anchored and applied at a uniform rate of not less than two (2) tons per acre with not less than eighty (80) percent coverage.
  4. If any disturbed area is anticipated to be re-disturbed within six months, a temporary vegetative cover shall be required consisting of an approved seed mixture and application rate.
  5. If the graded area shall not be developed for a period greater than six months, a permanent vegetative cover shall be provided consisting of an approved seed mixture and application rate.
  6. Wetland mitigation areas shall be restored in accordance with the approved wetland replacement plan.
  7. All areas that will not be mowed or maintained as part of the ultimate design shall be permanently restored using an approved seed mixture and application rate.
  8. Restoration of disturbed wetland areas shall be accomplished with approved seed mixture and application rate.
- k. Specific measures to control erosion based on the grade and length of the slopes on the site shall be provided as follows:
  1. Install heavy duty silt fence along the toe of slopes that have a grade of less than three (3) percent and are less than four hundred (400) feet long from top to toe.
  2. Flow lengths up-slope from each silt fence shall not exceed four hundred (400) feet for slopes that have a grade of less than three (3) percent and are more than four hundred (400) feet long from top to toe.
  3. Install heavy duty silt fence along the toe of slopes that have a grade of three (3) to six (6) percent and are less than two hundred (200) feet from top to toe.
  4. Flow lengths up-slope from each silt fence shall not exceed two hundred (200) feet for slopes that have a grade of three (3) to six (6) percent and are more than two hundred (200) feet long from top to toe.
  5. Heavy duty silt fence shall be required around all wetlands. There shall be a sixteen and one half (16.5) foot minimum buffer area between the silt fence and delineated wetland boundary.
  6. The locations of silt fences shall be reviewed as grading occurs and adjustments made as the need is identified.
  7. All slopes shall be graded in such a fashion so that tracking marks from heavy equipment are perpendicular to the slope.
- l. Temporary sedimentation basins shall be constructed as follows:
  1. As part of this development process, or any activity, in which the vegetation is removed, the City may require the construction of a temporary sedimentation basin with outlet if necessary. The purpose of the basin shall be to reduce the quantity of sediment that would otherwise be deposited in the City's storm water system including pipes, ponds, wetlands and lakes.

## **LAND DISTURBANCE PLAN AND IMPLEMENTATION REQUIREMENTS**

2. The City shall work with the owner of the project as to the location, size, and configuration of the ponds through the grading permit approval process.
  3. The sedimentation basins shall be maintained by the owner of the property and shall remain functional until which time sufficient vegetative cover is restored to the site, resulting in the rate of erosion returning to pre-development levels. The City shall not issue building permits for lots containing said sedimentation basins until they can be removed or relocated based on project restoration progress.
  4. Temporary sediment basins can be removed, at the discretion of the City, only after and upstream vegetation has been sufficiently established.
- m.* Silt fence or hay bales shall be provided in all areas where minor runoff (less than one (1) cfs) may occur. Alternative methods in lieu of silt fence shall be reviewed and approved by the City on a case by case basis. *In areas where concentrated volumes of storm water runoff (greater than one (1) cfs) shall occur (such as swales, in front of storm sewer catch basins and intakes, etc.), the erosion control facilities shall be backed by a snow fence or other approved stabilization structure to prevent any damage to the erosion control facilities by concentrated flows.*
- n.* Silt fence or other approved erosion and sediment control measure shall be required along the entire curb line of all platted lots except for one approved opening where the rock construction entrance shall be installed, maximum thirty (30) feet in width. This device shall be maintained until final restoration has been achieved. *This requirement is intended to minimize vehicle tracking onto the paved streets through the building process.*
- o.* Flows from diversion channels or pipes (temporary or permanent) shall be routed to sedimentation basins or appropriate energy dissipaters to prevent transport of sediment to outflow or lateral conveyors and to prevent erosion and sedimentation when runoff flows into the conveyors.
- p.* Water removed from the site through pumping for dewatering or other activities such as removal of groundwater must be treated by sedimentation basins or other approved means. Such water shall not be discharged in such a manner to cause flooding or erosion to off site receiving waters or property.
- q.* Dust control measures, such as application of water, shall be performed periodically when weather or construction activity requires and/or as directed by the City. City water from hydrants or other sources shall not be used for dust control, without approval from the City of Wayzata Utility Supervisor.
- r.* Runoff shall be prevented from entering all storm sewer catch basins and inlets provided they are not needed during construction. Where storm sewer catch basins are necessary for site drainage during construction, a silt fence or double ring of staked hay bales backed by snow fence or other City approved alternative, shall be installed and maintained around all catch basins until the area tributary to the catch basins is restored. Inlet protection shall be provided for all inlets within a paved area until final stabilization has been achieved for the tributary area.
- s.* Filter blanket and riprap shall be installed on the downstream sides of all storm sewer outlets down to the NWL. All riprap shall be designed and installed with a filter material meeting the Mn/DOT specifications for riprap and filter material.

### **E. Standard Detail Sheet**

1. This sheet shall contain all City standard details applicable to the plan.
2. For items not provided for by the City's standard details, a detail shall be provided by the designer and approved by the City.

### **Section II. Land Disturbance Plan Implementation**

A land disturbance permit must be applied for and issued by the City, and a pre-construction meeting held, prior to the start of any land disturbing activity within the City of Wayzata.

## **LAND DISTURBANCE PLAN AND IMPLEMENTATION REQUIREMENTS**

### **A. Implementation of SWPPP**

1. All required permanent and temporary erosion and sediment control measures shall be installed prior to the start of any land disturbing activities. The City Engineer must be notified upon completion of the installation of the required erosion control facilities and prior to any land disturbing activity being commenced. The contractor is responsible to schedule an on-site pre-construction meeting with the City Engineer.
2. Permanent and temporary sedimentation basins shall be constructed and made operational currently with the start of land disturbance that is upgradient of the area. If the owner proves to the City that it is not practical to construct the basins at the beginning of construction, other acceptable means of sediment control must be provided.
3. Prior to commencement of land disturbing activity, the City Engineer shall be notified if any site dewatering is proposed to take place.
4. Any additional erosion and sediment control measures deemed necessary by the City before, during or after the land disturbance activities begin shall be installed by the owner at their expense.
5. Prior to the issuance of building permits, all necessary erosion control devices must be in place and functioning. The City shall inspect the site to determine its suitability for building activities. If the public utilities have not been installed at this point, it may be necessary to withhold building permits for various lots to allow the contractor adequate space to perform this work. Building sites shall have, at a minimum, perimeter erosion and sediment controls and a rock construction entrance installed.

### **B. Inspection and Maintenance**

1. For projects with land disturbance equal to or greater than one acre, construction sites shall be inspected at minimum once every seven (7) days and within 24-hours after a rainfall event greater than one-half (0.5) inch in 24-hours. The owner or his representative shall make inspections.

*Note: Inspections may be completed concurrently with the requirements of the NPDES Construction Activity storm water permit requirements. Additional inspections may also be performed by the City on an as needed basis.*

2. For projects with land disturbance equal to or greater than one acre, a written record shall be completed for each inspection including date, amount of rainfall, if greater than one-half (0.5) inch, name of inspector, findings, and corrective actions required. Inspections shall be recorded on the supplied inspection report sheet or equivalent. A copy shall be provided to the City Engineering Division within 48-hours following an inspection during active construction.

*Note: Inspection records may be completed concurrently with the requirements of the NPDES Construction Activity storm water permit requirements.*

3. If deficiencies are found as a result of an inspection, or through public concern, the permit holder shall be notified and shall repair or correct within 24-hours or as soon as field conditions allow access. If certain repairs cannot be made within 24-hours, a detailed plan and schedule for repairs shall be prepared and presented to the City for approval.
4. The storm water pollution prevention plan shall be modified as deemed necessary based on actual site conditions. Additional erosion and sediment control measures may be necessary based on any modifications to the plan.
5. All erosion control measures shall be used and maintained for the duration of project until final stabilization has been achieved. If construction operations or natural events damage or interfere with any erosion control measures, they shall be restored to serve their intended function at the end of each day or as soon as field conditions allow access.
6. Additional erosion and sediment control measures shall be added as necessary to adequately protect the natural resources of the City. The temporary and permanent erosion control plans shall be revised as needed based on current site conditions and to comply with all applicable requirements.
7. All sedimentation occurring in storm sewers, ditches, lakes, ponds and wetlands shall be removed prior to, during or after the completion of land disturbing activities as directed by the City.

## **LAND DISTURBANCE PLAN AND IMPLEMENTATION REQUIREMENTS**

8. Erosion control facilities shall be installed and maintained around the perimeter of all lakes, ponds and wetlands within or adjacent to the area to be disturbed until the area tributary to the lake, pond or wetland is restored and accepted by the City.
9. Rock construction entrances shall be constructed at all entrances into the site. These entrances shall be constructed and maintained as necessary to prevent tracking from the site.
10. Temporary erosion control measures and devices shall be removed only as approved by the City. Removal of all temporary measures shall be completed by the owner at his cost.
11. Soils washed onto or tracked from the site by motor vehicles and equipment shall be cleaned daily from paved roadway surfaces, throughout the duration of construction.
12. All temporary erosion and sediment control devices shall be removed prior to acceptance of the project. It shall be the owner's responsibility to remove all temporary measures.
13. The City shall perform a final inspection to verify compliance with all requirements and "as-built" or "record plan". Securities shall not be released until final stabilization has been achieved, all punch list items are complete and the site has been accepted by the City.

### **C. As-Built or Record Grading Plan**

1. Upon completion of the grading activities, the owner shall certify that all grading was performed in accordance with the approved grading plan and land disturbance permit. An as-built grading plan, signed by a licensed professional engineer or licensed land surveyor, shall be submitted to the City, for review and distribution, which shows all approved changes and certifies all grading was completed within the allowable +/- 0.2 foot tolerance.
2. The plan shall be clearly identified with a stamp or large bold print indicating "**As-Built**" or "**Record Plan**".
3. All information shown on the Final Grading Plan shall be shown on the As-Built Grading Plan, excluding erosion and sediment control measures or any other temporary measures.
4. Building pad hold-downs, if applicable, must be shown.
5. All revisions to the plan must be described and dated in the As-Built Grading Plan revision block.
6. Field verification must be made of the following:

*Note: If elevations are not within +/- two tenths (0.2) feet of those shown on the FINAL GRADING PLAN, revised grades, elevations and contours need to be shown on the AS BUILT GRADING PLAN.*

- a. Elevations of all Emergency Overflows (EOF's).
  - b. All spot elevations listed below:
    - The lowest ground elevation adjacent to the building.
    - Elevations at each lot corner.
    - Elevations at mid point along the side lot line.
    - Elevations at any high point or drainage break.
    - Elevations where any drainage swales intersect with lot lines.
    - Elevation where any drainage and utility easements intersect with the lot lines.
  - c. Spot elevations and contours of all constructed ponds, wetlands and mitigation areas.
  - d. Final grades on all roads and maintenance accesses.
7. Storm sewer locations with rim and invert elevations shown for each structure as per approved utility plans.
  8. Verify location of remaining trees and update tree inventory to reflect final grading and other approved tree removals.
  9. The owner shall provide the City four (4) paper copies of the approved As-Built or Record Plan along with an electronic copy in AutoCAD format or City approved equivalent. Record plans shall be provided to the City Engineering Division within sixty (60) days of City acceptance.



**LOCAL SURFACE WATER MANAGEMENT PLAN**

Appendix D 1/9/2019 12:00:00 AM 1/16/2019 12:00:00 AM

**Appendix D MCWD STORMWATER MANAGEMENT  
STANDARDS**



**MINNEHAHA CREEK WATERSHED DISTRICT  
BOARD OF MANAGERS**

**REVISIONS  
PURSUANT TO MINNESOTA STATUTES §103D.341**

**Adopted April 24, 2014  
Effective June 6, 2014**

**EROSION CONTROL RULE**

1. **POLICY.** It is the policy of the Board of Managers to require preparation and implementation of erosion control plans for land-disturbing activities, in order to limit erosion from wind and water; reduce flow volumes and velocities of stormwater moving off site; reduce sedimentation into water bodies; and protect soil stability during and after site disturbance. These measures should reflect the following principles:

- (a) Minimize, in area and duration, exposed soil and unstable soil conditions.
- (b) Minimize disturbance of natural soil cover and vegetation.
- (c) Protect receiving water bodies, wetlands and storm sewer inlets.
- (d) Retain sediments from disturbed properties on site.
- (e) Minimize unintentional off-site sediment transport on trucks and equipment.
- (f) Minimize work in and adjacent to water bodies and wetlands.
- (g) Maintain stable slopes.
- (h) Avoid steep slopes and the need for high cuts and fills.
- (i) Minimize disturbance to the surrounding soils, root systems and trunks of trees and vegetation adjacent to site activity that are intended to be left standing.
- (j) Prevent and/or mitigate the compaction of site soils.

2. **PERMIT REQUIREMENT.** Unless specifically exempted by section 3, Exemptions, of this rule, land-disturbing activity shall require a permit incorporating an erosion control plan approved by the District and shall be conducted in accordance with that plan. Applicants must provide a financial assurance pursuant to the District's Financial Assurance Rule. A Fast-Track permit may be issued for routine erosion control projects on a finding that the application:

- (a) Complies with the submission requirements of section 4, Permit Application, of this rule;
- (b) Includes an erosion control plan that:

- (1) Complies with section 5, Erosion Control Plan, of this rule; and
- (2) Provides for maintenance and inspection in accordance with sections 9, Maintenance, and 10, Notification and Inspection, of this rule.

Any request for a variance from a requirement of this rule must be decided by the Board of Managers.

3. EXEMPTIONS. The following land-disturbing activity shall not be subject to the requirements of this rule:

(a) Activity that:

- (1) disturbs an area of less than 5,000 square feet; and
- (2) involves the grading, excavating, filling or storing on site of less than 50 cubic yards of soil or earth material.

(b) Agricultural activity.

(c) Emergency activity immediately necessary to protect life or prevent substantial physical harm to person or property, provided that erosion control measures, including any necessary remedial action, are implemented as soon as possible.

(d) Activity otherwise subject to this rule, where the District has entered into a written agreement with the municipality where the activity takes place providing that the District will not exercise erosion control permitting authority within the city under the circumstances in question.

4. PERMIT APPLICATION. A [written application](#) for an erosion control permit shall be submitted by the owner of a site or an authorized representative. The application shall contain the following:

(a) Site address.

(b) Property owner's name, address and telephone number.

(c) Names, addresses, telephone numbers and responsibilities of all contractors, subcontractors and other persons who will engage in the land-disturbing activities.

(d) Name, address and telephone number of a single individual responsible for overseeing implementation of the erosion control plan on site.

(e) Documentation of all applicable federal, state, county, municipal or township applications for the proposed action or a statement that such approval is not required.

(f) Application date.

(g) Signature of each property owner with a certification that he or she understands that the proposed activity must be conducted in compliance with this rule and the approved erosion control plan, and that the application is complete and accurate to the best of his or her belief.

When a property owner is not a natural person, the application shall bear a signature of one authorized to act on the owner's behalf and documentation of the signatory's authority.

(h) An erosion control plan as described at section 5, Erosion Control Plan, of this rule.

(i) A soils engineering report as described at section 6, Soils Engineering and Geology Reports, of this rule, if requested by the District.

(j) A geological report as described at section 6, Soils Engineering and Geology Reports, of this rule, if requested by the District.

(k) A copy of the NPDES permit number for projects that require an NPDES permit from the Minnesota Pollution Control Agency.

(l) An erosion control inspection plan in accordance with section 10, Notification and Inspection, of this rule for all projects disturbing  $\frac{1}{4}$  acre or greater.

5. EROSION CONTROL PLAN. The erosion control plan is a stand-alone document that shall include the following:

(a) Site plans for existing and final proposed conditions drawn to appropriate scale. The plans shall contain:

(1) The site location in relation to surrounding roads, steep slopes, other significant geographic features, buildings and other significant structures.

(2) Existing and final grades, and the direction of flow for all pre- and post-construction runoff from the site.

(3) Site property lines.

(4) Identification and location of all existing and planned underground utilities, to be concentrated in corridors where safe, practical and feasible.

(5) Identification of all receiving waterbodies and/or stormwater conveyance systems to which the site discharges. Specification of the Impaired or Special Management waters status of each receiving waterbody or conveyance system.

(6) Identification and location of all onsite water features and facilities, including any lake, stream or wetland; any natural or artificial water diversion or detention area; any surface or subsurface drainage facility or stormwater conveyance; and any storm sewer catch basin.

(7) Location of all trees and vegetation on site, with identification of that which is intended to be retained. Installation of protective fencing so as to exclude all fill and equipment from the drip line or critical root zone, whichever is greater, of all vegetation to be retained.

(8) Location of buildings and structures on site.

(9) Proposed grading or other land-disturbing activity including areas of grubbing, clearing, tree removal, grading, excavation, fill and other disturbance; areas of soil or earth material storage; quantities of soil or earth material to be removed, placed, stored or otherwise moved on site; and delineated limits of disturbance.

(10) Locations of proposed runoff control, erosion prevention, sediment control and temporary and permanent soil stabilization measures, including, but not limited to: inlet protection, perimeter control, temporary and permanent soil stabilization, concrete wash areas, slope breaks, energy dissipation, rock construction entrance, silt curtains.

(11) Detail showing the location of all areas where compaction is to be prevented and/or mitigated. These areas shall be protected from construction vehicle traffic where practical and feasible. These areas include but are not limited to: filtration and infiltration stormwater facilities and areas that are proposed to be permanently landscaped as greenspace.

(12) The location of all onsite, existing and proposed stormwater management facilities, including, but not limited to: infiltration basins, bio-filtration basins, stormwater ponds, porous pavers, underground storage and swales.

(13) Location of any MCWD-regulated buffers on site (existing or to be established).

(b) Plans and specifications must be provided showing all proposed runoff control, erosion prevention, sediment control and temporary and permanent soil stabilization measures, in accordance with the following criteria:

(1) Plans and specifications shall conform to the provisions of “Stormwater Compliance Assistance Toolkit for Small Construction Operators” and/or the “2005 MN Stormwater Manual.” (Minnesota Pollution Control Agency, 2004)

(2) All erosion and sedimentation controls proposed for compliance with this rule shall be in place before any land-disturbing activity commences.

(3) Plans shall provide that stockpiles of soil or other materials subject to erosion by wind or water shall be covered, vegetated, enclosed, fenced on the downgradient side or otherwise effectively protected from erosion in accordance with the amount of time the material will be on site and the manner of its proposed use.

(4) Silt fence shall conform to Sections 3886.1 and 3886.2, Standard Specifications for Construction, Minnesota Department of Transportation (2000 ed.), as it may be amended.

(5) Plans shall provide that all fabric fences used for erosion and sedimentation control and all other temporary controls shall not be removed until the District has determined that the site has been permanently re-stabilized and shall be removed within 30 days thereafter.

(6) Plans shall provide for permanent stabilization of all areas subject to land disturbance, retention of native topsoil on site wherever practical and feasible, and specify at least six inches of topsoil or organic matter be spread and incorporated into the underlying soil during final site treatment wherever topsoil has been removed.

(7) A detailed schedule indicating dates and sequence of land-alteration activities: implementation, maintenance and removal of erosion and sedimentation-control measures, and permanent site-stabilization measures.

(c) The District may waive specific submittal requirements of this section at the request of an applicant proposing to landscape an improved property upon a finding by the District that such requirements are not needed to assess the characteristics of the property and the adequacy of proposed control measures,

6. SOILS ENGINEERING AND GEOLOGY REPORTS. On a determination that the condition of the soils is unknown or unclear and that additional information is required to find that an applicant's proposed activity will meet the standards and purposes of this rule, the District may require soil borings or other site investigation to be conducted and may require submission of a soils engineering or geology report. The report shall include the following as requested by the District:

(a) Data and information obtained from the requested site investigation.

(b) A description of the types, composition, permeability, stability, erodibility and distribution of existing soils on site.

(c) A description of site geology.

(d) Conclusions and revisions, if any, to the proposed land-disturbing activity at the site or the erosion control plan, including revisions of plans and specifications.

7. ADDITIONAL INFORMATION. The District may require any additional information or data, as it finds relevant and necessary to evaluate and act on an application.

8. FINANCIAL ASSURANCE. The District may require the applicant to file a bond or other financial assurance in accordance with the Financial Assurance Rule. The assurance must be in the form of a performance bond, a letter of credit or a cash escrow. The assurance shall be maintained until:

(a) Final site stabilization and removal of erosion and sedimentation controls, as determined by the District, and the payment of all fees and amounts due to the District;

(b) Forty-five (45) days after written notification to the District under paragraph 10(b)(5), if the District has failed to respond in writing; or

(c) Such earlier time as the District may advise the applicant in writing.

9. MAINTENANCE. The permittee shall be responsible at all times for the maintenance and proper operation of all erosion and sediment control management practices. On any property on which land-disturbing activity has occurred pursuant to a permit issued under this rule, the permittee shall, at a minimum, maintain and repair all disturbed surfaces and all erosion and sediment control management practices and soil stabilization measures every day work is performed on the site. Specific maintenance requirements are as follows:

(a) All exposed soil areas must be stabilized as soon as possible to limit soil erosion but in no case later than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased.

(b) The normal wetted perimeter of any temporary or permanent drainage ditch or swale that drains water from the site, or diverts water around a site must be stabilized. Stabilization must be completed within 24 hours of connecting to a surface water. Portions of the ditch that are under construction must be stabilized within 24 hours after the construction activity in that portion has ceased.

(c) Sediment control practices must minimize sediment from entering surface waters, including curb and gutter systems and storm sewer inlets.

(d) Sediment control practices must be established on all downgradient perimeters before any upgradient land-disturbing activities begin. These practices shall remain in place until the District has determined that the site soils have been permanently stabilized.

(e) The timing of the installation of sediment control practices may be adjusted to accommodate short-term activities such as clearing or grubbing or passage of vehicles. Any short-term activity must be completed as soon as possible and the sediment control practices must be installed immediately after the activity is completed. However, sediment control practices must be installed before the next precipitation event even if the activity is not completed.

(f) All storm drain inlets must be protected by BMPs determined by the District to be appropriate, during construction until all sources with potential for discharging to the inlet have been stabilized.

(g) Pipe outlets must be provided with temporary or permanent energy dissipation within 24 hours of connection to a surface water.

(h) In order to maintain sheet flow and minimize rills and gullies, there shall be no unbroken slope length of greater than 30 feet for slopes with a grade of 3:1 or steeper.

(i) Temporary stockpiles must have effective sediment controls in place to prevent discharge to surface waters including stormwater conveyances such as curb and gutter.

(j) Vehicle tracking of sediment from the construction site must be minimized by BMPs such as rock construction entrances, wash racks or equivalent practices. Street sweeping must be used if such BMPs are not adequate to prevent sediment from being tracked off site.

(k) During construction of an infiltration or biofiltration system, rigorous prevention and sediment controls must be used to prevent the discharge of sediment into the infiltration/biofiltration area. Infiltration/biofiltration areas must not be excavated to final grade until the contributing drainage area(s) has been constructed and finally stabilized.

(l) Dewatering or basin draining (e.g. pumped discharges, trench/ditch cuts for drainage) related to the construction activity that may have turbid or sediment laden discharge water must be discharged to a temporary or permanent sedimentation basin on the site whenever possible. If water cannot be discharged to a sedimentation basin prior to entering the surface water, it must be treated with the appropriate BMPs, such that the discharge does not adversely affect the receiving water or downstream landowners.

(m) If determined to be compacted by the District, site soils shall be decompact to a depth of 18 inches and organic matter shall be incorporated before revegetation. Decompaction shall be

accomplished solely by incorporation of organic matter within the drip line or critical root zone of trees or within 10 feet of underground utilities.

(n) Inlet protection devices and all perimeter control shall be maintained once sediment accumulates to a depth 1/3 of the designed capacity.

## 10. NOTIFICATION AND INSPECTION.

### (a) INSPECTION:

(1) The individual identified as being responsible for implementing the erosion control plan must routinely inspect the construction site once every seven days during active construction and within 24 hours after a rainfall event greater than 0.5 inches in 24 hours.

(2) All inspections and maintenance conducted during construction must be recorded in writing and these records must be retained with the erosion control plan and made available at the District's request within 24 hours. Records of each inspection and maintenance activity shall include:

(i) Date and time of inspections;

(ii) Name of person conducting inspections;

(iii) Findings of inspections, including recommendations for corrective actions;

(iv) Corrective actions taken (including dates, times and party completing maintenance activities); and

(v) Date and amount of all rainfall events greater than 0.5 inches in 24 hours.

(b) NOTIFICATION. The applicant or its authorized agent shall notify the District in writing at the following points (large public projects may request alternative notification through use of an onsite written log of the following points):

(1) On completing installation of perimeter erosion and sedimentation controls.

(2) On completing land-disturbing activities and putting into place measures for final soil stabilization and revegetation.

(3) Prior to any site dewatering.

(4) When the site has been permanently stabilized and re-vegetated.

(5) When all temporary erosion and sedimentation controls have been removed from the site.



**MINNEHAHA CREEK WATERSHED DISTRICT  
BOARD OF MANAGERS**

**REVISIONS  
PURSUANT TO MINNESOTA STATUTES § 103D.341**

**Adopted April 24, 2014  
Effective June 6, 2014**

**FLOODPLAIN ALTERATION RULE**

1. POLICY. It is the policy of the [Board of Managers](#) to:

- (a) Preserve existing water storage capacity below the 100-year high water elevation of all waterbodies in the watershed to minimize the frequency and severity of high water;
- (b) Minimize development below the 100-year high water elevation that will unduly restrict flood flows or aggravate known high water problems.

2. REGULATION. No person shall alter or fill land below the projected 100-year high water elevation of a waterbody without a permit from the District. A Fast Track permit may be issued for 6 inches or less of organic material to be incorporated into existing soil in preparation for sodding or seeding.

3. CRITERIA.

(a) Fill shall not cause a net decrease in storage capacity below the projected 100-year high water elevation of a waterbody. The allowable fill area shall be calculated by a professional engineer registered in the State of Minnesota. Creation of floodplain storage capacity to offset fill shall occur before any fill is placed in the floodplain, unless the applicant demonstrates that doing so is impractical and that placement of fill and creation of storage capacity can be achieved concurrently. Any placement of fill prior to creation of floodplain storage capacity will only be allowed upon a demonstration by a registered professional engineer that such work will not aggravate high water conditions.

(b) For fill in a watercourse, in addition to the criteria of paragraph 3(a), the fill shall not cause an increase in the 100-year flood elevation.

(c) The criteria of paragraph 3(a) does not apply to fill in a waterbody other than a watercourse if the applicant shows that the proposed fill, together with the filling of all other properties on the waterbody to the same degree of encroachment as proposed by the applicant, will not cause high water or aggravate flooding on other properties and will not unduly restrict flood flows.

(d) No new impervious surface may be created within the lesser of the 10-year floodplain or 25 feet of the centerline of a watercourse, except impervious area may be created that is:

- (1) no larger than 10% of the floodplain area of the parcel(s), or
- (2) the surface is an integral component of a linear public roadway or trail.

(e) Ice ridge grading within the floodplain must conform to the original cross-section of the lakebed. Approval for ice ridge grading or removal of ice ridge material from the floodplain requires the applicant to demonstrate that the ice ridge resulted from ice action during the

previous winter. No additional material may be placed within the floodplain except in accordance with this Rule.

(f) All new residential, commercial, industrial and institutional structures shall be constructed such that all door and window openings are at a minimum of two feet above the 100-year high water elevation.

4. REQUIRED EXHIBITS. The following exhibits shall accompany the permit application. One set - full size; one set - reduced to maximum size of 11"x17".

(a) Site plan showing property lines, delineation of the work area, existing elevation contours of the work area, ordinary high water elevation (OHW), and 100-year high water elevation. All elevations must be reduced to NGVD (1929 datum).

(b) Grading plan showing any proposed elevation changes.

(c) Preliminary plat of any proposed land development.

(d) Determination by a professional engineer of the 100-year high water elevation before and after the project and the extent of impervious surface within the 10-year floodplain.

(e) Computation by a professional engineer of cut, fill and change in water storage capacity resulting from proposed grading.

(f) Soil boring results if available.

(g) If not otherwise subject to the District Erosion Control Rule, an erosion control plan conforming to sections 5, Erosion Control Plan, and 9, Maintenance, of the Erosion Control Rule.

(h) Any project resulting in greater than 50 cubic yards of fill is required to provide an as-built survey upon project completion which documents the location and volume of both fill and compensatory storage.

5. EXCEPTION.

If the 100-year high water elevation of a waterbasin is entirely within a municipality, the waterbasin does not outlet during the 100-year event, and the municipality has adopted a floodplain ordinance prescribing an allowable degree of floodplain encroachment, the ordinance governs the allowable degree of encroachment and no permit is required under this rule.

**MINNEHAHA CREEK WATERSHED DISTRICT  
BOARD OF MANAGERS**

**REVISIONS  
PURSUANT TO MINNESOTA STATUTES § 103D.341**

**Adopted April 24, 2014  
Effective June 6, 2014**

**WETLAND PROTECTION RULE**

1. POLICY. It is the policy of the Board of Managers to:

- (a) Achieve no net loss in the quantity, quality and biological diversity of Minnesota's existing wetlands;
- (b) Increase the quantity, quality and biological diversity of Minnesota's wetlands by restoring or enhancing diminished or drained wetlands;
- (c) Avoid direct or indirect impacts from activities that destroy or diminish the quantity, quality and biological diversity of wetlands;
- (d) Minimize direct or indirect impacts from activities that destroy or diminish the quantity, quality and biological diversity of wetlands;
- (e) Rectify the impact of any such activity by repairing, rehabilitating, or restoring the affected wetland environment;
- (f) Reduce or eliminate the impact of such activity over time by preservation and maintenance operation during the life of the activity;
- (g) Compensate for the impact on the wetlands by restoring a wetland;
- (h) Compensate for the impact on the wetlands by replacing or providing substitute wetland resources or environments; and
- (i) Promote competent administration of the Wetland Conservation Act (WCA) within the watershed.

2. REGULATION UNDER WCA AND WATERSHED LAW.

The District regulates activity impacting wetlands pursuant to the WCA and the Watershed Law. A permit for activities impacting wetlands or requiring wetland buffers is required as follows:

- (a) In municipalities where the District is the local government unit under the WCA, a permit is required from the District for any draining or filling of wetlands, or excavation in the permanently and semipermanently flooded areas of type 3, 4, or 5 wetlands, and in all wetland types if the excavation results in filling, draining, or conversion to nonwetland. The WCA, as amended, and its implementing rules as set forth in Minnesota Rules chapter 8420, as amended, specifically including sequencing requirements and all exemptions, are incorporated as a part of this rule. Work affecting a wetland that qualifies as no-loss under the WCA and work affecting an

incidental wetland, as defined in the WCA, do not require a permit under this rule. Wetland replacement, where permitted, shall comply with section 3, Wetland Replacement, of this rule.

(b) A permit is required from the District pursuant to the excavation and buffer provisions in sections 4, Excavation, and 5, Buffer, of this rule, which are adopted under the District's watershed law authority and apply whether or not the District is the WCA local government unit. Pursuant to this authority and section 4, Excavation, the District requires a permit for excavation in any type of wetland, except where specifically exempted by the WCA or when the work meets no-loss criteria under the WCA. No permit under this rule is required for excavation in an incidental wetland, as defined in the WCA.

### 3. WETLAND REPLACEMENT.

(a) Project-specific replacement wetland must be sited in the following order of priority, which replaces the siting priority in Minnesota Rules section 8420.0522, subpart 7, as it may be amended:

- (1) On site;
- (2) Within the same subwatershed as the affected wetland (see Appendix 1);
- (3) In the Minnehaha Creek watershed;
- (4) In the same eight-digit Hydrologic Unit Code watershed.

(b) Pursuant to Minnesota Rules section 8420.0522, subp.7, as it may be amended, when reasonable, practical and environmentally beneficial replacement opportunities are not available in a siting priority area in subsection 3(a), providing replacement priority areas, the applicant may seek opportunities at the next level. When neither replacement opportunities nor privately banked credits are available in any priority area, the applicant may comply with this section through the purchase of banked credits from the District at the cost to the District to establish credits, so long as the District has determined that sufficient credits are available.

### 4. EXCAVATION. Excavation in wetlands is subject to the following requirements.

(a) Excavation is governed by the substantive and procedural standards, criteria and requirements set forth in the WCA, as amended, and the rules implementing the WCA as set forth in Minnesota Rules chapter 8420, as amended, including all exemptions, with the exception that replacement for excavation not subject to the WCA shall be at the ratio of 2:1. Excavation in incidental wetland is not subject to the requirements of this section. The priority siting requirements of section 3 of this rule, Wetland Replacement, apply to replacement of excavated wetland under this section.

(b) Excavation of a wetland performed for public benefit, including excavation to remove or control invasive species, shall be deemed self-replacing if the applicant demonstrates that the wetland to be excavated is degraded; the proposed activity would increase the wetland's function and value, as determined using the current version of the Minnesota Routine Assessment Method or other method approved by the District; and the enhanced wetland function and value are likely to be preserved. Excavation must not result in a change of wetland type, unless the applicant demonstrates that public benefit is not obtainable absent such impact.

5. BUFFER.

(a) Any activity for which a permit is required under this Wetland Protection Rule, the Stormwater Management Rule or the District Waterbody Crossings and Structures Rule, and New Principal Residential Structure construction that increases the imperviousness of the subject parcel must provide for buffer adjacent to each wetland and public waters wetland. To the extent the buffer requirement applies to a proposed New Principal Residential Structure, it will be applied in accordance with protections afforded a zoning nonconformity under state law so as not to unduly restrict the proposed action. Buffer must be provided on that part of the wetland edge that is downgradient from the activity or construction and around each wetland that will be disturbed.

(b) Buffer width will be determined in accordance with section 6, Buffer Width, of this rule.

(c) Buffers shall be documented by declaration or other recordable instrument approved by the District and recorded in the office of the county recorder or registrar before activity under the MCWD permit commences. A buffer on public land or right-of-way may be documented in a written agreement executed with the District in place of a recorded instrument. The agreement shall state that if the land containing the buffer is conveyed, the public body shall require the buyer to comply with this subsection.

(d) A permanent wetland buffer monument shall be installed at each lot line where it crosses a wetland buffer, and where needed to indicate the contour of the buffer, with a maximum spacing of 100 feet. Language shall indicate the purpose of the buffer, restrictions, and the name and phone number of the Minnehaha Creek Watershed District. On public land, or right-of-way, the monumentation requirement may be satisfied by the use of a marker flush to the ground or breakaway markers of durable material. At the request of the applicant, the District shall provide wetland buffer monuments at production cost.

6. BUFFER WIDTH.

(a) The Base Buffer Width shall be determined by the management class of the wetland as evaluated by the District’s Functional Assessment of Wetlands or by the current version of the Minnesota Routine Assessment Method (MnRAM). Stormwater sensitivity parameters must be analyzed and results included in the evaluation, unless all stormwater flow to wetlands is managed in compliance with the bounce, inundation and runout-elevation control criteria in subsection 8(b) of the District’s Stormwater Management Rule.

<b>Management Class</b>	<b>Base Buffer Width</b>	<b>Minimum Applied Buffer Width</b>
Manage 3	20 feet	16 feet
Manage 2	30 feet	24 feet
Manage 1	40 feet	34 feet
Preserve	75 feet	67 feet

(b) The Applied Buffer Width, the actual width of wetland buffer(s) required for a permitted project, shall be the Base Buffer Width as reduced by beneficial slope or soil conditions pursuant to the following formulas:

(1) For every 5 percent decrease in average buffer slope from 20 percent, the Base Buffer Width may be reduced 2 feet.

(2) For every grade of Hydrologic Soil Group above Type D for the predominant buffer soil condition, the Base Buffer Width may be reduced 2 feet.

Reductions for beneficial slope or soil conditions shall not reduce the buffer width to less than the applicable Minimum Applied Buffer Width.

(c) Buffer width may vary based on demonstrated site constraints, provided that a width of at least 50 percent of the Applied Buffer Width is maintained at all points, there is no reduction in total buffer area, and the buffer provides wetland and habitat protection at least equivalent to a buffer of uniform Applied Buffer Width. Buffer width averaging calculation will exclude any part of the buffer exceeding 200 percent of the Applied Buffer Width. The area of any path or trail allowed in the buffer will be added to the total area required by the Applied Buffer Width, except that construction of a trail or path of no more than 4 feet in width to provide riparian access through the buffer will not increase the required buffer area.

(d) The Applied Buffer Width may be further reduced by the District upon a demonstration by the applicant that the proposed buffer conditions clearly provide function and value equal to or greater than would be provided by a buffer of the applicable Applied Buffer Width, but may not be reduced to less than 50 percent of the applicable Applied Buffer Width.

(e) The Applied Buffer Width for Linear Reconstruction Projects shall be limited to the extent of available right-of-way. A buffer is not required for resurfacing of an existing road, sidewalk or trail that does not increase the area of impervious surface.

(f) The Applied Buffer Width for New Principal Residential Structures shall be limited to 25 percent of the distance between the existing structure at the point that it is nearest to the wetland and the wetland, or 25 feet, whichever is greater, provided that such a buffer shall not exceed the Base Buffer Width, and the buffer shall not render a property unbuildable.

## 7. WETLAND BUFFER VEGETATION.

(a) Buffer vegetation shall not be cultivated, cropped, pastured, mowed, fertilized, subject to the placement of mulch or yard waste, or otherwise disturbed, except for periodic cutting or burning that promotes the health of the buffer, actions to address disease or invasive species, mowing for purposes of public safety, temporary disturbance for placement or repair of buried utilities, or other actions to maintain or improve buffer quality, each as approved by District staff or when implemented pursuant to a written maintenance plan approved by the District. Pesticides and herbicides may be used in accordance with Minnesota Department of Agriculture rules and guidelines. No new structure or hard surface shall be placed within a buffer, except as provided in paragraph 6(c). No fill, debris or other material shall be excavated from or placed within a buffer.

(b) For public land, right-of-way or property held by a homeowner's association, the applicant may comply with paragraphs 5(d), requiring buffer monumentation, 7(a), vegetation management, and section 10, Wetland Buffer Monitoring, of this rule by demonstrating that the buffer will be maintained in accordance with a written maintenance agreement with the District meeting the buffer monumentation, vegetation management and wetland buffer monitoring requirements in this rule, listing required elements of paragraph 9(h), the Wetland Buffer

Maintenance Plan, including terms describing in detail the location of wetland buffer on the subject property and providing detailed protocols for buffer maintenance.

(c) Buffer areas, or portions thereof, that are not vegetated or will be disturbed by grading or other site activities during construction shall be replanted and maintained according to the following standards:

(1) Soils must be decompacted to a depth of 18 inches and organic matter must be incorporated into soils before revegetation. Decompaction shall be accomplished solely by incorporation of organic matter within the drip line or critical root zone of trees or within 10 feet of underground utilities.

(2) Erosion/sediment control practices, including provisions of sections 5, Erosion Control Plan, and 9, Maintenance, of the District Erosion Control Rule, as appropriate, shall be used during buffer vegetation establishment.

(3) Buffers shall be planted with a native seed mix and/or native plantings approved by the District.

(4) Buffer maintenance and monitoring shall be performed in accordance with section 10, Wetland Buffer Monitoring, of this rule.

8. **FINANCIAL ASSURANCE.** A performance bond, letter of credit or other financial assurance, consistent with the District Financial Assurance Rule, may be required for any project involving wetland replacement or replanting of wetland buffers. The financial assurance shall be maintained until the monitoring period has ended and District has approved the wetland replacement or establishment of the buffer.

9. **REQUIRED EXHIBITS.** The following exhibits shall accompany the Combined Joint Notification (CJN) form:

(a) Complete delineation report, in accordance with the guidelines provided by the Board of Water and Soil Resources, for any wetland(s) that will be impacted or require a buffer. The report must be approved by the WCA Local Government Unit (LGU). The report must include a copy of the Notice of Decision for all projects occurring in cities where the District is not the LGU.

(b) Site plan, one set - full size and one set - reduced to a maximum size of 11" x 17", showing:

(1) Property lines and corners and delineation of lands under ownership of the applicant;

(2) Existing and proposed elevation contours; including the existing runout elevation and flow capacity of the wetland outlet;

(3) Boundaries of all wetlands on the property;

(4) Boundaries of all existing or proposed buffers, along with proposed grading and other disturbance in existing or proposed buffers;

(5) Proposed locations of buffer signage; and

(6) Area of the wetland portion to be filled, drained, or excavated.

(c) Identification and area of the total watershed area presently contributing stormwater runoff to the wetland.

(d) A replacement plan, if required, meeting all the requirements of Minnesota Rules chapter 8420, as amended. Replacement plans for wetland impacts not subject to the WCA must meet these same requirements.

(e) For projects involving wetland excavation (including projects deemed self-replacing under paragraph 4(b)), the application shall identify spoils placement on upland and specify how the deposited materials will be stabilized and vegetated.

(f) Information showing whether the subject wetland is protected by either the State or municipality or both.

(g) Wetland Buffer Planting Plan, if required under section 7, Wetland Buffer Vegetation, including:

(1) Proposed seed mixes and other plant materials to be used;

(2) Seed or plant supplier and origin of materials;

(3) Seed/planting bed preparation (i.e. disking, raking, clearing, herbicide control, topsoiling, etc.);

(4) Seeding and/or planting method (i.e. broadcast, drill, etc.);

(5) Application rate in either pounds of seed per acre and/or the number of plants per unit area if using plugs or seedlings. Specify if using pure live seed (PLS). Higher application rates will be required if not using PLS;

(6) Detailed erosion control plan for establishing wetland buffer.

(h) Wetland Buffer Maintenance Plan, if required under section 7, Wetland Buffer Vegetation, including:

(1) Schedule of establishment and maintenance activities for the first five years of establishment (i.e. watering, burning, mowing, herbicide control, etc.);

(2) Identification of probable invasive species and steps that will be taken to control the spread of invasive species;

(3) Inspection methods and schedule for monitoring invasive species and documenting native species germination and establishment.

10. **WETLAND BUFFER MONITORING.** For buffer areas required to be established or replaced under subsection 7(c), setting standards for buffer establishment and maintenance:

(a) Upon final establishment, wetland buffers shall contain little or no bare soil and shall exhibit a dominance of native vegetation.



(b) The applicant shall submit to the District an annual Wetland Buffer Inspection Report on or before January 1 of each year for five years. Alternatively, applicants may request that the District perform the Wetland Buffer Inspection and produce the report for a fee equal to the District's actual costs to perform the work.

(1) The applicant may submit a written request to cease annual monitoring by year three if the wetland buffer is well established pending District approval.

(2) If the wetland buffer is poorly established at the end of the five year monitoring period, the District may require continued monitoring and maintenance.

(c) The annual Wetland Buffer Inspection Report shall include:

(1) Site plan showing:

- i. Location of permitted buffer area;
- ii. Areas of bare soil or erosion;
- iii. Areas of invasive vegetation; and
- iv. Location and type of any encroachments on the buffer (structures, unapproved mowing, trails, etc.)

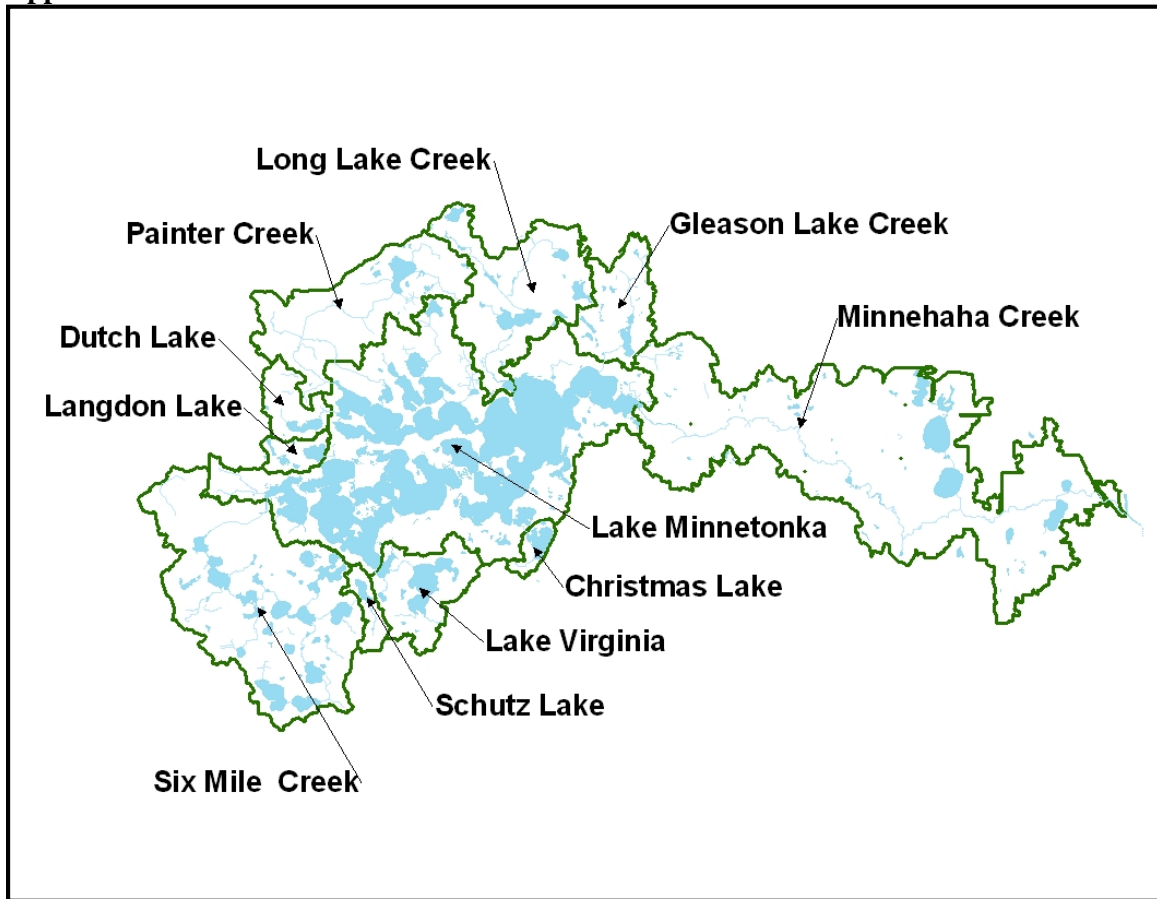
(2) Color photos of the wetland buffer taken during the growing season. Vantage points for these photos shall be labeled on the site plan.

(3) Description of buffer vegetation including:

- i. List of dominant plant species and their estimated percent cover.
- ii. Comparison of the species present to the approved planting/seeding plan.

(4) A written narrative that identifies the management strategies that will be utilized during the upcoming growing season to manage invasive species, improve percent vegetative cover and species diversity, and mitigate any encroachments on the buffer.

**Appendix 1:**



**MINNEHAHA CREEK WATERSHED DISTRICT  
BOARD OF MANAGERS**

**REVISIONS  
PURSUANT TO MINNESOTA STATUTES § 103D.341**

**Adopted April 24, 2014  
Effective June 6, 2014**

**DREDGING RULE**

1. **POLICY.** It is the policy of the Board of Managers to:

(a) Preserve the natural appearance of shoreline areas; recreational, wildlife and fisheries resources of surface waters; surface water quality and the ecological integrity of the riparian environment;

(b) Protect backwater areas and wetlands adjacent to or hydrologically connected to area lakes, with particular protection of backwater areas and wetlands that have been identified by the District as particularly sensitive to stormwater impacts or as providing valuable vegetative diversity or integrity; wildlife or fish habitat; shoreline protection; or exceptional aesthetic, educational, recreational or cultural features;

(c) Minimize impacts from dredging to the biologically productive and ecologically sensitive littoral zone of water bodies to prevent the deterioration of water quality, the proliferation of invasive species and increased seepage;

(d) Balance the riparian rights of property owners with the public interest in protecting water resources.

2. **REGULATIONS.** No person shall dredge in the beds, banks or shores of any public water or public waters wetland in the District without first securing a permit from the District, and posting a bond or letter of credit pursuant to the Financial Assurance Rule.

3. **GENERAL STANDARDS.** All permitted dredging shall comply with the following standards:

(a) A spoil disposal site must be identified and found not to be below the OHW of a public water or public water wetland, wetland subject to the Wetland Conservation Act of 1991, or floodplain and not prone to erosion.

(b) Where there is an identifiable source of sediment under the control of the applicant, the plan shall include remedial action to minimize deposition of sediment into a waterbody or off-site.

(c) Before District review, all dredging proposals that involve navigational access to docking structures shall be submitted to and approved by, in the case of public waters, the Minnesota Department of Natural Resources and, in the case of Lake Minnetonka, the Lake Minnetonka Conservation District. Proposed dredging in Lake Minnetonka is subject to the dredging standards of the DNR, MCWD and LMCD Dredging Joint Policy Statement (April 1993).

(d) The proposed project shall represent the "minimal impact" solution to a specific need with respect to all other reasonable alternatives such as dock extensions, aquatic nuisance plant

removal without dredging, beach sand blankets, excavation above the bed of public water, less extensive dredging in another area of the public water, or management of an alternative water body for the intended purpose. For a project determined by the District to present potential impacts to Preserve wetlands and other ecologically sensitive areas, the applicant must demonstrate that the proposed project is likely to cause minimal ecological impact and that it presents the least ecological impact of all reasonable alternatives.

(e) The dredging shall be limited to the minimum dimensions necessary for achieving the stated purpose.

(f) If the dredging will be accomplished by means of hydraulic dredging the following additional standards will apply:

(1) The spoil disposal site shall have a minimum storage capacity equal to four times the calculated volume of solid material to be removed, and a minimum free board between the top of the projected water surface elevation and the top of the dike of one foot, if no outlet from the spoil disposal site is proposed.

(2) The construction of the spoil containment site shall be with earthen dikes. No such dike shall exceed 5.5 feet in height at any point. Dikes shall have a minimum 4 foot wide top and side slopes of 2:1 (H:V) or flatter. The dikes shall be adequately compacted by traversing with appropriate equipment during construction.

(3) Proposed embankments which differ from the standard in 3(f)(2) shall comply with generally accepted engineering principles and be designed and certified by a professional engineer registered in the State of Minnesota.

(4) Spoil containment sites of limited storage volume which propose a discharge back into a receiving water body through a control structure shall meet applicable State water quality guidelines for the receiving water body. Weekly monitoring of the instantaneous discharge shall be performed and paid for by the applicant. The results shall be promptly forwarded to the District Engineer for comparison to state water quality standards for turbidity and total suspended solids.

(5) A restoration plan prepared by a qualified individual shall show proposed methods of retaining waterborne sediments on site during the period of operation. The plan shall show final grades and how the site will be restored, covered and/or vegetated after construction. Sites with high erosion potential characterized by steep slopes or erodible soils may require a cash deposit or surety to ensure performance and any necessary remedial actions.

#### 4. CRITERIA.

(a) Dredging shall be permitted only:

(1) To maintain, or remove sediment from, an existing public or private channel, not exceeding the original or originally permitted extent of dredging, whichever is less, and subject to such further limitations on method or extent of dredging as this rule may provide;

- (2) To implement or maintain an existing legal right of navigational access;
- (3) To remove sediment to eliminate a source of nutrients, pollutants, or contaminants;
- (4) To improve the public recreational, wildlife, or fisheries resources of surface waters;  
or
- (5) For actions by public entities for public purposes.

(b) In evaluating an application to dredge to maintain or remove sediment from an existing public or private channel, the significance of historic dredging will depend on how recently the original dredging or subsequent maintenance to sustain use took place, the extent of recent use, and the amount and significance of evidence supporting use for the proposed purpose.

(c) In evaluating an application to dredge to create or maintain navigational access, the District will determine whether the navigation sought is reasonable under the circumstances, considering:

- (1) The ecological sensitivity or preserve status of any potentially affected water body or wetland;
- (2) The size, draft, speed, motorized status and other characteristics of watercraft historically used or proposed to be used in the area proposed to be dredged;
- (3) The size, draft, speed, motorized status and other characteristics of watercraft typically moored and used within 200 yards of the area proposed to be dredged;
- (4) The size and restrictiveness of existing channels and bridge openings that may affect navigation; and
- (5) The availability of alternative means of gaining access, such as extending docks; purchasing, renting or leasing shore moorings; or anchoring watercraft away from shore moorings.

(d) No dredging shall be permitted:

- (1) Above the ordinary high water level or into the upland adjacent to the lake or watercourse;
- (2) That would enlarge a natural watercourse landward or that would create a channel to connect adjacent backwater areas for navigational purposes;
- (3) Where the dredging will alter the natural shoreline of a lake;
- (4) Where the dredging might cause increased seepage or result in subsurface drainage;
- (5) Where any portion of the dredged area contains any slope steeper than 3:1 (H:V) in a marina or channel, or steeper than 10:1 (H:V) for an area adjoining residential lakeshore;  
or
- (6) Where adverse ecological impact to a preserve wetland or other ecologically sensitive area cannot be minimized.

(7) No dredging in a public water shall occur between April 1<sup>st</sup> and June 30<sup>th</sup>. No dredging in any other waterbody shall occur between April 1<sup>st</sup> and June 30<sup>th</sup> unless the applicant demonstrates that fish spawning does not occur in the waterbody.

(e) Dredging presenting the conditions identified in 4(d)(1-3) above may be permitted where the project complies with applicable DNR rules.

5. REQUIRED EXHIBITS. The following exhibits shall accompany the permit application. One set - full size; one set - reduced to maximum size of 11"x17".

(a) Site plan showing property lines, delineation of the work area, existing elevation contours of the adjacent upland area, ordinary high water elevation, and 100-year high water elevation (if available). All elevations must be reduced to NGVD (1929 datum).

(b) Profile, cross sections and/or topographic contours showing existing and proposed elevations and proposed side slopes in the work area. (Topographic contours should be at intervals not greater than 1.0 foot.)

(c) In the case of projects using hydraulic means of sediment removal and on-site spoil containment the applicant shall supply:

(1) Cross section of the proposed dike.

(2) Stage/storage volume relationship for the proposed spoil containment area.

(3) Detail of any proposed outlet structure, showing size, description and invert elevation.

(4) Stage/discharge relationship for any proposed outlet structure from the spoil containment area.

(5) Site plan showing the locations of any proposed outlet structure and emergency overflow from the spoil containment area.

(d) Site plan showing the proposed location of floating silt curtains.

(e) Support data:

(1) Description and volume computation of material to be removed.

(2) Description of equipment to be used.

(3) Construction schedule.

(4) Location map of spoil containment area.

(5) Erosion control plan for containment area.

(6) Restoration plan for any proposed permanent on-site spoil containment site showing final grades, removal of control structure, and a description of how and when the site will be restored, covered or revegetated after construction.

(7) Detail of any proposed floating silt curtain including specifications for the silt curtain.

(f) In the case of projects where dredging:

(1) Might cause increased seepage or result in subsurface drainage, or

(2) Will remove sediment to eliminate a source of nutrients, pollutants, or contaminants, a minimum of two soil bearing logs extending at least two feet below the proposed work elevation shall be required.

6. FAST-TRACK PERMIT. A Fast Track permit may be issued by District staff for the removal of accumulated sediment caused by a stormwater outlet. The application otherwise must comply with all provisions of this rule. In addition to the requirements of sections 3, General Standards and 5, Required Exhibits of this rule, the following criteria shall be met:

(a) Authorization shall apply only to removal of sediment identified as non-native material accumulated due to stormwater runoff or erosion.

(b) Dredging shall not materially change the elevation or contour of the bed of the affected basin.

**MINNEHAHA CREEK WATERSHED DISTRICT  
BOARD OF MANAGERS**

**REVISIONS  
PURSUANT TO MINNESOTA STATUTES §103D.341**

**Adopted April 24, 2014  
Effective June 6, 2014**

**SHORELINE & STREAMBANK STABILIZATION RULE**

1. POLICY. It is the policy of the Board of Managers to:

- (a) Preserve the natural appearance of shoreline and streambank areas;
- (b) Encourage and foster bioengineering, landscaping and preservation of natural vegetation as preferred means of stabilizing shorelines and streambanks;
- (c) Assure that improvement of shoreline and streambank areas to prevent erosion complies with accepted engineering principles in conformity with Minnesota Department of Natural Resources construction guidelines; and
- (d) Preserve water quality and the ecological integrity of the riparian environment, including wildlife, fisheries, and recreational water resources.

2. REGULATION.

- (a) No person shall install an improvement or alteration of the shoreline of a water basin or the bank of a watercourse, including but not limited to a bioengineered installation, riprap, a retaining wall, a sand blanket or a boat ramp, without first securing a permit under this rule and providing a financial assurance pursuant to the District Financial Assurance Rule. Planting of vegetation not intended to provide deep soil structure stability does not require a permit under this rule.
- (b) All permit applications submitted under this rule, except applications for maintenance of an existing improvement that has not degraded to a natural state, shall be required to include a detailed erosion intensity calculation of the shoreline or streambank in accordance with section 3, Shoreline Erosion Intensity Calculation (for shorelines), or section 4, Streambank Erosion Intensity Calculation (for streambanks), of this rule.
- (c) A permit under this rule is required for maintenance of an existing riprap or otherwise hard-armored shoreline or streambank that involves the addition of new material or structural change to the improvement. No permit under this rule is required for maintenance of an existing shoreline or streambank improvement that involves in-kind replacement or restoration of the improvement in compliance with the criteria in this rule.



(d) A Fast Track permit may be issued for shoreline stabilization projects that conform to the requirements in section 6, Criteria for Stabilization Techniques, of this rule.

(e) Shoreline or streambank stabilization projects that do not utilize a stabilization practice consistent with the erosion intensity calculation shall be required to document compliance with the design flexibility/minimal impact standard in section 5, Design Flexibility. Such projects shall be subject to the public notice requirements of the District Procedural Requirements Rule.

(f) A Fast Track permit may be issued for routine sand blanket projects that conform to the requirements set forth in sections 8, Criteria for Laying Sand blankets, and 9, Sand blankets Required Exhibits, of this rule.

### 3. SHORELINE EROSION INTENSITY CALCULATION.

(a) Applications for shoreline stabilization shall be required to complete the Erosion Intensity Scoresheet to document the shoreline erosion intensity (low, medium, high). The Erosion Intensity Scoresheet will be maintained and periodically updated to account for changing conditions and improved understanding of shoreline erosion factors and approved by the Board of Managers by resolution. (The current Erosion Intensity Scoresheet may be obtained from the District office or the permitting section of the District website: [www.minnehahacreek.org](http://www.minnehahacreek.org).)

(b) The proposed shoreline stabilization practice shall be consistent with the shoreline erosion intensity calculated (low, medium, high).

(1) Low erosion intensity shorelines shall utilize biological stabilization practices in accordance with section 6, Criteria for Stabilization Techniques, of this rule.

(2) Medium erosion intensity shorelines shall utilize biological or bioengineering stabilization practices in accordance with section 6, Criteria for Stabilization Techniques, of this rule.

(3) High erosion intensity shorelines shall utilize biological, bioengineering or structural stabilization practices in accordance with section 6, Criteria for Stabilization Techniques, of this rule.

### 4. STREAMBANK EROSION INTENSITY CALCULATION

(a) Applications for streambank stabilization shall be required to complete and report the calculations detailed below to document bank-full stream velocity and shear stress:

(1) Bankful stream velocity

i. Manning's equation:

$$v = \frac{Q}{A} = \left( \frac{1.49}{n} \right) R^{2/3} S^{1/2}$$

v = Average velocity of flow (feet/sec)

Q = Bankful flow (cubic feet/sec)

A = Area of flow (square feet)

n = Manning's number

R = Hydraulic radius (feet)

S = Slope of channel bottom (rise/run)

(2) Shear stress on the streambank

i.  $\tau = d \times \mu \times S$

$\tau$  = Shear stress (pounds / square feet)

d = Bankful flow depth (feet)

$\mu$  = Unit weight of water (62.4 pounds / cubic feet)

S = Slope of channel bottom (rise/run)

(b) The proposed streambank stabilization practice shall be consistent with the shear stress calculated (low, medium, high).

(1) Low erosion intensity streambanks are those where the shear stress calculated is less than or equal to 2.5 lb per square foot and shall utilize biological stabilization practices in accordance with section 6, Criteria for Stabilization Techniques, of this rule.

(2) Medium erosion intensity streambanks are those where the shear stress calculated is between 2.5 and 5 lb per square foot and shall utilize biological or bioengineering stabilization practices in accordance with section 6, Criteria for Stabilization Techniques, of this rule.

(3) High erosion intensity streambanks are those where the shear stress calculated is greater than 5 lb per square foot and shall utilize biological, bioengineering or structural stabilization practices in accordance with section 6, Criteria for Stabilization Techniques, of this rule.

5. DESIGN FLEXIBILITY. Where an applicant believes that, as a result of site specific conditions, the shoreline erosion intensity as calculated in section 3, Shoreline Erosion Intensity Calculation, or the streambank erosion intensity as calculated in section 4, Streambank Erosion Intensity Calculation, may inaccurately predict the degree of erosion, the District may approve alternative stabilization techniques if the applicant provides sufficient evidence to demonstrate that the proposed stabilization practice represents the minimal impact solution with respect to all other reasonable alternatives.

6. CRITERIA FOR STABILIZATION TECHNIQUES.

(a) General criteria:

(1) The District will permit the installation of structural stabilization practices only where there is a demonstrated need to prevent erosion or to restore eroded shoreline/streambank;

(2) Removal of native vegetation within the shoreline/streambank stabilization zone shall be limited in accordance with the following provisions:

i. Clear cutting shall be prohibited except within the access corridor;

ii. Native vegetation shall be preserved outside of the access corridor as much as practicable and, where removed, shall be replaced with other vegetation that is equally effective in retarding runoff and preventing erosion.

(3) Stabilization practices shall be installed at a 3:1 slope or flatter where practical and feasible. Practices proposed at slopes steeper than 2:1 shall be evaluated as retaining walls in accordance with section 10, Criteria for Retaining Walls, of this rule;

(4) Horizontal encroachment from a shoreline shall be the minimum amount needed and shall not interfere unduly with water flow. Under normal conditions, hard armoring inert material, such as riprap, or other fill shall be placed no more than 5 feet waterward of a shoreline, measured from the OHW. The maximum encroachment waterward of the OHW is 10 feet. Encroachment from streambanks shall be minimized to the greatest extent practical to limit hydraulic impacts;

(5) Streambank stabilization shall not reduce the cross sectional area of the channel nor result in a net increase in the flood stage upstream or at the site of the streambank stabilization practice unless it can be demonstrated to not exacerbate existing high-water conditions;

(6) Shoreline/streambank stabilization practices shall conform to the natural alignment of the bank (e.g., maintain an undulating or meandering shoreline/streambank);

(7) The design shall reflect the engineering properties of the underlying soils and any soil corrections or reinforcements. For a shoreline, the design shall conform to engineering principles for dispersion of wave energy and resistance to deformation from ice pressures and movement. For a streambank, design shall conform to engineering principles for the hydraulic behavior of open channel flow;

(8) For sites involving aquatic plantings or aquatic plant removal, a separate Aquatic Plant Management permit shall be obtained from the Department of Natural Resources, when applicable;

(9) Any work below the ordinary high water level shall be encircled by a flotation sediment curtain. The curtain shall be constructed and maintained as illustrated in "Protecting Water Quality in Urban areas – Best Management Practices for Minnesota" (MPCA 2000). The barrier shall be removed upon completion of the work after disturbed sediment has settled;

(10) All shoreline/streambank stabilization applications shall submit the required exhibits as set forth in section 7, Required Exhibits for Shoreline/Streambank Stabilization, of this rule.

(b) Criteria for biological and bioengineering techniques:

(1) Live plantings incorporated into the shoreline or bank shall be native aquatic and/or native upland vegetation known to occur in the North Central Hardwood Forest eco-region of Minnesota (refer to the Minnesota Department of Natural Resources “Lakescaping for Wildlife and Water Quality” and the Minnesota Pollution Control Agency “Plants for Stormwater Design”);

(2) Vegetative treatments shall be installed in accordance with the Natural Resource Conservation Service “Engineering Field Handbook Chapter 16”;

(3) If wave barriers are utilized, they shall be located within the 3 foot water depth or less and may not create an obstruction to navigation. Wave barriers shall be removed within 2 years of the installation.

(4) Bioengineered stabilization also must comply with the criteria in (c)(1) – (3) and (5).

(c) Criteria for structural stabilization:

(1) Hard armoring inert material, such as riprap, shall be considered wetland fill only if proposed to be placed within an area identified as a wetland;

(2) Riprap shall extend no higher than the top of the bank, or two feet above the 100-year high water elevation, whichever is lower;

(3) Riprap materials shall be durable stone meeting the size and gradation requirements of MnDOT Class III or IV riprap. Toe boulders shall be at least 50 percent buried and may be as large as 30 inches in diameter;

(4) A transitional granular filter meeting requirements of MnDOT 3601.B, at least 6 inches in depth, shall be placed between the native shoreline and the riprap to prevent erosion of fine grained soils. A geotextile filter fabric meeting the requirements of MnDOT 3733 shall be placed beneath the granular filler where appropriate;

(5) Structural stabilization practices, including riprap, are recommended to include plantings between individual boulders or native upland plantings to retard runoff and prevent erosion wherever feasible and practical.

## 7. REQUIRED EXHIBITS FOR SHORELINE/STREAMBANK STABILIZATION.

(a) Erosion intensity calculations from section 3, Shoreline Erosion Intensity Calculation, or 4, Streambank Erosion Intensity Calculation, of this rule, whichever is applicable, or materials necessary to make the demonstration required in section 5, Design Flexibility.

(b) Photographs of the project site, showing existing conditions.

(c) Site plan showing:

(1) Survey locating the existing ordinary high water (OHW) elevation, existing shoreline or streambank, 100-year high water elevation, and location of property lines;

(2) Elevation contours of the upland within 15 feet of the OHW and referenced to accepted datum;

(3) Location of the shoreline/streambank stabilization zone and access corridor;

(4) Location of existing trees and shrubs within the shoreline/streambank stabilization zone and an indication of whether they are to be removed or retained;

(5) Plan view of locations and lineal footage of the proposed shoreline/bank stabilization treatment; and

(6) The location of an upland baseline parallel to the shoreline/bank with stationing. The baseline shall be staked in the field and maintained in place until project completion. Baseline origin and terminus each shall be referenced to three fixed features, with measurements shown and described on the plan. Perpendicular offsets from the baseline to the OHW shall be measured and distances shown on the plan at 20 foot stations.

(d) Cross section, drawn to scale, with the horizontal and vertical scales noted on the drawing, detailing:

(1) The existing bank, OHW, and 100-year high water elevation;

(2) The proposed stabilization technique, finished slope, and distance lakeward of the OHW;

(3) Material specifications;

(4) Description of the underlying soil materials.

(e) Specification of erosion control and site stabilization practices.

(f) For biological and bioengineering stabilization practices, a Vegetation Establishment Plan, including:

- (1) A plant list with common and scientific names, seed mix specifications, quantities and origin of all material; and
- (2) Specification of the methods, schedule and party responsible for ensuring establishment and maintenance of the vegetation for the three years following installation or construction. The plan shall include the control of invasive species and replacement of vegetation as necessary.

(g) For bioengineering:

- (1) Detail the location of all hard armoring inert material, such as riprap, to be utilized;
- (2) Provide a written narrative explaining how the use of hard armoring inert material such as riprap has been minimized to the extent practical and feasible.

(h) For streambank stabilization:

- (1) Cross sectional view of stream channel in existing and proposed conditions;
- (2) Longitudinal view of stream channel in existing and proposed conditions;
- (3) Plan view of stream channel in existing and proposed conditions;
- (4) Identification of bankful indicators;
- (5) Documentation of existing soils, wetlands, vegetation, slopes, bank and channel material;
- (6) Identification of in-stream features such as woody debris, riffles and pools, etc.

(i) For sites involving aquatic plantings or aquatic plant removal, a copy of the Department of Natural Resources Aquatic Plant Management permit application, if required.

8. CRITERIA FOR LAYING SAND BLANKETS. All permitted sand blanketing shall comply with the following standards:

- (a) The sand or gravel used must be clean prior to being spread. The sand must contain no toxins or heavy metal, as defined by the Minnesota Department of Natural Resources, and must contain no weed infestations such as, but not limited to, water hyacinth, alligator weed, and Eurasian watermilfoil, or animal life infestations such as, but not limited to, zebra mussels or their larva. Violators will be prosecuted to the full extent of the law.

(b) The sand layer must not exceed six inches in thickness, 50 feet in width along the shoreline, or one-half the width of the lot, whichever is less, and may not extend more than 10 feet waterward of the ordinary high water mark.

(c) Only one installation of sand or gravel to the same location may be made during a four-year period. After the four years have passed since the last blanketing, the location may receive another sand blanket. No more than two applications may be made at an individual project site.

(d) Exception. Beaches which are operated by governmental entities and available to the public shall be maintained in a manner that represents the minimal impact to the environment, relative to other reasonable alternatives, and but otherwise are exempt from the criteria in paragraphs (b) and (c) of this section.

9. SAND BLANKET REQUIRED EXHIBITS. The following exhibits shall accompany the sand blanket permit application:

(a) Site plan showing property lines, delineation of the work area, existing elevation contours of the adjacent upland area, ordinary high water elevation, and 100-year high water elevation (if available). All elevations must be reduced to NGVD (1929 datum).

(b) Profile, cross sections and/or topographic contours showing existing and proposed elevations in the work area. (Topographic contours should be at intervals not greater than 1.0 foot).

(c) A completed Sand blanket Permit Application form, available from the District.

10. CRITERIA FOR RETAINING WALLS.

(a) A new retaining wall, or repair/reconstruction of an existing retaining wall that increases floodplain encroachment beyond that required by technically sound and accepted repair/reconstruction methods, is permitted only pursuant to a variance or an exception under the District Variance Rule. The applicant must demonstrate that there is no adequate stabilization alternative.

(b) Wooden seawalls and/or steel sheetpiling retaining walls shall comply with accepted engineering principles.

(c) The applicant shall submit a structural analysis prepared by a professional engineer registered in the State of Minnesota, in the practice of civil engineering, showing that the wall will withstand expected ice and wave action and earth pressures.

(d) The applicant shall submit a survey prepared by a registered land surveyor locating the finished wall and shall file a certificate of survey with the District.

11. CRITERIA FOR OTHER SHORELINE IMPROVEMENTS. Other shoreline improvements, such as boat ramps, shall comply with accepted engineering principles as follows:

(a) Boat ramps and other similar improvements shall not be allowed in riparian shoreline areas unless the applicant demonstrates that no feasible alternative riparian access is available, that aquatic habitat and water quality impacts are minimized;

(b) Installation of boat ramps shall involve placement of no more than 50 cubic yards of inert and clean material, and the maximum width of shoreline disturbance shall be 15 feet unless the facility is a commercial marina or public launch facility that requires a greater width; and

(c) Materials utilized for construction of boat ramps or other similar improvements shall be safe and cause no adverse environmental impacts; the improvement shall be of sound design and construction so that the improvement is reasonably expected to be safe and effective.



**MINNEHAHA CREEK WATERSHED DISTRICT  
BOARD OF MANAGERS**

**REVISIONS  
PURSUANT TO MINNESOTA STATUTES § 103D.341**

**Adopted April 24, 2014  
Effective June 6, 2014**

**STORMWATER MANAGEMENT RULE**

1. **POLICY.** It is the policy of the Board of Managers to:

- (a) Promote abstraction of precipitation and stormwater runoff where feasible for the purposes of improving water quality, increasing groundwater recharge, reducing flooding, and promoting the health of native and designed plant communities and landscapes;
- (b) Preserve, maintain and improve the aesthetic, physical, chemical and biological composition of surface waters and groundwater within the District;
- (c) Limit or reduce stormwater runoff from drainage within the watershed to decrease the negative effects of land-disturbing activities on surface water quality and flooding;
- (d) Protect and maintain existing groundwater flow, promote groundwater recharge and improve groundwater quality and aquifer protection;
- (e) Promote the preservation and use of native vegetation for the purpose of stormwater runoff abstraction and pollutant load reduction;
- (f) Promote nondegradation of water quality from new development and improvement in water quality from redevelopment; and
- (g) Promote the management of stormwater on site for the purposes of providing local groundwater recharge and maintaining natural hydrology.

2. **REGULATION.** No one may create new or replace existing impervious surface or change the contours of a parcel of land in a way that affects the direction, peak rate, volume, or water quality of runoff flows from the parcel or subdivide a parcel of one acre or more in size into three or more lots without first submitting a stormwater management plan to the District and securing a permit from the District approving the plan. New development is subject to sections 3 and 7-11 below (see Table 2). Redevelopment is subject to sections 3-5 and 7-11 below (see Tables 3 and 4). Subdivision of land is subject to section 3-5 and 7-11, as applicable. Linear Transportation Projects are subject to sections 3 and 6-11 below (see Table 5).

Activity subject to this rule on adjacent sites under common or related ownership shall be considered in the aggregate, and the requirements applicable to the activity under this rule will be

determined with respect to all development that has occurred on a site, or on adjacent sites under common or related ownership, since the date this rule took effect (January 2005).

The following activities are exempt from this rule:

(a) **SINGLE FAMILY HOMES:** Construction or reconstruction of a single- family home.

(b) **NEW DEVELOPMENT:** New development for a residential, commercial, industrial or institutional use (see Table 2):

(1) that will result in less than 20 percent impervious surface over the site; or

(2) on a site of less than one acre.

(c) **REDEVELOPMENT:** Redevelopment for a residential, commercial, industrial or institutional use (see Table 3):

(1) on a site that is less than five acres in size that will result in at least a ten percent reduction in impervious surface; or

(2) on a site of five acres or greater where the proposed activity disturbs less than 40 percent of the site and results in at least a ten percent reduction in impervious surface.

(d) **LINEAR TRANSPORTATION PROJECTS:** Construction of a new or reconstruction of an existing road, trail, sidewalk, utility, or other linear transportation project (see Table 5):

(1) that will create less than 10,000 square feet of new impervious surface; or

(2) for the construction of sidewalks and trails that will not exceed 12 feet in width and will be bordered on the downgradient side(s) by a pervious buffer averaging at least one-half the width of the sidewalk or trail.

**3. STORMWATER MANAGEMENT PLAN GENERAL REQUIREMENTS.** A stormwater management plan submitted to the District must meet the following requirements, subject to the provisions in sections 4-8:

(a) **PHOSPHORUS CONTROL.**

(1) **NEW DEVELOPMENT/LINEAR TRANSPORTATION PROJECTS:** Activity subject to this rule for new development or linear transportation projects shall result in no net increase in phosphorus loading from existing conditions, except that:

- i. For a parcel in existing use for row crop agriculture or feedlot, new development shall result in no net increase in phosphorus loading from the site as modeled in meadow condition.

(2) REDEVELOPMENT: Phosphorus control must be provided in accordance with subsection 3(c)(2), where applicable.

(b) RATE CONTROL.

(1) Activity subject to this rule shall result in no net increase in the peak runoff rate for the 1-, 10- and 100-year design storms where stormwater discharges across the downgradient site boundary, compared to the rate for the site in its existing condition, except that:

- i. For a parcel in use for row crop agriculture or feedlot, new development shall result in no net increase in the peak runoff rate from the site as modeled in meadow condition.

(2) Peak runoff rates for the 1-, 10- and 100-year design storms may not increase within a specific drainage area of the site so as to create or exacerbate drainage or erosion problems.

(c) VOLUME CONTROL.

(1) The stormwater management plan must provide for the abstraction of the first one inch of rainfall from the site's impervious surface. Credit toward compliance with the one inch volume control standard will be calculated by the applicant using industry accepted hydrologic models and Appendix A: Volume Abstraction Credit Schedule, following guidance provided in the Minnesota Pollution Control Agency's *Minnesota Stormwater Manual*.

(2) Where an applicant demonstrates that it is infeasible to meet the one inch abstraction requirement through use of volume control credits pursuant to subsection 3(c)(1), the stormwater management plan must provide for abstraction of runoff to the greatest extent feasible, and at least 0.5 inches, and phosphorus control in an amount equivalent to that which would be achieved through abstraction of one inch of rainfall from the site's impervious surfaces. To demonstrate infeasibility of providing abstraction pursuant to 3(c)(1), the applicant must submit a completed Abstraction Analysis containing at a minimum the following information:

- i. A narrative that lists and explains the variables that limit the feasibility of providing one inch of volume control for runoff from the site's impervious surface. These variables may include but are not limited to unified soil classification, soil contamination, proximity to bedrock,

proximity to groundwater, proximity to existing utilities, spatial constraints, zoning requirements, and financial considerations.

ii. A narrative and conceptual plan(s) that describes and discusses how reasonable modifications to the size, scope, configuration or density of the project would influence the feasibility of providing one inch of volume control for runoff from the sites impervious surface.

iii. An explanation of efforts undertaken by the applicant to accommodate or remove the constraints that influence the feasibility of providing one inch of volume control for runoff from the site's impervious surface.

(3) The volume of runoff draining to a landlocked receiving area may not increase due to a project unless the applicant can demonstrate that any additional runoff volume from the project will be effectively abstracted. In addition, the applicant shall either own or have proper rights over the landlocked property receiving runoff from the project area. Back-to-back 100-year runoff events will be used to analyze holding capacity and high-water elevation for landlocked areas.

(d) BEST MANAGEMENT PRACTICES (BMPs).

(1) BMPs addressing the potential water resource impacts associated with the proposed activity must be incorporated to limit creation of impervious surface, maintain or enhance on-site infiltration and peak flow control and limit pollutant generation on and discharge from the site. BMPs may include site design, structural and non-structural practices.

(2) BMPs must be designed and installed in accordance with generally accepted design practices and guidance contained in the Minnesota Pollution Control Agency's *Minnesota Stormwater Manual* and its subsequent revisions.

(e) HIGH WATER ELEVATION.

(1) All applications shall provide at least two vertical feet of separation between low openings of structures and the 100-year high water elevations of stormwater BMPs and waterbodies.

**4. REDEVELOPMENT REQUIREMENTS – DECREASE OR NO CHANGE IN IMPERVIOUS SURFACE.** A stormwater management plan submitted to the District that proposes through redevelopment to decrease or result in no net increase in impervious surface must meet the following requirements (see Table 3):

(a) For sites that are one acre or less, Best Management Practices are required in accordance with subsection 3(d);

(b) For sites that are between one acre and five acres and the proposed activity disturbs less than 40 percent of the site, Best Management Practices are required in accordance with subsection 3(d);

(c) For sites that are between one acre and five acres and the proposed activity disturbs 40 percent or more of the site, the stormwater management plan must meet the volume control requirement in subsection 3(c) and the phosphorus control requirement in subsection 3(a)(2), where applicable;

(d) For sites that are greater than five acres and the proposed activity disturbs less than 40 percent of the site, Best Management Practices are required in accordance with subsection 3(d);

(e) For sites that are greater than five acres and the proposed activity disturbs 40 percent or more of the site, the stormwater management plan must meet the volume control requirement in subsection 3(c) and the phosphorus control requirement in subsection 3(a)(2), where applicable.

**5. REDEVELOPMENT REQUIREMENTS – INCREASED IMPERVIOUS SURFACE.** A stormwater management plan submitted to the District that proposes to increase impervious surface through redevelopment must meet the following requirements (see Table 4):

(a) For sites that are one acre or less, Best Management Practices are required in accordance with subsection 3(d);

(b) For sites that are greater than one acre and the proposed activity disturbs less than 40 percent of the site and results in an increase in impervious surface of less than 50 percent, the phosphorus control requirements of subsection 3 (a), rate control requirements of subsection 3(b) and volume control requirements of subsection 3(c) apply to the area of increased impervious surface;

(c) For sites that are greater than one acre and the proposed activity disturbs 40 percent or more of the site, or results in an increase in impervious surface of 50 percent or more, the phosphorus control requirements of subsection 3(a), rate control requirements of subsection 3(b), and volume control requirements of subsection 3(c) apply to the entire site.

**6. LINEAR TRANSPORTATION PROJECT REQUIREMENTS** (see Table 5).

(a) The construction of a new road, trail, sidewalk, utility, or other linear transportation project that will create 10,000 square feet or more of impervious surface must meet the phosphorus control requirements in accordance with subsection 3(a), rate control requirements in accordance with subsection 3(b) and volume control requirements in accordance with subsection 3(c);

(b) Linear Reconstruction Projects that will increase the impervious area within the project limits by between 10,000 square feet and one acre from existing conditions must meet the phosphorus control requirements in accordance with subsection 3(a) and rate control requirements in accordance with subsection 3(b) for the area of increased impervious surface;

(c) Linear Reconstruction Projects that will increase the impervious area within the project limits by one acre or more from existing conditions must meet the phosphorus control requirements in accordance with subsection 3(a), rate control requirements in accordance with subsection 3(b), and volume control requirements in accordance with subsection 3(c) for the area of increased impervious surface.

## 7. REGIONAL STORMWATER MANAGEMENT.

(a) An applicant may comply with this rule by providing equal or greater phosphorus control, rate control, or volume control through a regional or subwatershed plan approved by the District; such a plan must provide for an annual accounting to the District of treatment capacity created and utilized by projects or land-disturbing activities within the drainage and treatment area of the plan.

(b) District approval of a regional or subwatershed plan will be based on a determination that:

(1) the use of a regional facility in place of onsite stormwater management will not result in adverse impacts to local groundwater or natural resources located upstream of the regional facility, including, but not limited to, reduced water quality, altered wetland hydrology, changes to stream velocities or baseflow, erosion, or reduced groundwater recharge; and

(2) the plan incorporates onsite BMPs as necessary to mitigate impacts and provide local benefits not provided by the regional facility.

(c) Individual project sites utilizing a regional facility to meet phosphorus, rate, or volume control requirements must incorporate BMPs on the project site in accordance with subsection 3(d).

(d) The applicant, before commencing any land-altering activity, must demonstrate that it holds the legal rights necessary to discharge to the stormwater facility or facilities in the plan, and that the facility or facilities are subject to a maintenance document satisfying the requirements of section 11.

## 8. IMPACT ON DOWNSTREAM WATERBODIES.

(a) No new point source may discharge to a waterbody without pretreatment for sediment and nutrient removal. Pretreatment may be provided by non-structural means. An activity changing flow that discharges from an existing point source is not a new point source.

(b) No activity subject to this rule may alter a site in a manner that results in a(n):

(1) Increase in the bounce in water level for any downstream lake or wetland beyond the limits specified in Table 1 below based on management classification, during a rainfall event of critical duration with a return frequency of 1, 10, or 100 years.

(2) Increase in the duration of inundation for any downstream lake or wetland beyond the limits specified in Table 1 below based on management classification, during a precipitation event of critical duration with a return frequency of 1, 10, or 100 years.

(3) Change in the elevation of the runout control of any lake or wetland beyond the limits specified in Table 1 below based on management classification.

Table 1: Impacts on downstream waterbodies

<b>Wetland Management Class/ Waterbody</b>	<b>Permitted Bounce for 1-, 10-, and 100-Year Event</b>	<b>Inundation Period for 1-Year Event</b>	<b>Inundation Period for 10- and 100-Year Event</b>	<b>Runout Control Elevation</b>
<b>Preserve</b>	Existing	Existing	Existing	No change
<b>Manage 1</b>	Existing plus 0.5 feet	Existing plus 1 day	Existing plus 2 days	No change
<b>Manage 2</b>	Existing plus 1.0 feet	Existing plus 2 days	Existing plus 14 days	0 to 1.0 ft above existing runout
<b>Manage 3</b>	No limit	Existing plus 7 days	Existing plus 21 days	0 to 4.0 ft above existing runout
<b>Lakes</b>	Existing	N/A	N/A	No change

## 9. FINANCIAL ASSURANCE.

(a) A performance bond, letter of credit or other financial assurance, consistent with the District Financial Assurance Rule, may be required for any project that requires the installation of stormwater best management practices. The financial assurance shall be maintained until the stormwater best management practice has been constructed and stabilized in accordance with District rules and as shown on a set of as built drawings submitted to the District.

## 10. REQUIRED EXHIBITS.

(a) Plans certified by a professional engineer registered in the State of Minnesota and reflecting the following items shall accompany the permit application (one set of plans must be full size; one set must be reduced to a maximum size of 11" x 17"; provide electronic ArcGIS or CADD files when available):

- (1) Property lines and delineation of lands under ownership of the applicant.
- (2) Delineation of the subwatershed contributing runoff from off-site and proposed and existing subwatersheds on-site.
- (3) Proposed and existing locations, alignments, and elevations of stormwater facilities.
- (4) Delineation of existing on-site wetland, shoreland, and/or floodplain areas.
- (5) Existing and proposed normal, and 100 year high water elevations on-site.
- (6) Existing and proposed site contour elevations at two foot intervals, related to National Geodetic Vertical Datum (NGVD), 1929 datum.
- (7) Construction plans and specifications for all proposed stormwater management facilities.
- (8) Stormwater runoff volume and rate analyses for the 1-, 10- and 100- year design storms for existing and proposed conditions.
- (9) All hydrologic, water quality, and hydraulic computations completed to design the proposed stormwater management facilities including runoff volume abstractions.
- (10) Delineation of any flowage easements or other property interests dedicated to stormwater management purposes, including, but not limited to, county or judicial ditches.

(b) For applications proposing infiltration, a soil sampling plan and the resulting identification, description, permeability, and approximate delineation of site soils. Investigation methods shall include soil pits or hand augers. Borings at the location of the infiltration facility must extend at least five feet deeper than the proposed bottom elevation of the infiltration facility.

(c) For applications proposing tree preservation or planting, a site map showing existing trees larger than six inches in diameter, including species, diameter, and associated drip lines (canopy area). Tree map must designate trees to be removed and trees to be added.



(d) For applications proposing soil amendments, a soil amendment plan following guidance from the Minnesota Pollution Control Agency's *Minnesota Stormwater Manual*.

(e) For applications proposing capture and reuse, an operating plan and calculations that quantify the benefits of the proposed stormwater reuse system.

(f) Documentation indicating conformance with an existing municipal stormwater management plan. When a municipal plan does not exist, documentation that the municipality has reviewed the project.

(g) Documentation that the applicant has applied for a National Pollutant Discharge Elimination System (NPDES) Permit if required by the Minnesota Pollution Control Agency (MPCA).

(h) Abstraction analysis (if applicable) in accordance with subsection 3(c)(2).

(i) A declaration and maintenance agreement in conformance with section 11.

## 11. MAINTENANCE.

(a) All stormwater management structures and facilities must be designed for maintenance access and properly maintained in perpetuity to assure that they continue to function as designed. Permit applicants must provide a maintenance plan that identifies and protects the design, capacity and functionality of onsite and offsite stormwater management facilities; specifies the methods, schedule and responsible parties for maintenance; provides for the maintenance in perpetuity of the facility; and contains at a minimum the requirements in the District's standard maintenance declaration. The plan will be recorded on the deed in a form acceptable to the District. A public entity assuming the maintenance obligation may do so by filing with the District a document signed by an official with authority.

Table 2: Stormwater management requirements for new development

Site Size	Impervious Surface	Requirements
< 1 acre	N/A	None
≥ 1 acre	< 20% of site	None
	≥ 20% of site	Phosphorus Control, Rate Control, and Volume Control

Table 3: Stormwater management requirements for redevelopment resulting in a decrease or no change in impervious surface

Site Size	Site Disturbance	Impervious Surface Reduction	Requirements
≤ 1 acre	N/A	10% reduction in impervious surface	None
		0 - 9% reduction in impervious surface	Incorporate BMPs
> 1 acre - ≤ 5 acres	< 40% site disturbance	10% reduction in impervious surface	None
		0 - 9% reduction in impervious surface	Incorporate BMPs
	≥ 40% site disturbance	10% reduction in impervious surface	None
		0 - 9% reduction in impervious surface	Volume control required for site's impervious surface
> 5 acres	< 40% site disturbance	10% reduction in impervious surface	None
		0 - 9% reduction in impervious surface	Incorporate BMPs
	≥ 40% site disturbance	N/A	Volume control required for site's impervious surface
		N/A	Volume control required for site's impervious surface

Table 4: Stormwater management requirements for redevelopment resulting in an increase in impervious surface

Site Size	Site Disturbance	Impervious Surface Increase	Requirements	Treatment Scope
≤ 1 acre	N/A	N/A	Incorporate BMPs	N/A
> 1 acre	< 40% site disturbance	< 50% increase in impervious surface	Phosphorus Control, Rate Control, and Volume Control	Additional impervious surface
		≥ 50% increase in impervious surface		Entire site's impervious surface
	≥ 40% site disturbance	N/A	Phosphorus Control, Rate Control, and Volume Control	Entire site's impervious surface

Table 5: Stormwater management requirements for linear transportation projects

Project Type	Impervious Surface Increase	Requirements	Treatment Scope
New Linear Transportation Project	< 10,000 square feet	None	N/A
	≥ 10,000 square feet	Phosphorus Control, Rate Control, and Volume Control	New impervious surface
Linear Reconstruction Project	< 10,000 square feet	None	N/A
	≥ 10,000 square feet and < 1 acre	Phosphorus Control and Rate Control	Additional impervious surface
	≥ 1 acre	Phosphorus Control, Rate Control, and Volume Control	Additional impervious surface

**APPENDIX A:  
MCWD Volume Abstraction Credit Schedule**

<b>Practice</b>	<b>Design Guidance</b>	<b>Credit</b>	<b>Calculation Methods</b>
Surface Infiltration Basin	<i>Minnesota Stormwater Manual</i>	Volume provided	$AV^{(1)} = \text{Volume below overflow elevation}^{(2)}$
Underground Infiltration Trench	<i>Minnesota Stormwater Manual</i>	Void volume provided	$AV = \text{Volume below overflow elevation}^{(2)}$
Preservation of tree(s)	Not Applicable	Percent interception by species	$AV = \% \text{ Interception}^{(3)} * \text{tree canopy area}^{(4)} * 1 \text{ inch rainfall}$
Planting of New Tree(s)	Not Applicable	One-half percent interception by species <sup>(5)</sup>	$AV = 0.5 * \% \text{ Interception}^{(3)} * \text{tree canopy area}^{(4)} * 1 \text{ inch rainfall}$
Soil Amendment(s)	<i>Minnesota Stormwater Manual</i>	0.5-inch credit over the area of soil amendment area <sup>(6)</sup>	$AV = 0.5/12 * \text{area of soil amendment}$
Capture and Reuse of Stormwater	Submit pump design plans and hydrologic calculations	Volume capacity to capture and reuse runoff from a 1-inch rainfall event	Submit operating plan and calculations for reuse system to document annual volume reuse during dry, wet, and average years
Enhancement of Pervious Area <sup>(7)</sup> (wetland buffers, forest or prairie conservation or restoration)	Submit vegetation planting and maintenance plan	0.5-inch credit over the area of enhancement <sup>(8)</sup>	$AV = 0.5/12 * \text{area of enhancement}$
Filtration	<i>Minnesota Stormwater Manual</i>	50% volume abstraction credit <sup>(9)</sup>	$AV = 0.5 * \text{Volume below overflow elevation (filtered volume is not considered)}$

(1) AV = Abstraction Volume

(2) Volume infiltrated during a rainfall event shall not be credited towards the abstraction volume requirement. This is a simple approach for designers and for reviewers to verify conformance to the standard; a stormwater model is not needed for calculations. This is a conservative assumption because infiltration of stormwater in Minnesota is an evolving practice. MCWD will continue to research current trends, collect and analyze monitoring data, and utilize modeling and engineering methods to assess the effectiveness of the standards to achieve the water quality goals of the District.

(3) Percent rainfall interception shall be determined using results from the *City of Minneapolis, Minnesota Municipal Tree Resource Analysis*. Percentages for the species studied are listed below. If desired tree species is not listed, the applicant shall use the median value provided below or provide documentation by a certified arborist to support a different percent interception.

**Average Percent Rainfall Interception by Tree Species**

Species	Average Percent Rainfall Interception
Green Ash	13
Sugar Maple	8
Norway Maple	8
Littleleaf Linden	12
American Elm	18
Honeylocust	6
American Basswood	10
Northern Hackberry	6
Ginkgo	4
Silver Maple	16
Elm	21
White Ash	10
Basswood	14
Red Maple	7
Median	10

(4) Tree canopy area must be documented as part of the permit application submittal.

(5) Granting ½ credit for new trees is intended to encourage preservation of trees over tree removal and replacement.

(6) For SCS TR-55 cover type “open space (lawns),” compacted soil (HSG C, curve number 74) begins to generate runoff with a 0.9-inch rainfall. A HSG B soil (curve number 61) begins to generate runoff with a 1.5-inch rainfall. Therefore, preserving the infiltration capacity of HSG B soil through the use of soil amendments yields an approximate 0.5-inch volume reduction credit.

(7) Area shall not be subject to motorized vehicle, bicycle, or likely human foot traffic (i.e., parking lot islands, conventional landscaping).

(8) For SCS TR-55 cover type “herbaceous mixture,” additional rainfall of approximately 0.5 inches generates no runoff if the hydrologic condition is improved from “fair” to “good.” Credit will not be granted for “tree preservation” and “enhancement of pervious area.” The applicant must designate the desired abstraction practice.

(9) The *Minnesota Stormwater Manual* reports that nutrient removal (total phosphorus) is approximately half as effective for filtration as infiltration.

## **Appendix E STORMWATER BMP INVENTORY**



**APPENDIX E: STORMWATER BMP INVENTORY**

Table XXX.1 below is an inventory of all public and private stormwater BMPs in the City of Wayzata. Each BMP has a Map ID, which corresponds to its location shown on Figure 7.

**TABLE E.1 – STORMWATER BMP INVENTORY**

Map ID	Owner	Description	Map ID	Owner	Description
1	Wayzata	WEIR	66	Wayzata	CATCH BASIN
2	Wayzata	ECOSTORM	67	Wayzata	CATCH BASIN
3	Wayzata	ECOSTORM	68	Wayzata	CATCH BASIN
4	Wayzata	WEIR	69	Wayzata	CATCH BASIN
5	Wayzata	ECOSTORM	70	Wayzata	MANHOLE
6	Wayzata	WEIR	71	Wayzata	MANHOLE
7	Wayzata	CATCH BASIN	72	Wayzata	SPECIAL
8	Wayzata	CATCH BASIN	73	Wayzata	CATCH BASIN
9	Wayzata	CATCH BASIN	74	Wayzata	CATCH BASIN
10	Wayzata	CATCH BASIN	75	Wayzata	MANHOLE
11	Wayzata	CATCH BASIN	76	Wayzata	WEIR
12	Wayzata	TEE	77	Wayzata	MANHOLE
13	Wayzata	MANHOLE	78	Wayzata	CATCH BASIN
14	Wayzata	SKIMMER	79	Wayzata	MANHOLE
15	Wayzata	SKIMMER	80	Wayzata	CATCH BASIN
16	Wayzata	MANHOLE	81	Wayzata	CATCH BASIN
17	Wayzata	CATCH BASIN	82	Wayzata	CATCH BASIN
18	Wayzata	SKIMMER	83	Wayzata	CATCH BASIN
19	Wayzata	WEIR	84	Wayzata	CATCH BASIN
20	Wayzata	V2B1	85	Wayzata	CATCH BASIN
21	Wayzata	V2B1	86	Wayzata	CATCH BASIN
22	Wayzata	MANHOLE	87	Wayzata	CATCH BASIN
23	Wayzata	CATCH BASIN	88	Wayzata	CATCH BASIN
24	Wayzata	CATCH BASIN	89	Wayzata	CATCH BASIN
25	Wayzata	GATE VALVE	90	Wayzata	CATCH BASIN
26	Wayzata	CATCH BASIN	91	Wayzata	CATCH BASIN
27	Wayzata	CATCH BASIN	92	Wayzata	CATCH BASIN
28	Wayzata	FRENCH DRAIN	93	Wayzata	DIFFUSER
29	Wayzata	CATCH BASIN	94	Wayzata	LIFT STATION
30	Wayzata	CATCH BASIN	95	Wayzata	DIFFUSER
31	Wayzata	WEIR	96	Wayzata	MANHOLE
32	Wayzata	CHECK VALVE	97	Wayzata	V2B1
33	Wayzata	CHECK VALVE	98	Wayzata	V2B1
34	Wayzata	ECOSTORM	99	Wayzata	CATCH BASIN
35	Wayzata	CATCH BASIN	100	Wayzata	FRENCH DRAIN

Map ID	Owner	Description	Map ID	Owner	Description
36	Wayzata	CONTROL STRUCTURE	101	Wayzata	BAFFLE, WEIR
37	Wayzata	WEIR	102	Wayzata	MANHOLE
38	Wayzata	WEIR	103	Wayzata	DIFFUSER
39	Wayzata	CATCH BASIN	104	Wayzata	SPECIAL
40	Wayzata	CATCH BASIN	105	Wayzata	CATCH BASIN
41	Wayzata	MANHOLE	106	Wayzata	CLEANOUT
42	Wayzata	BAFFLE	107	Wayzata	BAFFLE
43	Wayzata	MANHOLE	108	Wayzata	FILTRATION TRENCH
44	Wayzata	BAFFLE	109	Wayzata	FILTRATION TRENCH
45	Wayzata	CATCH BASIN	110	Wayzata	UNDERGROUND DETENTION
46	Wayzata	CATCH BASIN	111	Wayzata	UNDERGROUND DETENTION
47	Wayzata	WEIR	112	Private	INFILTRATION BASIN
48	Wayzata	MANHOLE	113	Private	INFILTRATION BASIN
49	Wayzata	WEIR	114	Private	FILTRATION BED
50	Wayzata	WEIR	115	Private	ECOSTORM
51	Wayzata	CATCH BASIN	116	Private	60" STORAGE PIPE
52	Wayzata	CATCH BASIN	117	Private	ECOSTORM
53	Wayzata	CATCH BASIN	118	Private	UNDERGROUND DETENTION
54	Wayzata	CATCH BASIN	119	Private	RAIN GARDEN
55	Wayzata	CATCH BASIN	120	Private	RAIN GARDEN
56	Wayzata	CATCH BASIN	121	Private	UNDERGROUND DETENTION
57	Wayzata	CATCH BASIN	122	Private	UNDERGROUND DETENTION
58	Wayzata	CATCH BASIN	123	Private	STORMCEPTOR
59	Wayzata	OVERFLOW	124	Private	FRENCH DRAIN
60	Wayzata	CATCH BASIN	125	Private	UNDERGROUND DETENTION
61	Wayzata	CATCH BASIN	126	Private	UNDERGROUND DETENTION
62	Wayzata	HYDRO GRIT CHAMBER	127	Private	FILTRATION BASIN
63	Wayzata	CATCH BASIN	128	Private	UNDERGROUND DETENTION
64	Wayzata	BAFFLE, WEIR	129	Private	UNDERGROUND DETENTION
65	Wayzata	CATCH BASIN	130	Private	FOG REMOVAL DEVICE



## **Appendix F PROTECTION AND MANAGEMENT OF WETLANDS**



## 4. SYSTEM LAYOUT AND INVENTORY

### 4.2 PROTECTION AND MANAGEMENT OF WETLANDS

#### 4.2.1 BACKGROUND

Wetlands provide a variety of services (called “functions” in this report) valued by the city and its residents. Wetlands are a part of the natural storm drainage system in the City, and help to maintain water quality, reduce flooding and erosion, provide food and habitat for wildlife, and provide open spaces and natural landscapes that many residents enjoy.

A wetland inventory was conducted as part of this project. The wetland inventory is a strategic effort by the City to establish the location, type, and size and functions of wetlands within the City. The inventory also identifies opportunities to enhance the City’s wetland base. One outcome of this effort was the development of buffer strip standards for wetlands as per the requirement

of the Minnehaha Creek Watershed District (MCWD). The buffer strip standards are based on the classification of the wetland as described in Section 4.2.3.

In general, the higher quality wetlands will be protected from stormwater input if redevelopment or new development occurs. Some of the lower quality wetlands that are in strategic locations within the watershed will be enhanced for their water treatment efficiency to protect downstream higher quality wetlands or lake basins. Most upland locations for treatment are not economically feasible or accessible because they are on private land.

#### 4.2.2 WETLAND INVENTORY METHOD

##### 4.2.2.1 WETLAND IDENTIFICATION

The wetland inventory was organized within the context of the 1988 SWMP. Wetland identification numbers used in this plan are based on the existing drainage district. The abbreviations used for major district designations are shown in Table 4.1.

Table 4.1 - Major Drainage Districts

Drainage District	Abbreviation
LaSalle	LAS
Downtown	DT
Gleason Creek	GL
Holdridge	HOL
Peavey Pond	PP

Each wetland is identified by the abbreviation of the major drainage district in which it is located, followed by the number used in the 1988 SWMP to distinguish the wetland basin. In some cases, a wetland basin identified as a single basin in the 1988 SWMP has been divided into several basins due to logical breaks such as road, narrow bottlenecks of wetlands, or different vegetation communities. For example, the Peavey Pond Drainage District contains a basin within Sub district 9 identified as 9A. This basin has been divided into PP-W9A.1, PP-W9A.2, PP-W9A.3, and PP-W9A.4. The divisions for this basin were made based on natural breaks dictated by constrictions in the wetland itself due to roads and natural topography. The “W” prior to the number indicates that it is a wetland basin.

##### 4.2.2.2 WETLAND MAPPING

A Geographical Information System (GIS) was used to organize and present data from the inventory. An electronic map was generated using GIS. This information can be integrated easily with other mapped data, and is readily updated. The mapped data includes an estimate of the wetland boundary, buffer strip management classification, and an indication of the wetlands susceptibility to stormwater inputs. Preliminary layouts for future development should consider these wetland boundaries as a guide only. Delineation of wetland boundaries shall be completed early in the process as a submittal requirement for new and re-development applications to avoid development within the wetland and buffer zones.

##### 4.2.2.3 EVALUATION METHODOLOGY

Wetlands are valued for a wide range of functions they perform, such as improving water quality, flow rate reduction, and providing fish and wildlife habitat. Recently, wetland scientists have developed methods to assess the values of individual wetlands based on their ability to perform desired functions. The assessment evaluates characteristics such as plant community diversity

and structure, connectivity to other habitat types, location in the watershed, and a wide range of other factors. The assessment is like a report card, which evaluates the wetland's functions and quality. It is important to note that the value and quality of different wetlands in a project area is relative. For example, a wetland found within Wayzata's boundaries may not be considered to be of high quality compared to a wetland in northern Minnesota. However, in comparison with wetlands elsewhere in the City, the particular wetland may be highly valued for the functions it provides.

The Minnesota Routine Assessment Method (MnRAM) was used to assess the functions and values of all the wetlands inventoried for this plan. This method was developed by the Minnesota Interagency Wetland Group as a field evaluation tool to assess wetland functions on a qualitative basis. It is intended to document the field observations and interpretations of professionals who have had training and experience in wetland science. This method is not intended to be a rigid procedure but rather an aid to compliment trained observation and interpretive skills with additional qualitative evaluation.

Each wetland was assessed and assigned a rank reflecting the value of the functions it provides. Wetlands were ranked as Exceptional, High, Moderate, Low, or Not Applicable (N/A) for each functional value assessed. The summaries of the wetland rankings are presented in Appendix K of this report.

All MnRAM data sheets were entered into a Microsoft Access Database that can be used by the City. The Access database provides quick retrieval of information for each wetland and allows queries to be performed to complete special searches within the database. For example, a search can be done to list all the wetlands that have high floral diversity.

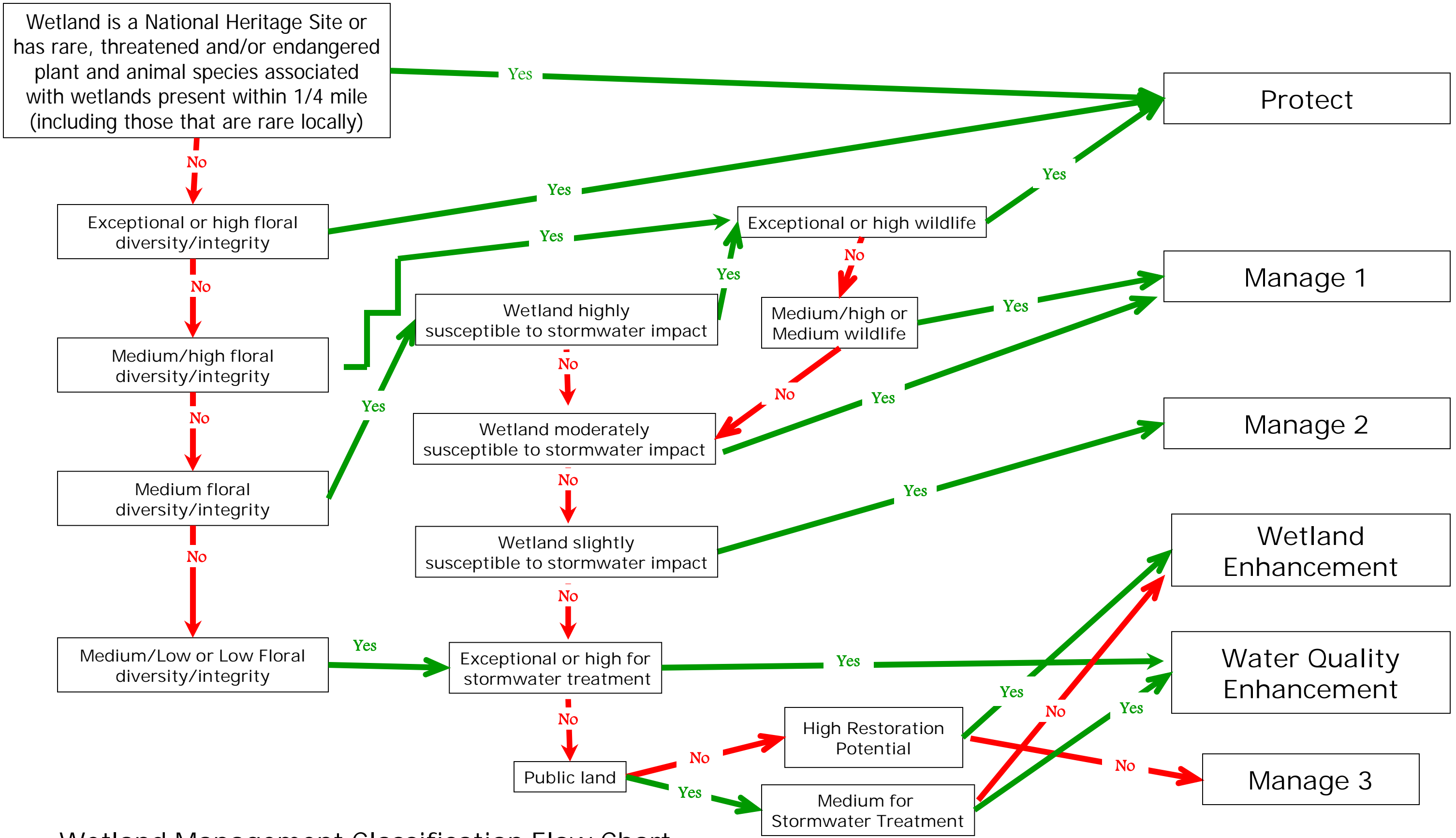
#### 4.2.2.4 PROCEDURES FOR WETLANDS NOT INVENTORIED AS PART OF THIS PLAN

If a wetland was not inventoried as part of this plan, it should be assessed at the time that development is proposed that may impact the wetland. MnRAM should be applied by a wetland professional hired by the applicant. The City will determine the ranking for each functional value using the completed MnRAM form submitted by the applicant. The City or the applicant may request the use of a Technical Evaluation Panel to make a decision on the functional value ranking.

Final classification of the wetlands will be determined by the City using the information contained within the completed MnRAM and applying the criteria below in "Section 4.2.3 - Wetland Management Classification Methodology".

#### 4.2.3 WETLAND MANAGEMENT CLASSIFICATION METHODOLOGY

After assessments of functional value are completed, the next step in developing the wetland management section of this plan included classification of each wetland for future management. Management recommendations are closely related to the functions each wetland performs, and the value of that wetland in comparison to other wetlands in the City. The City's wetland classification system is based on the wetlands floral diversity ranking, wildlife habitat ranking and on its location in relation to a Natural Heritage site and City designated wildlife corridors. The process for determining the Management Classification is presented in detail in the Wetland Management Classification Flow Chart.



Wetland Management Classification Flow Chart

The number and acreage of wetlands assigned to each management category by major drainage unit is presented in Table 4.2. The location of each wetland is shown on Map 2 at the back of this report.

Table 4.2 - Wetland Inventory and Classification Summary

District	Protect		Manage 1		Manage 2		Manage 2*		Manage 3	
	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres
Downtown					2	1.94			2	4.01
Gleason Creek			3	98.19	3	9.47			15	46.72
Holdridge	2	2.65	2	29.30	1	2.81	4	19.37	8	11.57
LaSalle			2	11	1	0.20			4	1.90
Peavey Pond	1	11.51	5	71.60	3	8.56	5	23.54	3	9.38
Total	3	14.16	12	209.85	10	22.98	9	42.91	32	73.58

The main difference between the Watershed approach and City approach to classification is that the City utilized MNRAM and focused on the results for floral diversity and wildlife habitat to classify a wetland and also included the local values that involved preserving wildlife corridors in the City. The inventory also focused on determining the susceptibility of wetland to stormwater (bounce, inundation periods) and developed a separate susceptibility rating specific to protection of wetlands from stormwater. The Watershed utilized a hybrid of MNRAM that is no longer available for use. In addition, the Watershed approach puts an equal amount of weight on all functions of wetlands and does not take into consideration local values or susceptibility to stormwater. Both of these approaches are good for wetland protection, however in this case the City has chosen to continue to utilize its classification system because the City has already completed the effort to classify the wetlands, it utilized a standard methodology that is still available and it incorporates local values.

#### 4.2.3.1 STORMWATER SUSCEPTIBILITY DETERMINATION

One of the purposes of this plan was to determine the sensitivity of inventoried wetlands to impacts from urban stormwater and develop systematic standards to minimize these impacts. Increased pollutant loads to wetlands, especially of nutrients and sediment, are a significant contributing factor to the degradation of diverse wetland communities. For example, phosphorus is a pollutant of high concern because of its role in enriching aquatic systems. Nutrient enrichment of a wetland usually favors aggressive species and thereby decreases vegetative and habitat diversity in a wetland. The magnitude and duration of water level increases due to runoff events can also negatively impact wetland quality. Frequent high water level bounces and long periods of inundation of the wetland fringe flood out the sensitive plant species that often characterize a high quality wetland community. Wetlands with a high occurrence of sensitive species (such as sedges) are usually among the highest quality wetlands from an ecologic perspective, but they are generally most susceptible to stormwater impacts associated with water level bounce and contaminant inputs. Other types of wetland (such as floodplain forests) have species better adapted to handle these inputs.

Site visits to wetlands included a verification of the Wetland Community Type and documentation of the plant communities. Examples of some of the wetland communities found in Wayzata and their susceptibility classification areas are shown on Figure 4.2. The technical paper Guidance for Evaluating Urban Storm Water and Snowmelt Runoff Impacts to Wetlands completed by the State of Minnesota Storm Water Advisory Group was used as a guide in the determination of wetland sensitivity to stormwater. This document divides wetlands in categories that include:

Wetland ID: GC-W5B



Shallow open water  
medium floral diversity  
moderately susceptible

Wetland ID: GC-W9E



Wet meadow  
low floral diversity  
least susceptible

Wetland ID: HOL-W4



Shallow marsh medium floral  
diversity moderately  
susceptible

Wetland ID: HOL-W9B



Hardwood swamp  
high floral diversity highly  
susceptible

Sample of Wetland Communities Found in Wayzata and  
Their Stormwater Susceptibility Classification

highly susceptible, moderately susceptible, slightly susceptible, and least susceptible. The following are the guidelines used in this document to assess wetland susceptibility to stormwater impacts.

**Highly Susceptible Wetlands Determination:** A wetland is considered highly susceptible if forty percent or more of the wetland complex has one or more of the following highly susceptible wetland communities and has medium to exceptional floral diversity/integrity within the susceptible wetland community or communities. Highly susceptible wetland communities include:

- Sedge Meadow
- Bogs
- Coniferous Bogs
- Open Bogs
- Calcareous Fens
- Low Prairies
- Coniferous Swamps
- Hardwood Swamps
- Seasonally Flooded Basins

**Moderately Susceptible Wetlands:** A wetland is considered moderately susceptible if forty percent or more of the wetland complex has one or more of the following moderately susceptible wetland communities and the wetland has medium to exceptional floral diversity/integrity within the susceptible community or communities. Moderately susceptible wetland communities include:

- Shrub-Carrs
- Alder Thickets
- Fresh (wet) Meadows
- Shallow Marsh
- Deep Marsh
- Shallow Open Water

**Slightly and Least Susceptible Wetlands:** Wetlands with low floral diversity as determined by MnRAM were considered to be least susceptible wetlands. Wetlands that do not fall under the high or moderate categories are considered slightly susceptible.

Stormwater susceptibility was determined for all National Wetland Inventory (NWI) Wetlands in Wayzata. The stormwater management classification and associated management objectives for each category are shown in Table 4.3, while the location of the wetlands assigned to each category are shown on Map 1 at the back of this report.

Table 4.3 - Stormwater Management Standards for Wetlands

Stormwater Management Category	Stormwater Phosphorus Pretreatment Requirement	Management Goal
Highly Susceptible	Maximum of 75% above Predev. Loads or diversions	Pond outflow to Wetlands: Predev. Rates for All Storms up to 100-yr
Moderately Susceptible	Maximum of 75% above Prev. Loads or diversions	Pond outflow to Wetlands: Predev. Rates to 5-yr Storm
Slightly Susceptible	No Requirement	* Potentially Enhance for water quality treatment



Least Susceptible

No Requirement

\*Potentially Enhance for  
water quality treatment

*\* Slightly and Least Susceptible wetland may be enhanced for water quality treatment and wildlife habitat if the downstream waterbody is highly susceptible, moderately susceptible, or a Lake basin and it is a City sponsored project that meets the excavation requirements as described in Section 4.2.4.*

*Predev. = Predevelopment (Predevelopment concentration is defined as 200 ppb Phosphorus. Predevelopment runoff coefficient, C= 0.07 for water quality proposed)*

These classifications are important because they provide guidance on which wetlands should be protected from additional stormwater inputs and which wetlands could be modified to improve stormwater treatment as well as enhance wildlife habitat. For example, if a slightly or least susceptible wetland is located upstream of a highly susceptible or moderately susceptible wetland or lake basin, it may be appropriate to modify the upstream wetland basin to decrease pollutant loading to the downstream basin. In order to ensure that these modifications benefit both water quality and wildlife habitat functions, design guidelines will include creating a meandered wetland edge, preserving aquatic benches for shallow water habitat and emergent growth, and planting of native emergent vegetation to increase habitat diversity. These must be City sponsored projects that meet the excavation requirements as described in Section 4.2.4.4.

#### 4.2.3.2 WETLAND BUFFERS

A buffer of undisturbed vegetation around a wetland can provide a variety of benefits. The buffer can consist of trees, shrubs, grasses, wildflowers, or a combination of plant forms. Buffers reduce the impacts of surrounding land uses on wetland functions by stabilizing soil to prevent erosion and filtering solids, nutrients, and other harmful substances. Buffers also provide essential habitat for feeding, roosting, breeding and rearing of young birds and animals, and cover for safety, movement and thermal protection for many species of birds and animals. Buffers can reduce problems related to human activities by blocking noise and glare from lights and reducing disturbance. Even a 10-20 foot buffer of tall vegetation can provide some water filtering benefits, but wider buffers will provide additional water quality and habitat benefits.

Buffers can be planned to tie important upland habitats to wetlands, or connect wetlands and other waters. Since many animal species require both wetland and upland habitats as part of their life cycles, and also require opportunities to move to escape predators or find food and cover, buffers should be planned to maximize these connections. Buffers will be most effective if the landowners around a wetland cooperate to make a continuous buffer, and connect desirable wetland and upland habitats.

Landowners should avoid cutting vegetation, dumping grass clippings or other debris, and trampling in buffer strip areas. If a path is desired through the buffer, it should be mown only as wide as necessary for walking, and gently meandered so that it does not encourage erosion or carry sediments and nutrients from surrounding areas to the wetland. Buffer and Setback requirements are described in detail under Section 4.2.4.

#### 4.2.4 CITY WETLAND REGULATIONS

The purpose of this section is to recognize, preserve and protect the environmental, aesthetic and hydrologic functions of the City's wetlands by regulating the use of wetlands and their adjacent properties. These functions include, but are not limited to, sediment control, pollution control, filtration, fish and wildlife habitat and aquifer recharge.

#### 4.2.4.1 WETLAND CONSERVATION ACT REFERENCE

In order to protect Wetlands, this section of the Local Water Management Plan incorporates by reference the Wetland Conservation Act (WCA) and any future amendments to the WCA that are adopted by the Legislature. In the event that any requirements of this section are inconsistent with the WCA, the stricter provision that provides the most protection for Wetlands shall apply.

#### 4.2.4.2 WETLAND BUFFER STRIP TRIGGERS

The Wetland Buffer Strip and Buffer Setback requirements of this section shall apply to all property containing Wetlands in the following circumstances:

1. When any new development activity occurs on the property. For purposes of this section, "new development activity" means:
  - a. Any subdivision, as defined by state law;
  - b. Any site plan or building permit review if regulated by Section 809.91.11 Chapter 801 of the City of Wayzata Zoning Ordinance;
  - c. Any planned unit development general plan; or
2. Any project that involves the draining, filling, excavation, or alteration of a Wetland; or
3. Any project that alters or fills land below the projected 100-year high water elevation of a body of water.

#### 4.2.4.3 WETLAND BUFFER STRIP VEGETATION PERFORMANCE STANDARDS

1. The City Engineer (and/or their designated consultant) will make the determination if the vegetation in the Wetland Buffer Strip is acceptable. The Wetland Buffer Strip will be reviewed to determine if it is covered by natural vegetation with less than five percent exposed soil (unless exposed soil is due to native canopy cover) and does not contain maintained turf grass, ornamental garden, introduced species or other factors that may impact the performance of the buffer for filtration of nutrients and wildlife habitat. Where acceptable natural vegetation exists in a Wetland Buffer Strip, disturbance is allowed only with approval from the City Engineer.
2. Where a Wetland Buffer Strip or a portion thereof is not considered acceptable or is to be disturbed, a Wetland Buffer Strip landscaping plan must be submitted to the City Engineer for approval. At a minimum, the landscaping plan shall include the following information:
  - a. A plan sheet that shows the location of the Wetland Buffer Strip. The plan sheet must also show Wetland Buffer Strip areas that are considered to be acceptable in their current state and identify them as areas that will not be disturbed during grading. The City may require silt fencing around these areas in order to protect them from erosion and disturbance during grading and construction;
  - b. The species, planting and seeding locations for the Wetland Buffer Strip that were determined to be unacceptable by the city. This shall involve the seeding or planting of a minimum of at least four species of native grasses and five species of native forbs and a cover crop. The seed mix shall consist of at least twelve pounds of Pure Live Seed (PLS) per acre and the cover crop shall be at least twenty pounds per acre. If planting is proposed, spacing between plants shall not exceed three feet unless otherwise approved by the City Engineer; and
  - c. Detailed specifications that describe sequencing, scheduling, materials, installation and maintenance execution for the seeding, planting, or weed removal if required within the Wetland Buffer Strip.

3. In cases where a Wetland Buffer Strip landscaping plan is required, the City may require an approved form of a financial guarantee equal to 150 percent of the estimated cost of the vegetation installation. The financial guarantee shall be valid for two years and may be used by the City for compliance inspections and establishment of the required vegetation if not completed by Applicant or if deemed unsuccessful by the city. Vegetation will be deemed by the City to be successful if the area has a minimum of one plant per square foot from the specified seed mix or planting plan and less than twenty-five percent of the area is inhabited by weeds.

#### 4.2.4.4 EXCAVATION IN WETLANDS

Excavation is regulated in all jurisdictional wetlands. The following are the requirements relating to excavation in wetlands.

- a. Projects that include excavation within wetlands will need to be submitted to the City for review and approval. The City will follow procedural standards, criteria and requirements as set forth in the Wetland Conservation Act (Minnesota Rules Chapter 8420, as amended) and utilize the Minnehaha Creek Watershed District requirements for excavation, as amended.
- b. Upland Buffers will be required around the wetland to meet the width required for the classification of the basin, with the exception of City sponsored projects for regional floodwater storage and water quality improvements. These projects will require Upland Buffers within the City owned portion of the property but the City will not be required to extend the buffer onto private property, and the City will not be required to obtain private property for purposes of implementing the buffer.

#### 4.2.4.5 WETLAND BUFFER STRIP DOCUMENTATION

Wetlands and Wetland Buffer Strip shall be protected by a conservation easement to be granted to the city. The City Engineer may require the upslope edge of Wetland Buffer Strips to be identified with markers. If this is required the applicant will be responsible for the costs of obtaining and installing the markers. At a minimum, one marker shall be placed every 50 feet within a single lot or one per lot in a subdivision at the upslope edge of the Wetland Buffer Strip and on all common lot lines. The markers shall meet the below requirements.

- a. Proposed locations of the markers shall be shown on the grading, site plan or certificate of survey for the property. The location of the markers shall capture the portion of the Wetland Buffer Strip that extends the furthest upslope into the lot. A plan that shows the location of the marker shall be provided to the City for its review and approval.
- b. Artwork and verbiage on the sign shall face away from the Wetland.
- c. Sign dimensions, specifications, verbiage, and artwork shall be specified by the City and provided to the Applicant.

#### 4.2.4.6 WETLAND BUFFER STRIPS AND SETBACKS FROM BUFFER

Wetland Buffer Strips are required if the proposed project meets the trigger requirements as described in Section 4.2.4.2. Wetland Buffer Strip Requirements are based on the Wetland Classification as shown on Map 2 of the 2001 Surface Water Management Plan. Table 4.4 below provides the required Wetland Buffer Strip for each classification and "Buffer Setback". "Buffer

Setback” means the minimum horizontal distance between a structure and the nearest edge of the Wetland Buffer Strip.

TABLE 4.4 - BUFFER STRIP STANDARDS AND MANAGEMENT

Wetland Classification	Average Wetland Buffer Strip (feet)	Minimum Wetland Buffer Strip (feet)	Setback from Buffer
Protect	35	20	10
Manage 1	25	20	10
Manage 2	20	20	10
Manage 2	20	16.5	10
Manage 3	16.5	16.5	10

The wetland buffer strip must meet the average width unless pre-existing conditions such as driveways, easements, road right of ways or structures eliminate the reasonable expansion of the buffer to the average requirement or if approved by City Engineer. In these cases the buffer should be expanded within other portions of the property beyond the average requirement and meet the overall surface area of the average buffer. If pre-existing conditions do not allow the total area of the average buffer to be met within the existing property, the City Engineer may allow alternative methods to protect the Wetland in order to avoid creating unreasonable impacts on the existing use of the property. Such methods may include, but are not limited to, Wetland Buffer Strip width averaging below the minimum required, redirection of drainage to an area where the Wetland Buffer Strip is feasible while still maintaining the drainage to the Wetland or the use of rainwater gardens, vegetated swales or other Best Management Practices for treating runoff.

The Minnehaha Creek Watershed District allows buffer averaging as an exception to Rule D. Exceptions to MCWD rules requires MCWD Board approval. Should an applicant, in the City of Wayzata, propose the use of buffer averaging, they shall be required to obtain MCWD Board approval prior to receiving City approval.

4.2.4.7 WETLAND BUFFER STRIP RESTRICTIONS

Any alterations, including, but not limited to, building, paving, mowing, introduction of non-native vegetation, cutting, filling, dumping, yard waste disposal, fertilizer application, and activities not permitted by the WCA shall be prohibited within the Wetland and Wetland Buffer Strip. However, non-native vegetation or dead or diseased trees that pose a hazard may be removed.

4.2.5 WETLAND RESTORATION/ENHANCEMENT/BANKING

Wetland Restoration/Enhancement sites were identified during the field inventory. Typically, wetlands that were identified for restoration/enhancement had to meet one or more of the following criteria:

- hydrological impact (ditching, pipe drainage, etc.) that could be rectified
- located within a Primary Corridor (as shown on Map 2 at the back of this report)
- located within public land or adjacent to a public trail and were dominated by invasive plants such as reed canary grass, purple loosestrife, or cattail but contained remnant pockets of native vegetation that, with proper management, could become reestablished throughout the wetland.

Wetlands created through restoration of hydrologic conditions would likely qualify as a wetland bank. Wetland banking is a type of mitigation, or replacement for wetland losses, allowed under the state and Federal rules. Wetland banking allows the appropriate amount and type of wetland acreage to be purchased from an account holder who has a “bank” of functioning restored or

created wetlands. These wetlands may have been restored from previously drained or filled wetlands, or created where wetlands did not previously exist. Wetland banking is contrasted with project-specific replacement where the project sponsor creates or restores a wetland specifically to replace a wetland that is to be drained or filled as part of the project. Project specific replacement is usually done on site, while wetland banks are typically located in another place in the community or watershed. Site-specific replacement should be encouraged when a wetland restoration is possible on site. When site-specific replacements are not ecologically appropriate, then wetland banks can be used as replacement.

The specific wetland restoration/enhancement opportunities for each drainage basin are discussed under "Section 5.2 - Watershed Summaries". The locations of the sites are identified on Map 1 at the back of this report. Potential funding sources for recommended projects are summarized in "Section 6.3 - Sources of Funding".

#### 4.2.6 WETLAND STEWARDSHIP

There are a number of things that residents and cities can do voluntarily to enhance the wetlands and buffer strips that surround wetlands. This section describes some of these practices.

Plantings. Native wildflowers, grasses, shrubs, and trees can be planted in the wetland or adjacent the buffer areas to enhance habitat and stormwater filtering. Creating more vertical layers (such as adding trees or shrubs where these are absent) and adding plants that provide food and cover, such as fruiting shrubs, will enhance habitat. Increasing the structural and plant species diversity in the landscape provides additional habitat niches, and can increase the numbers and species of animals using the area. Many of these plants also make the landscape more attractive for human inhabitants.

Species that are native to the area will probably require the least maintenance, will survive harsh Minnesota weather more easily, and provide the greatest habitat benefits. The book Landscaping for Wildlife by Carroll Henderson and other references are available in most bookstores. The Minnesota Extension Services has information, which can help landowners to add plants that enhance the wetland and increase the variety of attractive plants and wildlife that can be enjoyed close to home. The watershed and other public agencies can demonstrate appropriate wetland plantings and enhancements when wetlands are restored or created on public properties.

Control of Invasive Exotic Species. Several non-native species (sometimes called exotics) have become problems in Minnesota wetlands and adjacent uplands. These include purple loosestrife, European buckthorn, black locust, reed canary grass, and leafy spurge. These plants invade native plant communities and can take over rapidly, eliminating native plants that provide important food and habitat benefits.

Invasion by exotic species can be controlled by minimizing disturbance to wetlands and buffer areas as much as possible to avoid the creation of openings for exotics to invade. Small populations of many exotic species can be controlled by hand removal or direct application of appropriate herbicides that are licensed for use near water. The Minnesota Department of Natural Resources (MN DNR) provides information about identifying or controlling exotic species around wetlands.

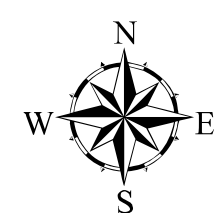
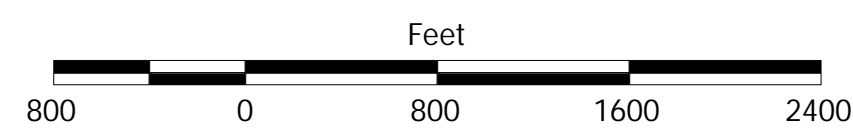
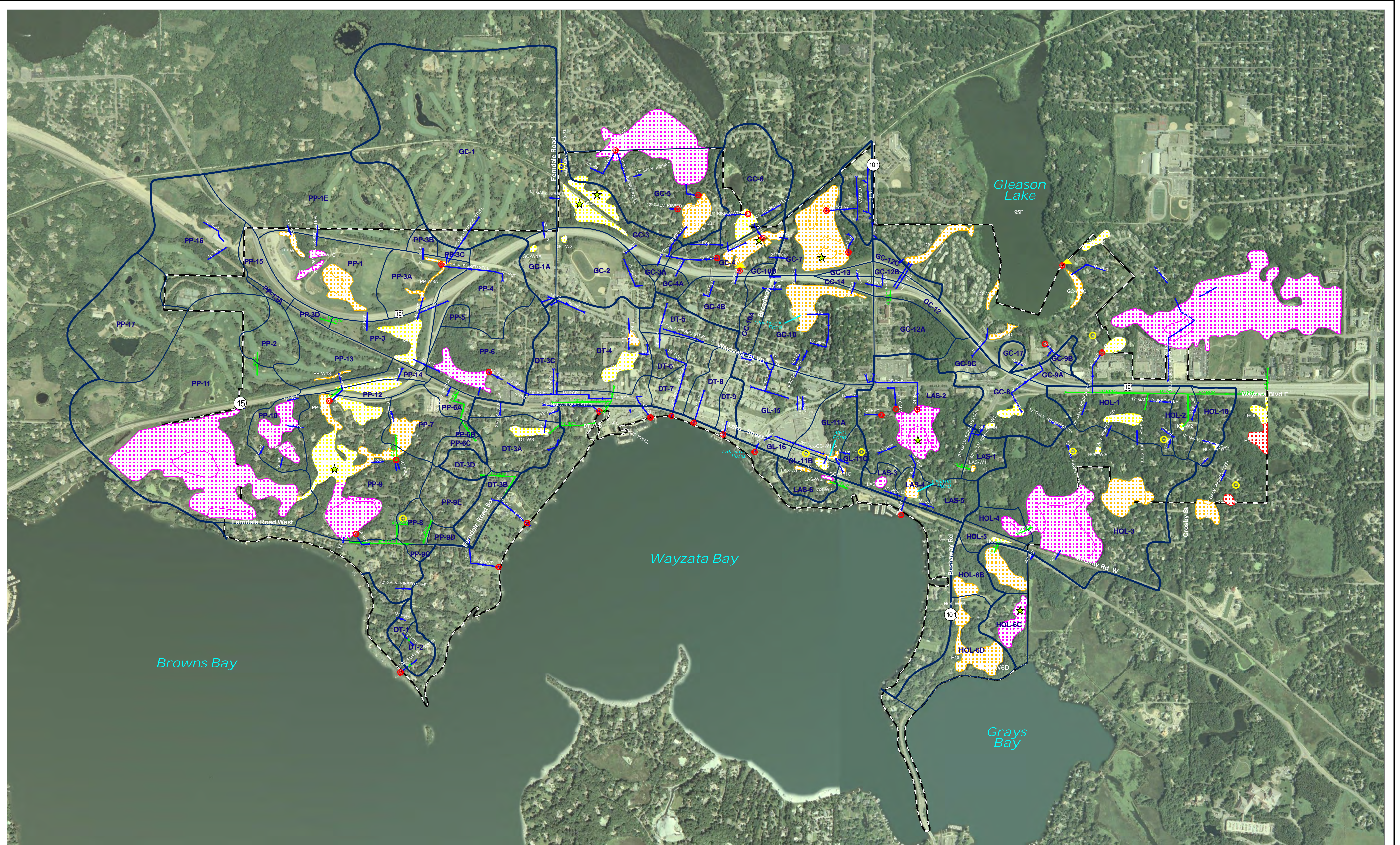
Habitat Structure. Wetlands provide important habitat for many species of birds and other animals. Adding wood duck nest boxes and other types of nesting structures for ducks and other birds can augment nesting habitat, help birds to avoid predators, and enhance opportunities to

view and enjoy wildlife. Contact the MN DNR, Minnesota Waterfowl Association, or other habitat enhancement organizations to get further information about the types of structures available and sources. Retaining or adding stones, logs, and dead trees near wetlands and within buffers provides habitat for turtles, other reptiles and amphibians, and resting areas for birds and animals.

Habitat areas may also become refuges for large populations of deer, geese, and wildlife that may become a nuisance in urban areas. When needed, population control measures should be included in management plans for these areas. MN DNR staff can provide assistance in the development and implementation of these plans.

Learning Opportunities. Schools and other organizations can adopt wetlands and adjacent areas for use as outdoor classrooms. Students, parents, and teachers can add native wetland and upland plants, habitat structures, and other enhancements to increase learning opportunities and encourage other wetland owners in the area to make similar enhancements.





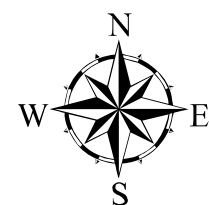
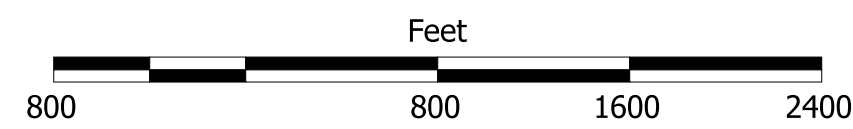
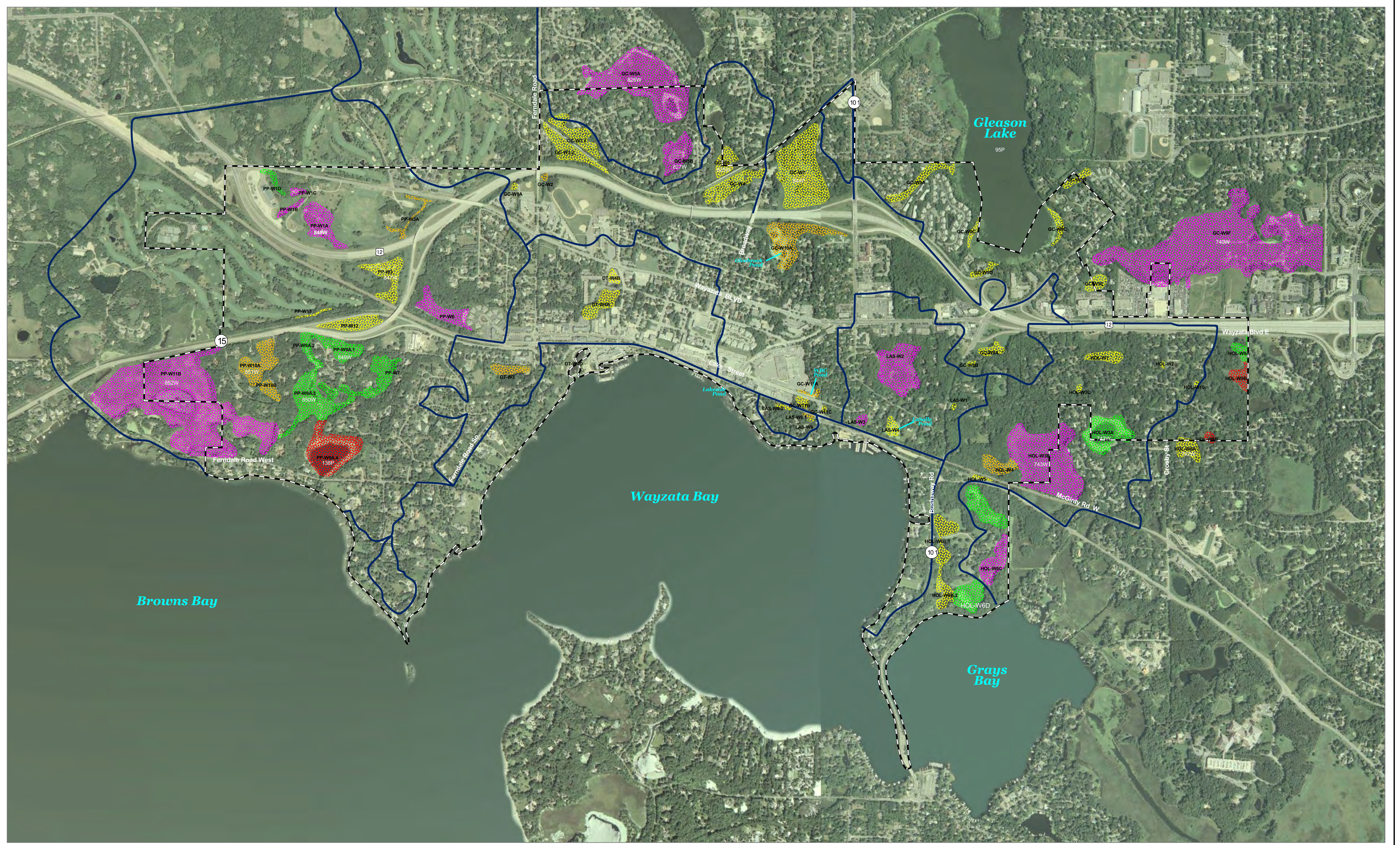
City of Wayzata  
**STORMWATER MANAGEMENT  
 AND WETLAND FEATURES**  
 MAP 1

- Outfall
- Sediment Basin
- Wetland Improvement Site
- Rain Garden Site
- Existing Pipe
- Future Pipe
- Major Watershed Boundary
- Sub-District Boundary
- City Boundary

Symbol	Storm Water Classifications	Quantity
	Highly Susceptible	2
	Moderately Susceptible	16
	Slightly Susceptible	25
	Least Susceptible	22







City of Wayzata  
**WETLAND CLASSIFICATION  
 AND BUFFER STANDARDS**  
 MAP 2

Symbol	Wetland Buffer Classification	Buffer Strip (feet)
	Protect	75
	Manage 1	40
	Manage 2	30
	Manage 2* (Manage 3 Restore)	30
	Manage 3	20
	Major Watershed Boundary	
	City Boundary	





## **Appendix G STORMWATER BMP KEY DESIGN CONSIDERATIONS**



**Practice: On-site infiltration features**

**Definitions and Scope:** Infiltration facilities are constructed basins or depressions located in permeable soils that capture, store, and infiltrate a calculated volume of stormwater runoff. On-site infiltration features are considered those which receive drainage from less than 5 acres and can provide temporary storage for up to 1 inch of runoff depth from the total contributing impervious area as runoff is infiltrating. Types of on-site infiltration features include bioinfiltration basins, dry wells, infiltration trenches, underground infiltration, and rainwater gardens.

**Key Design Considerations:**

1. Impervious construction must be completed, and pervious areas must have established dense and healthy vegetation before an infiltration BMP can be built.
2. Pretreatment by a sediment basin, filter strip, grass channel, or similar item is required, except for rooftop runoff, which can be infiltrated directly. Sheet flow from impervious surfaces discharged over vegetation or routed through swales for at least 25 feet is preferred. However, use of structural units such as hydrodynamic separators for sediment reduction upstream of infiltration is acceptable.
3. Infiltration systems treating water from a potential stormwater hotspot must provide adequate treatment before infiltration may occur. Infiltration of runoff from confirmed stormwater hotspots, such as industrial areas or facilities with exposed significant materials, or vehicle fueling and maintenance areas, is prohibited.
4. A percolation test must be conducted on the site to ensure that the soils are suitable for infiltration. General methods include analysis of two presoaked holes each 24 inches deep and 6-12 inches wide. The underlying soil type must be suitable for infiltration, with a minimum infiltration rate of 0.2 inches per hour and a maximum infiltration rate of 8.3 inches per hour. For design purposes, the field infiltration rate must be divided by a factor of 2.
5. Soil borings must be done to a depth of at least twice the depth of the designed infiltration feature, or a minimum of 10 feet.
6. On-site infiltration systems must be designed “off-line” and must completely draw down within 48 hours after a rain event to prevent nuisance standing water conditions.
7. A means to release excess water into the downstream stormwater conveyance system is required, such that no erosion occurs.
8. Underground systems must have an observation well feature to measure water levels in the system.
9. Infiltration systems should be designed with a minimum of 3 feet between the bottom of the system and the seasonally high groundwater or bedrock layer.
10. Setbacks to buildings and property lines must be a minimum of 10 feet. Setbacks to private wells or public wells must be at least 100 feet, while those from septic system drainfields must be at least 50 feet. Infiltration within a vulnerable (very high, high, or moderate vulnerability) Drinking Water Supply Management Area the City Engineer is not permitted without permission from the City Engineer.

See the most recent edition of the MPCA’s Minnesota Stormwater Manual for further guidance.

**Practice:** **Bioretention**

**Definitions and Scope:** Bioretention facilities are shallow, landscaped depressions that capture stormwater runoff to be filtered through a prepared soil medium. This practice utilizes the chemical, biological, and physical properties of plants, microbes and soil for removing pollutants from runoff. Once the soil pore space of the medium is exceeded, stormwater begins to pool at the surface of the planting soil. These practices differ from infiltration practices in that they have an underdrain system that collects stormwater after it has traveled downward through the prepared soil medium and directs the filtered runoff to the storm sewer system or to a receiving water. The advantage of this technique is that it can be used in areas of soils that are unsuitable for infiltration. The disadvantage is that it is considered to have only a limited impact in reducing stormwater runoff volume or the dissolved form of stormwater pollutants. A bioretention feature should not receive drainage from more than 2 acres total and more than 1 acre of impervious cover. Common applications of bioretention practices include as landscaped islands, in cul-de-sacs, at parking lot margins, within building setbacks, and as streetscape applications between the curb and sidewalk.

**Key Design Considerations:**

1. Bioretention systems should be designed with a minimum of 3 feet between the bottom of the system and the seasonally high groundwater or bedrock layer to maintain the hydraulic capacity of the practice and provide adequate water quality treatment.
2. Bioretention systems must be set back 50 feet from municipal water-supply wells and 35 feet from all other water-supply wells.
3. The recommended depth of prepared soil in the bioretention feature is 30", with 48" to 52" acceptable if large trees will be incorporated into the design.
4. Extremely careful attention must be paid to the prepared soil media, based on treatment requirements. A number of media composition mixes are provided in the Minnesota Stormwater Manual.
5. Pretreatment by a sediment trap, filter strip, grass channel, or similar item is required, except for rooftop runoff, which can be introduced directly to the bioretention feature.
6. Bioretention systems must be designed to drain both the depression and the soil media within 48 hours after a runoff event.

See the most recent edition of the MPCA's Minnesota Stormwater Manual for further guidance.

**Practice: Porous pavers/permeable pavement systems**

**Definitions and Scope:** Permeable pavements provide alternatives to standard asphalt and concrete, which are completely impervious surfaces. Permeable pavements allow water to infiltrate or pass through them. They often contain a gravel storage layer underneath the pavement surface, which often doubles for structural support. Permeable pavement systems are typically best suited for paved areas with low traffic volumes, including patios, residential parking pads, driveways, fire lanes, overflow parking areas, and some daily parking areas.

**Key Design Considerations:**

1. Permeable systems should be designed with a minimum of 3 feet between the bottom of the reservoir and the seasonally high groundwater table or bedrock layer to maintain the hydraulic capacity of the practice and provide adequate water quality treatment.
2. The pavers and/or pavement system must be installed according to the manufacturer's specifications.
3. Pretreatment by a sediment basin, filter strip, grass channel, or similar item is required, except for rooftop runoff, which can be infiltrated directly.
4. Infiltration systems treating water from a potential stormwater hotspot must provide adequate treatment before infiltration may occur. Infiltration of runoff from confirmed stormwater hotspots, such as industrial areas or facilities with exposed significant materials, or vehicle fueling and maintenance areas, is prohibited.
5. A percolation test must be conducted on the site to ensure that the soils are suitable for infiltration of runoff that pass through the permeable pavement system. General methods include analysis of two presoaked holes each 24 inches deep and 6-12 inches wide. The underlying soil type must be suitable for infiltration, with a minimum infiltration rate of 0.2 inches per hour.
6. The area must have low traffic volumes (< 1,000 trips per day for parking lots).
7. The slope of the permeable paver system must be less than 2%.
8. The minimum base layer void space must be 40%.
9. The minimum base layer depth is 9 inches.
10. For all applications for commercial, industrial, multi-family, and institutional sites, a long-term maintenance agreement clearly specifying parties responsible for maintenance is required.
11. Setbacks to private wells or public wells must be at least 100 feet, while those from septic system drain fields must be at least 50 feet. Infiltration within a Drinking Water Supply Management Area is prohibited.

See the most recent edition of the MPCA's Minnesota Stormwater Manual for further guidance.

**Practice:**                                    **Disconnection of impervious surface**

**Definitions and Scope:** Disconnection of impervious cover spreads runoff from small parking lots, courtyards, driveways, and rooftops onto adjacent pervious areas where it is filtered or infiltrated into the soil or can transpire. This involves looking for areas of the site where the flow from these surfaces can be diverted onto turf, lawns, or unmaintained vegetative areas that can act as filter strips. If done properly, the volume and rate of stormwater runoff can be reduced significantly. Disconnections should be restricted based on the length, slope, and soil infiltration rate of the pervious area in order to prevent the disconnected runoff from reaching the storm drain system in another direction. In some cases, minor regrading of the site may be needed to promote overland flow and vegetative filtering.

**Key Design Considerations:**

For all disconnections:

1. Projects involving the subdivision of land must include the maintenance and preservation of the disconnection as part of a recorded deed.
2. No soil evaluation is required for disconnections that drain to hydrologic soil groups A and B. Disconnections to hydrologic soil groups C and D shall have a soil evaluation to demonstrate that directing additional flows will not create nuisance conditions.
3. The entire vegetative “disconnection” shall be on a slope less than or equal to 5% and must not channelize flow.

For disconnection of rooftop runoff:

1. The disconnection must be designed to adequately address the issue of basement seepage.
2. The contributing length of rooftop to a discharge location shall be 75 feet or less.
3. The rooftop contributing area to any one discharge location cannot exceed 1,000 square feet.
4. Disconnections will only be credited for residential lots greater than 6,000 square feet.
5. Where provided, downspouts must be at least 10 feet away from the nearest impervious surface to discourage “reconnection”.
6. Where a subsurface drain is used, the drain cannot be directly connected to the storm drainage system.

For disconnection of non-rooftop runoff:

1. The site must be graded to promote the flow of runoff to pervious areas.
2. Maximum impervious flow path length shall be 75 feet.
3. The length of the pervious area to which the disconnected impervious flow is discharged must be at least as long as the contributing impervious length.

See the most recent edition of the MPCA’s Minnesota Stormwater Manual for further guidance.

## **Appendix H EXAMPLE CASH DEDICATION CALCULATIONS**



Following are examples of how the cash dedication amounts would be calculated for three different land use situations.

**Example 1: New five-acre low-density residential development (30% impervious)**

*Methodology:* The calculation methodology is as follows:

5 acres x .3 (30% of the site) = 1.5 acres of the site is impervious

1" of runoff from the impervious cover is (1/12" per foot) x 1.5 acres = 0.125 acre-feet of runoff volume

0.125 AF of runoff volume x 43,560 ft<sup>3</sup> per AF = 5,445 cubic feet of runoff volume

Assuming the average depth of ponding in a hypothetical rainwater garden is 1.5', the area of the rainwater garden is 5,445 ft<sup>3</sup>/ 1.5 ft = 3,630 ft<sup>2</sup>

The cost of the land needed to accommodate this footprint is

$$(3,630 \text{ ft}^2 / 43,560 \text{ ft}^2 \text{ per acre}) \times \$150,000 \text{ per acre for residential use} = \$12,500$$

The cost of construction of the hypothetical rainwater garden is

$$3,630 \text{ ft}^2 \times \$13/\text{ft}^2 = \$47,190$$

The total cash dedication cost is the sum of the two costs: \$12,500 + \$47,190 = \$59,690

**Example 2: 1-acre new commercial development (75% impervious)**

*Methodology:* The calculation methodology is as follows:

1 acres x .75 (75% of the site) = 0.75 acres of the site is impervious

1" of runoff from the impervious cover is (1/12" per foot) x 0.75 acres = 0.06 acre-feet of runoff volume

0.06 AF of runoff volume x 43,560 ft<sup>3</sup> per AF = 2,723 cubic feet of runoff volume

Assuming the average depth of ponding in a hypothetical rainwater garden is 1.5', the area of the rainwater garden is 2,723 ft<sup>3</sup>/ 1.5 ft = 1,815 ft<sup>2</sup>

The cost of the land needed to accommodate this footprint is

$$(1,815 \text{ ft}^2 / 43,560 \text{ ft}^2 \text{ per acre}) \times \$357,200 \text{ per acre for residential use} = \$14,883$$

The cost of construction of the hypothetical rainwater garden is

$$1,815 \text{ ft}^2 \times \$13/\text{ft}^2 = \$23,595$$

The total cash dedication cost is the sum of the two costs: \$14,883 + \$23,595 = \$38,478



**Example 3: 0.5- acre residential redevelopment project within an R-3 zoned area, impervious increase from 20% to 30%**

*Methodology:* The calculation methodology is as follows:

There are two applicable thresholds:

1. The allowable impervious threshold based on the R-3 zoning classification. The post-development impervious coverage will not exceed the threshold of 35% maximum impervious coverage, thus the owner will need to mitigate only for the additional impervious coverage.
2. The area and percent increase in impervious coverage compared to the existing condition. The area of impervious increase will be less than 0.1 acres, but the percentage increase in impervious coverage is 50%, which exceeds the 10% increase threshold. Thus, the owner will need to meet mitigation requirements for the additional impervious coverage.

If the City chooses to accept a cash dedication in lieu of on-site mitigation, the cash dedication is calculated as follows:

The additional impervious coverage is 0.15 – 0.10 acres impervious = 0.05 acres

1" of runoff from the new impervious cover is (1/12" per foot) x 0.05 acres = 0.004 acre-feet of runoff volume

0.004 AF of runoff volume x 43,560 ft<sup>3</sup> per AF = 182 cubic feet of runoff volume

Assuming the average depth of ponding in a hypothetical rainwater garden is 1.5', the area of the rainwater garden is 182 ft<sup>3</sup> / 1.5 ft = 121 ft<sup>2</sup>

The cost of the land needed to accommodate this footprint is

(121 ft<sup>2</sup>/ 43,560 ft<sup>2</sup> per acre) x \$150,000 per acre for residential use = \$417

The cost of construction of the hypothetical rainwater garden is

121 ft<sup>2</sup> x \$13/ft<sup>2</sup>= \$1,573

The total cash dedication cost is the sum of the two costs: \$417 + \$1,513 = \$1,990

**LOCAL SURFACE WATER MANAGEMENT PLAN**

Appendix I 1/9/2019 12:00:00 AM 1/16/2019 12:00:00 AM

**Appendix I SWPPP (STORM WATER POLLUTION PREVENTION PROGRAM)**



# SWPPP

(Storm Water Pollution Prevention Program)  
City of Wayzata



MS4 Owner:

Name: City of Wayzata  
Mailing Address: 600 Rice Street  
City: Wayzata  
State: MN  
Zip Code: 55391  
County: Hennepin

General Contact for Permit Compliance:

Name of Responsible Official: Mike Kelly  
Title: City Engineer  
County: Hennepin  
Mailing Address: 600 Rice Street  
City: Wayzata  
State: MN  
Zip Code: 55391  
Telephone Number: (952) 404-5300  
Fax Number: (952) 404-5318  
Email Address: mike@wayzata.org

# City of Wayzata BMP Pages

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# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 1-1

## Minimum Control Measures Addressed by This BMP

<input checked="" type="checkbox"/>	Public education & outreach	<input checked="" type="checkbox"/>	Construction site runoff controls
<input checked="" type="checkbox"/>	Public participation & involvement	<input checked="" type="checkbox"/>	Post-construction stormwater management
<input type="checkbox"/>	Illicit discharge detection & elimination	<input type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** Public Information Program

**BMP Description:** Develop a formal program regarding public notification and review and comment periods for redevelopment and public works projects. The city currently provides neighborhood notices during project planning stages. The City has reviewed the current practices and documents the number of meetings and participants during the year. The program will be reviewed and revised annually.

**Measurable Goals:**

- Completed program (y/n)
- Track implementation of program complete (y/n)

**Timeline / Implementation Schedule:**

- 2006 - Formalize program
- 12/2007-12/2011 – Revise and implement program annually

**Specific Components & Notes (optional):**

**Responsible Party**

Name: City Engineer

Title: City Engineer

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Responsible Department**

Dept. or Org.: Engineering

Dept. Head: Michael Kelly, Jr.

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Educational components related to this BMP (description or number – optional):**

Audience: General Public, Contractors, Developer, and Business Owners

Educational Goals: Provide the audience with awareness and knowledge of storm water issues and City government issues.

Activities: See BMP Description above

Implementation Plans: See Timeline/Implementation Schedule above

Performance Measures: See Measurable Goals above

## BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 1-2

### **Minimum Control Measures Addressed by This BMP**

<input checked="" type="checkbox"/>	Public education & outreach	<input checked="" type="checkbox"/>	Construction site runoff controls
<input checked="" type="checkbox"/>	Public participation & involvement	<input checked="" type="checkbox"/>	Post-construction stormwater management
<input checked="" type="checkbox"/>	Illicit discharge detection & elimination	<input checked="" type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** Bi-monthly Newsletter (Bay Window)

**BMP Description:** A bi-monthly newsletter is distributed to the public. It includes information regarding volunteer opportunities, hazardous waste drop-off information, recycling information, proper lawn care practices, a “hotline” phone number to report illicit discharges and construction site runoff violations, and other stormwater educational materials related to each minimum control measure. As an annual goal, the City will provide stormwater educational articles in the newsletter to address each of the six minimum control measures outlined in the MPCA General Permit.

**Measurable Goals:**

- Number of educational stormwater articles
- Annually address all 6 minimum control measures in the newsletter.

**Timeline / Implementation Schedule:**

- 2006-2011: Current and ongoing

**Specific Components & Notes (optional):**

**Responsible Party**

Name: City Engineer

Title: City Engineer

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Responsible Department**

Dept. or Org.: Engineering

Dept. Head: Michael Kelly, Jr.

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Educational components related to this BMP (description or number – optional):**

Audience: general public, Contractors, Developer, and Business Owners

Educational Goal: Provide the public with information to make them aware of stormwater issues and volunteer opportunities.

Activities: See BMP Description above

Implementation Plans: See Timeline/Implementation Schedule above

Performance Measures: See Measurable Goals above



## BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 1-3

### Minimum Control Measures Addressed by This BMP

<input checked="" type="checkbox"/>	Public education & outreach	<input checked="" type="checkbox"/>	Construction site runoff controls
<input checked="" type="checkbox"/>	Public participation & involvement	<input checked="" type="checkbox"/>	Post-construction stormwater management
<input checked="" type="checkbox"/>	Illicit discharge detection & elimination	<input checked="" type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** City Website – Stormwater Information Page

**BMP Description:** The City website can be accessed to view ordinances, City Council agendas and meeting minutes, and will be updated to include stormwater articles for each minimum control measure and phone numbers for reporting illicit discharges, construction site runoff violations, or other stormwater complaints.

**Measurable Goals:**

- Post SWPPP
- Post Annual Report
- Track web page updates
- Quantify information provided on web page
- Track stormwater information provided elsewhere on city website

**Timeline / Implementation Schedule:**

- 12/2006: Completed stormwater webpage
- 12/2007-12/2011: Review and revise webpage annually

**Specific Components & Notes (optional):**

**Responsible Party**

Name: City Engineer

Title: City Engineer

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Responsible Department**

Dept. or Org.: Engineering

Dept. Head: Michael Kelly, Jr.

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Educational components related to this BMP (description or number – optional):**

Audience: general public, Contractors, Developer, and Business Owners

Educational Goal: Provide the audience with information to make them aware of storm water issues, volunteer opportunities, contacts and regulations.

Activities: See BMP Description above

Implementation Plans: See Timeline/Implementation Schedule above

Performance Measures: See Measurable Goals above

## BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 1-4

### Minimum Control Measures Addressed by This BMP

<input checked="" type="checkbox"/>	Public education & outreach	<input checked="" type="checkbox"/>	Construction site runoff controls
<input type="checkbox"/>	Public participation & involvement	<input checked="" type="checkbox"/>	Post-construction stormwater management
<input checked="" type="checkbox"/>	Illicit discharge detection & elimination	<input type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** Stormwater Educational Brochures.

**BMP Description:** Display storm water brochures at City Hall and distribute as billing inserts, providing information on household hazardous waste collection and disposal, proper lawn care practices and awareness of stormwater issues related to each minimum control measure.

**Measurable Goals:**

- Number and type of stormwater brochures distributed

**Timeline / Implementation Schedule:**

- 12/2006 - Produce needed brochures
- 2007-2011 - distribute brochures

**Specific Components & Notes (optional):**

**Responsible Party**

Name: City Engineer

Title: City Engineer

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Responsible Department**

Dept. or Org.: Engineering

Dept. Head: Michael Kelly, Jr.

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Educational components related to this BMP (description or number – optional):**

Audience: General Public, Contractors, Developer, and Business Owners

Educational Goals: Provide the public with proper lawn care and yard waste disposal practices and awareness of effects on storm water quality.

Activities: See BMP Description above

Implementation Plans: See Timeline/Implementation Schedule above

Performance Measures: See Measurable Goals above

# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 1-5

## Minimum Control Measures Addressed by This BMP

<input checked="" type="checkbox"/>	Public education & outreach	<input type="checkbox"/>	Construction site runoff controls
<input checked="" type="checkbox"/>	Public participation & involvement	<input type="checkbox"/>	Post-construction stormwater management
<input type="checkbox"/>	Illicit discharge detection & elimination	<input type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** 30-day Public Notice for Annual Stormwater Meeting

**BMP Description:** Notify the public of the date, time and place of a meeting that, at least in part, will discuss the annual SWPPP report. The notice will be published in a newspaper of general circulation in the general vicinity of the City and at least 30-days prior to the public meeting. The notice will contain a reference to the SWPPP; a concise description of the manner in which the public informational meeting will be conducted; a location to submit written or provide oral comments on the adequacy of the SWPPP prior to the public meeting; and will indicate the location where a copy of the SWPPP is available for public viewing. A copy of the notice will be available to the Agency, the appropriate city and county officials, and all other persons who have requested that they be informed of public meetings for the SWPPP.

**Measurable Goals:**

- Completed public notice requirement
- Number of places notices are posted

**Timeline / Implementation Schedule:**

- 2006-2011: Annually – at least 30 days prior to annual meeting

**Specific Components & Notes (optional):**

**Responsible Party**

Name: City Engineer

Title: City Engineer

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Responsible Department**

Dept. or Org.: Engineering

Dept. Head: Michael Kelly, Jr.

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Educational components related to this BMP (description or number – optional):**

Audience: general public, Contractors, Developer, and Business Owners

Educational Goals: Provide public with awareness and knowledge of the annual storm water meeting date, time, location, meeting process and subject.

Activities: See BMP Description above

Implementation Plans: See Timeline/Implementation Schedule above

Performance Measures: See Measurable Goals above

# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 1-6

## Minimum Control Measures Addressed by This BMP

<input checked="" type="checkbox"/>	Public education & outreach	<input checked="" type="checkbox"/>	Construction site runoff controls
<input checked="" type="checkbox"/>	Public participation & involvement	<input checked="" type="checkbox"/>	Post-construction stormwater management
<input checked="" type="checkbox"/>	Illicit discharge detection & elimination	<input checked="" type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** Evaluate Additional Educational Materials

**BMP Description:** The City will solicit storm water related materials, such as those listed within the Specific Components below, from outside entities, including, but not limited to: soil and water conservation districts, watershed districts, watershed management organizations, school districts, University of Minnesota extension, and county, regional, state and federal government sources.

**Measurable Goals:**

- List of materials received in response to the request

**Timeline / Implementation Schedule:**

- 2006-2011: Annually solicit educational information from outside entities
- 2006-2011: Review and revise material as appropriate to community

**Specific Components & Notes (optional):**

- Articles
- Newsletters
- Videos
- Brochures
- Special Packets
- Inserts and displays
- In-house training documents
- Materials from conferences attended

**Responsible Party**

Name: City Engineer

Title: City Engineer

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Responsible Department**

Dept. or Org.: Engineering

Dept. Head: Michael Kelly, Jr.

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Educational components related to this BMP (description or number – optional):**

Audience: To be determined from materials acquired

Educational Goal: To be determined

# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 1-7

## Minimum Control Measures Addressed by This BMP

<input checked="" type="checkbox"/>	Public education & outreach	<input checked="" type="checkbox"/>	Construction site runoff controls
<input checked="" type="checkbox"/>	Public participation & involvement	<input checked="" type="checkbox"/>	Post-construction stormwater management
<input checked="" type="checkbox"/>	Illicit discharge detection & elimination	<input checked="" type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** Joint Educational Programs with Outside Entities

**BMP Description:** The City will contact outside entities, including, but not limited to: soil and water conservation districts, watershed districts, watershed management organizations, school districts, University of Minnesota extension, and county, regional, state and federal government sources and discuss existing programs and how they can be coordinated and/or used effectively with the City's existing programs.

**Measurable Goals:**

- Annual review of outside entity programs
- Number of outside entity programs identified

**Timeline / Implementation Schedule:**

- 2006-2011 - Evaluate and compare outside entity programs with the City's existing programs
- 2007 - Propose a strategy that allows coordination and helps make effective use of outside entity educational programs, identify target audiences and define measurable goals

**Specific Components & Notes (optional):**

- Review outside entity reference list in SWPPP

**Responsible Party**

Name: City Engineer

Title: City Engineer

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Responsible Department**

Dept. or Org.: Engineering

Dept. Head: Michael Kelly, Jr.

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Educational components related to this BMP (description or number – optional):**

Audience: To be determined from available program reviews

Educational Goal: To be determined

# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 1-8

## Minimum Control Measures Addressed by This BMP

<input checked="" type="checkbox"/>	Public education & outreach	<input type="checkbox"/>	Construction site runoff controls
<input checked="" type="checkbox"/>	Public participation & involvement	<input type="checkbox"/>	Post-construction stormwater management
<input checked="" type="checkbox"/>	Illicit discharge detection & elimination	<input checked="" type="checkbox"/>	Pollution prevention/Good housekeeping

<b><u>BMP Title:</u></b> Public Works Open House	
<b><u>BMP Description:</u></b> Periodically, the City will hold an open house to inform the public of City operations. Educational material and discussions pertaining to general storm water issues and how the City and citizens work minimize storm water pollution will be available for interested attendees.	
<b><u>Measurable Goals:</u></b>	<b><u>Timeline / Implementation Schedule:</u></b>
<ul style="list-style-type: none"> <li>• Conducted Open House (y/n)</li> <li>• Number of public attendees</li> </ul>	<ul style="list-style-type: none"> <li>• 2006-2011 - Post notices city-wide</li> <li>• 2006-12/2011 - Conduct at least two open house events</li> </ul>
<b><u>Specific Components &amp; Notes (optional):</u></b>	
<b><u>Responsible Party</u></b>	<b><u>Responsible Department</u></b>
Name: City Engineer	Dept. or Org.: Engineering
Title: City Engineer	Dept. Head: Michael Kelly, Jr.
Phone: 952-404-5300	Phone: 952-404-5300
E-mail: mike@wayzata.org	E-mail: mike@wayzata.org
<b><u>Educational components related to this BMP (description or number – optional):</u></b>	
Audience: General Public , Contractors, Developer, and Business Owners	
Educational Goal: Provide the public with knowledge, awareness of City operations directed at storm water issues and what the public can do to reduce impacts to storm water.	
Activities: See BMP Description above	
Implementation Plans: See Timeline/Implementation Schedule above	
Performance Measures: See Measurable Goals above	

# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 2-1

## Minimum Control Measures Addressed by This BMP

<input checked="" type="checkbox"/>	Public education & outreach	<input checked="" type="checkbox"/>	Construction site runoff controls
<input checked="" type="checkbox"/>	Public participation & involvement	<input checked="" type="checkbox"/>	Post-construction stormwater management
<input checked="" type="checkbox"/>	Illicit discharge detection & elimination	<input checked="" type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** Participation in Inter-Agency Seminars

**BMP Description:** The City will coordinate with other local communities and MCWD and if appropriate, participate in available seminars and/or field trips to describe issues of stormwater management and show the public the City's stormwater system. At a minimum, the City will evaluate other public participation events related to stormwater issues and publicize educational awareness through the website, newsletter, or other media available by the City.

**Measurable Goals:**

- Number of seminars/field trips identified
- City participation (y/n)

**Timeline / Implementation Schedule:**

- 2006-2007: Identify existing events and coordinate with other agencies
- 2008-2011: Identify and participate in applicable events to encourage public participation

**Specific Components & Notes (optional):**

**Responsible Party**

Name: City Engineer

Title: City Engineer

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Responsible Department**

Dept. or Org.: Engineering

Dept. Head: Michael Kelly, Jr.

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Educational components related to this BMP (description or number – optional):**

Audience: General Public, Contractors, Developer, and Business Owners

Educational Goal: Provide the public with knowledge, awareness and a first hand look at stormwater issues and City government practices.

Activities: See BMP Description above

Implementation Plans: See Timeline/Implementation Schedule above

Performance Measures: See Measurable Goals above



# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 2-2

## Minimum Control Measures Addressed by This BMP

<input checked="" type="checkbox"/>	Public education & outreach	<input type="checkbox"/>	Construction site runoff controls
<input checked="" type="checkbox"/>	Public participation & involvement	<input type="checkbox"/>	Post-construction stormwater management
<input type="checkbox"/>	Illicit discharge detection & elimination	<input type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** Annual Stormwater Public Meeting

**BMP Description:** The City will hold one public meeting per year that allows time to specifically address the SWPPP. The meeting will be held prior to MPCA Annual Report submittal deadline and a 30-day public notice period will be provided for residents to submit comments on the SWPPP. Possible revisions to the SWPPP will be discussed based on comments received and program evaluation by the City.

During the meeting, a short stormwater educational presentation will outline the impacts of stormwater runoff to receiving waters and examples of individual and city practices to reduce or minimize the impacts.

**Measurable Goals:**

- Number of attendees to Annual Meeting

**Timeline / Implementation Schedule:**

- Annually - hold public meeting prior to the MPCA Annual Report deadline

**Specific Components & Notes (optional):**

- 30-day public notice
- City Council meeting agenda

**Responsible Party**

Name: City Engineer

Title: City Engineer

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Responsible Department**

Dept. or Org.: Engineering

Dept. Head: Michael Kelly, Jr.

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Educational components related to this BMP (description or number – optional):**

Audience: General Public, Contractors, Developer, and Business Owners

Educational Goal: Provide the public opportunity for oral and written comments concerning the SWPPP.

Activities: See BMP Description above

Implementation Plans: See Timeline/Implementation Schedule above

Performance Measures: See Measurable Goals above

# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 2-3

## Minimum Control Measures Addressed by This BMP

<input type="checkbox"/>	Public education & outreach	<input type="checkbox"/>	Construction site runoff controls
X	Public participation & involvement	<input type="checkbox"/>	Post-construction stormwater management
<input type="checkbox"/>	Illicit discharge detection & elimination	<input type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** Establish Meeting and Public Input Procedures

**BMP Description:** Specify the format of the Annual SWPPP meeting and the opportunity for residents to give input. Formal written comments will be accepted during the 30-day comment period.

**Measurable Goals:**

- Document and provide notice of the format of the annual meeting and means for public input on the SWPPP

**Timeline / Implementation Schedule:**

- Year 1 - Provide notice of the format of the annual meeting and the means for public input on the SWPPP

**Specific Components & Notes (optional):**

**Responsible Party**

Name: City Engineer

Title: City Engineer

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Responsible Department**

Dept. or Org.: Engineering

Dept. Head: Michael Kelly, Jr.

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Educational components related to this BMP (description or number – optional):**

Audience: General Public, Contractors, Developer, and Business Owners

Educational Goal: Provide the public notice and opportunity for oral and written comments concerning the SWPPP.

Activities: See BMP Description above

Implementation Plans: See Timeline/Implementation Schedule above

Performance Measures: See Measurable Goals above

# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 2-4

## Minimum Control Measures Addressed by This BMP

<input type="checkbox"/>	Public education & outreach	<input type="checkbox"/>	Construction site runoff controls
X	Public participation & involvement	<input type="checkbox"/>	Post-construction stormwater management
<input type="checkbox"/>	Illicit discharge detection & elimination	<input type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** Consideration of Written and Oral Public Input

**BMP Description:** City staff will analyze public comments, both written and oral. Consideration will be given to incorporating comments into future SWPPP activities or revisions.

**Measurable Goals:**

- Receive public input
- Analyze comments and revise SWPPP as necessary

**Timeline / Implementation Schedule:**

- Annually - Receive comments and revise SWPPP as appropriate
- June 30<sup>th</sup> each year – receive comments, respond, and revise SWPPP as appropriate.

**Specific Components & Notes (optional):**

<b>Responsible Party</b>	<b>Responsible Department</b>
Name: City Engineer	Dept. or Org.: Engineering
Title: City Engineer	Dept. Head: Michael Kelly, Jr.
Phone: 952-404-5300	Phone: 952-404-5300
E-mail: mike@wayzata.org	E-mail: mike@wayzata.org

**Educational components related to this BMP (description or number – optional):**

Audience: General Public, Contractors, Developer, and Business Owners

Educational Goal: Provide the public opportunity for oral and written comment for input into the SWPPP.

Activities: See BMP Description above

Implementation Plans: See Timeline/Implementation Schedule above

Performance Measures: See Measurable Goals above

## BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 2-5

### Minimum Control Measures Addressed by This BMP

<input checked="" type="checkbox"/>	Public education & outreach	<input type="checkbox"/>	Construction site runoff controls
<input checked="" type="checkbox"/>	Public participation & involvement	<input checked="" type="checkbox"/>	Post-construction stormwater management
<input checked="" type="checkbox"/>	Illicit discharge detection & elimination	<input type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** Household Cleanup Day

**BMP Description:** The City holds a Household Cleanup Day to allow the public opportunity to dispose of non-hazardous waste materials such as appliances, scrap metal and wood, tires and furniture. The materials are collected by a licensed garbage hauler for proper disposal.

**Measurable Goals:**

- Completed Household Cleanup Days
- Number of households participating
- Quantification of items collected

**Timeline / Implementation Schedule:**

- 2006-2011: hold Household Cleanup Day annually

**Specific Components & Notes (optional):**

**Responsible Party**

Name: City Engineer

Title: City Engineer

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Responsible Department**

Dept. or Org.: Engineering

Dept. Head: Michael Kelly, Jr.

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Educational components related to this BMP (description or number – optional):**

Audience: General Public

Educational Goal: Provide the public an opportunity to dispose of non-hazardous materials in a proper manner.

Activities: See BMP Description above

Implementation Plans: See Timeline/Implementation Schedule above

Performance Measures: See Measurable Goals above

## BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 2-6

### Minimum Control Measures Addressed by This BMP

<input checked="" type="checkbox"/>	Public education & outreach	<input type="checkbox"/>	Construction site runoff controls
<input checked="" type="checkbox"/>	Public participation & involvement	<input checked="" type="checkbox"/>	Post-construction stormwater management
<input checked="" type="checkbox"/>	Illicit discharge detection & elimination	<input type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** Citizen Monitoring Program

**BMP Description:** The Citizen Monitoring Program will collect information on the condition of water bodies and wetlands in the City through volunteer participation and coordinated efforts with the MCWD. The city will encourage participation in this program by providing educational awareness through the website, newsletter or other available media.

**Measurable Goals:**

- Number of volunteers
- Number of lakes and ponds monitored

**Timeline / Implementation Schedule:**

- 2006 – Review/revise model program; solicit volunteers
- 2007 - Finalize and implement the program
- 2007-2011 - Continue monitoring; revise the program as necessary

**Specific Components & Notes (optional):**

- Report from volunteers

**Responsible Party**

Name: City Engineer

Title: City Engineer

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Responsible Department**

Dept. or Org.: Engineering

Dept. Head: Michael Kelly, Jr.

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Educational components related to this BMP (description or number – optional):**

Audience: General Public

Educational Goal: To provide public participation in water quality monitoring and increase public knowledge and awareness of impacts to local water bodies.

Activities: See BMP Description above

Implementation Plans: See Timeline/Implementation Schedule above

Performance Measures: See Measurable Goals above

# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 2-7

## Minimum Control Measures Addressed by This BMP

<input checked="" type="checkbox"/>	Public education & outreach	<input checked="" type="checkbox"/>	Construction site runoff controls
<input checked="" type="checkbox"/>	Public participation & involvement	<input type="checkbox"/>	Post-construction stormwater management
<input checked="" type="checkbox"/>	Illicit discharge detection & elimination	<input type="checkbox"/>	Pollution prevention/Good housekeeping

<b>BMP Title:</b> Planning Commission	
<b>BMP Description:</b> The City has established a planning commission to review development and redevelopment within the community. This commission allows for public participation during decision making and recommendations to council regarding site design and other rules established to continue orderly growth and redevelopment.	
<b>Measurable Goals:</b>	<b>Timeline / Implementation Schedule:</b>
<ul style="list-style-type: none"> <li>• Number of citizen participants on commission</li> <li>• Number of plans reviewed by commission</li> </ul>	<ul style="list-style-type: none"> <li>• 2006-2011: Ongoing</li> </ul>
<b>Specific Components &amp; Notes (optional):</b>	
<b>Responsible Party</b>	<b>Responsible Department</b>
Name: City Engineer	Dept. or Org.: Engineering
Title: City Engineer	Dept. Head: Michael Kelly, Jr.
Phone: 952-404-5300	Phone: 952-404-5300
E-mail: mike@wayzata.org	E-mail: mike@wayzata.org
<b>Educational components related to this BMP (description or number – optional):</b>	
Audience: General Public	
Educational Goal: Provide general public the opportunity to participate in local planning and decision making process.	
Activities: See BMP Description above	
Implementation Plans: See Timeline/Implementation Schedule above	
Performance Measures: See Measurable Goals above	

## BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 2-8

### Minimum Control Measures Addressed by This BMP

<input checked="" type="checkbox"/>	Public education & outreach	<input checked="" type="checkbox"/>	Construction site runoff controls
<input checked="" type="checkbox"/>	Public participation & involvement	<input checked="" type="checkbox"/>	Post-construction stormwater management
<input checked="" type="checkbox"/>	Illicit discharge detection & elimination	<input checked="" type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** Public Stormwater Comment Hotline

**BMP Description:** The public can report observed potential or actual illicit discharges, illicit connections, illegal dumping or construction site runoff control violations to the City Stormwater Comment Hotline. The City will document all comments and respond as appropriate.

**Measurable Goals:**

- Completed hotline program
- Number/type of calls received

**Timeline / Implementation Schedule:**

- 2006 - Develop hotline program
- 2007 - Publicize hotline phone number and effective date (Year 5)
- 2008-2011 - Document calls received and responses to calls

**Specific Components & Notes (optional):**

**Responsible Party**

Name: City Engineer

Title: City Engineer

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Responsible Department**

Dept. or Org.: Engineering

Dept. Head: Michael Kelly, Jr.

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Educational components related to this BMP (description or number – optional):**

Audience: General Public

Educational Goal: Provide general public awareness of stormwater hotline and receive comments to improve the overall stormwater program and compliance with ordinances.

Activities: See BMP Description above

Implementation Plans: See Timeline/Implementation Schedule above

Performance Measures: See Measurable Goals above



# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 3-1

## Minimum Control Measures Addressed by This BMP

<input type="checkbox"/>	Public education & outreach	<input checked="" type="checkbox"/>	Construction site runoff controls
<input type="checkbox"/>	Public participation & involvement	<input type="checkbox"/>	Post-construction stormwater management
<input checked="" type="checkbox"/>	Illicit discharge detection & elimination	<input type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** Nuisance / Illegal Dumping Ordinance

**BMP Description:** An ordinance stating illegal dumping of trash or debris on public or private property is currently included in the City Code of Ordinances. In 2007, the City will review the existing ordinance and determine if additional requirements should be included. Based on that review, the City will adopt a revised ordinance by December 2008.

**Measurable Goals:**

- Adoption of revised ordinance (y/n)

**Timeline / Implementation Schedule:**

- 12/2007 - Review/revise the ordinance
- 12/2008 - Adopt revised ordinance

**Specific Components & Notes (optional):**

**Responsible Party**

Name: City Engineer

Title: City Engineer

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Responsible Department**

Dept. or Org.: Engineering

Dept. Head: Michael Kelly, Jr.

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Educational components related to this BMP (description or number – optional):**

# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 3-2

## Minimum Control Measures Addressed by This BMP

<input type="checkbox"/>	Public education & outreach	<input type="checkbox"/>	Construction site runoff controls
<input type="checkbox"/>	Public participation & involvement	<input type="checkbox"/>	Post-construction stormwater management
<input checked="" type="checkbox"/>	Illicit discharge detection & elimination	<input type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** Illicit Discharge and Illicit Connection Ordinance/Regulatory Mechanism

**BMP Description:** Develop a new or update an existing ordinance or regulatory mechanism to prevent illicit discharges and illicit connections into the stormsewer system including enforcement and penalty procedures. The city currently has a draft ordinance developed to address illicit discharges and illicit connections to the stormsewer system and plans to get approval from the Council by December 2008.

**Measurable Goals:**

- Review existing illicit discharge prohibitions including enforcement and penalties
- Develop a new or updated regulatory mechanism

**Timeline / Implementation Schedule:**

- 2006 - Review existing ordinance or other regulatory mechanisms
- 12/2008 - Develop a new or updated regulatory mechanism or ordinance regarding illicit discharges

**Specific Components & Notes (optional):**

**Responsible Party**

Name: City Engineer

Title: City Engineer

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Responsible Department**

Dept. or Org.: Engineering

Dept. Head: Michael Kelly, Jr.

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Educational components related to this BMP (description or number – optional):**

# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 3-3

## Minimum Control Measures Addressed by This BMP

<input type="checkbox"/>	Public education & outreach	<input type="checkbox"/>	Construction site runoff controls
<input type="checkbox"/>	Public participation & involvement	<input checked="" type="checkbox"/>	Post-construction stormwater management
<input checked="" type="checkbox"/>	Illicit discharge detection & elimination	<input type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** Storm Sewer Map

**BMP Description:** The current storm sewer map is located in CADD files and record plans. The City will complement the CADD files with development into a GIS platform. The City plans to have a complete stormsewer map by 2008 and will revise it annually thereafter to reflect changes to the system from development, redevelopment, or inspections. At a minimum, the specific components below will be identified on the final map.

**Measurable Goals:**

- Completed stormsewer map (y/n)

**Timeline / Implementation Schedule:**

- 2008 - Complete stormsewer map\
- 2009-2011: Annual update map as needed

**Specific Components & Notes (optional):**

- Ponds, streams, lakes and wetlands that are part of the City's system
- Structural pollution control devices (grit chambers, separators, etc.) that are part of the City'
- Pipes and conveyances in the system as a goal, but at a minimum, those pipes that are 24" or larger
- Outfalls, including discharges from the City's system into other MS4s, or waters and wetlands that are not part of the City's system; structures that discharge stormwater directly into groundwater; overland discharge pointes and all other points of discharge from the City's system that are outlets, but not diffuse flow areas.

**Responsible Party**

Name: City Engineer

Title: City Engineer

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Responsible Department**

Dept. or Org.: Engineering

Dept. Head: Michael Kelly, Jr.

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Educational components related to this BMP (description or number – optional):**

# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 3-4

## Minimum Control Measures Addressed by This BMP

<input type="checkbox"/>	Public education & outreach	<input type="checkbox"/>	Construction site runoff controls
<input type="checkbox"/>	Public participation & involvement	<input type="checkbox"/>	Post-construction stormwater management
<input checked="" type="checkbox"/>	Illicit discharge detection & elimination	<input type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** Septic System Maintenance Program

**BMP Description:** The program requires maintenance and inspection of septic systems to minimize the amount of failing septic systems which have the possibility to discharge sewage into receiving waters. This program is coordinated with Hennepin County and the City provides educational material and appropriate enforcement based on reports from the County. The City also has an ordinance (Chapter 405) that requires proper installation and permitting for all new septic systems.

**Measurable Goals:**

- Number of septic systems inspected
- Number of reported system failures
- Adoption of revised ordinance

**Timeline / Implementation Schedule:**

- 2007 - Review and revise ordinance
- 2008 - Adopt and implement ordinance
- 2006-2011 - Implement and document program

**Specific Components & Notes (optional):**

- Coordinate with Hennepin County program

**Responsible Party**

Name: Building Official

Title: Building Official

Phone: 952-404-5300

E-mail: don@wayzata.org

**Responsible Department**

Dept. or Org.: Building Inspections

Dept. Head: Don Johaneson

Phone: 952-404-5300

E-mail: don@wayzata.org

**Educational components related to this BMP (description or number – optional):**

# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 3-5

## Minimum Control Measures Addressed by This BMP

<input type="checkbox"/>	Public education & outreach	<input type="checkbox"/>	Construction site runoff controls
<input type="checkbox"/>	Public participation & involvement	<input type="checkbox"/>	Post-construction stormwater management
<input checked="" type="checkbox"/>	Illicit discharge detection & elimination	<input checked="" type="checkbox"/>	Pollution prevention/Good housekeeping

<b>BMP Title:</b> Sanitary Sewer Overflow Program	
<b>BMP Description:</b> The sanitary sewer system is inspected, cleaned and maintained to evaluate the integrity of the system and to prevent overflows.	
<b>Measurable Goals:</b> <ul style="list-style-type: none"> <li>• Length of sanitary sewer cleaned</li> <li>• Length of sanitary sewer pipe upgraded/replaced</li> <li>• Length of sanitary sewer video logged, existing and new/redevelopment</li> <li>• Number of observed overflows</li> </ul>	<b>Timeline / Implementation Schedule:</b> <ul style="list-style-type: none"> <li>• 2006-2011 - Implementation and documentation</li> </ul>
<b>Specific Components &amp; Notes (optional):</b>	
<b>Responsible Party</b>	<b>Responsible Department</b>
Name: Director of Public Service	Dept. or Org.: Public Works
Title: Director of Public Service	Dept. Head: Dave Dudinsky
Phone: 952-404-5360	Phone: 952-404-5360
E-mail: daved@wayzata.org	E-mail: daved@wayzata.org
<b>Educational components related to this BMP (description or number – optional):</b>	

## BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 4-1

### **Minimum Control Measures Addressed by This BMP**

<input checked="" type="checkbox"/>	Public education & outreach	<input checked="" type="checkbox"/>	Construction site runoff controls
<input checked="" type="checkbox"/>	Public participation & involvement	<input checked="" type="checkbox"/>	Post-construction stormwater management
<input checked="" type="checkbox"/>	Illicit discharge detection & elimination	<input checked="" type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** Municipal ESC Program

**BMP Description:** A comprehensive program to minimize the potential impact to surface waters from construction site runoff. The City will develop an overall strategic policy for controlling erosion and sediment control from development or redevelopment equal to or greater than one acre of land disturbance.

**Measurable Goals:**

- Completion of draft ESC Program
- Review and approval of program by staff and Council
- Adoption and implementation of program

**Timeline / Implementation Schedule:**

- 2006 - Adopt and initiate revised program
- 2007-2011 - Continued implementation of ESC Program

**Specific Components & Notes (optional):**

**Responsible Party**

Name: Building Official

Title: Building Official

Phone: 952-404-5300

E-mail: don@wayzata.org

**Responsible Department**

Dept. or Org.: Building Inspections

Dept. Head: Don Johaneson

Phone: 952-404-5300

E-mail: don@wayzata.org

**Educational components related to this BMP (description or number – optional):**

Inform contractors of ESC Program requirements and provide compliance training.

# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 4-2

## Minimum Control Measures Addressed by This BMP

<input type="checkbox"/>	Public education & outreach	<input checked="" type="checkbox"/>	Construction site runoff controls
<input type="checkbox"/>	Public participation & involvement	<input type="checkbox"/>	Post-construction stormwater management
<input checked="" type="checkbox"/>	Illicit discharge detection & elimination	<input type="checkbox"/>	Pollution prevention/Good housekeeping

<b>BMP Title:</b> Land Disturbance Ordinance	
<b>BMP Description:</b> The City has developed an ordinance (Chapter 54: Land Disturbance Ordinance) that describes the City’s erosion and sediment control requirements, inspection routine, enforcement, minimum best management practices, and possible actions for non-compliance.	
<b>Measurable Goals:</b>	<b>Timeline / Implementation Schedule:</b>
<ul style="list-style-type: none"> <li>Adoption of ESC ordinance (y/n)</li> </ul>	<ul style="list-style-type: none"> <li>2006-2011: Ordinance completed</li> </ul>
<b>Specific Components &amp; Notes (optional):</b>	
<ul style="list-style-type: none"> <li>ESC plan review, inspection, and enforcement description</li> <li>MPCA Storm Water Permit</li> <li>Tree protection plan</li> <li>Tree preservation plan</li> <li>Minimum BMP requirements</li> <li>Seeding requirements</li> </ul>	
<b>Responsible Party</b>	<b>Responsible Department</b>
Name: Building Official	Dept. or Org.: Building Inspections
Title: Building Official	Dept. Head: Don Johaneson
Phone: 952-404-5300	Phone: 952-404-5300
E-mail: don@wayzata.org	E-mail: don@wayzata.org
<b>Educational components related to this BMP (description or number – optional):</b>	
Inform contractors of ordinance requirements and location of ordinance (City website or City Hall).	

# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 4-3

## Minimum Control Measures Addressed by This BMP

<input type="checkbox"/>	Public education & outreach	<input checked="" type="checkbox"/>	Construction site runoff controls
<input type="checkbox"/>	Public participation & involvement	<input type="checkbox"/>	Post-construction stormwater management
<input type="checkbox"/>	Illicit discharge detection & elimination	<input type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** Minimum Erosion and Sediment Control (ESC) BMPs

**BMP Description:** The City has developed a list of minimum erosion and sediment control BMPs to meet the requirements of ordinance language. The BMPs are reviewed by the City during the plan review process and discussed at pre-construction meetings.

**Measurable Goals:**

- Completed list of minimum ESC BMPs
- Number of contractors provided with ESC BMP list

**Timeline / Implementation Schedule:**

- 2006-2011 - Distribute and discuss the list of minimum ESC BMPs with contractors during the grading pre-construction meeting
- 2006-2011 - Update the list and distribute

**Specific Components & Notes (optional):**

- Erosion control silt fence
- Rock construction entrance
- Inlet protection device
- Tree protection fence
- Street sweeping

**Responsible Party**

Name: Building Official

Title: Building Official

Phone: 952-404-5300

E-mail: don@wayzata.org

**Responsible Department**

Dept. or Org.: Building Inspections

Dept. Head: Don Johaneson

Phone: 952-404-5300

E-mail: don@wayzata.org

**Educational components related to this BMP (description or number – optional):**

Grading pre-construction meeting educate the contractor and reiterate the minimum requirements for construction within the City.



## BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 4-4

### Minimum Control Measures Addressed by This BMP

<input type="checkbox"/>	Public education & outreach	<input checked="" type="checkbox"/>	Construction site runoff controls
<input type="checkbox"/>	Public participation & involvement	<input type="checkbox"/>	Post-construction stormwater management
<input type="checkbox"/>	Illicit discharge detection & elimination	<input type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** Construction Site Waste Control

**BMP Description:** The City has reviewed the current construction site maintenance standards and inspection programs and determined procedures and requirements to control construction site waste.

**Measurable Goals:**

- Review existing and available construction site management guidelines
- Update, as necessary, regulatory mechanisms that can incorporate construction site waste control
- Combine construction site waste control inspection as an element of erosion and sediment control inspection program

**Timeline / Implementation Schedule:**

- 2006-2011 - Document any changes to the site inspection checklist or other guidelines incorporating waste control issues

**Specific Components & Notes (optional):**

**Responsible Party**

Name: Building Official

Title: Building Official

Phone: 952-404-5300

E-mail: don@wayzata.org

**Responsible Department**

Dept. or Org.: Building Inspections

Dept. Head: Don Johaneson

Phone: 952-404-5300

E-mail: don@wayzata.org

**Educational components related to this BMP (description or number – optional):**

# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 4-5

## Minimum Control Measures Addressed by This BMP

<input type="checkbox"/>	Public education & outreach	<input checked="" type="checkbox"/>	Construction site runoff controls
<input type="checkbox"/>	Public participation & involvement	<input type="checkbox"/>	Post-construction stormwater management
<input type="checkbox"/>	Illicit discharge detection & elimination	<input type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** ESC Plan Review Process

**BMP Description:** The City requires an Erosion and Sediment Control (ESC) Plan to be completed, reviewed and approved by the City prior to approving plans for construction. The process describes minimum plan review times and time-frames and authority for issuing warnings and stop work notices.

**Measurable Goals:**

- Number of plans reviewed
- Number of notices (to applicant) of required revisions
- Completed revision of review process

**Timeline / Implementation Schedule:**

- 2006-2011 - Complete plan reviews
- 2006-2011 - Revise/update review process as needed

**Specific Components & Notes (optional):**

**Responsible Party**

Name: Building Official

Title: Building Official

Phone: 952-404-5300

E-mail: don@wayzata.org

**Responsible Department**

Dept. or Org.: Building Inspections

Dept. Head: Don Johaneson

Phone: 952-404-5300

E-mail: don@wayzata.org

**Educational components related to this BMP (description or number – optional):**

# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 4-6

## Minimum Control Measures Addressed by This BMP

<input type="checkbox"/>	Public education & outreach	<input checked="" type="checkbox"/>	Construction site runoff controls
<input type="checkbox"/>	Public participation & involvement	<input type="checkbox"/>	Post-construction stormwater management
<input type="checkbox"/>	Illicit discharge detection & elimination	<input type="checkbox"/>	Pollution prevention/Good housekeeping

<b><u>BMP Title:</u></b> Pre-construction Meeting	
<b><u>BMP Description:</u></b> A meeting held prior to commencement of construction activities to, in part, discuss minimum ESC BMPs.	
<b><u>Measurable Goals:</u></b>	<b><u>Timeline / Implementation Schedule:</u></b>
<ul style="list-style-type: none"> <li>• Number of meetings held</li> <li>• Number of attendees</li> <li>• Number of topics discussed</li> </ul>	<ul style="list-style-type: none"> <li>• Current and ongoing</li> </ul>
<b><u>Specific Components &amp; Notes (optional):</u></b>	
<b><u>Responsible Party</u></b>	<b><u>Responsible Department</u></b>
Name: Building Official	Dept. or Org.: Building Inspections
Title: Building Official	Dept. Head: Don Johaneson
Phone: 952-404-5300	Phone: 952-404-5300
E-mail: don@wayzata.org	E-mail: don@wayzata.org
<b><u>Educational components related to this BMP (description or number – optional):</u></b>	
Audience: Contractors and Developers	
Educational Goal: Inform contractors of ESC minimum requirements and revised ordinance as necessary.	
Activities: See BMP Description above	
Implementation Plans: See Timeline/Implementation Schedule above	
Performance Measures: See Measurable Goals above	

# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 4-7

## Minimum Control Measures Addressed by This BMP

<input type="checkbox"/>	Public education & outreach	<input checked="" type="checkbox"/>	Construction site runoff controls
<input type="checkbox"/>	Public participation & involvement	<input type="checkbox"/>	Post-construction stormwater management
<input type="checkbox"/>	Illicit discharge detection & elimination	<input type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** Erosion and Sediment Control (ESC) Inspection and Enforcement

**BMP Description:** The City conducts ESC inspection on active projects which require a land disturbing permit. Procedures for enforcement include a warning letter, stop inspection letter and financial security to ensure proper installation and maintenance. Inspections are typically conducted prior to construction, monthly, and prior to project completion.

**Measurable Goals:**

- number of inspections
- number of warnings issued
- number of stop work orders issued
- number of times financial surety withheld

**Timeline / Implementation Schedule:**

- Ongoing - Site inspection and enforcement
- 2006-2011: Review and revise program as needed.

**Specific Components & Notes (optional):**

- Inspection schedule
- Warning letter
- Stop work order
- Financial surety

**Responsible Party**

Name: Building Official

Title: Building Official

Phone: 952-404-5300

E-mail: don@wayzata.org

**Responsible Department**

Dept. or Org.: Building Inspections

Dept. Head: Don Johaneson

Phone: 952-404-5300

E-mail: don@wayzata.org

**Educational components related to this BMP (description or number – optional):**

# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 5-1

## Minimum Control Measures Addressed by This BMP

<input type="checkbox"/>	Public education & outreach	<input type="checkbox"/>	Construction site runoff controls
<input type="checkbox"/>	Public participation & involvement	<input checked="" type="checkbox"/>	Post-construction stormwater management
<input checked="" type="checkbox"/>	Illicit discharge detection & elimination	<input type="checkbox"/>	Pollution prevention/Good housekeeping

<b><u>BMP Title:</u></b> Zoning Ordinance	
<b><u>BMP Description:</u></b> A zoning ordinance to regulate land use, describe planning requirements and establish design standards according to the City Surface Water Management Plan.	
<b><u>Measurable Goals:</u></b>	<b><u>Timeline / Implementation Schedule:</u></b>
<ul style="list-style-type: none"> <li>• Completed review of zoning ordinance</li> <li>• Adoption of revised ordinance</li> </ul>	<ul style="list-style-type: none"> <li>• 2007 - Complete review of ordinance</li> <li>• 2008 - Adopt revised ordinance if determined from necessary from review</li> <li>• 2009-2011 – Continue implementation of ordinance</li> </ul>
<b><u>Specific Components &amp; Notes (optional):</u></b>	
<b><u>Responsible Party</u></b>	<b><u>Responsible Department</u></b>
Name: City Planner	Dept. or Org.: Planning
Title: City Planner	Dept. Head: Loren Gordon
Phone: 952-404-5300	Phone: 952-404-5300
E-mail: loren@wayzata.org	E-mail: loren@wayzata.org
<b><u>Educational components related to this BMP (description or number – optional):</u></b>	
Ordinance available on the City website or at City Hall.	

# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 5-2

## Minimum Control Measures Addressed by This BMP

<input type="checkbox"/>	Public education & outreach	<input checked="" type="checkbox"/>	Construction site runoff controls
<input type="checkbox"/>	Public participation & involvement	<input checked="" type="checkbox"/>	Post-construction stormwater management
<input type="checkbox"/>	Illicit discharge detection & elimination	<input type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** Plan Review Procedures

**BMP Description:** Plan review procedures are identified in City ordinances. The plan review procedures identify required submittals, review period, permit requirements, design standards, and approvals. This procedure is used to maintain compliance with the post-construction runoff control requirements of the Surface Water Management Plan (SWMP). Also, this process includes procedures to assure coordination with appropriate agencies and to evaluate discharges which may adversely affect properties listed or eligible for listing in the National Register of Historic Places or affecting known or discovered archeological sites; or discharges whose direct, indirect, interrelated, interconnected, or independent impacts may jeopardize a listed endangered or threatened species or adversely modify a designated critical habitat.

**Measurable Goals:**

- Completed development of plan review checklist
- Number of plans reviewed

**Timeline / Implementation Schedule:**

- 2006-2007: Develop standard plan review checklist for development or redevelopment
- 2008-2011: Implement and document plan review checklist

**Specific Components & Notes (optional):**

**Responsible Party**

Name: City Planner  
 Title: City Planner  
 Phone: 952-404-5300  
 E-mail: loren@wayzata.org

**Responsible Department**

Dept. or Org.: Planning  
 Dept. Head: Loren Gordon  
 Phone: 952-404-5300  
 E-mail: loren@wayzata.org

**Educational components related to this BMP (description or number – optional):**

# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 5-3

## Minimum Control Measures Addressed by This BMP

<input checked="" type="checkbox"/>	Public education & outreach	<input checked="" type="checkbox"/>	Construction site runoff controls
<input checked="" type="checkbox"/>	Public participation & involvement	<input checked="" type="checkbox"/>	Post-construction stormwater management
<input checked="" type="checkbox"/>	Illicit discharge detection & elimination	<input checked="" type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** Surface Water Management Plan (SWMP)

**BMP Description:** A comprehensive plan developed to manage the City's surface waters. The City SWMP has been approved by the MCWD in late 2001. The goal of SWMP is to protect and improve water quality within the City's high priority lakes, ponds and wetlands and to deliver the best quality runoff practicable to Lake Minnetonka. In addition, the SWMP contains information on nonstructural BMPs such as ordinance revisions, overlay districts, public education, and street sweeping. The City plans to update the existing SWMP to reflect recent changes in industry standards and agency requirements.

**Measurable Goals:**

- Track implementation of SWMP recommendations
- Updated SWMP (y/n)

**Timeline / Implementation Schedule:**

- Current and ongoing - Reference to the SWMP
- Current and ongoing - Implementation of SWMP recommendations
- 2009 – Complete updates to SWMP and MCWD approval

**Specific Components & Notes (optional):**

SWMP Components

- Physical Environment Inventory
- Goals and Policies
- System Layout and Inventory
- Surface Water System Analysis and Recommendations
- System Management/Improvement Program and Financing Analysis
- Education
- Maintenance
- Summary and Recommendations
- Maps and Figures

**Responsible Party**

Name: City Engineer

Title: City Engineer

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Responsible Department**

Dept. or Org.: Engineering

Dept. Head: Michael Kelly, Jr.

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Educational components related to this BMP (description or number – optional):**

## BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 5-4

### Minimum Control Measures Addressed by This BMP

<input checked="" type="checkbox"/>	Public education & outreach	<input checked="" type="checkbox"/>	Construction site runoff controls
<input checked="" type="checkbox"/>	Public participation & involvement	<input checked="" type="checkbox"/>	Post-construction stormwater management
<input type="checkbox"/>	Illicit discharge detection & elimination	<input type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** Buffer Zone Requirements

**BMP Description:** A required perimeter area surrounding water bodies maintained to protect water quality. The City follows the minimum requirements outlined by the MCWD.

**Measurable Goals:**

- Review current buffer requirements and compare to County and/or State standards and guidelines
- Make appropriate revisions

**Timeline / Implementation Schedule:**

- 2006 - Review current buffer requirements and compare to County and/or State standards and guidelines
- 2007 - Make appropriate revisions
- 2008 - Implement revised buffer zone requirements

**Specific Components & Notes (optional):**

**Responsible Party**

Name: City Engineer

Title: City Engineer

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Responsible Department**

Dept. or Org.: Engineering

Dept. Head: Michael Kelly, Jr.

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Educational components related to this BMP (description or number – optional):**



# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 5-5

## Minimum Control Measures Addressed by This BMP

<input checked="" type="checkbox"/>	Public education & outreach	<input type="checkbox"/>	Construction site runoff controls
<input checked="" type="checkbox"/>	Public participation & involvement	<input checked="" type="checkbox"/>	Post-construction stormwater management
<input type="checkbox"/>	Illicit discharge detection & elimination	<input checked="" type="checkbox"/>	Pollution prevention/Good housekeeping

<b><u>BMP Title:</u></b> Infiltration	
<b><u>BMP Description:</u></b> A structural BMP, such as a rain garden, is used to facilitate natural infiltration of stormwater that has been collected to control post construction runoff. The City will evaluate projects and implement appropriate infiltration BMPs as appropriate for the project.	
<b><u>Measurable Goals:</u></b>	<b><u>Timeline / Implementation Schedule:</u></b>
<ul style="list-style-type: none"> <li>Number of infiltration BMPs installed</li> </ul>	<ul style="list-style-type: none"> <li>Current and ongoing</li> </ul>
<b><u>Specific Components &amp; Notes (optional):</u></b>	
<b><u>Responsible Party</u></b>	<b><u>Responsible Department</u></b>
Name: City Engineer	Dept. or Org.: Engineering
Title: City Engineer	Dept. Head: Michael Kelly, Jr.
Phone: 952-404-5300	Phone: 952-404-5300
E-mail: mike@wayzata.org	E-mail: mike@wayzata.org
<b><u>Educational components related to this BMP (description or number – optional):</u></b>	

# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 5-6

## Minimum Control Measures Addressed by This BMP

<input type="checkbox"/>	Public education & outreach	<input type="checkbox"/>	Construction site runoff controls
<input type="checkbox"/>	Public participation & involvement	<input checked="" type="checkbox"/>	Post-construction stormwater management
<input type="checkbox"/>	Illicit discharge detection & elimination	<input type="checkbox"/>	Pollution prevention/Good housekeeping

<b>BMP Title:</b> Detention/Retention	
<b>BMP Description:</b> The use of stormwater ponds to control post-construction stormwater runoff. The City will evaluate projects and implement appropriate detention/retention BMPs as appropriate for the project.	
<b>Measurable Goals:</b>	<b>Timeline / Implementation Schedule:</b>
<ul style="list-style-type: none"> <li>Number of detention/retention BMPs installed</li> </ul>	<ul style="list-style-type: none"> <li>Current and ongoing</li> </ul>
<b>Specific Components &amp; Notes (optional):</b>	
<b>Responsible Party</b>	<b>Responsible Department</b>
Name: City Engineer	Dept. or Org.: Engineering
Title: City Engineer	Dept. Head: Michael Kelly, Jr.
Phone: 952-404-5300	Phone: 952-404-5300
E-mail: mike@wayzata.org	E-mail: mike@wayzata.org
<b>Educational components related to this BMP (description or number – optional):</b>	

## BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 5-7

### Minimum Control Measures Addressed by This BMP

<input checked="" type="checkbox"/>	Public education & outreach	<input type="checkbox"/>	Construction site runoff controls
<input checked="" type="checkbox"/>	Public participation & involvement	<input checked="" type="checkbox"/>	Post-construction stormwater management
<input type="checkbox"/>	Illicit discharge detection & elimination	<input type="checkbox"/>	Pollution prevention/Good housekeeping

<b><u>BMP Title:</u></b> Swirl Concentrators	
<b><u>BMP Description:</u></b> The use of swirl concentrators to minimize sediment and pollution loads in post-construction stormwater runoff. The City will evaluate projects and implement appropriate swirl concentrators as appropriate for the project.	
<b><u>Measurable Goals:</u></b>	<b><u>Timeline / Implementation Schedule:</u></b>
<ul style="list-style-type: none"> <li>Number of swirl concentrators installed</li> </ul>	<ul style="list-style-type: none"> <li>Current and ongoing</li> </ul>
<b><u>Specific Components &amp; Notes (optional):</u></b>	
<ul style="list-style-type: none"> <li>V2B1 installations</li> </ul>	
<b><u>Responsible Party</u></b>	<b><u>Responsible Department</u></b>
Name: City Engineer	Dept. or Org.: Engineering
Title: City Engineer	Dept. Head: Michael Kelly, Jr.
Phone: 952-404-5300	Phone: 952-404-5300
E-mail: mike@wayzata.org	E-mail: mike@wayzata.org
<b><u>Educational components related to this BMP (description or number – optional):</u></b>	

## BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 5-8

### Minimum Control Measures Addressed by This BMP

<input type="checkbox"/>	Public education & outreach	<input checked="" type="checkbox"/>	Construction site runoff controls
<input type="checkbox"/>	Public participation & involvement	<input checked="" type="checkbox"/>	Post-construction stormwater management
<input type="checkbox"/>	Illicit discharge detection & elimination	<input type="checkbox"/>	Pollution prevention/Good housekeeping

<b><u>BMP Title:</u></b> Sump Manholes and Sump Catchbasins	
<b><u>BMP Description:</u></b> The use of sump manholes and sump catch basins to collect sediment and debris from both construction and post-construction storm water runoff. The City will evaluate projects and implement appropriate sump manholes and sump catchbasins as appropriate for the project.	
<b><u>Measurable Goals:</u></b>	<b><u>Timeline / Implementation Schedule:</u></b>
<ul style="list-style-type: none"> <li>Number of sump manholes and sump catch basins installed</li> </ul>	<ul style="list-style-type: none"> <li>Current and ongoing</li> </ul>
<b><u>Specific Components &amp; Notes (optional):</u></b>	
<b><u>Responsible Party</u></b>	<b><u>Responsible Department</u></b>
Name: City Engineer	Dept. or Org.: Engineering
Title: City Engineer	Dept. Head: Michael Kelly, Jr.
Phone: 952-404-5300	Phone: 952-404-5300
E-mail: mike@wayzata.org	E-mail: mike@wayzata.org
<b><u>Educational components related to this BMP (description or number – optional):</u></b>	

# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 5-9

## Minimum Control Measures Addressed by This BMP

<input checked="" type="checkbox"/>	Public education & outreach	<input checked="" type="checkbox"/>	Construction site runoff controls
<input checked="" type="checkbox"/>	Public participation & involvement	<input checked="" type="checkbox"/>	Post-construction stormwater management
<input checked="" type="checkbox"/>	Illicit discharge detection & elimination	<input type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** Post-Construction Maintenance Ordinance/Regulatory Mechanism

**BMP Description:** An ordinance or regulatory mechanism requiring inspection and maintenance of a developments stormwater management system post construction and long-term operation and maintenance of the stormsewer system. The City has reviewed the existing ordinance, compared and contrasted with other cities and state guidelines and will make adjustments to the ordinance or regulatory mechanism in 2006.

For public infrastructure, the City has a stormwater utility. The City charges property owners a fee based on a Residential Equivalent Factor (REF). The REF is the ratio of the average discharge rate generated by one acre of a land use to the discharge rate generated by one acre of typical single family residential land, during a standard ten year, one-half hour, rainfall event. Fees are charged monthly along with water and sewer. Fees generated are used to fund Storm Water Capital Improvement projects and maintenance of the storm water system.

**Measurable Goals:**

- Adoption of revised ordinance/regulatory mechanism

**Timeline / Implementation Schedule:**

- 2006 - Revise existing ordinance/regulatory mechanism
- 2007 - Adopt the revised ordinance/regulatory mechanism

**Specific Components & Notes (optional):**

- As-built drawings
- Inspection
- Right-of-entry permits
- Maintenance
- Financial Surety
- Developers agreements

**Responsible Party**

Name: City Engineer  
 Title: City Engineer  
 Phone: 952-404-5300  
 E-mail: mike@wayzata.org

**Responsible Department**

Dept. or Org.: Engineering  
 Dept. Head: Michael Kelly, Jr.  
 Phone: 952-404-5300  
 E-mail: mike@wayzata.org

**Educational components related to this BMP (description or number – optional):**

# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 6-1

## Minimum Control Measures Addressed by This BMP

<input checked="" type="checkbox"/>	Public education & outreach	<input checked="" type="checkbox"/>	Construction site runoff controls
<input checked="" type="checkbox"/>	Public participation & involvement	<input checked="" type="checkbox"/>	Post-construction stormwater management
<input checked="" type="checkbox"/>	Illicit discharge detection & elimination	<input checked="" type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** Recordkeeping and Reporting

**BMP Description:** The City will submit an annual report according to the requirements outlined in the current MS4 permit and retain all records required for at least three (3) years beyond the term of the permit. All records, including the approved SWPPP, will be available to the public at reasonable times during regular business hours after a 7 day advance notice and reasonable charge for requested copies. The City will conduct record keeping by using commercially available software, electronic spreadsheets, or hard copy record to track, record and report on SWPPP activities.

**Measurable Goals:**

- Develop record keeping procedure
- Implement record keeping procedure

**Timeline / Implementation Schedule:**

- 2006: Develop record keeping procedure
- 2007-2011: Implement record keeping procedure

**Specific Components & Notes (optional):**

**Responsible Party**

Name: City Engineer

Title: City Engineer

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Responsible Department**

Dept. or Org.: Engineering

Dept. Head: Michael Kelly, Jr.

Phone: 952-404-5300

E-mail: mike@wayzata.org

**Educational components related to this BMP (description or number – optional):**

## BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 6-2

### Minimum Control Measures Addressed by This BMP

<input type="checkbox"/>	Public education & outreach	<input checked="" type="checkbox"/>	Construction site runoff controls
<input type="checkbox"/>	Public participation & involvement	<input checked="" type="checkbox"/>	Post-construction stormwater management
<input checked="" type="checkbox"/>	Illicit discharge detection & elimination	<input checked="" type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** Pond and Outfall Inspection and Cleaning Program

**BMP Description:** A program developed to outline inspection and cleaning schedules and procedures. The City has developed an inspection schedule that, at a minimum, inspects 20% of the known MS4 outfalls, sediment basins, and ponds within the City. Cleaning procedures will be based on inspection reports. Typically, repairs are conducted within the same calendar year. If the maintenance or repairs cannot be completed during the same year, a priority list is created with a proposed schedule. This list is provided in the annual report to the MPCA each year if applicable. These inspections will also check for illicit discharges or illicit connections to the storm sewer system. Appropriate enforcement actions will be taken based on existing and future adopted illicit discharge, detection, and elimination ordinance language.

**Measurable Goals:**

- Completed inspection schedule
- Number of ponds and outfalls inspected
- Number of ponds and outfalls requiring maintenance or cleaning.
- Number of illicit discharges/connections identified
- Number of enforcement actions taken for illicit discharges/connections

**Timeline / Implementation Schedule:**

- 2006-2011 - Inspect 20% of ponds / outfalls annually
- 2006-2011 - Perform cleaning as necessary

**Specific Components & Notes (optional):**

- Inspection schedule for ponds and outfalls
- Cleaning procedures for ponds and outfalls

**Responsible Party**

Name: Director of Public Service  
 Title: Director of Public Service  
 Phone: 952-404-5360  
 E-mail: daved@wayzata.org

**Responsible Department**

Dept. or Org.: Public Works  
 Dept. Head: Dave Dudinsky  
 Phone: 952-404-5360  
 E-mail: daved@wayzata.org

**Educational components related to this BMP (description or number – optional):**

# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 6-3

## Minimum Control Measures Addressed by This BMP

<input type="checkbox"/>	Public education & outreach	<input checked="" type="checkbox"/>	Construction site runoff controls
<input type="checkbox"/>	Public participation & involvement	<input type="checkbox"/>	Post-construction stormwater management
<input checked="" type="checkbox"/>	Illicit discharge detection & elimination	<input checked="" type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** Storm Drainage System Inspection and Cleaning Program

**BMP Description:** Maintenance of the system involves inspection and cleaning of inlets, catch basins, sumps and other structural sediment collection and pollution control devices. The City will annually inspect all MS4 structural pollution control devices as required by the Permit. Typically, repairs are conducted within the same calendar year. If the maintenance or repairs cannot be completed during the same year, a priority list is created with a proposed schedule. This list is provided in the annual report to the MPCA each year if applicable. Also, the City will provide training to appropriate staff involved in the operation and maintenance of the stormsewer system. A formalized training program will be developed during the first two years of the permit cycle.

**Measurable Goals:**

- Document existing cleaning program
- Number of sediment/pollution control devices cleaned and inspected
- Revise cleaning schedule
- Number of employees trained

**Timeline / Implementation Schedule:**

- 2006-2007: Formalize training program
- 2006-2011: Continue documentation of stormwater cleaning program

**Specific Components & Notes (optional):**

- Inspection and cleaning schedule
- Revise inspection and cleaning schedule based on existing and MS4 permit implementation experience

**Responsible Party**

Name: Director of Public Service  
 Title: Director of Public Service  
 Phone: 952-404-5360  
 E-mail: daved@wayzata.org

**Responsible Department**

Dept. or Org.: Public Works  
 Dept. Head: Dave Dudinsky  
 Phone: 952-404-5360  
 E-mail: daved@wayzata.org

**Educational components related to this BMP (description or number – optional):**



# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 6-4

## Minimum Control Measures Addressed by This BMP

<input type="checkbox"/>	Public education & outreach	<input type="checkbox"/>	Construction site runoff controls
<input type="checkbox"/>	Public participation & involvement	<input type="checkbox"/>	Post-construction stormwater management
<input checked="" type="checkbox"/>	Illicit discharge detection & elimination	<input checked="" type="checkbox"/>	Pollution prevention/Good housekeeping

<b><u>BMP Title:</u></b> Hazardous Materials Training	
<b><u>BMP Description:</u></b> City Employees involved with hazardous materials receive training in proper handling, use, disposal, and spill containment procedures.	
<b><u>Measurable Goals:</u></b>	<b><u>Timeline / Implementation Schedule:</u></b>
<ul style="list-style-type: none"> <li>• Regular scheduled training</li> <li>• Number of employees receiving training</li> </ul>	<ul style="list-style-type: none"> <li>• Current and ongoing (annually)</li> </ul>
<b><u>Specific Components &amp; Notes (optional):</u></b>	
<ul style="list-style-type: none"> <li>• Training for seasonal employees</li> </ul>	
<b><u>Responsible Party</u></b>	<b><u>Responsible Department</u></b>
Name: Director of Public Service	Dept. or Org.: Public Works
Title: Director of Public Service	Dept. Head: Dave Dudinsky
Phone: 952-404-5360	Phone: 952-404-5360
E-mail: daved@wayzata.org	E-mail: daved@wayzata.org
<b><u>Educational components related to this BMP (description or number – optional):</u></b>	

# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 6-5

## Minimum Control Measures Addressed by This BMP

<input type="checkbox"/>	Public education & outreach	<input type="checkbox"/>	Construction site runoff controls
<input type="checkbox"/>	Public participation & involvement	<input type="checkbox"/>	Post-construction stormwater management
<input type="checkbox"/>	Illicit discharge detection & elimination	<input checked="" type="checkbox"/>	Pollution prevention/Good housekeeping

<b><u>BMP Title:</u></b> Street De-icing Program	
<b><u>BMP Description:</u></b> A program describing procedures and providing training for practices and issues related to street deicing. The City will continue to review and revise this program as needed to minimize the impacts from road deicing application and balance public safety concerns.	
<b><u>Measurable Goals:</u></b>	<b><u>Timeline / Implementation Schedule:</u></b>
<ul style="list-style-type: none"> <li>• Evaluation of de-icing alternatives</li> <li>• Initiation of new process (if applicable)</li> <li>• Number of staff attending training</li> <li>• Quantification of new process application</li> </ul>	<ul style="list-style-type: none"> <li>• 2006-2011: Review and revise program annually as needed</li> <li>• 2006-2011: Annual documentation of street deicing program</li> </ul>
<b><u>Specific Components &amp; Notes (optional):</u></b>	
<ul style="list-style-type: none"> <li>• Training</li> <li>• Storage</li> <li>• Application of sand/salt</li> </ul>	
<b><u>Responsible Party</u></b>	<b><u>Responsible Department</u></b>
Name: Director of Public Service	Dept. or Org.: Public Works
Title: Director of Public Service	Dept. Head: Dave Dudinsky
Phone: 952-404-5360	Phone: 952-404-5360
E-mail: daved@wayzata.org	E-mail: daved@wayzata.org
<b><u>Educational components related to this BMP (description or number – optional):</u></b>	

# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 6-6

## Minimum Control Measures Addressed by This BMP

<input type="checkbox"/>	Public education & outreach	<input type="checkbox"/>	Construction site runoff controls
<input type="checkbox"/>	Public participation & involvement	<input type="checkbox"/>	Post-construction stormwater management
<input checked="" type="checkbox"/>	Illicit discharge detection & elimination	<input checked="" type="checkbox"/>	Pollution prevention/Good housekeeping

<b><u>BMP Title:</u></b> Fertilizer Application Program	
<b><u>BMP Description:</u></b> A program describing procedures and providing training for practices and issues related to Fertilizer application. Phosphorous-free fertilizer is used by the City staff and annual training is provided to give appropriate staff awareness of stormwater impacts and proper lawn care practices.	
<b><u>Measurable Goals:</u></b>	<b><u>Timeline / Implementation Schedule:</u></b>
<ul style="list-style-type: none"> <li>• Number of employees trained</li> <li>• Amount of fertilizer applied</li> </ul>	<ul style="list-style-type: none"> <li>• 2006-2011 - Conduct annual training</li> <li>• 2006-2011 – Annually document fertilizer application program</li> </ul>
<b><u>Specific Components &amp; Notes (optional):</u></b>	
<ul style="list-style-type: none"> <li>• Phosphorous-free fertilizer</li> <li>• Training</li> <li>• Application</li> </ul>	
<b><u>Responsible Party</u></b>	<b><u>Responsible Department</u></b>
Name: Director of Public Service	Dept. or Org.: Public Works
Title: Director of Public Service	Dept. Head: Dave Dudinsky
Phone: 952-404-5360	Phone: 952-404-5360
E-mail: daved@wayzata.org	E-mail: daved@wayzata.org
<b><u>Educational components related to this BMP (description or number – optional):</u></b>	

# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 6-7

## Minimum Control Measures Addressed by This BMP

<input type="checkbox"/>	Public education & outreach	<input type="checkbox"/>	Construction site runoff controls
<input type="checkbox"/>	Public participation & involvement	<input type="checkbox"/>	Post-construction stormwater management
<input checked="" type="checkbox"/>	Illicit discharge detection & elimination	<input checked="" type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** Equipment Maintenance Program

**BMP Description:** A program providing routine scheduled maintenance and safety inspections for City vehicles. Also, an inside wash bay is used for vehicle cleaning. Annual training will be provided to give appropriate staff awareness of stormwater impacts and proper equipment maintenance practices.

### Measurable Goals:

- Completed vehicle/equipment maintenance program
- Implementation of the program
- Number of vehicles/equipment receiving maintenance (old vs. new program)
- Number of employees trained

### Timeline / Implementation Schedule:

- 2007 - Develop a vehicle maintenance and documentation program
- 2007 – Develop annual training program
- 2008-2011 - Implement the vehicle maintenance, training, and documentation program

### Specific Components & Notes (optional):

- Scheduled maintenance
- Inside wash bay
- Fleet safety checks

### Responsible Party

Name: Director of Public Service  
 Title: Director of Public Service  
 Phone: 952-404-5360  
 E-mail: daved@wayzata.org

### Responsible Department

Dept. or Org.: Public Works  
 Dept. Head: Dave Dudinsky  
 Phone: 952-404-5360  
 E-mail: daved@wayzata.org

### Educational components related to this BMP (description or number – optional):

# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 6-8

## Minimum Control Measures Addressed by This BMP

<input type="checkbox"/>	Public education & outreach	<input type="checkbox"/>	Construction site runoff controls
<input type="checkbox"/>	Public participation & involvement	<input type="checkbox"/>	Post-construction stormwater management
<input checked="" type="checkbox"/>	Illicit discharge detection & elimination	<input checked="" type="checkbox"/>	Pollution prevention/Good housekeeping

<b>BMP Title:</b> Hazardous Material Storage and Recycling Program	
<b>BMP Description:</b> A program developed to identify recyclable materials and to manage hazardous materials storage. Annual training will be provided to give appropriate staff awareness of stormwater impacts and proper hazardous material storage and recycling practices.	
<b>Measurable Goals:</b> <ul style="list-style-type: none"> <li>• Development of a hazardous materials storage and recycling program</li> <li>• Implementation of the program</li> </ul>	<b>Timeline / Implementation Schedule:</b> <ul style="list-style-type: none"> <li>• 2007 - Develop a hazardous materials storage and recycling program including annual training component</li> <li>• 2008-2011 - Implement program</li> </ul>
<b>Specific Components &amp; Notes (optional):</b>	
<b>Responsible Party</b>	<b>Responsible Department</b>
Name: Director of Public Service	Dept. or Org.: Public Works
Title: Director of Public Service	Dept. Head: Dave Dudinsky
Phone: 952-404-5360	Phone: 952-404-5360
E-mail: daved@wayzata.org	E-mail: daved@wayzata.org
<b>Educational components related to this BMP (description or number – optional):</b>	

# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 6-9

## Minimum Control Measures Addressed by This BMP

<input type="checkbox"/>	Public education & outreach	<input checked="" type="checkbox"/>	Construction site runoff controls
<input type="checkbox"/>	Public participation & involvement	<input type="checkbox"/>	Post-construction stormwater management
<input checked="" type="checkbox"/>	Illicit discharge detection & elimination	<input checked="" type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** Municipal Street Maintenance Program

**BMP Description:** The Municipal Street Maintenance Program consists of sweeping streets twice each year and on an as-needed basis. The program also includes collection of litter in the downtown business area on a daily basis.

### Measurable Goals:

- Completed street sweeping training program
- Implement of program
- Quantification of street sweeping
- Number of employees trained

### Timeline / Implementation Schedule:

- 2006-2011 – Continue development of street sweeping program
- 2006 - Implement training program

### Specific Components & Notes (optional):

#### **Responsible Party**

Name: Director of Public Service  
 Title: Director of Public Service  
 Phone: 952-404-5360  
 E-mail: daved@wayzata.org

#### **Responsible Department**

Dept. or Org.: Public Works  
 Dept. Head: Dave Dudinsky  
 Phone: 952-404-5360  
 E-mail: daved@wayzata.org

### Educational components related to this BMP (description or number – optional):

# BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 6-10

## Minimum Control Measures Addressed by This BMP

<input type="checkbox"/>	Public education & outreach	<input type="checkbox"/>	Construction site runoff controls
<input type="checkbox"/>	Public participation & involvement	<input type="checkbox"/>	Post-construction stormwater management
<input checked="" type="checkbox"/>	Illicit discharge detection & elimination	<input checked="" type="checkbox"/>	Pollution prevention/Good housekeeping

<b><u>BMP Title:</u></b> Municipal Lawn Care Program	
<b><u>BMP Description:</u></b> The Municipal Lawn Care Program describes proper procedures and practices for mowing and lawn care. The program also includes a training component.	
<b><u>Measurable Goals:</u></b>	<b><u>Timeline / Implementation Schedule:</u></b>
<ul style="list-style-type: none"> <li>• Completed lawn care program</li> <li>• Number of employees trained</li> </ul>	<ul style="list-style-type: none"> <li>• 2007 - Develop training program</li> <li>• 2008-2011 - Implement training program</li> </ul>
<b><u>Specific Components &amp; Notes (optional):</u></b>	
<b><u>Responsible Party</u></b>	<b><u>Responsible Department</u></b>
Name: Director of Public Service	Dept. or Org.: Public Works
Title: Director of Public Service	Dept. Head: Dave Dudinsky
Phone: 952-404-5360	Phone: 952-404-5360
E-mail: daved@wayzata.org	E-mail: daved@wayzata.org
<b><u>Educational components related to this BMP (description or number – optional):</u></b>	

## BMP Description Sheet

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 6-11

**Minimum Control Measures Addressed by This BMP**

<input type="checkbox"/>	Public education & outreach	<input checked="" type="checkbox"/>	Construction site runoff controls
<input type="checkbox"/>	Public participation & involvement	<input checked="" type="checkbox"/>	Post-construction stormwater management
<input checked="" type="checkbox"/>	Illicit discharge detection & elimination	<input checked="" type="checkbox"/>	Pollution prevention/Good housekeeping

<b><u>BMP Title:</u></b> Staff Continuing Ed for Stormwater Management	
<b><u>BMP Description:</u></b> Attendance at or participation in conferences, etc. related to stormwater pollution prevention.	
<b><u>Measurable Goals:</u></b>	<b><u>Timeline / Implementation Schedule:</u></b>
<ul style="list-style-type: none"> <li>• Number of staff attending</li> <li>• Number of events attended by City staff</li> <li>• Number of events in which City staff has participated</li> </ul>	<ul style="list-style-type: none"> <li>• Current and ongoing</li> </ul>
<b><u>Specific Components &amp; Notes (optional):</u></b>	
<b><u>Responsible Party</u></b>	
Name: City Engineer	<b><u>Responsible Department</u></b>
Title: City Engineer	Dept. or Org.: Engineering
Phone: 952-404-5300	Dept. Head: Michael Kelly, Jr.
E-mail: mike@wayzata.org	Phone: 952-404-5300
	E-mail: mike@wayzata.org
<b><u>Educational components related to this BMP (description or number – optional):</u></b>	



## BMP Page

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 6-12

**Minimum Control Measures Addressed by This BMP**

<input type="checkbox"/>	Public education & outreach	<input type="checkbox"/>	Construction site runoff controls
<input type="checkbox"/>	Public participation & involvement	<input type="checkbox"/>	Post-construction stormwater management
<input checked="" type="checkbox"/>	Illicit discharge detection & elimination	<input checked="" type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** Stockpile, Storage and Material Handling Program

**BMP Description:** The City will develop a procedure to identify and manage all exposed stockpiles to insure perimeter controls are in place and to prevent the offsite migration of stockpile material. Storage and material handling areas will be inspected in conjunction with the Hazardous Material Storage and Recycling Program (6-8).

**Measurable Goals:**

- Identification of exposed stockpiles, storage and material handling areas
- Number of inspections conducted

**Timeline / Implementation Schedule:**

- 2006: Determine locations stockpiles
- 2006: Implement stockpile, storage and material handling program
- 2006-2011: Conduct annual inspections and review and revise program needed

**Specific Components & Notes (optional):**

- Adopt an integrated inspection program to annually inspect stockpiles, storage and material handling areas.

**Responsible Party**

Name: Director of Public Service  
 Title: Director of Public Service  
 Phone: 952-404-5360  
 E-mail: daved@wayzata.org

**Responsible Department**

Dept. or Org.: Public Works  
 Dept. Head: Dave Dudinsky  
 Phone: 952-404-5360  
 E-mail: daved@wayzata.org

**Educational components related to this BMP (description or number – optional):**

Audience: City Employees  
 Educational goal: Prevent discharges from stockpiles, storage and material handling areas  
 Activities: See BMP Description above  
 Implementation Plans: See Timeline/Implementation Schedule above  
 Performance Measures: See Measurable Goals above

## BMP Page

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 6-13

**Minimum Control Measures Addressed by This BMP**

<input type="checkbox"/>	Public education & outreach	<input type="checkbox"/>	Construction site runoff controls
<input type="checkbox"/>	Public participation & involvement	<input checked="" type="checkbox"/>	Post-construction stormwater management
<input type="checkbox"/>	Illicit discharge detection & elimination	<input checked="" type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** Inspection Analysis and Frequency

**BMP Description:** The City will keep records of inspection results, date, antecedent weather conditions, sediment storage and capacity remaining, and any maintenance performed or recommended. After two years of inspections, if patterns of maintenance become apparent, the frequency of inspections will be adjusted to at least two (2) times annually, or more frequently as needed to prevent carry-over or washout of pollutants from the structures and maximize pollutant removal. If maintenance or sediment removal is not required as a result of both the first two annual inspections, the frequency will be reduced to once every two years.

**Measurable Goals:**

- Number inspected
- Number of inspection modifications
- Annual Report summary of inspection results

**Timeline / Implementation Schedule:**

- 2006-2011 Evaluate maintenance patterns every two years (2007, 2009, and 2011) and modify inspection frequency as required.

**Specific Components & Notes (optional):**

**Responsible Party**

Name: Director of Public Service  
 Title: Director of Public Service  
 Phone: 952-404-5360  
 E-mail: daved@wayzata.org

**Responsible Department**

Dept. or Org.: Public Works  
 Dept. Head: Dave Dudinsky  
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 E-mail: daved@wayzata.org

**Educational components related to this BMP (description or number – optional):**

## BMP Page

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 7-1

**Minimum Control Measures Addressed by This BMP**

<input type="checkbox"/>	Public education & outreach	<input type="checkbox"/>	Construction site runoff controls
<input type="checkbox"/>	Public participation & involvement	<input checked="" type="checkbox"/>	Post-construction stormwater management
<input checked="" type="checkbox"/>	Illicit discharge detection & elimination	<input checked="" type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** Discharge Affecting Source Water Protection Areas

**BMP Description:** The Minnesota Department of Health has not yet required a Wellhead Protection Plan (WPP) for the City including the necessary map illustrating the wells and source waters for drinking water supply management areas identified as vulnerable under Minn. R. 4720.5205, 4720.5210, and 4720.5330. The City will follow the appropriate schedule provided by MDH and revise the SWPPP when the WPP and map have been completed.

However, another water supply organization must have developed a WPP and identified vulnerable areas within the City. For those areas, the City will use the guidance provided by the MDH to review proposed infiltration BMPs during the existing plan review process.

Also, Wayzata will coordinate with MDH to determine if the City jurisdictional area includes land within the source water protection area for surface water intakes identified in the source water assessments conducted by the MN Dept. of Health under the federal Safe Drinking Water Act, U.S.C. 300j-13. If so, the City will work with the appropriate organizations to address potential impacts to the areas to the MEP and revise the SWPPP accordingly.

<b><u>Measurable Goals:</u></b>	<b><u>Timeline / Implementation Schedule:</u></b>
<ul style="list-style-type: none"> <li>Complete required WPP and map of wells and source waters for drinking water supply management areas identified as vulnerable.</li> </ul>	<ul style="list-style-type: none"> <li>According to MDH schedule</li> </ul>
<ul style="list-style-type: none"> <li>Determine areas within the source water protection area for surface water intakes identified in the source water assessments conducted by the MN Dept. of Health under the federal Safe Drinking Water Act, U.S.C. 300j-13.</li> </ul>	<ul style="list-style-type: none"> <li>According to MDH schedule</li> </ul>
<ul style="list-style-type: none"> <li>Coordinate with appropriate organizations and revise SWPPP accordingly.</li> </ul>	<ul style="list-style-type: none"> <li>2006-2011</li> </ul>

**Specific Components & Notes (optional):**

- Cooperate with adjacent municipalities or organizations to protect other MDH identified high or moderate vulnerable areas to stormsewer runoff when they are found to overlap the City's jurisdictional boundary.

<b>Responsible Party</b>	<b>Responsible Department</b>
Name: City Engineer	Dept. or Org.: Engineering
Title: City Engineer	Dept. Head: Michael Kelly, Jr.
Phone: 952-404-5300	Phone: 952-404-5300
E-mail: mike@wayzata.org	E-mail: mike@wayzata.org

## BMP Page

**MS4 Name:** City of Wayzata

**Unique Identifying Number:** 7-2

### **Minimum Control Measures Addressed by This BMP**

<input type="checkbox"/>	Public education & outreach	<input type="checkbox"/>	Construction site runoff controls
<input type="checkbox"/>	Public participation & involvement	<input type="checkbox"/>	Post-construction storm water management
<input type="checkbox"/>	Illicit discharge detection & elimination	<input checked="" type="checkbox"/>	Pollution prevention/Good housekeeping

**BMP Title:** Impaired Waters Review Process

### **BMP Description:**

The following terms are used in the course of this BMP Description:

- trigger event
- impaired waters evaluation
- impaired waters report

These terms are used to describe steps of a process to address a specific MS4 Permit requirement. These terms do not imply or mandate the creation of written reports or materials that must be submitted to the MPCA. Written documentation from these steps will be retained as part of the City's MS4 Permit records. These records will be retained as per Part VI.B. of the MS4 General Permit and available to the MPCA upon request.

For waters that are impaired only for mercury, only Step 1 of this BMP will be implemented. Based on the Minnesota statewide mercury TMDL, it is being assumed that the City's MS4 discharge does not contribute to the mercury impairment. This assumption also applies to waters with multiple impairments that include mercury. For these waters, only the other non-mercury impairments must be addressed through Steps 2 through 5.

As per 40 CFR 122.2 and 122.3, the measures in this BMP will not be applied to flows from irrigated agriculture or agricultural stormwater runoff within the City's jurisdiction.

The steps included in this BMP will be instigated by one or more of the following trigger events:

1. the extension of MS4 Permit coverage upon approval of the City's submittal materials and Application by the MPCA Commissioner (if this BMP is already incorporated into the SWPPP)
- 2: the release of a new 303(d) list of Impaired Waters by the MPCA that is approved by the USEPA.

In **Step 1**, the City will review the Impaired Waters List to determine whether there are any impaired waters located within five miles of the City's boundaries that receive discharge from the City's MS4. Such waters will be identified as "impaired waters of concern". This term is used only for the purposes of this BMP to define the set of impaired waters that must be addressed in the subsequent steps. The City will depend on the 303(d) list of Impaired Waters to make this determination. Where the information in the list is insufficient, the City will contact the MPCA for further clarification.

In **Step 2**, the City will identify the location(s) of discharge(s) from the City's MS4 to the impaired waters of concern identified in Step 1. Discharges may include pipes, outlets, ditches, swales, street gutters, or other discrete conveyances for stormwater runoff. As part of Step 2, the City will also delineate the watershed area within the City's jurisdiction that discharges to each impaired water of concern identified in Step 1.

In **Step 3**, the City will prepare an impaired waters evaluation addressing the hydrology, land use, and other characteristics of each watershed area delineated in Step 2.

In **Step 4**, the City will prepare an impaired waters report. This report will address the results of the steps listed above along with a determination of whether changes to the City's SWPPP are warranted to reduce the impact from the City's MS4 stormwater discharge to each impaired water of concern.

In **Step 5**, the City will incorporate the changes identified in the impaired waters report into the City's SWPPP, as per the provisions of the MS4 General Permit regarding SWPPP modifications. The changes to the SWPPP will be reported in the subsequent Annual Report, along with a summary of the process (as listed above) that resulted in the changes.

<p><b><u>Measurable Goals:</u></b>  <b>Step 1:</b> Completion of the City's determination whether there are impaired waters of concern</p>	<p><b><u>Implementation Schedule:</u></b>  <b>Step 1:</b> Within 6 months of a trigger event</p>
<p><b>Step 2:</b> A map showing the locations of discharges and delineated watershed areas.</p>	<p><b>Step 2:</b> Within 6 months of a trigger event</p>
<p><b>Step 3:</b> Completion of the impaired waters evaluation</p>	<p><b>Step 3:</b> Within 12 months of a trigger event</p>
<p><b>Step 4:</b> Completion of the impaired waters report</p>	<p><b>Step 4:</b> Within 12 months of a trigger event</p>
<p><b>Step 5:</b> Changes to the City's SWPPP</p>	<p><b>Step 5:</b> With 12 months of a trigger event</p>
<p>Specific Components &amp; Notes (optional):</p>	
<p><b>Responsible Party</b></p>	<p><b>Responsible Department</b></p>
<p>Name: City Engineer</p>	<p>Dept. or Org.: Engineering</p>
<p>Title: City Engineer</p>	<p>Dept. Head: Michael Kelly, Jr.</p>
<p>Phone: 952-404-5300</p>	<p>Phone: 952-404-5300</p>
<p>E-mail: mike@wayzata.org</p>	<p>E-mail: mike@wayzata.org</p>

**LOCAL SURFACE WATER MANAGEMENT PLAN**

Appendix J 1/9/2019 12:00:00 AM 1/16/2019 12:00:00 AM

**Appendix J MCWD COORDINATION PLAN**



## MINNEHAHA CREEK WATERSHED COORDINATION PLAN

The following Coordination Plan outlines a relationship between the City of Wayzata (the City) and the Minnehaha Creek Watershed District (the MCWD). The purpose of this Coordination Plan is to maintain awareness of the needs and opportunities for successful surface water management within the City, and to promote successful partnership towards implementation of projects to meet the surface water management needs. It is anticipated that the City Engineer will be the primary contact between the City and the MCWD for the Coordination Plan. The following agreements comprise the Coordination Plan:

- Annual meeting: The City and the MCWD agree to meet annually to review progress in the *Local Surface Water Management Plan* implementation. The annual meeting will be scheduled by the City Engineer. The meeting will include review of the annual National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer Systems (MS4) report and activity from the previous year.

The annual meeting will include discussion about yearly updates to the City's Capital Improvement Program (CIP). The discussion will be a time for the MCWD to coordinate projects, discuss potential funding opportunities, including funding opportunities internal to the MCWD and through external sources, and provide comments.

- Planning Coordination: The City agrees to notify and consult with the MCWD regarding updates to road & infrastructure and parks & recreation planning efforts. Updates are to be sent by the City Engineer to the MCWD for review and comment at a minimum of once per year.
- Land Use: The City agrees to notify the MCWD with requests for land use approvals for review and comment. This includes, but is not limited to, requests for prospective development/redevelopment and receipt of preliminary plats. The MCWD agrees to notify the City upon receipt of preliminary plats. Additionally, the City and the MCWD agree to provide mutual notice of significant events related to prospective development/redevelopment.
- Small Area Plans: The City agrees to notify the MCWD with updates to the institution and completion of small area plans and other focused development/redevelopment actions. Updates are to be sent by the City Engineer to the MCWD at a minimum of once per year.
- Project Opportunities: The City agrees to engage the MCWD early in the process for potential project partnering opportunities, in order to help evaluate the opportunities against MCWD goals and priorities and determine the MCWD's role.
- MS4 System: In addition to a review of the MS4 system at the annual meeting, the City agrees to notify the MCWD of any significant alterations to the MS4 system throughout the year, for the purpose of keeping the MCWD's hydrologic and hydraulic model up to date.
- Watershed District Updates: Throughout the year, the MCWD agrees to notify the City of any amendments to the current *Watershed Management Plan*, as well as any updates to the MCWD

CIP. Additionally, the MCWD agrees to notify the City with significant events related to prospective (re)development.

- **Public Communications and Education:** The City agrees to promote the Educational Workshops and Events put on by the MCWD. The City and the MCWD agree to coordinate when possible to avoid replicating educational programs.
- **Funding:** In order to assist the City in implementing projects related to surface water management, the MCWD agrees to continue to provide information regarding upcoming grants and other funding opportunities, both internal and external to the MCWD.
- **Wetland Conservation Act:** The City wishes to retain LGU authority for the Wetland Conservation Act. The City agrees to maintain rules and regulations at least as stringent as the MCWD for wetland protection and management. The MCWD agrees to provide consultation through a Technical Evaluation Panel to guide the City in wetland protection and management regulations and projects.
- **Regulatory Coordination:** The City and the MCWD agree to coordinate activities regarding regulation of surface water management, including ensuring applicants are aware of permitting authority of both parties, holding pre-application meetings, sharing complaint information, coordinating compliance inspections, and coordinating regulatory enforcement. Coordination will be carried out between the City Engineer and MCWD staff over phone and email, and through in-person meetings if necessary.
- **Operation and Maintenance:** The City agrees to inform the MCWD on the status and schedule of operation and maintenance activities associated with partnering projects.