Wetland Management Plan

WSB Project No. 1321-02

Prepared for:

Lakeville

Prepared by:

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City of Lakeville

Wetland Management Plan

May 2003

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Section I – Executive Summary

Wetlands provide many benefits and as such are important resources to a City. Wetlands provide critical habitat for many types of birds, mammals, amphibians, reptiles, invertebrates, and plants. Wetlands can also act to improve water quality and provide water quantity control by storing water during storm events. Wetlands allow for groundwater interactions, whether it be recharge or discharge. Additionally, wetlands provide aesthetic value, nature observation areas, and areas for education and scientific research. Because of the importance of wetlands and the role wetlands play within a community, they must be considered during development review and city-wide planning in order to balance protection of the wetlands and development and growth in the City.

The City of Lakeville Wetland Management Plan (WMP) has been developed in conformance with Minnesota Rules 8420.0650 and meets the requirements of the Wetland Conservation Act (WCA). This WMP has been developed with assistance from the Technical Panel, the Environmental Affairs Committee, and the Parks, Recreation, and Natural Resources Committee. The WMP has been adopted by ordinance and is to be used in conjunction with the City of Lakeville Stormwater Management Plan and Comprehensive Land Use Plan.

The WMP provides a comprehensive approach for the protection and management of wetlands within the City and allows the City to have greater control over the rules governing decisions about these wetlands. The WMP provides greater flexibility and control over wetland management and protection, identifies regional wetland mitigation sites, and provides management strategies for different types of wetlands.

Section II contains an introduction to the WMP. It includes a description of existing resources, a discussion of the development within the City, and outlines the intent of the Plan.

Section III discusses the regulatory framework for wetlands within the City. This section provides details of the role of the City as the Local Government Unit (LGU) for the WCA and provides a brief overview of other agency jurisdiction over wetlands. This section also outlines the wetland impact application process.

Section IV contains the methods used to assess the wetland functions and values and classify the wetlands within the City. A wetland function is defined as a physical, chemical, or biological process or attribute of a wetland. A wetland value is the extent to which a wetland function is perceived as beneficial to an individual, municipality, or other entity. A functions and values assessment method was developed for the City by using a modified version of MnRAM 2.0. No wetlands were delineated as part of this Plan. Absence of a wetland in the WMP does not indicate that a wetland does not exist.

Section V discusses the results of the functions and values assessment and the wetland management strategies for the wetlands. Wetlands were given scores for each function that was evaluated. Approximately 350 wetlands within the 2020 Metropolitan Urban

Service Area (MUSA) were evaluated as part of this Plan. Wetland Types 1-7 are represented within the City. Detailed information about each wetland can be found in **Appendix A.** The wetland management classifications include Preserve, Manage I, Manage II, Utilize, Restore, and South Creek as outlined below:

Preserve (P): Wetlands that were placed into the Preserve category generally provided the highest functions for vegetative diversity and wildlife habitat.

Manage 1 (M1): Wetlands that were placed into the Manage 1 category generally provided high functions for vegetative diversity and wildlife habitat with some functions for water quality protection and flood attenuation.

Manage 2 (M2): Wetlands that were placed into the Manage 2 category generally provided some functions for vegetative diversity and wildlife habitat with high functions for water quality protection and flood attenuation.

Utilize (U): Wetlands that were placed into the Utilize category generally provided the highest functions for water quality protection and flood attenuation.

Restore (R): Restore wetlands generally received low scores for vegetation and habitat but due to their location, past disturbance, and/or hydrology are anticipated to be good candidates for restoration.

South Creek: This category applies to the South Creek in the South Creek Watershed District.

These classifications allow the City to actively protect and manage wetlands, plan for future development and redevelopment, and identify programs and policies for wetland management. **Table V-1** contains more information about these management strategies.

Section VI contains an implementation program for this Plan. **Section VII** provides information on enforcement, appeals, and amendment procedures for this Plan and wetland assessments. **Section VIII** contains a glossary of terms used within this Plan.

A number of appendices are also included which provide supplemental information to the Plan.

Section II – Introduction

The City of Lakeville Wetland Management Plan (WMP) has been developed in conformance with Minnesota Rules 8420.0650 and meets the requirements of the Wetland Conservation Act (WCA). This WMP has been developed with assistance from the Technical Panel, Environmental Affairs Committee and the Parks, Recreation, and Natural Resources Committee. The WMP has been adopted by ordinance and is to be used in conjunction with the City of Lakeville Stormwater Management Plan and Comprehensive Land Use Plan.

The WMP was developed as part of the implementation of the Stormwater Management Plan and provides a comprehensive approach for the protection and management of wetlands within the City. The WMP provides greater flexibility and control over wetland management and protection, identifies regional wetland mitigation sites, and provides management strategies for different types of wetlands. The WMP designates wetland priorities and defines the City's long range goals for wetland management. The objectives of this plan are to:

- Identify, classify, and create an inventory of wetlands within the City
- Identify wetland functions and resources important to the City
- Maintain wetland functions and values data for use by City, residents, and developers
- Manage wetland resources towards improvement of their functions and values
- Develop a long-term wetland management strategy
- Focus limited resources in the most effective direction
- Determine the degree to which wetland avoidance must be practiced
- Provide the ability to vary wetland replacement ratios
- Provide technical information and baseline data regarding the functions and values of wetlands within the City
- Provide advance information for developers and the City about the quality of wetlands within the site.
- Achieve no net loss in the quantity and quality of Lakeville's wetlands
- Provide strategies that will increase the quality of some of Lakeville's degraded wetlands
- Provide identification of wetland priorities
- Provide public input into wetland management
- Create a detailed GIS database about the wetlands that can be used by City Staff and residents

A. Existing Wetland Resources

The City of Lakeville is located in western Dakota County. There are approximately 350 wetlands within the 2020 Metropolitan Urban Services Area (MUSA) within the City limits. Wetlands and other natural resources of special interest within the City are outlined below:

South Creek Trout Stream: South Creek is located in southern and southeastern Lakeville and is tributary to the Vermillion River. A portion of the main branch of the creek and its tributaries have been designated by the DNR as a trout stream.

North Creek: North Creek is a tributary to the South Creek trout stream. Implementation of a greenway corridor is planned for the creek.

Crystal Lake Golf Course Fen: The Crystal Lake Golf Course contains a calcareous fen. This wetland noticeably discharges groundwater and is a unique resource in the City.

Marion Lake: Marion Lake is a large open water body located in the southwest quadrant of Lakeville. Marion Lake has been identified as a "priority lake" by the Metropolitan Council.

Orchard Lake: Orchard Lake is located in the northwest quadrant of the City and is a unique resource to the City. Orchard Lake has been identified as a "priority lake" by the Metropolitan Council and the Black Dog Watershed Management Organization.

Kingsley Lake: Kingsley Lake has been designated as a Natural Environment water body. Motor restrictions are in place for this water body. It is located in the northwest portion of the city. This lake has been identified as a "priority lake" by the Black Dog Watershed Management Organization.

Crystal Lake: Crystal Lake is a large recreation lake located in the very northern part of the City. While most of the lake is located in Burnsville, a portion of it is within Lakeville. This lake has been identified as a "priority lake" by the Black Dog Watershed Management Organization.

It should be noted that some of the large DNR Public Waters, such as Marion Lake and Orchard Lake, were either not evaluated or only wetland fringe areas were evaluated since these water bodies are under the jurisdiction of the DNR and not the Wetland Conservation Act.

B. Extent of Development

The population of Lakeville has nearly doubled between 1990 and 2000, based on 2000 Census data. This population increase has put pressure on the natural resources within the City. The central portion of Lakeville has the highest concentration of development with new developments proposed for residential, commercial, and industrial throughout the City. Portions of the City are outside of the 2020 MUSA boundary and in the agriculture preserve areas.

In the short term, development may cause filling, dredging, and erosion and sedimentation of wetland resources. In the long term, the development can reduce or eliminate wetland buffers, reduce the presence of wildlife habitat, and increase

stormwater runoff to water bodies. The intent of this plan is to provide management strategies for the City in order to minimize the impact to wetlands, to continue to adequately plan for development, and to create an inventory of existing water resources.

C. Intent of Plan

The intent of the City's Wetland Management Plan is to provide a means for the City to protect and manage its wetlands by utilizing the flexibility within the Wetland Conservation Act. This plan provides guidelines for wetland protection and management, assistance with the Wetland Conservation Act, and acts as a references guide for developers to use when working near wetlands. The development of protection and management strategies for wetlands within the City stems from the function and values assessment completed as part of this Wetland Management Plan. These management strategies allow the City to protect and manage the City's wetland resources by implementing the flexibility in the Wetland Conservation Act.

Section III – Wetland Regulations

The existing wetland regulatory framework in Minnesota involves a number of federal, state, and local agencies including the US Army Corps of Engineers, Department of Natural Resources, Watershed Districts, and the Local Government Units. This Wetland Management Plan has been developed to be in conformance with the Wetland Conservation Act; however, a brief discussion of the role of each wetland regulatory agency is included in this section.

A. US Army Corps of Engineers

The US Army Corps of Engineers (COE) regulates the discharge of dredged or fill materials to wetlands and other water bodies through Section 404 of the Clean Water Act provided there is a surface water connection to navigable waters. Any impact to navigable waters or wetlands that are connected to navigable waters, including filling, draining, or excavation, may require a permit from the COE. Wetland delineations are also subject to COE approval. Depending on the size and extent of the wetland impact, the Minnesota Pollution Control Agency may be involved in certifying the COE permit. For more information about the COE regulations, the area COE Project Manager can be contacted at (651) 290-5015 or information can be obtained from the COE website at www.mvp.usace.army.mil.

B. Department of Natural Resources

The Department of Natural Resources (DNR) has jurisdiction over Public Waters and Wetlands as depicted on the DNR Public Waters and Wetland maps. The DNR has jurisdiction over Public Water and Wetlands to the Ordinary High Water (OHW) elevation or to the top-of-bank for streams. The OHW is determined by the DNR. Any impact to a Public Water or Wetland may require a permit from the DNR. The DNR Area Hydrologist can be contacted for more information at (651) 772-7910 or information can be obtained from the DNR website at www.dnr.state.mn.us/waters/.

C. Local Government Unit – Wetland Conservation Act

The Wetland Conservation Act (WCA) is a State law that first passed in 1991 and has been subsequently amended (Minn. Laws CH 354, Minn. Statute 103G.222-2373 and other scattered sections). The Board of Water and Soil Resources (BWSR) publishes MN Rule 8420 in accordance with the Wetland Conservation Act laws. BWSR's role is to assist the Local Government Units (LGUs) in the implementation of WCA and to be a member of the Technical Evaluation Panel (TEP).

The intent of the WCA is to achieve a "no net loss" of wetlands in Minnesota. Therefore, the WCA prohibits filling, draining, and excavation of wetlands in some areas unless the activity is exempt or wetlands are replaced by restoration or creation of wetland of at least equal public value.

The WCA is administered by Local Government Units (LGUs). The City of Lakeville is the LGU for the WCA within the City's boundaries. The City can issue or deny permits depending on whether or not the project is in conformance with the WCA and the requirements of this Plan. The WCA exemptions are discussed in Minn. Rules 8420 and are included by reference to this Plan except where this Plan is more restrictive. The procedures for wetland impact application, sequencing, and replacement are outlined below.

1. **Wetland Impact and Replacement Application**
   When wetland filling or draining of any wetland, or excavation in the permanently and semi-permanently flooded areas of a Type 3, 4, or 5 wetland, or excavation greater than 6 feet in any wetland is anticipated as part of a project, an application must be completed by the project proposer and submitted to the City. These applications are contained within **Appendix B.** If wetland impacts are unavoidable, a wetland mitigation plan must be included with the application as outlined within this Plan. An application fee may apply.

2. **Wetland Delineation**
   For any site development activities within the City, the City requires the developer to submit a wetland delineation report that identifies the location and extent of any wetlands present on the site. Wetland delineations are to be performed by a wetland professional who has been trained in wetland delineations. Delineations will be subject to verification by the City, the Technical Evaluation Panel (TEP), and/or the US Corps of Engineers. It is recommended that City Staff verify wetland delineations prior to plan development and/or application submittal.

3. **Wetland Sequencing**
   Sequencing must be provided as part of an application for wetlands categorized as Preserve, Restore, Manage I, Manage II, and South Creek. The sequencing process is outlined in Minn. Rules 8420.0520 and summarized in **Table V-1** when more restrictive than the WCA. Sequencing for wetlands categorized as Utilize is included in **Appendix C** and must be referenced in the application if the developer chooses to use this sequencing discussion.

4. **Wetland Replacement**
   Once sequencing has been completed in conformance with this Plan and it has been determined that wetland impacts are unavoidable, the lost functions and values of the wetland must be replaced. Replacement of lost functions and values must be in conformance with **Section V.**

   Wetland replacement should be located within the project site. If this is not feasible, replacement locations should be within the same subwatershed within the City. It is strongly encouraged that wetlands

categorized as "Restore" within this Plan are used for wetland mitigation when feasible.

Wetland replacement may be completed in the form of New Wetland Credit (NWC) or through a combination of NWC and Public Value Credit (PVC) as provided in **Section V.** For a comprehensive description of NWC and PVC, see Minn. Rules 8420.0540 in the Wetland Conservation Act. Storm water ponds are not eligible for NWC or PVC within the City.

5. Replacement for Road Projects

Through the WCA, wetland impacts that occur due to road improvement projects that address safety issues and are not undertaken solely to accommodate additional traffic capacity by the City or County as the local road authority are eligible to be replaced by BWSR as outlined in Minn. Rules 8420.0540 Subp. 4 (5) (6) and Subp. 5. Impacts need to be avoided and minimized to the greatest extent feasible. Notification to BWSR of the intent to use BWSR mitigation is required through the application process and/or annual reporting by the City. Applications can be found in **Appendix B.**

6. City of Lakeville Wetland Bank

The City of Lakeville holds a wetland bank account with BWSR. This bank can be used for mitigation for City projects or other projects that the City deems appropriate. The City will continue to actively manage this bank. Up-to-date information regarding the balance of the bank can be obtained from BWSR.

7. Wetland Replacement Monitoring

The City requires that monitoring of replacement wetlands be conducted for 5 years after their establishment. A monitoring report must be submitted to the City by **October 15th** of each year. Monitoring requirements are outlined in **Appendix D.** Monitoring also includes actively managing the replacement site to ensure that vegetation is becoming established, erosion problem areas are stabilized, hydrology criteria are being met, and any other activities to ensure the wetland replacement goals are met.

D. Wetland Conservation Act Application Process and Timeline

When wetland filling or draining of any wetland, or excavation in the permanently and semi-permanently flooded areas of a Type 3, 4, or 5 wetland, or excavation greater than 6 feet for any wetland is anticipated as part of a project, an application must be completed by the project proposer and submitted to the City. These applications are contained within **Appendix B.**

If wetland impact is less than 10,000 sf, the City will send a summary of the project within 10 days of receipt of a complete application to the TEP, the DNR,

and anyone who has requested this type of information. If wetland impact is greater than 10,000 sf, the City will send a copy of the application and an invitation to submit comments within 10 days of receipt of the application to the TEP, Watershed Management Organization, the DNR, and anyone who has requested such information. The TEP, Watershed District, DNR and other agencies shall have up to 30 calendar days to comment on the project.

Once the comment period has ended, the City will make a decision on the application within 60 days of receiving a complete application in accordance with Minn. Rules 8420.0230 Subp. 2 and mail a *Notice of Decision* and *Findings and Conclusions* to all who received a summary or copy of the permit application. The City's decision is then effective and the project can commence provided that replacement of the wetland impacts occurs before or concurrently with the wetland impact, provided all other permits from other agencies have been obtained, and the required 30-day appeal window has lapsed.

A project proposer can appeal the City's decision. This appeal must be made to the Board of Water and Soil Resources within 30 days after the date on which the *Notice of Decision* is mailed. Minn. Rules 8420.0250 can be consulted for further information on appeals. This Wetland Management Plan has been developed to be in conformance with the WCA. Any future changes in the WCA would supersede the requirements outlined in this Plan.

Section IV – Wetland Evaluation and Classification Methods

Approximately 350 wetlands were evaluated and classified within the City of Lakeville. The methods used to accomplish these tasks are described in this section.

A. Background Information

Color aerial photography of the City was obtained to provide a base map for the Wetland Management Plan. The City's Stormwater Management Plan (1995) had identified and provided a limited evaluation of wetlands within the City. Additional mapping from Metropolitan Mosquito Control District, Dakota County, and the National Wetland Inventory were also reviewed. These sources were reviewed and compiled into one map in order to determine the potential locations of all wetlands within the City.

After potential wetland locations were identified in the office, these locations were field verified for their presence. The presence or absence of a wetland was determined using the criteria for wetland delineation as set forth in the 1987 Manual for Delineating and Identifying Jurisdictional Wetlands (US Corps of Engineers, 1987).

It is important to note that wetland edges were not delineated as part of the preparation of this Plan. A wetland delineation will need to be conducted as part of any potential impact or development activity near the wetland. In addition, the absence of a wetland from this Plan does not indicate that a wetland is not present on the site. Extreme efforts were taken to ensure that all wetlands within the City were evaluated as part of the development of this Plan; however, the unintentional omission of a particular wetland does not grant permission to impact that wetland before going through the proper regulatory process.

B. Wetland Function and Value Assessment

After background information about the location of a potential wetland was obtained and the wetland was field verified, a function and value assessment was completed for each wetland and a photograph of the wetland was taken for reference.

Functions and values of each wetland were evaluated using a method developed by the City of Lakeville. A wetland function is defined as a physical, chemical, or biological process or attribute of a wetland. A wetland value is the extent to which a wetland function is perceived as beneficial to an individual, municipality, or other entity. The method was developed by City Staff, WSB & Associates, the Technical Panel, and the Environmental Affairs Committee. The questions within the assessment were based on Minnesota Routine Assessment Method (MnRAM) 2.0 with changes based on the values of the City. The assessment evaluated the values of the following functions:

- Vegetative Diversity / Integrity
- Fish and Wildlife Habitat
- Water Quality Protection
- Flood / Stormwater Attenuation
- Shoreline Protection
- Groundwater Recharge & Discharge
- Aesthetics, Recreation, and Education

A copy of Lakeville's assessment method is included in **Appendix E.**

After the functions and values assessment was completed for the wetlands, the wetlands were placed into one of six management categories based on the assessment. To place wetlands into management categories, the scores for each function were analyzed. This analysis started with identifying the wetlands that provided the strongest of the above listed functions and which provided the weakest of the above listed functions. Scoring criteria for each function was then developed.

In the Lakeville MnRAM, two major sets of differing functions were identified – vegetative diversity / wildlife habitat and water quality protection / flood attenuation. Wetlands that received high scores for vegetative diversity and fish / wildlife habitat generally provided a higher quality habitat with a diverse assemblage of native plants than other wetlands that did not score high in this area. Wetlands that received high scores for water quality protection and flood attenuation were generally providing a significant storm water management function, were often receiving direct inputs of storm water, or were identified as a regional storm water management area in the City's Storm Water Management Plan. These two sets of differing wetland functions served as the basis to place wetlands into management categories.

These two sets of criteria were analyzed for each wetland. Wetlands that scored higher than others for vegetative diversity and wildlife habitat were placed into management categories that allowed for protection of these resources. Wetlands that scored higher than others in water quality and flood attenuation were placed into management categories that allowed for these wetlands to be used for storm water management.

Wetlands that did not clearly function the highest for vegetative diversity / wildlife habitat or water quality protection / flood attenuation were placed into management categories that allowed some protection of the vegetation and wildlife with some storm water management uses. Wetlands in this "middle" area were placed into management categories based on which sets of functions appeared to be more dominant based on the assessment.

For wetlands that were bordering between which functions they more strongly provided, consideration was given to the future land use associated with the location of the wetland. If the area's future land use was open space, parkland, or low-density development, it was placed into a more protective category. If the area's future land use was high-density development, commercial or industrial, the wetland was placed into a less protective category. The aesthetic, recreation, and education function of the wetland was also considered when wetlands could not clearly be placed into a management category.

A category was also developed for wetlands that showed potential to be restored. Based on field review, these wetlands may have been impacted by agriculture or development in the past and/or had available space for future expansion/ restoration. These wetlands were placed into a category that would encourage restoration through identification of these areas.

It should be noted that there is occasional overlap in the scoring criteria that was developed. For these areas that there is overlap in the scoring, greater weight was given to the vegetative diversity / wildlife habitat function than the water quality / flood attenuation function to place wetlands in management categories.

The management categories and scoring criteria are described in more detail in **Table V-1** in **Section V.**

C. GIS Database for WMP

Information generated by the functions and values assessments was compiled into a GIS map and database. This database can be used by the City, developers, and the public for plan reviews, stormwater planning, and general information. This database will be updated as necessary when new wetlands are created or wetlands are re-evaluated. The wetland classification map is included in **Appendix A.**

Section V – Wetland Assessment Results and Management Strategies

A. Wetland Inventory Results

Approximately 350 wetlands within the City were evaluated using a modified version of MnRAM 2.0 contained in **Appendix E**. Wetlands were numbered based on which subwatershed they were located in and their location with approximate boundaries identified on a map.

While an attempt was made to evaluate all of the wetlands within the City, access to some wetlands was unavailable. The modified MnRAM assessment will need to be undertaken at the property owners expense if and when their land develops.

B. Subwatershed Descriptions

1. Crystal Lake District

The Crystal Lake District is approximately 1,420 acres and is located in northern Lakeville. Approximately 33 wetlands were assessed within this subwatershed.

2. Orchard Lake District

The Orchard Lake District is located in northwestern Lakeville and is approximately 2,087 acres in size. This area is mostly developed and consists of primarily residential areas. Approximately 110 wetlands were assessed within this subwatershed.

3. Marion Lake District

Marion Lake District is approximately 4,791 acres in size. Approximately 103 wetlands were assessed within this subwatershed. The wetlands in the western portion of this subwatershed were not assessed as this area is not anticipated to develop and will remain large lot residential and/or undeveloped, rural areas. The remainder of the subwatershed is more developed with medium density residential. Light industrial and commercial areas are also located along the I-35 corridor.

4. North Creek District

North Creek District is located in the northeast corner of the City and is approximately 5,622 acres is size within the City limits. Approximately 54 wetlands were assessed within this subwatershed.

5. South Creek District

The South Creek District is located in the southern and central portions of the City. South Creek is designated as a trout stream. Approximately 38 wetlands were assessed within this subwatershed.

6. Farmington Outlet District

The Farmington Outlet District is located in the eastern portion of the City and is approximately 3,410 acres in size. Approximately 7 wetlands were

assessed within this subwatershed. However, since much of this area is outside the 2020 MUSA boundary and it not anticipated to develop, many of the wetlands in this area were not assessed.

C. Wetland Management Categories and Strategies

Based on the wetland function and value assessments conducted during 2001 and 2002, six different management categories were developed as follows:

Preserve (P): Wetlands that were placed into the Preserve category generally provided the highest functions for vegetative diversity and wildlife habitat.

Manage 1 (M1): Wetlands that were placed into the Manage 1 category generally provided high functions for vegetative diversity and wildlife habitat with some functions for water quality protection and flood attenuation.

Manage 2 (M2): Wetlands that were placed into the Manage 2 category generally provided some functions for vegetative diversity and wildlife habitat with high functions for water quality protection and flood attenuation.

Utilize (U): Wetlands that were placed into the Utilize category generally provided the highest functions for water quality protection and flood attenuation.

Restore (R): Restore wetlands generally received low scores for vegetation and habitat but due to their location, past disturbance, and/or hydrology are anticipated to be good candidates for restoration.

South Creek (SC): The South Creek category applies to the South Creek in the South Creek District.

Each management category has a different management strategy based on the wetland functions and values. These management strategies are outlined below and summarized on **Table V-1.**

1. Wetland buffers

Buffers are an upland area adjacent to a wetland that is covered with vegetation that experiences little to no human impact such as mowing or fertilizing. Buffers are effective management tools for protecting wetland systems. Vegetated buffers provide cover and nesting habitat for wildlife, reduce erosion around the wetland, provide vegetative diversity, and reduce the amount of pollutants in overland overflow runoff prior to discharge to the wetland.

In the past, the City has required a 17 foot buffer around wetlands in developing areas. As part of this Wetland Management Plan, the zoning ordinance will need to be amended relating to buffers around wetlands.

Buffer zones around existing wetlands will be required for all new development as follows:

Preserve: 50 feet

Manage 1: 25 feet for wetlands less than 2 acres
35 feet for wetlands larger than 2 acres

Manage 2: 17 feet for wetlands less than 2 acres
25 feet for wetlands larger than 2 acres

Utilize: 17 feet

Restore: 25 feet

South Creek: 50 feet from centerline of South Creek. 17 feet for fringe wetlands that extend past the 50-foot centerline. Buffer should be vegetated with shade species such as shrubs and trees. Buffers cannot be averaged for these wetlands.

Upon development, 17 feet of the required buffer will be platted as an outlot. The remaining buffer width, if required, can be included as an outlot or included as the lot provided that homeowners are made aware of the wetland buffer within their lot and that the buffer is documented as a conservation easement. Public trails or sidewalks that are a maximum of 10 feet in width can be included within the buffer provided the designated buffer width is maintained. Buffers can be averaged provided that a minimum buffer width of half of the required buffer or 17 feet is maintained, whichever is greater. For wetlands that are within the City's property, the City anticipates implementing and maintaining these buffers; however, these buffers will not be platted separately.

A 25-foot buffer is also required around newly created wetland mitigation sites. As outlined within the Minnesota Rules 8420.0541, Subp. 6, this 25-foot buffer can be used for Public Value Credit.

2. Stormwater management

Wetlands have the ability to provide stormwater treatment and decrease the risks of downstream flooding. The nutrients and sediment present in stormwater runoff can have a detrimental impact on some wetlands. However, other wetlands are not as sensitive to stormwater impacts and may provide an overall benefit to the community by providing stormwater treatment functions. To address stormwater management, the following wetland management strategies have been developed as part of this Plan:

Preserve: Pretreatment of sediment and nutrients will be required. The existing bounce from a 2-year storm event will be maintained, if feasible. The existing two-year high water level is outlined in the Stormwater Management Plan.

Manage 1: Pretreatment of sediment and nutrients will be required. The bounce within the wetland will be limited to the existing level plus 0.5 feet for a 2-year storm event, if feasible. The existing two-year high water level is outlined in the Stormwater Management Plan.

Manage 2: Pretreatment of sediment and nutrients will be required. The bounce within the wetland will be limited to the existing level plus 1 foot for a 2-year storm event, if feasible. The existing two-year high water level is outlined in the Stormwater Management Plan.

Utilize: These wetlands can be used for stormwater management and treatment. There is no requirement on the bounce within these wetlands.

Restore: Pretreatment of sediment and nutrients will be required. The bounce within the wetland will be limited to the existing level plus 1 foot for a 2-year storm event, if feasible. The existing two-year high water level is outlined in the Stormwater Management Plan.

South Creek: Pretreatment of nutrients and sediment will be required. Infiltration shall be provided prior to discharge to the South Creek for 1.5" of rainfall over the impervious area within 72 hours as per the South Creek Management Plan. Consultation of the South Creek Management Plan is necessary to determine additional design requirements.

3. Wetland mitigation and sequencing

The Wetland Conservation Act (WCA) guidelines serve as a baseline for the evaluation of impacts and associated wetland mitigation and replacement plan. The Wetland Management Plan outlines guidelines for City Staff, Planning Commission, the Parks, Recreation and Natural Resource Committee, and ultimately, the City Council to use during review of projects impacting wetlands in each management category to ensure the protection of wetlands and conformance with State rules.

Preserve: Wetlands in this category shall receive the maximum amount of protection under this Plan. Avoidance is strongly recommended and impacts will be allowed only under extreme

hardship. Filling of edges of these wetlands to accommodate development, such as building pads, driveways, or parking lots etc. is not allowed. Replacement of the wetland's functions and values will be required at a 3:1 ratio with a minimum of 1.5 acres of new wetland credit (NWC) and maximum of 1.5 acres Public Value Credit (PVC). Sequencing is required as per Minnesota Rules 8420.0520 and the management strategy outlined for this category.

Manage 1: Mitigation of wetlands in this category will be at a 2:1 ratio with 1 acre of NWC minimum and 1 acre of PVC maximum for every acre impacted. Sequencing is required as per Minnesota Rules 8420.0520.

Manage 2: Mitigation of wetlands in this category will be at a 2:1 ratio with 1 acre of NWC minimum and 1 acre of PVC maximum for every acre impacted.

A wetland mitigation fee in-lieu of direct replacement criteria may also be used for mitigation. The City will determine if this option is appropriate on a site-by-site basis. The amount of this fee will be determined by the City. The fee will be used by the City to provide mitigation for these impacted wetlands within 5 years of the project. The City will review its overall achieved wetland mitigation ratio every 5 years to ensure a 2:1 ratio of wetland mitigation is met. Sequencing is required as per Minnesota Rules 8420.0520.

The City will work to provide incentives to developers who improve the functions and values of Manage 2 wetlands.

Utilize: Mitigation of wetlands in this category can be at a 1:1 ratio with 0.5 acre of NWC minimum and 0.5 acre of PVC maximum for every acre impacted. A wetland mitigation fee in-lieu of direct replacement may also be used for mitigation of these wetlands. The City will determine if this option is appropriate on a site-by-site basis. The amount of this fee will be determined by the City. The fee will be used by the City to provide mitigation for these impacted wetlands within 5 years of the project. The City will review its overall achieved wetland mitigation ratio every 5 years to ensure a 2:1 ratio of wetland mitigation is met. The City may require 2:1 replacement if a City mitigation project has not been identified.

Sequencing for the impact of these wetlands is included in **Appendix C**. Therefore, no sequencing is required at the time of application for wetlands in this classification.

Restore: Mitigation of wetlands in this category will be at a 2:1 ratio with 1 acre of NWC minimum and 1 acre of PVC maximum for every acre impacted. Sequencing is required as per Minnesota Rules 8420.0520.

To promote the restoration of these wetlands, the City will provide incentives to developers to restore these wetlands or undertake restoration as a City project as feasible.

South Creek: Impacts to the Creek will be allowed only under extreme hardship. Mitigation will be required at a 2:1 ratio. Sequencing is required as per Minnesota Rules 8420.0520.

Actions eligible for wetland mitigation are outlined with Minnesota Rules 8420.0541. However, the City does not accept water quality ponds as wetland mitigation.

4. New wetlands and wetlands not assessed

New wetlands include wetlands created as part of a wetland mitigation/creation project that did not exist at the time this plan was adopted. Wetland areas not intentionally created such as those created by culvert blockage, beavers, etc. as outlined in Minn. Rules 8420.0122 shall not become part of this plan. City Staff will initially place newly created wetlands in the management category of the wetland that is being replaced or as otherwise determined by Staff. Newly created wetlands for mitigation are required to have a 25-foot buffer.

City Staff will review the newly created wetlands 2.5 years and 5 years after creation/restoration to determine if the wetland meets the functions and values of the management category of the wetland that it replaced. The annual wetland monitoring reports as required by the Wetland Conservation Act will also be used in this evaluation. The City will determine if additional work is needed or if the management goal has been met or is attainable in the near future.

All known wetlands within the study area were evaluated with the exception of those areas where permission to access the site was not granted or the site could not be accessed due to safety issues. The absence of a wetland from this plan does not mean that a wetland is not present on the site. Extreme efforts were taken to ensure that all wetlands within the study site were evaluated as part of the development of this plan; however, the unintentional omission of a particular wetland does not grant

permission to impact that wetland before going through the proper regulatory process. It is important to note that wetland edges were not delineated as part of this project. A wetland delineation will need to be performed as part of any potential impact of development activity near the wetlands.

If an existing wetland was not evaluated as part of this plan, the assessment contained within **Appendix E** will need to be completed by the applicant and submitted to the City for review and classification.

For any wetlands that the City was not permitted to access or were inadvertently omitted, an assessment will need to be undertaken by the property owner if and when their land develops. The assessment will be required to be conducted by a trained wetland professional. Based on this assessment, the City Staff will place the wetland into a management category.

5. **Wetlands within the 2020 MUSA and Agricultural Preserve District**
Wetlands within the 2020 MUSA and the Agricultural Preserve District were not evaluated as part of this Plan. However, if land development activities occur within these areas, the City will require that the functions and values of the wetlands within the development area be evaluated. Development within these areas will then be required to meet the requirements of this Plan.

Table V-1 summarizes the wetland management strategies for each management category.

Table V-1. Wetland Management Strategies

Classification	General Scoring/ Percentage [a]	Land Use Considerations	Buffer Requirement [b]	Stormwater Management[c]	Sequencing	Mitigation Requirements	Management Strategy
Preserve	**Vegetation:** All or ¾ of points **Wildlife:** >40%	The future surrounding land use was taken into consideration when choosing a management classification when a wetland's functions were scoring between management categories. If the wetland was located in a future greenway corridor, park, or City property, the wetland was placed in a more protective management category than it may have otherwise been placed. If the wetland was located in an industrial or commercial area, it was placed in a less protective management classification.	50	Maintenance of existing bounce for a 2-year storm if feasible; Pretreatment for sediment and nutrients	Impacts allowed only under extreme hardship. Impacts for homes, commercial/ industrial buildings, driveways, parking lots, etc. is not allowed. Sequencing must be in conformance with the WCA.	Replacement at 3:1 ratio with 1.5 acres of NWC minimum and 1.5 acres of PVC maximum.	Actively protect and preserve functions and values of wetlands to the maximum extent feasible. Avoid impacts and changes to hydrology to greatest extent feasible.
Manage I	**Vegetation:** ½ to ¾ of points. **Wildlife:** 20-40% **Water Quality:** 0-70% **Flood Attenuation:** 0-60%		25 ft for wetlands less than 2 acres; 35 ft for wetlands larger than 2 acres	Limit bounce to existing plus 0.5 ft for 2-year storm if feasible. Pretreatment for sediment and nutrients	Sequencing in conformance with WCA.	2:1 with 1 acre of NWC minimum and 1 acre of PVC maximum	Maintain existing functions and values.
Manage II	**Vegetation:** ¼ to ½ of points **Wildlife:** 0-40% **Water Quality:** >70% **Flood Attenuation:** >60%		17 ft for wetlands less than 2 acres; 25 ft for wetland larger than 2 acres	Limit bounce to existing level plus 1.0 ft for 2-year storm if feasible. Pretreatment for sediment.	Sequencing in conformance with WCA.	2:1 with 1 acre of NWC minimum and 1 acre of PVC maximum. A wetland mitigation fee in-lieu of direct replacement criteria may be used for mitigation as determined by the City. This fee will be used by the City to provide mitigation for these impacted wetlands within 5 years of the project.	Maintain existing functions and values. The City will work to provide incentives to developers who improve the functions and values of Manage 2 wetlands.
Utilize	**Vegetation:** 0 to ¼ of points **Wildlife:** 0-20% **Water Quality:** >70% **Flood Attenuation:** >60%		17	No limit on bounce. Can be used for stormwater management and treatment	Sequencing is outlined within this Plan. Reference to this sequencing must be made in the application, but no additional sequencing is required.	At the City's discretion, replacement at a 1:1 ratio with 0.5 acres of NWC minimum and 0.5 acres of PVC maximum[d] with a fee. A wetland mitigation fee in-lieu of all direct wetland mitigation may also be used for mitigation as determined by the City. This fee will be used by the City to provide mitigation for these impacted wetlands within 5 years of the project.	Use for stormwater management.
Restore	**Vegetation:** 0 to ½ points **Wildlife:** 0 to 20% Field review indicates wetland could be restored		25	Limit bounce to existing level plus 1.0 ft for a 2-year storm if feasible. Pretreatment for sediment and nutrients	Sequencing in conformance with WCA.	2:1 with 1 acre of NWC minimum and 1 acre of PVC maximum	Undertake projects/ actions to restore wetland. To promote the restoration of these wetlands, the City will provide incentives to developers to restore these wetlands or undertake restoration as a City project as feasible
South Creek	NA – Pertains to South Creek		50 from centerline of creek (w/ shade spp.), 17 if wetland extends past 50' centerline. Buffer cannot be averaged.	Infiltration provisions provided prior to discharge as per South Creek Management Plan	Impacts allowed only under extreme hardship and must be in conformance with the WCA.	2:1 with 1 acre of NWC minimum and 1 acre of PVC maximum	Manage for trout stream uses (reduce temperature and promote infiltration) as outlined in the South Creek Management Plan

a) See **Section IV** for more discussion on scoring and management categories.

b) Buffer implementation: 17 feet of the required buffer will be platted as an outlot. The remaining buffer width can be included as an outlot or included in the lots provided that homeowners are made aware of the wetland buffer within their lot. Public trails or sidewalks that are a maximum of 10 feet in width can be included within the buffer provided the designated buffer width is maintained. Buffers can be averaged provided that a minimum buffer width of half of the required buffer or 17 feet is maintained, whichever is greater. For wetlands that are within the City's property, the City anticipates implementing and maintaining these buffers; however, these buffers will not be platted separately.

c) Existing two-year HWL for wetlands and water bodies are outlined in the City's Stormwater Management Plan.

d) Program must maintain a no net loss of wetlands as required by the Wetland Conservation Act.

Section VI – Implementation Program

As part of this Wetland Management Plan, several programs and projects have been identified to protect wetlands as the City continues to experience development pressure. The following lists programs and/or projects that have been identified by this Plan.

A. Administer and enforce erosion and sediment control policies
The City shall continue to enforce its erosion and sedimentation control ordinance.

B. Adopt wetland buffer requirements
The wetland buffer requirements outline in **Section V** of this Plan shall be formally adopted by the City through zoning ordinance. The purpose of these buffers are to protect wetlands, provide habitat for wildlife, and provide water quality protections. Once this ordinance is developed, it shall be inserted into **Appendix F.**

C. Undertake wetland restoration within the City
As part of this Plan, some wetlands were placed into the Restore category. As funding becomes available, the City shall implement restoration projects for these wetlands.

D. Maintain wetland banking account with BWSR
The City currently has a wetland bank account with BWSR. The City shall maintain this account and deposit additional wetland credits as they become available.

E. Public education program
As part of the public education program, the City shall continue to educate its residents, City Staff, and business owners on the importance of wetlands, wetland buffers, and good watershed stewardship. This can include articles in the City's newsletter, information on the City's web-page, and implementation of an Adopt-A-Wetland program

F. Investigate and implement biological control program for purple loosestrife
The City shall investigate the feasibility of implementing a purple loosestrife control program through the DNR's biological control program.

G. Evaluate mitigation ratios
The City will annually track the amount of wetland impacted and mitigated. The City will provide mitigation at least every 5 years to maintain a "no net loss" and 2:1 mitigation ratio in conformance with the WCA and this Plan.

H. Implement Wetland Management Plan
The City will adopt the Plan and its associated regulations by ordinance and continue to administer the WCA as outlined within this Plan.

Section VII – Enforcement, amendments, and appeals

It is the intention of the City to have this Wetland Management Plan reviewed and approved by the Board of Water and Soil Resources (BWSR) and adopted through ordinance by the City. Once approved, no significant changes to this Plan can be made without the approval of BWSR. Significant changes to this Plan shall be made known to the following parties:

- The Mayor, City Council, and City Staff
- Planning Commission
- City of Lakeville Parks, Recreation, and Natural Resources Committee
- Board of Water and Soil Resources
- Dakota Soil and Water Conservation District

Minor changes to the Plan including the addition of newly classified wetlands can be made by the City Engineer without outside review. Revision to the management strategies shall be considered a major change.

The management classification of a wetland(s) within the Plan can be appealed by the landowner, project proposer, or other interested party. This appeal must be submitted in writing to the City and include documentation supporting the reasons for placing a wetland into a different management category. This written appeal must be submitted to the City Engineer prior to or along with the wetland impact permit application. A fee, as set by the City, will be required for each wetland being appealed. The appeal will be reviewed by City Staff and the Technical Evaluation Panel. A decision will be made regarding the appeal within 60 days of receipt of the appropriate documentation from the appellant if the appeal is submitted during the growing season. If the appeal is submitted outside of the growing season, a decision will be made within 60 days after the start of the growing season. The appellant will be notified in writing of the panel's decision.

The City's decision regarding the wetland impact permit application can be appealed by a project proposer. This appeal must be made to BWSR within 30 days after the date on which the decision of the City is mailed to those required to receive notification of the decision. Minn. Rules 8420.0250 can be consulted for further information.

Section VIII – Glossary

Agricultural land	Land used for horticultural, row, close grown, pasture, and hayland crops and any associated farmyards, field roads, and drainage systems.
Anaerobic	A condition that exists when oxygen has been depleted in the local environment, such as a wetland soil.
Best Management Practices (BMPs)	State-approved and published practices that have been determined to be the most practical and effective means of controlling point and non-point pollutant levels for environmental quality goals.
Board of Water and Soil Resources (BWSR)	A state governmental agency that provides oversight to the Local Government Units for the Wetland Conservation Act.
Buffer	An upland area adjacent to a wetland that is covered with natural vegetation and experiences little to no human impact such as mowing or fertilizing. The buffer starts at the delineated wetland edge.
Buffer averaging	Buffer averaging is the practice of allowing a variable width buffer around a wetland where the average buffer width is equal to the buffer width required for the wetland management category.
Circular 39	A wetland classification method developed in 1956 by the US Fish and Wildlife Service that categorizes wetlands into eight types (i.e. Type 2).
COE	Corps of Engineers
Cowardin Method	A wetlands classification method developed in 1979 by the US Fish and Wildlife Service that categorizes wetlands using a tier system.
DNR	Department of Natural Resources
Erosion	Process by which land or structures are worn away by water, wind, or waves.
Function	A wetland function is a physical, chemical, or biological process or attribute of a wetland. It is what a wetland does.
Growing season	The portion of the year when soil temperatures are above biologic zero in the upper part. In Lakeville, the growing season is generally between April 21 – October 12.
Hydrophytic vegetation	Macrophytic plant life growing in water, soil, or on a substrate that is at least periodically deficient in oxygen as a result of inundation or saturation by water.
Hydric Soils	A soil that is saturated, flooded or ponded long enough during the growing season to develop anaerobic conditions in the upper part.
Local Government Unit (LGU)	Local agency (i.e. city, town board, watershed management organization) that has the primary responsibility for administration of the Wetland Conservation Act (WCA).
MnRAM 2.0	Minnesota Routine Assessment Method. A method

	developed by the state agencies to assess wetland functions and values.
Monotypic vegetation	Only one plant species present within an area. Generally, these plant species are non-native and/or highly invasive.
MUSA	Metropolitan Urban Service Area
No net loss	No reduction in the area and value of a wetland compared to existing conditions.
Non-point source pollution	Pollution originating at a variety of non-localized sources, such as street runoff, septic systems, atmospheric deposition, or groundwater.
NPDES	National Pollutant Discharge Elimination System. This program is administered through the Pollution Control Agency. Treating stormwater to NPDES standards generally involves treating water from a ½ inch of runoff from the impervious watershed area.
NURP	Nationwide Urban Runoff Program. Treating stormwater to NURP guidelines involves treating water from at least a 2.5-inch rainfall event. Ponds are a minimum of 4 feet deep.
NWC	New Wetland Credit: Wetland replacement credit that can be used for any portion of wetland replacement.
OHW	Ordinary High Water level. The Department of Natural Resources (DNR) establishes this elevation for those Protected Waters and Wetlands that the DNR has jurisdiction over.
PVC	Public Value Credit: Wetland replacement credit that can only be used for the portion of wetland replacement required above a 1:1 ratio.
Sedimentation basin	A depression that utilizes gravity to trap sediment and debris.
Sequencing	A five-step process outlined in the WCA that evaluates the necessity of a project's impact in a wetland.
Technical Evaluation Panel (TEP)	A panel consisting of the LGU, the local Board of Water and Soil Resources (BWSR) board conservationist, a member of the Soil and Water Conservation District. This panel provides technical wetland support to the LGU.
Value	A wetland value is the extent to which a wetland function is perceived as beneficial to an individual, municipality, or other entity.
WCA	Wetland Conservation Act
Wetland	Transitional land between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. Wetlands must have a predominance of hydric soils, be inundated or saturated with water at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions, and under normal

	circumstances, supports a prevalence of hydrophytic vegetation.
Wetland Delineation	A field-defined line based on vegetation, hydrology, and soils that defines the jurisdictional edge of the wetland. Wetlands are delineated based on the methods outlined in the 1987 US Corps of Engineers Wetland Delineation Manual.
Wetland Banking Credits	Square footage or acreage of restored or created wetland or adjacent wetland buffer described by type and topographic setting that have been approved for deposit in the wetland bank.
Wetland Mitigation	The compensation or replacement of unavoidable wetland impacts through restoration or creation of wetlands.
WMP	Wetland Management Plan