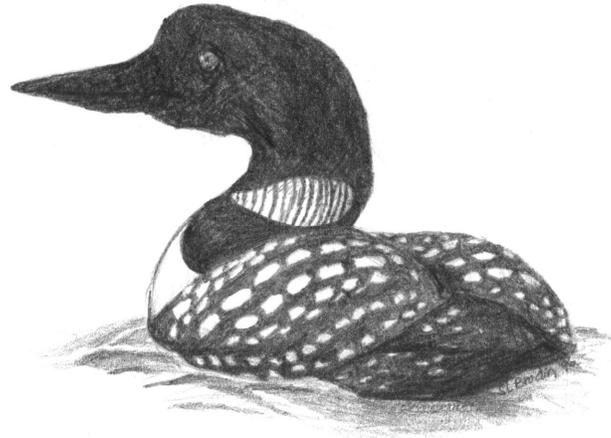


CITY OF HAM LAKE, MINNESOTA



SURFACE WATER MANAGEMENT PLAN

May 2021

**Prepared by:
RFC Engineering, Inc.
13635 Johnson St. NE
Ham Lake, MN**

**CITY OF HAM LAKE
SURFACE WATER MANAGEMENT PLAN
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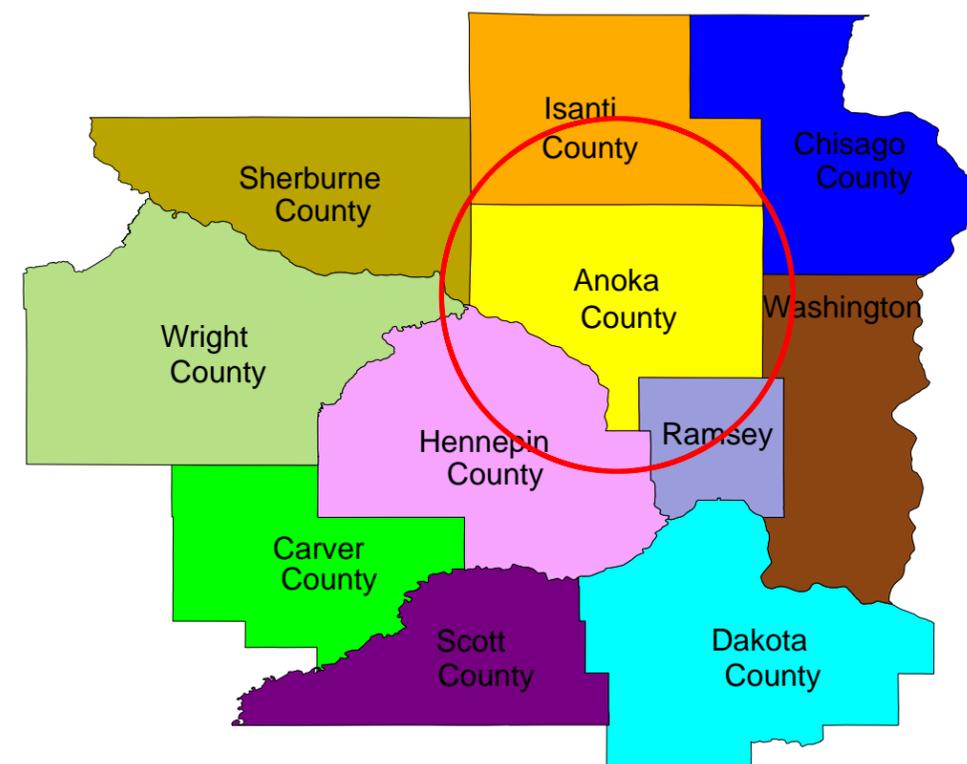
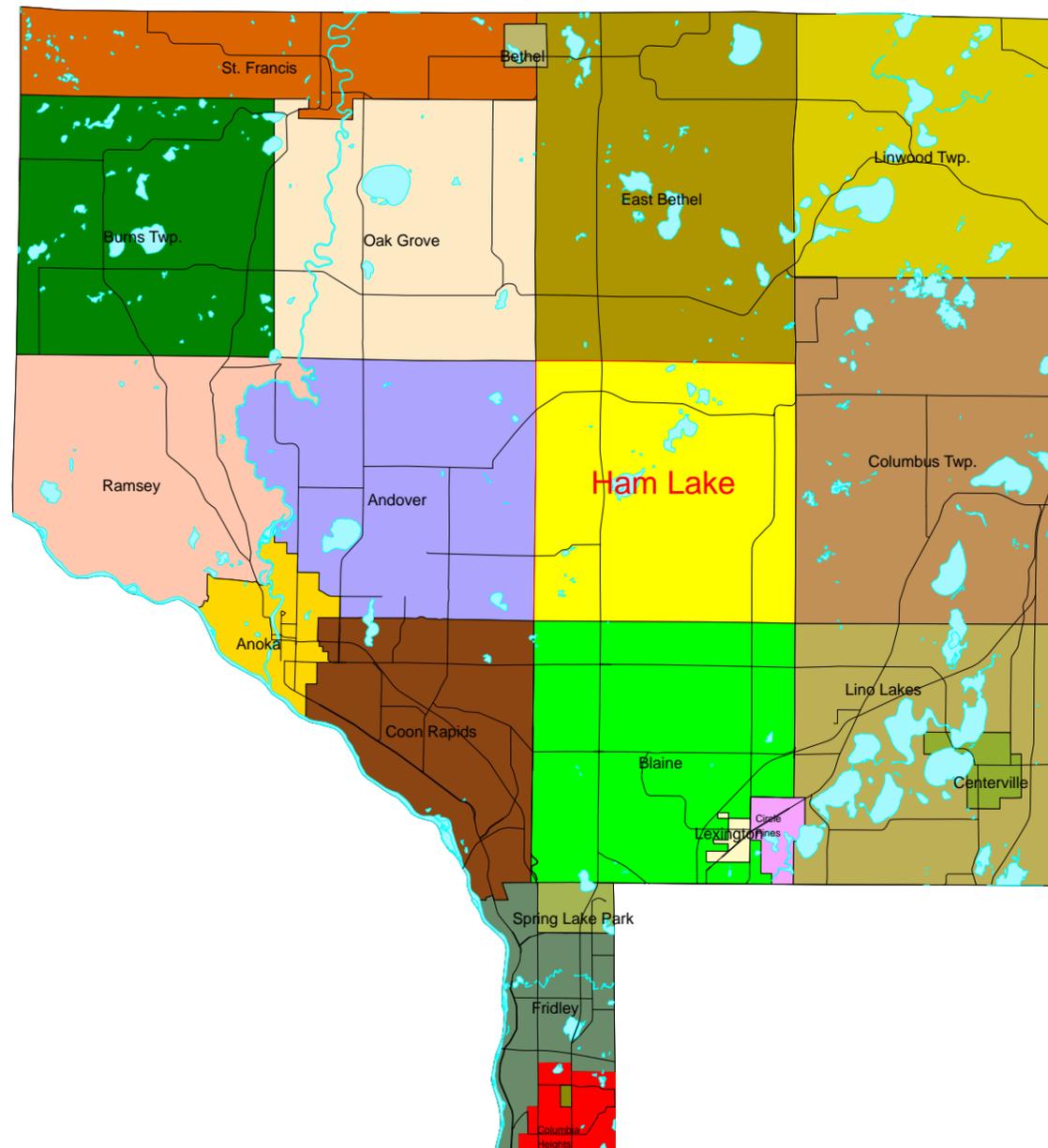
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HAM LAKE, MINNESOTA

Location Map
I-1



Sources:

- Minnesota Department of Transportation

- RFC Engineering, Inc.



I. PURPOSE

The purpose of this Surface Water Management Plan is to meet the requirements for general permit coverage under the National Pollution Discharge Elimination System (NPDES) Phase II Storm Water Permit Program (the Permit), developed and administered by the United States Environmental Protection Agency (EPA). This plan meets the requirements for Local Water Management Plans under Minnesota Statutes 103B and Minnesota Rules 8410, administered by the Minnesota Board of Water and Soil Resources. This plan is consistent with the goals and policies of the three watershed management organizations having jurisdiction within the City: Coon Creek Watershed District (CCWD), Sunrise River Watershed Management Organization (SRWMO), and Upper Rum River Watershed Management Organizations (URRWMO).

The City is the owner/operator of a Municipal Separate Storm Sewer System (MS4), and as such, is subject to the requirements of the Minnesota Pollution Control Agency (MPCA) general permit requirements. This establishes conditions for discharging stormwater into state waters from MS4s. In order to stay in compliance with the MPCA Permit, the City must fulfill the requirements of the MS4 Permit and the MPCA approved SWPPP Document. The requirements have been incorporated into this SWMP.

The primary goal of the SWMP is to:

- Preserve, protect and to use natural groundwater and surface water storage systems;
- Minimize expenditures to correct water quality issues;
- Establish local policies and controls for water management;
- Prevent soil erosion
- Protect the wildlife habitat; and
- Secure additional benefits associated with properly maintaining surface and groundwater.

The Ham Lake Surface Water Management Plan addresses these purposes.

II. WATER RESOURCES MANAGEMENT RELATED AGREEMENTS

The City of Ham Lake is comprised of one Watershed District and two Watershed Management Organizations. The Watershed Management Organizations are the Sunrise River Watershed Management Organization (SRWMO) and the Upper Rum River Watershed Management Organization (URRWMO). The Watershed District is the Coon Creek Watershed District (CCWD). See Map II – 2, Watershed District and Watershed Management Organizations, for the watershed and water management organization locations. CCWD, URRWMO and SRWMO maintain their own version of the WRAPS form as part of the requirements of MR 8410.0160. The City of Ham Lake is responsible for enforcing rules adopted by the SRWMO/URRWMO within the limits shared by Ham Lake and the respective Watershed Management Organization.

A. COON CREEK WATERSHED DISTRICT

The CCWD is the major watershed for the City. There are 32.27 square miles of the CCWD located within the City. The City of Ham Lake is 30.2 percent of the CCWD's 107 square mile area. This 32.27 square mile area is 90.2 percent of the City's 35.79 square mile area. The CCWD was established on May 28, 1959, by order of the Minnesota Water Resources Board under authorities given by Minnesota Statute Chapter 112.

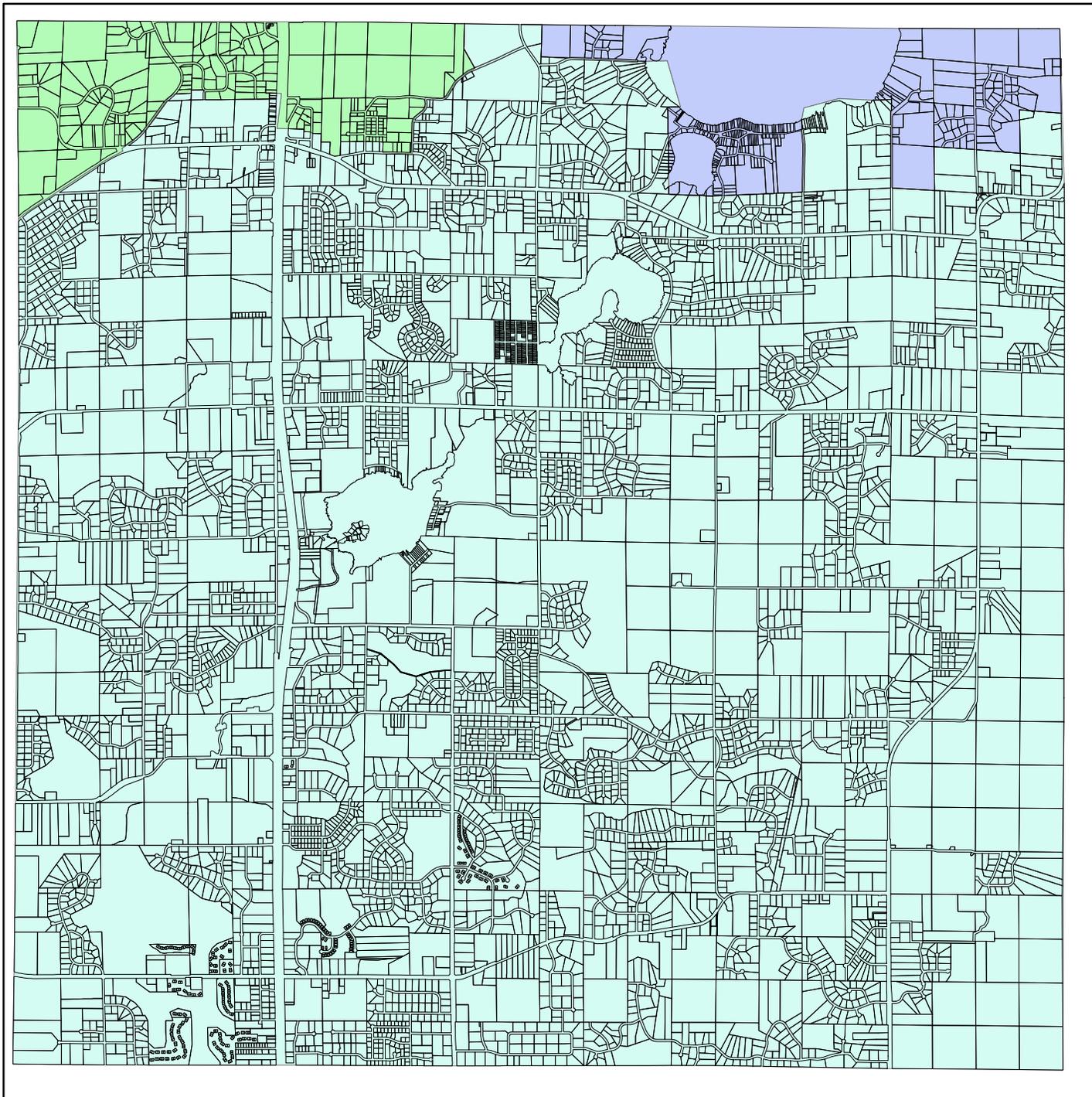
B. SUNRISE RIVER WATERSHED MANAGEMENT ORGANIZATION

The SRWMO is located in the northeastern corner of the City of Ham Lake. There are 1.82 square miles of the SRWMO located within the City. The City of Ham Lake is 2.6 percent of the SRWMO's 70.78 square mile area. This 1.83 square mile area is 5.1 percent of the City's 35.79 square mile area. The City of Ham Lake has joined the Cities of Columbus and East Bethel and the Township of Linwood in a Joint Powers Agreement forming the SRWMO in order to develop and implement a Watershed Management Plan. The City of Ham Lake joined the agreement on February 15, 1995. A further amended Joint Powers Agreement was executed in September 2000. The Joint Powers Agreement was completed under the authority given by Minnesota Statute Sections 103B.201 through 103B.255 and 471.59. The City of Ham Lake is the Local Government Unit (LGU) for that portion of the SRWMO within the City. The current Joint Powers Agreement is included in Appendix D.

C. UPPER RUM RIVER WATERSHED MANAGEMENT ORGANIZATION

The URRWMO is located in the northwestern corner of the City of Ham Lake. There are 1.70 square miles of the URRWMO located within the City. The City of Ham Lake is 1.3 percent of the URRWMO's 126.5 square mile area. This 1.70 square mile area is 4.7 percent of the City's 35.79 square mile area. The City of Ham Lake, along with the Cities of Bethel, East Bethel, Oak Grove and St. Francis and the Township of Burns, adopted a Joint Powers Agreement in 1991 forming the URRWMO. The Joint Powers Agreement was formed under the authority given by Minnesota Statute Sections 103B.201 through 103B.251 and 471.59. The City of Ham Lake is the LGU for that portion of the URRWMO within the City. The current Joint Powers Agreement is included in Appendix E.

Map II-1 Watershed District and Watershed Management Organizations



MAP DATE: 12/14/2018

Sources:
 Natural Resource Conservation Service (USDA)
 City of Ham Lake
 RFC Engineering, Inc.
 Coon Creek Watershed District
 Anoka County
 Minnesota Dept. of Natural Resources

Legend

- COON CREEK WATERSHED DISTRICT
- SUNRISE RIVER WMO
- UPPER RUM RIVER WMO

**HAM LAKE,
MINNESOTA**



III. EXECUTIVE SUMMARY

The SWMP for the City of Ham Lake has been developed to meet the applicable regulations and standards. It lays out the approach to managing the City's water resources. The plan was developed using the existing plans of the three watershed management organizations.

The SWMP expresses that the City's water resources are in good condition and meet the applicable requirements for management and maintenance efforts. Below is a brief summary of each section included in the SWMP. Appendices follow the main body of the SWMP as background material for the document.

LAND AND WATER RESOURCE INVENTORY, provides an inventory of the land and water resources within the City of Ham Lake, including both natural and manmade water resources.

ESTABLISHMENT OF GOALS AND POLICIES, outlines surface water management related goals and policies of the City of Ham Lake which address the needs of the City, as well as County, regional, state and federal agencies. These goals and policies are in the areas of water quality, water quantity, wetlands, public education and the ditch systems.

RELATION OF GOALS AND POLICIES TO LOCAL, REGIONAL, STATE AND FEDERAL PLANS, GOALS AND PROGRAMS, outlines how the goals and policies of the City of Ham Lake relate to the County, regional, state and federal goals and policies.

ASSESSMENT OF PROBLEMS, provides an assessment of the existing and potential surface water related problems within the City of Ham Lake. Existing impairments within the City of Ham Lake are evaluated and steps to remedy are taken when appropriate. Yearly public meetings occur to provide the City with a forum for residents to discuss storm water issues.

CORRECTIVE ACTIONS, provides a plan to correct and prevent the existing and potential surface water related problems within the City of Ham Lake.

FINANCIAL CONSIDERATIONS, examines the financial considerations of implementing the proposed regulatory controls, programs and improvements which have been identified in this Plan and their financial impact on the City of Ham Lake.

AMENDMENT PROCEDURES, outlines the correct procedures to take when making amendments to this plan. These changes could be required by the Permit or the watershed authorities.

IMPLEMENTATION PROGRAM, presents the implementation program for the City of Ham Lake, which includes defining the priorities and responsibilities and listing the elements of the program. This includes both current and new activities pertaining to the program.

IV. LAND AND WATER RESOURCE INVENTORY

This Section provides a general description and summary of the precipitation, topographic, geology, surface water resource data, soils, land use, public utilities and known pollutant sources. This Section also identifies where detailed information can be obtained.

A. PRECIPITATION

The climate within Anoka County Minnesota is a humid continental climate with moderate precipitation, wide temperature variations, warm humid summers and cold winters. The total average annual precipitation for Andover Minnesota is 31.6 inches, of which 40 percent occurs in the months of June, July and August. The average annual snowfall for Anoka County is 54.4 inches (see Table IV - 1, Andover Area Temperature Summary, Table IV - 2, Andover Area Precipitation Summary and Table IV - 3, Andover Area Climate Summary). Ham Lake uses the Atlas 14 method to determine design rainfall events for future design. Additional climatological information for the area can be obtained from Volume 8, Version 2.0, of the National Oceanic and Atmospheric Administration (NOAA) Atlas 14 Precipitation-Frequency Atlas of the United States.

TABLE IV - 1
Andover Area
Temperature Summary (degrees F)

Month	30-year Average			Daily Extremes				Mean Extremes			
	High	Low	Mean	High	Date	Low	Date	High	Date	Low	Date
January	23.3	1.5	12.4	58	1944	-34	1970	41.1	1990	-17.5	1912
February	28.4	6.6	17.5	61	2000	-32	1996	45.4	1987	-12.2	1936
March	40.2	19.2	29.7	83	1986	-32	1962	62.4	2012	0.5	1899
April	57.5	32.2	44.9	95	1980	2	1962	79.4	1987	21.2	1907
May	69.2	42.9	56.1	98	2013	18	1967	88.1	1934	33.2	1907
June	78.2	54.5	66.4	103	2011	34	1945	93.2	1933	44.4	1982
July	82.6	58.2	70.4	105	1988	43	1972	94.9	1936	52.5	1891
August	80.0	57.1	68.6	102	1947	39	1967	93.3	1947	49.4	1967
September	71.3	46.3	58.8	98	1976	26	1974	88.8	1948	5.5	1974
October	58.0	35.1	46.6	90	1997	13	1997	80.1	1963	25.2	1917
November	41.3	22.1	31.7	77	1999	-17	1964	62.0	2001	6.2	1896
December	26.6	8.3	17.5	68	1998	-29	1983	46.0	1923	-9.7	1983
Annual	54.8	32.1	43.5	105	1988	-34	1970	72.9	1988	19.0	1970
Winter	26.0	5.4	15.7	68	1998	-34	1970	46.2	1998	-17.3	1970
Spring	80.3	56.6	68.5	98	2013	-32	1962	88.0	2013	0.4	1962
Summer	55.6	31.4	43.5	105	1988	34	1945	94.9	1988	44.7	1945
Fall	56.9	34.5	45.7	98	1976	-17	1964	88.7	1976	6.4	1964

The above data is from the National Climatic Data Center.

Averages from 1981 through 2010, Extremes from 1988 through 2017.

TABLE IV - 2
Andover Area
Precipitation Summary (inches)

Month	Precipitation							Snowfall		
	30-yr Ave	High	Year	Low	Year	1 - Day Max		30-yr Ave	High	Year
January	0.90	3.63	1967	0.10	1990	1.21	1967	12.20	46.41	1982
February	0.77	2.14	1981	0.06	1964	1.34	2012	7.70	26.51	1962
March	1.89	4.75	1965	0.32	1994	1.66	1965	10.30	40.01	1951
April	2.66	7.00	2001	0.16	1987	2.58	2006	2.40	21.81	1983
May	3.36	9.34	2012	0.53	2009	3.39	2012	0.00	3.00	1946
June	4.25	11.36	2014	0.22	1988	4.13	2014	0.00		
July	4.04	17.90	1987	0.58	1975	10.00	1987	0.00		
August	4.30	9.32	2007	0.43	1946	7.36	1977	0.00		
September	3.08	7.53	1942	0.30	2012	3.55	1942	0.00	1.70	1942
October	2.43	5.68	1971	0.01	1952	4.83	2005	0.60	8.20	1991
November	1.77	5.29	1991	0.02	1939	2.91	1940	9.30	46.91	1991
December	1.16	4.27	1982	0.01	1943	2.47	1982	11.90	33.61	2010
Annual	31.6	40.32	2016	19.1	1988	10.00	1987	54.4	86.6	2010-11
Winter	2.7	3.99	2010	1.09	2002	2.47	1982	31.8	66.7	2010-11
Spring	8.4	13.78	2012	3.6	2009	3.39	2012	12.7	32.2	2013
Summer	12.6	22.31	1997	5.68	1988	10.00	1987	0.0		
Fall	8.0	13.24	1991	1.36	2011	4.83	2005	9.9	55.1	1991

The above data is from the National Climatic Data Center.

Averages from 1981 through 2010, Extremes from 1988 through 2017.

TABLE IV - 3
Andover Area
Climate Summary

Month	Total Precipitation (inches)	Mean Temperature (° F)	Dew Point Average (° F)	Mean Relative Humidity (%)
January	0.78	12.4	11.4	75
February	0.79	17.5	15.0	72
March	1.67	29.7	25.0	66
April	2.97	44.9	35.0	56
May	3.72	56.1	46.9	59
June	4.43	66.4	57.7	63
July	4.05	70.4	62.7	64
August	4.11	68.6	61.3	67
September	3.62	58.8	53.2	67
October	2.69	46.6	40.0	65
November	1.68	31.7	27.4	71
December	1.12	17.5	16.0	77
Total	31.63	43.4	37.6	66.8

The above data is from the National Climatic Data Center.
Normals from 1981 through 2010.

B. TOPOGRAPHIC AND GEOLOGIC INFORMATION

Topography for the City is available in ten foot contours from the United States Geological Survey (USGS). The County also maintains and is available to the public 2-foot contours obtained from lidar scans over the County. The City is characterized by gently rolling hills with patches of forest surrounded by low wetland and marshy areas. The land relief is approximately 50 feet, between elevations 874 feet above mean sea level in the southwest along County Ditch #57 to elevation 924 feet above mean sea level at Glen Cary Cemetery.

A Soil Survey was conducted by the United States Department of Agriculture Soil Conservation Service (SCS) in conjunction with the University of Minnesota Agricultural Experiment Station. This soil survey included data on specific soil types and their suitability for various uses. A link to the Soil Survey is included in the Appendices section of this SWMP. There are two different soil associations located within the City. These soil associations are Zimmerman-Isanti-Lino Association and Rifle-Isanti Association. A Soils Map is available for viewing from the Maps section of the City of Ham Lake webpage.

Infiltration capacities of soils affect the amount of direct runoff resulting from rainfall. The higher the infiltration rate for a given soil, the lower the potential is for runoff. This also increases the susceptibility of introducing ground water contaminants. With Ham Lake not having a centralized water distribution system, care should be taken when utilizing infiltration. Conversely, soils with low infiltration rates produce high runoff volumes and high peak discharge rates.

Four general hydrologic groups for soils have been established by the SCS. These groups are:

- Group A - Low runoff potential, high infiltration rate
- Group B - Moderate infiltration rate
- Group C - Slow infiltration rate
- Group D - High runoff potential, very slow infiltration rate

For Zimmerman-Isanti-Lino Association soils, the topography is level to undulating. The naturally occurring high water table is at or near the surface in most depressed areas. These soils are dominated by fine sands and drainage ranges from excessively to very poorly drained. A high water table is a characteristic of Isanti and Lino soils. The Zimmerman-Isanti soils are in the hydrologic group A, indicating low runoff potential and high infiltration rates. The Lino soils are in the hydrologic group B, indicating moderate runoff potential and moderate infiltration rates. These soils are normally good for urban development because they generally provide excellent drainage and have good bearing capacity. The soil has limited cropland use due to low fertility and high permeability. Zimmerman soils are in broad undulating areas on narrow escarpments and are excessively drained, consisting of very dark gray and dark-brown fine sand underlain by yellowish-brown and light yellowish-brown fine sand. Isanti soils are in depressions and on low-lying sandy loam about 10 inches thick and are very poorly drained black fine sandy loam underlain by gray and dark gray fine sand that occur in depressions and low-lying areas. Lino soils are on small flats, in small depressions and on small concave rises and are somewhat poorly drained black, dark gray or dark grayish-brown loamy fine sand underlain by mottled-brown and light brownish-gray fine sand.

For Rifle-Isanti Association soils, the topography is nearly level. The soil association is a series of large level bogs dominated by organic soils and small sandy island-like features that rise several feet above the general level of the surrounding bogs. They are poorly drained soils formed in organic material and fine sand. The soils are in the hydrologic group D, indicating high runoff potential and very slow infiltration rates. The soil has a moderately rapid permeability and a high water capacity. The organic matter content is very high. Unless these soils are drained, the water table is at or near the surface. These areas have been extensively ditched in the past to allow for drainage. These areas, when drained, display similar characteristics as the Zimmerman-Isanti-Lino Association soils. These areas have been used as pasture and cropland when drained. Rifle soils occur in large bogs and are very poorly drained. They have a surface layer of very dark brown mucky peat about 8 inches thick. The next layer and the underlying material are dark yellowish-brown and very dark grayish-brown mucky peat. Isanti soils occur as slight rises and narrow rims around island-like features and are very poorly drained black loamy fine sand or fine sandy loam about 10 inches thick, underlain by gray and dark-gray fine sand. The underlying material to a depth of about 31 inches is light brownish-gray fine sand.

Ham Lake is located in the Anoka sand plain. This geologic feature is named after the County in which it is most prevalent. This area is a sand outwash plain formed by the retreat of the Des Moines lobe and the Grantsburg sublobe of the Superior lobe glacier (see Map IV - 3, Sand Plain Surficial Geology). The surface of the Anoka sand plain is flat to moderately undulating. Low regions of upland represent areas of till left from previous ice movements that were not buried by the outwash sand. Other features of positive relief are patches of sand dunes, formed by southwesterly winds after the sand plain was abandoned by the outwash streams. Landscape features of negative relief include numerous lakes and marshes which formed from ice blocks, originally buried by the outwash sand, melted to create the depressions, which are now filled with water and/or organic soils. As a result of the glacial actions, glacial outwash is the predominate surficial geologic formation in the City.

The Anoka sand plain is characterized by medium grain size sand. These sands range from 15 to 80 feet deep and are generally underlain by 100 feet of consolidated red-brown sandy till. This relatively impermeable layer of till traps the groundwater above it, keeping the groundwater table high and readily available.

The most recent glacial deposits were laid down by a large eastward flowing river of melt water from a receding glacier known as the Des Moines ice lobe. The outwash from the Des Moines lobe forms the upper unit of the Anoka Sand Plain. Its thickness is typically between 20 feet and 60 feet.

The Des Moines lobe till occurs underneath the outwash sands if it has not been completely eroded. The till ranges from zero to 50 feet thick.

Further underneath lays another glacial deposit, the Superior lobe outwash sand. This unit comprises the lower half of the Anoka Sand Plain and ranges in thickness from zero to about 50 feet.

The bedrock layers were deposited during a time before the Ice Age when Minnesota experienced tropical weather and the land was covered by shallow seas. Over time these deposits were consolidated into solid rock formations of sandstone, dolomite and shale. The bedrock under the City varies from an elevation of 550 feet above mean sea level to an elevation of 800 feet above mean sea level.

The uppermost bedrock found in the City is the Jordan Sandstone. The Jordan Sandstone underlies a very small portion of the southeastern corner of the City. Typical thickness of the aquifer is between 75 feet and 100 feet.

Underlying the Jordan Sandstone is the St. Lawrence Formation and the Tunnel City Group. The St. Lawrence Formation and the Tunnel City Group lie under the majority of the City. The St. Lawrence Formation is commonly 30 feet to 50 feet thick, while the Tunnel City Group varies much more, from a few feet to 230 feet thick.

Below the Tunnel City Group lies a pair of sandstone units, the Wonewoc Sandstone. The Wonewoc Sandstone averages between 50 and 60 feet thick.

Below the Wonewoc Sandstone is the Eau Claire Formation. The Eau Claire Formation has

typical thicknesses of 80 feet to 85 feet.

Below the Eau Claire Formation lies the Mt. Simon and Hinckley Sandstones. The highly variable thickness of this formation is typically greater than 170 feet.

Underneath lays much older rock which is primarily volcanic in origin. Present at the bottom of the County's geologic formations, it is referred to as the "basement rock".

There are four primary aquifers found throughout Anoka County. These are, from shallowest to deepest, the glacial drift (surficial) aquifer, the Tunnel City aquifer, the Wonevoc aquifer and the Mt. Simon aquifer. Three additional aquifers found in limited areas of the County between the Tunnel City aquifer and the glacial drift aquifer are the St. Peter formation, the Jordan formation and the St. Lawrence formation.

The glacial drift aquifer is composed of variable and discontinuous layers of outwash and till. The top part of this aquifer ranges from zero to 20 feet below the land surface. Wells in this layer are typically 20 feet to 50 feet deep with typical yields of up to 20 gallons per minute (gpm).

Often beneath the first layer of sand lies under the Des Moines lobe outwash which acts as a confining material. Where this layer exists continuously over a large enough area, the water in the underlying sand layer (lobe outwash) is under pressure and is said to be confined. Wells in the confined drift aquifer, ranging from 30 feet to 300 feet deep, commonly yielding several hundred gpm. In general, the Des Moines till layer is discontinuous and cannot be relied upon to act as a confining barrier to downward movement of water.

Beneath the confined drift aquifer is the relatively continuous confining layer of the Superior lobe till. This till is sandier than the Des Moines lobe till, making it relatively more permeable, but is considerably thicker, up to several hundred feet. The Superior lobe generally lies over bedrock in Anoka County.

Throughout most of the County the Lower Tunnel City formation is the first bedrock aquifer encountered. The Lower Tunnel City yields 10 to 20 gpm. Although the Lower Tunnel City unit yields relatively low volumes of water, it is an adequate aquifer for private domestic wells pumping approximately 12 gpm.

The Wonevoc Aquifer underlies a small portion of the City. This aquifer has a transmissibility of 500 to 1,500 feet squared per day. The flow in this aquifer is from North to South. The area in which this formation exists is a recharge area. The Wonevoc aquifer is a relatively thin layer of highly permeable sandstone. The Wonevoc yields 40 to 400 gpm.

The Mount Simon Aquifer is the deepest aquifer in the City of Ham Lake. Being the aquifer of last resource if overlying aquifers are contaminated, high capacity wells can be constructed only for drinking water according to Minnesota Statute 103G.271. Well yields within this aquifer range from 125 to 2,000 gpm. The Mount Simon Aquifer recharges outside of City of Ham Lake. Below the Mt. Simon aquifer lie additional sedimentary units and eventually volcanic rocks which are not known to contain aquifers. Additional soils and geology information can be found in the Anoka County Groundwater Protection Assessment,

dated June 1995, and the Soil Survey of Anoka County, Minnesota, issued September 1977.

The Anoka County resource of www.knowtheflow.us includes various grant opportunities that the owners of individual, non-community and private well owners can apply for. The web site includes information on how to protect drinking water wells and classes for educating well owners.

C. WETLANDS

Wetlands cover a significant portion of the City of Ham Lake (see Map IV - 1, DNR Protected Waters and Wetlands, Map IV - 2, National Wetland Inventory, Tables IV - 4 and IV - 5, DNR Protected Waters and Wetlands Classification and Table IV - 6, Wetland Functions). These wetlands provide the habitat for many species of plants and animals.

Inventory and assessment of wetlands in the City are performed on a case-by-case basis within the City. Generally, wetland considerations for removal or replacement, and administration of the Wetland Conservation Act (WCA) are handled by the local government unit (LGU). The LGU for that portion of the City within the Coon Creek Watershed District (CCWD) is the CCWD. The LGU for those portions of the City within the Sunrise River Watershed Management Organization and the Upper Rum River Watershed Management Organization is the City of Ham Lake.

Wetlands affect local water quality. The aquatic plants present in a healthy wetland will slow and filter water moving through the wetland, taking up nitrogen and phosphorus as nutrients and purifying the water through increased settling. The purified water then seeps into the groundwater supply or flows into the surface drainage.

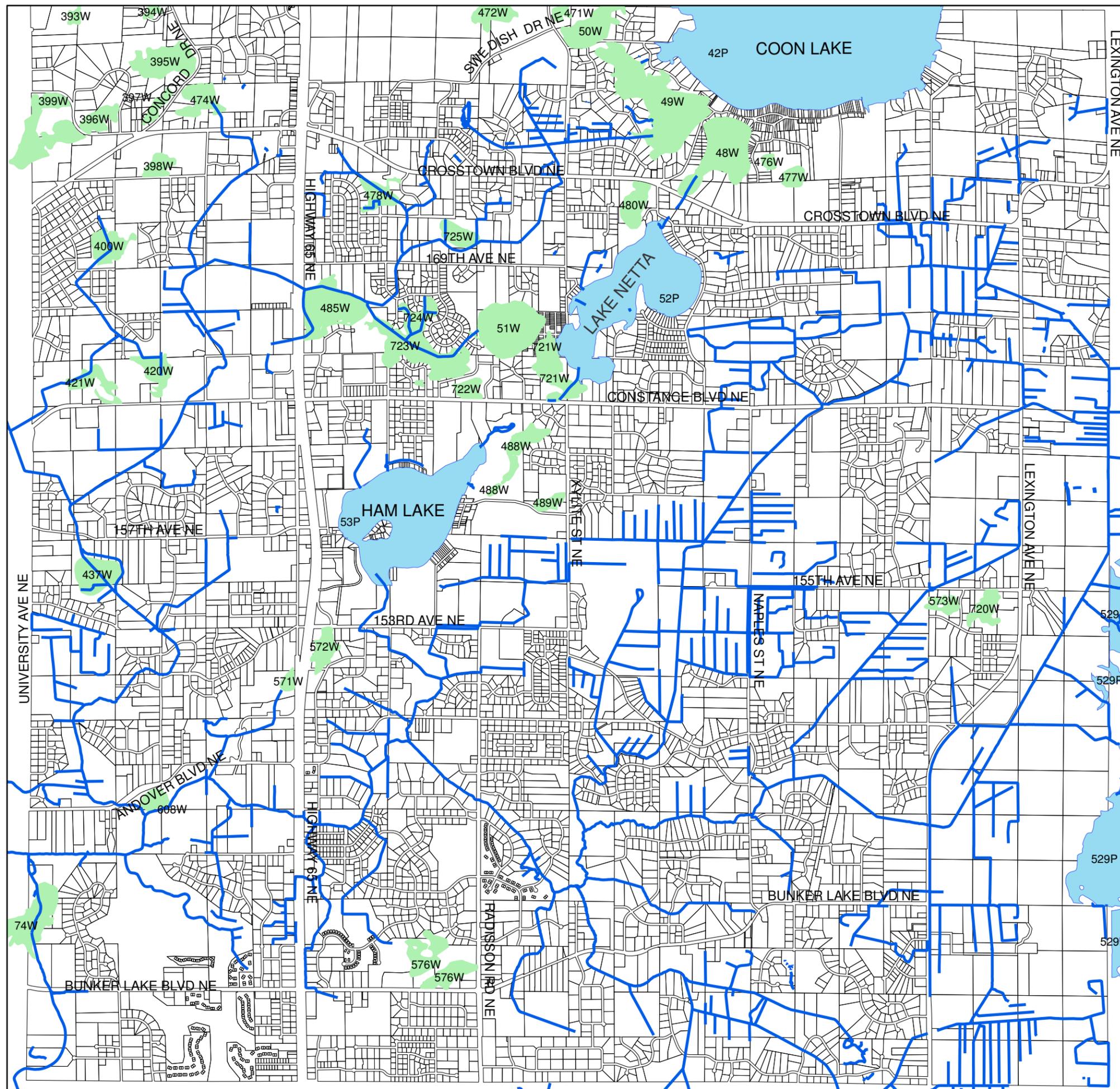
Wetlands affect the amount of water in the floodplain. In most areas, the wetlands hold water during droughts and acts as natural storage ponds during periods of flooding, thus making storm water runoff more manageable. Wetlands should not be used as settling basins or they will fill up with coarse particulates and lose their nutrient assimilative storage capacity and processing capabilities, which could result in the loss of wildlife habitat.



HAM LAKE, MINNESOTA

DNR PROTECTED WATERS AND WETLANDS

MAP IV-1



LEGEND

-  CCWD Streams and Ditches
-  DNR PROTECTED WATERS
-  DNR PROTECTED WETLANDS



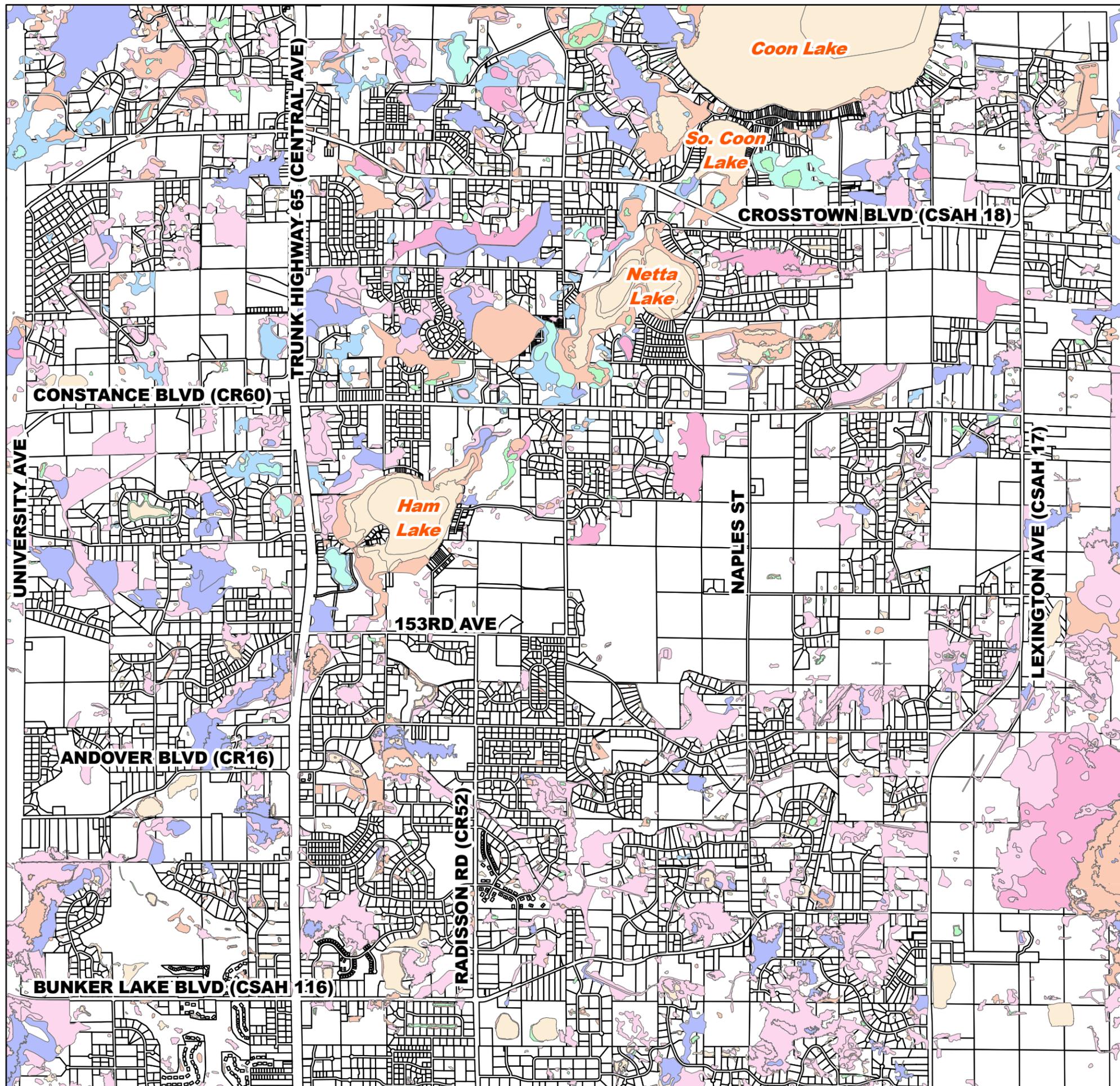
MAP DATE: 09/08/16

- Sources:
- Coon Creek Watershed District
 - Anoka County GIS Services
 - Minnesota DNR
 - RFC Engineering, Inc.



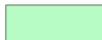
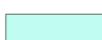


**HAM LAKE,
MINNESOTA
NATIONAL WETLAND
INVENTORY
MAP IV - 2**



Legend

**National Wetland Inventory
Circular 39 Class Type**

-  Seasonally Flooded (Type 1)
-  Wet Meadow (Type 2)
-  Shallow Marsh (Type 3)
-  Deep Marsh (Type 4)
-  Shallow Open Water (Type 5)
-  Shrub Swamp (Type 6)
-  Wooded Swamp (Type 7)
-  Bog (Type 8)



MAP DATE:

08/23/16

Sources:

- Anoka County Engineering & Surveying Departments
- US Department of Housing and Urban Development (National Flood Insurance Program)
- Land Management Information Center (LMIC)-MNPLANNING
- RFC Engineering, Inc.



TABLE IV - 4

DNR Protected Waters and Wetlands Classification

DNR Identification Number	Area (Acres)	Wetland Type	Watershed District or Organization	Location			Shoreland Ordinance Protection
				Section	Township	Range	
42P Coon Lake	1,779	Lake	Coon Creek & Sunrise River	1-3, 25-27, 34-36, 30	32, 33	22, 23	General Development
48W South Coon Lake	48	5	Coon Creek & Sunrise River	2, 3, 10	32	23	Natural Environmental
49W Mallard Lake	65	4	Coon Creek	3	32	23	Natural Environmental
50W	30	3	Coon Creek	3, 4	32	23	not classified
51W	56	3	Coon Creek	9	32	23	Natural Environmental
52P Lake Netta	269	Lake	Coon Creek	9, 10, 15, 16	32	23	Recreational Development
53P Ham Lake	224	Lake	Coon Creek	16, 17, 20, 21	32	23	Recreational Development
74W	46	3	Coon Creek	30, 31, 36	32	23, 24	Natural Environmental
393W	Unknown	Unknown	Upper Rum River	6, 30	32, 33	23, 22	not classified
394W	Unknown	Unknown	Upper Rum River	6	32	23	not classified
395W	33	3	Coon Creek & Upper Rum River	6	32	23	not classified
396W	Unknown	Unknown	Coon Creek	6	32	23	not classified
397W	Unknown	Unknown	Upper Rum River	6	32	23	not classified
398W	11	Unknown	Coon Creek	6	32	23	not classified
399W	Unknown	Unknown	Upper Rum River	1, 6	32	23, 24	not classified
400W	9	3	Coon Creek	7	32	23	not classified
420W	21	3	Coon Creek	7, 18	32	23	not classified
421W	17	3	Coon Creek	18	32	23	not classified
471W	4	3	Coon Creek	4	32	23	not classified
472W	12	3	Coon Creek	4	32	23	not classified

Note: There are protected channels between 48W and 52P, 52P and 51W, 51W and 721W

TABLE IV - 5

DNR Protected Waters and Wetlands Classification

DNR Identification Number	Area (Acres)	Wetland Type	Watershed District or Organization	Location			Shoreland Ordinance Protection
				Section	Township	Range	
473W	Unknown	Unknown	Coon Creek	19	32	23	not classified
474W	12	3	Coon Creek	5, 6	32	23	not classified
476W			Coon Creek	2	32	23	not classified
477W			Coon Creek	2, 11	32	23	not classified
478W	11	3	Coon Creek	8, 9	32	23	not classified
480W	20	4	Coon Creek	10	32	23	not classified
485W	55	3	Coon Creek	8	32	23	not classified
486W	Unknown	Unknown	Coon Creek	8	32	23	not classified
488W	15	3	Coon Creek	16	32	23	not classified
489W	7	3	Coon Creek	16	32	23	not classified
529P	2,290	3	Coon Creek	19, 20, 28-32, 25	32	22, 23	not classified
571W	7	3	Coon Creek	20	32	23	not classified
572W	8	3	Coon Creek	20	32	23	not classified
573W	11	3	Coon Creek	24	32	23	not classified
576W	21	3	Coon Creek	33	32	23	not classified
608W			Coon Creek	30	32	23	not classified
618W	Unknown	Unknown	Coon Creek	31	32	23	not classified
619W	Unknown	Unknown	Coon Creek	31	32	23	not classified
720W	13	3	Coon Creek	24	32	23	not classified
721W	19	3	Coon Creek	9, 15, 16	32	23	not classified
722W	11	3	Coon Creek	16	32	23	not classified
723W	49	3	Coon Creek	8, 9, 16, 17	32	23	not classified
724W	9	3	Coon Creek	9	32	23	not classified
725W	14	3	Coon Creek	9	32	23	not classified

Note: There are protected channels between 48W and 52P, 52P and 51W, 51W and 721W

TABLE IV - 6

Wetland Functions

Function	Description
Floodwater Storage and Retention	Wetlands can reduce flooding by slowing down the force of floodwater and by providing temporary storage of large amounts of storm water or snow melt water, thus reducing damages to roads, bridges, crops, etc.
Nutrient Assimilation	Wetland plants absorb nutrients during their growth and development. This removal means cleaner water leaving the wetland.
Sediment Entrapment	Wetlands can slow the flow of water moving through them. This allows sediments and associated nutrients time to settle out before the water is released to other wetlands, lakes or streams.
Ground Water Recharge	Some wetlands serve as a source of ground water recharge by collecting and retaining surface waters that would otherwise end up in distant lakes and rivers, helping assure long-term supplies of quality groundwater.
Low Flow Augmentation	Wetlands can augment low flows in streams through retarding direct runoff or by contributing to groundwater based low flows thus reducing impacts of short term precipitation deficiencies in rivers and streams.
Aesthetics and Recreation	Wetlands are often beautiful areas to observe unique plant and animal species. They are an amenity to residential and commercial development in urban environments. Hunters and fishermen also frequent wetland areas.
Shoreland Anchoring and Erosion Control	Wetland vegetation can reduce erosion along lake and stream banks by reducing forces associated with wave action.
Wildlife Habitat	Many species of wildlife spend all or certain seasons of the year in wetland habitats for breeding, brood rearing, feeding or cover purposes.

D. LAKES AND STREAMS

Ham Lake, Lake Netta, South Coon Lake and Mallard Lake are located entirely within the City. Coon Lake is located in portions of Ham Lake, East Bethel, Columbus and Linwood Township. Coon Creek runs from Northeast to Southwest through the City and is the final surface water outlet for Ham Lake, Lake Netta and Mallard Lake. Information on water quality and lake monitoring can be found on the Anoka Conservation District web site (www.anokaswcd.org) under Reports/Water Almanac.

Coon Lake is located in Sections 1-3 of Ham Lake, Sections 25-27 and 34-36 of East Bethel, Section 25 of Columbus and Section 30 of Linwood Township. The lake area is 1,481 acres, has a maximum depth of 27 feet and a mean depth of 7 feet. Public access is available at three locations with boat ramps, including one park with a swimming beach. Ham Lake has been placed on the MPCA's impaired waters list for high mercury concentrations in fish. The MPCA has prepared a plan to reduce mercury releases by 2025. This plan describes specific strategies that the State will employ to achieve the goals for the TMDL. No additional action by the City is needed.

Ham Lake is located in Sections 16, 17, 20 and 21 of Ham Lake. Ham Lake County Park is located at its south side. The lake area is 168 acres, with a maximum depth of 22 feet, an average depth of 10 feet and has public access within Ham Lake Park. Ham Lake has been placed on the MPCA's impaired waters list for high mercury concentrations in fish. The MPCA has prepared a plan to reduce mercury releases by 2025. This plan describes specific strategies that the State will employ to achieve the goals for the TMDL. No additional action by the City is needed.

Lake Netta is located in Sections 9, 10, 15 and 16 of Ham Lake. The lake surface area is 162 acres and the maximum depth of 19 feet.

South Coon Lake is located in Sections 2 and 3 of Ham Lake. The lake area is 47 acres and has a maximum depth of 4 feet.

Mallard Lake is located in Section 3 of Ham Lake. The lake area is approximately 26 acres.

E. DITCH SYSTEMS

There are numerous State, County, City and private ditches located within the City of Ham Lake. The first public ditch system of Ham Lake was constructed around the year 1900. It is a complex network of drainage ditches which have been modified over the years. There are many private ditches that have also been added to this system. Some private ditches now convey runoff from residential development areas. Although these private ditches are not now under City ownership, the problems associated with them often ends up being resolved by the City. This Plan will designate City policy for managing these private ditches, including the known problems that are a result of them. Many sections of the ditch system are silted in, overgrown with trees and brush and generally in poor condition. Minimal maintenance has been performed on many ditches since their construction.

Coon Creek is a major drainage ditch through central Anoka County. The slope of Coon

Creek is approximately 2.5 feet per mile through Ham Lake. The Anoka Conservation District (ACD) monitors the stream levels at the Naples Street crossing, where the creek is approximately 15 feet wide and 1 foot deep. The ACD monitors Ditch 58 at the Andover Boulevard crossing. Ditch 58 is a tributary to Coon Creek. Coon Creek was identified as impaired water by the MPCA in 2006 for E.coli and Macroinvertebrate. Coon Creek Watershed District's identifies agricultural runoff, poor pet waste management, wildlife waste and failing septic systems as contributors of Ecoli. Ham Lake has an ordinance requiring clean up of pet waste per City Code 11-1900.31, Illegal Discharges and has published in its news article regarding cleanup and city code requirements. Ham Lake also requires private SSTS to comply with Minnesota Rules 7080.1500 Subpart 4 (B). The City of Ham Lake reminds property owners every 3 years via a post card to have their SSTS system inspected to comply with Ham Lake code 11-450.5.

Sand Creek is a major drainage ditch and is mainly located in Blaine Minnesota south of 121st Avenue. While this creek does not flow through Ham Lake, portions of the SE quarter of section 32 and the SW quarter of section 33 do flow to County Ditch 60 in Blaine which is connected to Sand Creek as a contributing part of the watershed. Sand Creek is identified as impaired water by the MPCA for E. Coli and Macroinvertebrate. The closest point of Sand Creek is more than one mile from the Ham Lake border.

The MPCA has identified Coon Creek and Sand Creek with higher than acceptable Total Suspended Solids (TSS) and Total Phosphorous (TP). The Coon Creek Watershed District is working with the Cities of Andover, Blaine, Columbus, Coon Rapids and Fridley that are within the watersheds of Sand and Coon Creek to identify sources of these impairments in an attempt to reduce these impairments. The Coon Creek Watershed District is monitoring total phosphorous and total suspended solids within Coon Creek. Ditch 11 which parallels Lexington Avenue is exhibiting high amounts of phosphorous. Ham Lake contains many sod farms that utilize phosphorous to grow turf. State law prohibits the regulation of phosphorous for agricultural purposes. Further investigation into the causes of high TSS and TP is continuing.

Crooked Brook is a minor drainage ditch located in East Bethel Minnesota which feeds into Cedar Creek in East Bethel which then feeds into Rum River. The portions of Ham Lake that feed into Crooked Brook are the areas of Ditch 28 that flow north from Ham Lake into East Bethel along State Trunk Highway 65. Crooked Brook is identified as impaired water by the MPCA for low dissolved oxygen. The closest point of the Crooked Brook is more than one mile from the Ham Lake border. No recent data has been collected to determine if this still is an issue.

Mahoney Brook is a minor drainage ditch located in Andover and Oak Grove which feeds into Cedar Creek in Oak Grove. While this creek does not flow through Ham Lake, the portions of Ham Lake that feed into Mahoney Brook are the areas of Ditch 71 in the northwest portion of Ham Lake. Mahoney Brook is identified as impaired water by MPCA for aquatic life and fish bioassessments. The closest point of the Mahoney Brook is more than one mile from the Ham Lake border.

Ham Lake is part of the South Metro Mississippi River TMDL which is

CCWD took over Anoka County's ditch system within the CCWD. Anoka County maintains jurisdiction of the county ditch system within the SRWMO and URRWMO.

Within the City, there are a variety of fish species and habitats. Seasonally flooded marsh areas provide spawning and nursery habitat for northern pike. During high water periods the channels of the ditch system can be navigable by many fish species.

F. FLOOD INSURANCE

The National Flood Insurance Program had mapped the City of Ham Lake flood boundaries during flood insurance studies completed in 1979 and 1980. These studies were based on the existing City conditions at that time. Flood boundaries were determined by approximate methods using engineering judgment together with field inspection, aerial photographs and USGS topographic maps. The flood maps have been updated in 2015 to reflect updated rainfall events using Atlas 14 data and more accurate topographic information. The flood insurance study, City of Ham Lake FIS, January 1980, Community ID 270674, is available for review at the DNR Division of Waters or from the links in the References section of this SWMP. Amendments have been made to the map and are represented pictorially on Map IV - 3, Floodplain and Table IV - 9, National Flood Insurance Program Map Amendments. Amendments that were complete prior to the 2015 flood insurance update were reapplied to the 2015 update.

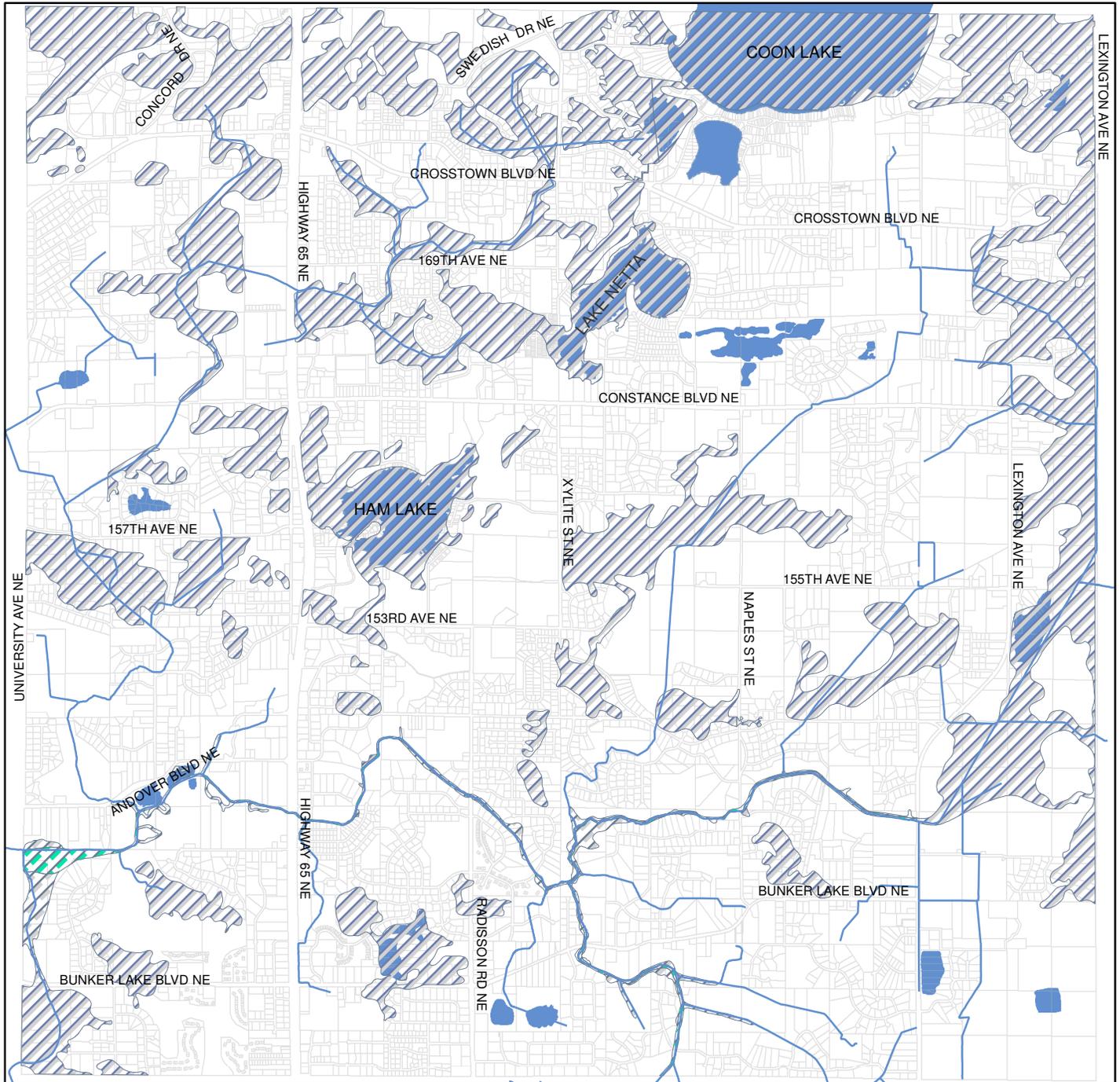
G. LAND USE

Approximately 71 percent of the 35.79 square miles of land in the City of Ham Lake is suitable for development. Approximately 54 percent of the 35.79 square miles of the City is now developed as single family residential. The numerous wetlands will keep the overall population density low. Existing Land Use and Map IV - 5, Future Land Use, show the existing and proposed land use. The City has passed a Shoreland Zoning Ordinance (Ham Lake Ordinance 92-35) and Floodplain Ordinance (Ham Lake Ordinance 15-27). The Floodplain Ordinance complies with Minnesota Administrative Rules 6120.5000.

H. POLLUTANT SOURCES

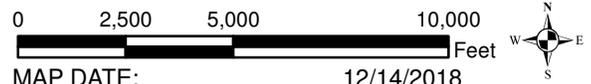
Potential sources of pollution are subsurface sewage treatment systems, non-point sources, petroleum pipelines, dump sites, absorption pits and storage tanks. See Map IV - 6, MPCA Pollutant Source Locations and the MPCA Pollutant Source Location Data in Appendix A, which are categorized as either Active or Inactive.

Map IV-3 Floodplain



FEMA Hazard Zone

-  100 Year Flood Zone
-  100 Year Flood W/ Elevation
-  100 Year Floodway
-  Streams and Ditches
-  Lakes
-  Ham Lake Parcels



MAP DATE: 12/14/2018

Sources:
 Federal Emergency Management Agency (FEMA)
 City of Ham Lake
 RFC Engineering, Inc.
 Coon Creek Watershed District
 Anoka County

**HAM LAKE,
MINNESOTA**



TABLE IV-7

National Flood Insurance Program Map Amendments

Location	Section	Case Number	1% Annual (BFE)
Livgard Acres	20	94-05-692A	-
Lot 5, Block 5, Maple Ridge (14915 Naples Street)			
Lot 6, Block 5, Maple Ridge (3411 149th Avenue)	23	94-05-1046P, C, R	-
Lot 7, Block 5, Maple Ridge (3441 149th Avenue)			
2065 Bunker Lake Boulevard *	33	94-05-1316A	900.0
Lot 1, Block 3, Lexington Estates (4805 168th Lane)			
Lot 2, Block 3, Lexington Estates (4819 168th Lane)			
Lot 3, Block 3, Lexington Estates (4843 168th Lane)			
Lot 4, Block 3, Lexington Estates (4861 168th Lane)			
Lot 5, Block 3, Lexington Estates (4915 168th Lane)			
Lot 6, Block 3, Lexington Estates (4933 168th Lane)			
Lot 7, Block 3, Lexington Estates (4940 168th Lane)			
Lot 8, Block 3, Lexington Estates (4928 168th Lane)	12	95-05-1398C	-
Lot 9, Block 3, Lexington Estates (4910 168th Lane)			
Lot 10, Block 3, Lexington Estates (4858 168th Lane)			
Lot 11, Block 3, Lexington Estates (4836 168th Lane)			
Lot 12, Block 3, Lexington Estates (4814 168th Lane)			
Lot 13, Block 3, Lexington Estates (4752 168th Lane)			
Lot 14, Block 3, Lexington Estates (16836 Opal Street)			
Lot 15, Block 3, Lexington Estates (16854 Opal Street)			
Lot 16, Block 3, Lexington Estates (See Multiple Amendments)			
17239 Rocknev Street *	12	95-05-2052A	-
Lot 1, Block 1, Blackberry Bend (2929 171st Lane)			
Lot 2, Block 1, Blackberry Bend (2946 171st Lane)			
Lot 3, Block 1, Blackberry Bend (2944 171st Lane)	10	95-05-2342A	905.0
Lot 4, Block 1, Blackberry Bend (2956 171st Lane)			
2065 Bunker Lake Boulevard *	33	95-05-2354A	-
Lot 2, Block 1, Lexington Estates (4636 169th Lane)			
Lot 4, Block 1, Lexington Estates (16936 Opal Street)			
Lot 3, Block 2, Lexington Estates (16931 Opal Street)			
Lot 6, Block 2, Lexington Estates (16912 Packard Street)	12	96-05-246A (follow-up to 95-05-1398C)	-
Lot 7, Block 2, Lexington Estates (16956 Packard Street)			
Lot 1, Block 3, Lexington Estates (4805 168th Lane)			
Lot 2, Block 3, Lexington Estates (4819 168th Lane)			
Lot 14, Block 3, Lexington Estates (16854 Opal St. NE) *	12	96-05-566A (follow-up to 95-05-1398C)	-
Lot 3, Block 3, Lexington Estates (4843 168th Lane)			
Lot 7, Block 3, Lexington Estates (4940 168th Lane) *	12	96-05-752A (follow-up to 95-05-1398C)	-
Lot 14, Block 3, Lexington Estates (16836 Opal Street) *			
Lot 13, Block 3, Lexington Estates (4752 168th Lane) *	12	96-05-916A (follow-up to 95-05-1398C)	-
Lot 1, Block 2, Hogdal Estates (2749 149th Avenue)	22	96-05-1050A	892.7
Lot 5, Block 3, Lexington Estates (4915 168th Lane)	12	96-05-1972A (follow-up to 95-05-1398C)	-
Lot 11, Block 3, Lexington Estates (4836 168th Lane) *	12	96-05-2830A (follow-up to 95-05-1398C)	-
Lot 12, Block 3, Lexington Estates (4814 168th Lane)			
Lot 4, Block 3, Lexington Estates (4861 168th Lane)	12	96-05-3200A (follow-up to 95-05-1398C)	-
Lot 10, Block 3, Lexington Estates (4858 168th Lane) *			
15700 - 15900 T.H. 65 (part of Government Lot 2)	17	96-05-4054A	898.0
Lot 1, Block 2, Country Creek (17764 Johnson Street)			
Lot 2, Block 2, Country Creek (17750 Johnson Street)			
Lot 3, Block 2, Country Creek (17732 Johnson Street)	21	97-05-504C	
Lot 4, Block 2, Country Creek (17714 Johnson Street)			
Lot 4, Block 1, Sunset Horizons (3447 143rd Avenue)	26	97-05-3014A	894.9
512 157th Avenue	19	97-05-3298A	897.0
Lot 4, Block 2, Lexington Estates (16905 Opal Street) *	12	97-05-3516A	-

TABLE IV-7

National Flood Insurance Program Map Amendments

Location	Section	Case Number	1% Annual (BFE)
Lot 1, Block 4, Oak Hills Estates (15411 Terrace Road)	19	97-05-3594A	897.6
Lot 9, Block 3, Lexington Estates (4910 168th Lane) <i>Superseded by 15-05-3861A</i>	12	97-05-3898A (follow-up to 95-05-1398C)	-
Lot 5, Block 6, Rolling Meadows 2nd Addition (16616 Isanti Circle) *	9	97-05-3984A	-
Lot 4, Block 1, Bear Creek (15350 Ghia Street)	24	97-05-4034A	897.5
Lot 5, Block 1, Bear Creek (15334 Ghia Street)			
Lot 4, Block 2, Bear Creek (15347 Ghia Street)			
Lot 5, Block 2, Bear Creek (15325 Ghia Street)			
Lot 3, Block 3, Bear Creek (4258 153rd Avenue)			
Lot 4, Block 3, Bear Creek (4318 153rd Avenue)			
Lot 5, Block 3, Bear Creek (4330 153rd Avenue)			
Lot 8, Block 3, Lexington Estates (4928 168th Lane) *	12	97-05-4310A (follow-up to 95-05-1398C)	-
3721 149th Avenue *	23	97-05-4554A	-
Lot 6, Block 3, Lexington Estates (4933 168th Lane)	12	97-05-5222A (follow-up to 95-05-1398C)	900.6
Lots 1 - 2, Block 4, Oak Hill Estates, (15411 Terrace Road) *	19	97-05-5224A	-
Lot 8, Block 1, Lawnview Addition (15032 Xylite Street) *	21	98-05-146A	-
Lot 1, Block 1, Country Creek (17829 Fillmore Street)	5	98-05-1014A (follow-up to 97-05-504C)	-
Lot 2, Block 1, Country Creek (1205 178th Avenue)			
Lot 3, Block 1, Country Creek (1237 178th Avenue)			
Lot 4, Block 1, Country Creek (1301 178th Avenue)			
Lot 1, Block 2, Country Creek (17764 Johnson Street)			
Lot 2, Block 2, Country Creek (17750 Johnson Street)			
Lot 3, Block 2, Country Creek (17732 Johnson Street)			
Lot 4, Block 2, Country Creek (17714 Johnson Street)			
Lot 6 Block 1, Meadowlark Acres (4915 170th Lane) *	12	98-05-5108A	906.5
Lot 1 Block 2, Larson's 1st Addition (2554 Crosstown Boulevard) *	9	98-05-5504A	-
Lot 2, Block 1, Pheasant Run 2nd Addition (625 154th Avenue) *	19	99-05-752A	-
Lot 2, Block 3, Hastings Hill (15114 Davenport Street) *	20	99-05-202A	-
Lot 1, Block 1, Whitetail Ridge (2818 165th Avenue)	15	99-05-3382A	905.0
Lot 2, Block 1, Whitetail Ridge (2834 165th Avenue)			
Lot 3, Block 1, Whitetail Ridge (2856 165th Avenue)			
Lot 8, Block 2, Oak Hill Estates (15404 Terrace Road) *	19	99-05-3480A	893.5
4965 173rd Avenue*	1	99-05-4292A	-
Lot 6, Block 1, Stopher Addition (17144 Rockney Street) *	12	99-05-5002A	906.5
Lot 4, Block 3, Rolling Meadows 2nd Addition (2130 165th Lane) *	9	99-05-5918A	-
Lot 1, Block 1, Stopher Addition (4855 171st Lane) *	12	99-05-6168A	-
Braastad Farms	18	00-05-341P	-
Lot 1, Block 1; Lot 2 - 8, Block 2; Lot 1 - 4, Block 3, Lexington Preserve	12	00-05-342A	900.2
Lot 7, Block 1, Meadowlark Acres (4945 170th Lane) *	12	00-05-662A	906.5
Lot 1, Block 1, Concord Woods (18046 Concord Drive) (superseded by 01-05-2886A)	6	01-05-001C	903.0 (Lots 1-3, 5 & 6) 900.8 (Lot 4) 903.4 (Lots 7 & 8)
Lot 2, Block 1, Concord Woods (733 180th Lane) (superseded by 01-05-2886A)			
Lot 3, Block 1, Concord Woods (622 180th Lane) (superseded by 01-05-2886A)			
Lot 4, Block 1, Concord Woods (656 180th Lane) (superseded by 01-05-2886A)			
Lot 5, Block 1, Concord Woods (654 180th Lane) (superseded by 01-05-2886A)			
Lot 6, Block 1, Concord Woods (668 180th Lane) (superseded by 01-05-2886A)			
Lot 7, Block 1, Concord Woods (706 180th Lane)			
Lot 8, Block 1, Concord Woods (740 180th Lane) (superseded by 01-05-2886A)			
Lot 1, Block 2, Radisson Meadow (14657 Taconite Street) (superseded by 02-05-0820X)	28	01-05-281A	889.0
Lot 2, Block 2, Radisson Meadow (14625 Taconite Street) (superseded by 02-05-0820X)			
Lot 3, Block 2, Radisson Meadow (14611 Taconite Street) (superseded by 02-05-0820X)			
Lot 5, Block 4, Idlewood 3rd Addition (17565 Isanti Street)	4	01-05-295A	905.5
Lot 9, Block 1, Rustic Acres (1121 177th Lane) *	5	01-05-300A	904.3
SE corner Rockney Street and 173rd Avenue	12	01-05-1072A	900.0
Lots 2 - 4, Block 2 Larson's Heritage Oaks 5th Addition	28	01-05-1279A	896.3
Lot 2, Block 1, Hastings Hill (15206 Hastings Street) *	20	01-05-1282A	895.1
2209 165th Lane *	9	01-05-1821A	905.6

TABLE IV-7

National Flood Insurance Program Map Amendments

Location	Section	Case Number	1% Annual (BFE)
Lot 4, Block 1, Bodinski Addition (15509 5th Street) *	19	01-05-1940A	897.1
Lots 2 - 4, Block 2, Larson's Heritage Oaks 5th Addition	28	01-05-2202A	896.3
Fox Tail Ridge	20	01-05-2357A	890.0
Lots 1 - 6 and 8, Block 1, Concord Woods (superseded by 02-05-0359X)	6	01-05-2886A	903.0
Lot 1, Block 2, Sunrise Addition (15204 Xylite Street) *	21	01-05-2899A	895.5
17363 Guadalcanal Street (also see 02-05-1245A)	3	01-05-3356A	-
Lots 1, 2, 7, 8 and 10, Block 1; Lots 6 * and 7, Block 2; Lot 3, Block 3, Rustic Acres	5	01-05-3703A	903.8 (L7&8, B1) 903.4 (L7&8, B1) 904.3 (L10, B1) 902.3 (L6, B2) 902.3 (L7, B2) 903.4 (L3, B3)
Lots 1 - 6 and 8, Block 1, Concord Woods	6	02-05-359X	903.0
Lots 1 - 3, Block 2, Radisson Meadow	28	02-05-820X	889.0
Lot 1, Block 1, Netta Shores 2nd Addition (16552 Bataan Street) Superseded by 09-05-4979A	10	02-05-1002A	905.6
Lot 2, Block 2, Oak Hill Estates (15439 5th Street) *	19	02-05-1203A	893.5
17363 Guadalcanal Street *	3	02-05-1245A	906.0
Lot 13, Block 1, Netta Shores (2931 166th Lane) *	10	02-05-1382A	-
Lots 7 - 9, Block 1, Larson's Heritage Oaks 6th Addition (superseded by 02-05-3107X)	33	02-05-1743A	894.1
16847 Lexington Avenue *	12	02-05-1960A	900.5
Lots 7 - 9, Block 1, Larson's Heritage Oaks 6th Addition	33	02-05-3107X	894.1
Lot 8, Block 2, Rustic Acres (17717 177th Lane) *	5	02-05-3332A	902.3
Lot 1, Block 5, Netta Shores Addition (2902 166th Lane) *	10	02-05-3549A	905.6
Lot 6, Block 1, Maple Ridge (3217 149th Avenue)	27	03-05-1441A	892.4
Lots 1 - 3, Block 1, Landborg Industrial Park	8	03-05-1484A	-
Lot 10, Block 1, Meadow Park (1849 164th Lane) *	16	03-05-1488A	903.0
Lots 1 - 8, Block 1, Cottages of Heritage Oaks	32	03-05-1531A	894.2
Lot 1, Block 1, Maple Ridge (3065 149th Avenue) *	27	03-05-1532A	892.4
Lots 5, 6, 13 and 14, Block 1; Lots 9 - 11, Block 2, Larson's Heritage Oaks West	32 & 33	03-05-1562A	894.7
Lot 9, Block 2, West Coon Lake Shores Estates (17723 Oakland Drive) *	3	03-05-1628A	906.0
Woodland Bluffs Addition	3 & 4	03-05-2018P	-
Lot 1, Block 1, Pheasant Run 2nd Addition (643 154th Avenue) *	19	04-05-217A	-
Lot 1, Block 1, Blackberry Bend (2929 171st Lane) *	10	04-05-218A	905.6
Lot 7, Block 1, Concord Woods (706 180th Lane)	6	04-05-999A	-
Lots 4 and 7, Block 1, Hidden Forest West 2nd Addition (3121 and 3118 137th Avenue)	34	04-05-2238A	894.4
17626 Swedish Drive *	4	04-05-3689A	904.2
Lots 1, 3, 4 and 6, Block 1, Naples Estates 2nd Addition	26	04-05-4319A	-
1640 169th Avenue *	8	04-05-4350A	901.3
Lot 3, Block 1, Chateau Meadows (14060 Taconite Street) *	33	04-05-4378A	894.1
1640 169th Avenue (superseded by 04-05-4350A) *	8	04-05-A378A	905.6
1528 Crosstown Boulevard *	5	05-05-2003C	904.7
Lots 3, 5 and 8, Block 1, Alexa Woods	26	05-05-3451A	896.0 (L3) 896.5 (L5) 897.1 (L8)
Lots 1, 2, 4, 6, 7, Block 1, Alexa Woods	26	05-05-4494A	896.0
Lot 3, Block 1, Bodinski Addition (15526 5th Street)	19	06-05-0543A	897.2
15605 University Avenue	19	06-05-0544A	-
Lot 2, Block 1, Woodland Preserve (2336 175th Lane)			
Lot 3, Block 1, Woodland Preserve (2344 175th Lane)			
Lot 4, Block 1, Woodland Preserve (2345 175th Lane)			
Lot 3, Block 3, Woodland Preserve (17424 Staples Street)			
Lot 4, Block 3, Woodland Preserve (2248 175th Avenue)			
Lot 5, Block 3, Woodland Preserve (2240 175th Avenue)			
Lot 6, Block 3, Woodland Preserve (2241 175th Avenue)			
Lot 7, Block 3, Woodland Preserve (2249 175th Avenue)			
Lot 8, Block 3, Woodland Preserve (2314 176th Avenue)			
Lot 9, Block 3, Woodland Preserve (2258 176th Avenue)			
17440 Lexington Avenue *	1	06-05-BL57A	903.1
Lot 4, Block 1, Rosewood Addition (1206 180th Lane) *	5	06-05-BW19A	-
Lot 4, Block 3, Woodland Preserve (2248 175th Avenue)	4	06-05-B562A	904.0 for all listed lots

TABLE IV-7

National Flood Insurance Program Map Amendments

Location	Section	Case Number	1% Annual (BFE)
Lot 3, Block 2, Jefferson Oaks Estates (13316 Quincy Street) *	31	06-05-C354A	-
Lots 1 - 3, Block 1; Lots 1, 3 - 9, Block 2, Hidden Meadows	7	07-05-0435A	-
Lot 2, Block 2, Hidden Meadows (851 170th Lane)	7	07-05-3206A	-
Lots 1 - 2, Block 1, Cook's Addition	6	07-05-3393A	-
Lot 1, Block 1, Acorn Ridge (17347 Polk Street)			
Lot 2, Block 1, Acorn Ridge (1045 173rd Lane)			905.8 (Lots 1 & 2)
Lot 3, Block 1, Acorn Ridge (1113 173rd Lane)			904.6 (Lots 3 & 4)
Lot 4, Block 1, Acorn Ridge (1127 173rd Lane)	5	07-05-3567A	903.6 (Lots 5-7)
Lot 5, Block 1, Acorn Ridge (1131 173rd Lane)			
Lot 6, Block 1, Acorn Ridge (1052 173rd Lane)			
Lot 7, Block 1, Acorn Ridge (1038 173rd Lane)			
Lot 5, Block 1, Royal Woods (4541 176th Lane) *	1	07-05-5871A	-
Lot 9, Block 1, Patricia's Wilderness Estates (3755 Bunker Lake Boulevard) *	26	07-05-6104A	-
Lots 1 - 6, Block 1; Lot 1, Block 2; Lots 1 - 9, Block 3; Lots 1 - 12, Block 4; Lot 1, Block 5; Park, Bluegrass Estates 2nd Addition	1	07-05-6202A	None Given
Lot 7, Block 1, Maple Ridge (3235 149th Avenue) *	27	08-05-3663A	-
Lot 7, Block 1, Netta Shores 2nd Addition (2829 Bataan Street) *	10	08-05-4958A	-
Lot 2, Block 1, Pheasant Run (15605 Jackson Street) *	19	08-05-5013A	-
Lot 6, Block 1, Netta Shores 2nd Addition (16525 Bataan Street) *	10	09-05-1068A	-
17633 Swedish Drive *	4	09-05-1788A	-
17363 Guadalcanal Street *	3	09-05-2948A	906.0
17655 Swedish Drive *	4	09-05-3460A	-
Lot 1, Block 1, Netta Shores 2nd Addition (16552 Bataan Street) *	10	09-05-4979A	-
Lot 5, Block 1, Netta Shores 2nd Addition (16555 Bataan Street) *	10	10-05-0179A	904.4
16901 Xylite Street *	10	10-05-1090A	904.4
Lot 3, Block 1, Royal Woods (4451 176th Lane) *	1	10-05-1361A	-
4940 173rd Avenue *	12	10-05-2945A	907.0
17862 Lexington Avenue *	1	10-05-3893A	-
Idlewood Addition (2125 175th Avenue) *	4	10-05-4262A	-
17679 Oakland Drive (superseded by 11-05-2129A) *	3	10-05-5251A	906.0
Lot 7, Block 5, Netta Shores Addition (16602 Edison Street) *	10	10-05-5941A	904.4
17866 Lexington Avenue *	1	10-05-6684A	-
17679 Oakland Drive *	3	11-05-2129A	905.2
Lot 2, Block 1, Netta Shores 2nd Addition (16610 Bataan Street) *	10	11-05-2333A	904.4
Lot 9, Block 3, Fox Tail Ridge (1724 149th Lane) *	20	11-05-4441A	-
Lot 1, Block 2, Rolling Meadows 2nd Addition (2151 165th Lane) *	9	11-05-4603A	-
Lot 11, Block 1, Lund's Pine Creek Estates (2421 148th Lane) *	28	11-05-5383A	888.9
1941 Bunker Lake Boulevard *	33	12-05-2564A	896.4
Lot 3, Block 2, Pheasant Run (15522 Jackson Street) *	19	12-05-5837A	-
Lot 12, Block 1, Netta Shores Addition (2939 166th Lane) *	10	12-05-6764A	-
Lot 9, Block 1, Pheasant Run (951 154th Avenue) (superseded by 13-05-1856A)	19	13-05-1119A	893.8
Lot 9, Block 1, Pheasant Run (951 154th Avenue)	19	13-05-1856A	893.8
4940 173rd Avenue garage *	12	13-05-3107A	-
Lot 1 and 2, Block 5, Hiawatha Beach (17644 Oakland Drive) *	3	13-05-5017A	905.2
Lot 2, Block 1, Stopher Addition (4917 171st Lane) *	12	13-05-5475A	-
Lot 3 - 5, Block 5, Hiawatha Beach (17646 Oakland Drive residence) *	3	13-05-6136A	905.2
Lot 3 - 5, Block 5, Hiawatha Beach (17646 Oakland Drive garage) *	3	13-05-6898A	905.2
17357 Guadalcanal Street NE §	3	13-05-7656A	-
17035 Polk Street *	8	13-05-8387A	-
Lot 3, Block 1, Meadowlark Acres 2nd Addition (16965 Packard Street) *	12	13-05-8680A	907.5 (house) 908.3 (shed) 908.8 (garage)
17667 Oakland Drive *	3	14-05-3007A	-
Lot 3 - 8, Block 1, Lake Life Estates (superseded by 14-05-8178A)	24	14-05-6186A	-
Lot 1, Block 1, Meadowlark Acres (4625 170th Lane) *	12	14-05-8065A	-
Lot 3 - 8, Block 1, Lake Life Estates	24	14-05-8178A	-
Lot 1, Block 3, Idelwood 3rd Addition (1809 176th Avenue) *	4	14-05-8613A	-
Lot 1, Block 1, Ham Lake Industrial Park 4th Addition (16030 Central Avenue) *	17	14-05-9160A	-
Lot 2, Block 3, Idelwood 3rd Addition (1821 176th Avenue) *	4	14-05-9456A	-
Lot 1, Block 1, Pheasant Run (960 157th Avenue)	19	15-05-0976A	-

TABLE IV-7

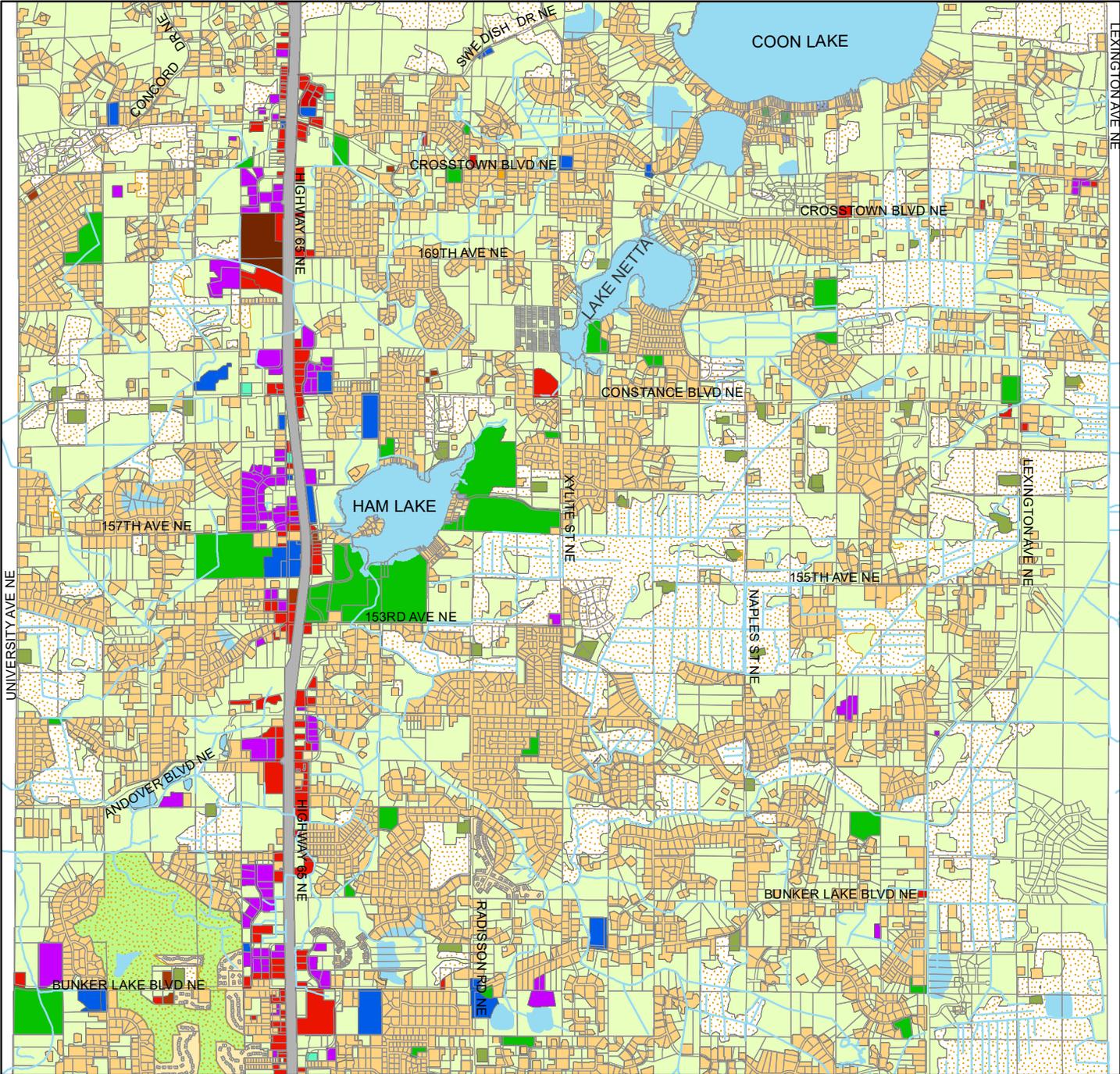
National Flood Insurance Program Map Amendments

Location	Section	Case Number	1% Annual (BFE)
Lot 2, Block 3, Meadowlark Acres (4910 170th Lane house and garage) *	12	15-05-2517A	-
Lot 16, Block 2, Lund's Pine Creek Estates (2506 149th Avenue) *	28	15-05-1422A	-
Lot 2, Block 3, Meadowlark Acres (4910 170th Lane) *	11	15-05-3861A	-
Lot 6, Block 2, Rendova Ridge (15223 Shenandoah Street) *	23	15-05-5964A	-
18001 University Avenue *	6	15-05-6640A	913.6
Lot 3, Block 2, Kulzer Woodland Addition (3659 Bunker Lake Boulevard) *	26	16-05-1280A	-
Lot 3, Block 4, Netta Shores 2nd Addition (16620 Bataan Street) *	10	16-05-1858A	-
Lot 4, Block 1, Landborg Industrial Park (17162 Lincoln Street) *	8	16-05-2545A	-
Lot 1, Block 2, Crosstown Shopping Center (17635 Central Avenue) *			
Lot 1, Block 2, Crosstown Shopping Center (17639 Central Avenue) *	5	16-05-2590A	-
Lot 1, Block 2, Crosstown Shopping Center (17565 Central Avenue) *			
16732 Lexington Avenue *	12	16-05-2676A	-
1843 169th Avenue *	9	16-05-3013A	-
Lot 6, Block 1, Rustic Acres (1025 178th Lane) *	5	16-05-3333A	-
Lot 1, Block 2, Oak Hill Estates (15465 5th Street) *	19	16-05-3565A	-
2220 165th Lane *	9	16-05-3739A	-
Lot 4, Block 4, Idlewood 3rd Addition (17557 Isanti Street) *	4	16-05-3776A	-
Lot 1, Block 1, Crosstown Shopping Center (17646 Highway 65) *	5	16-05-4024A	-
Lot 4, Block 8, Birch View Acres (17229 Eveleth Street) *	8	16-05-4086A	-
16864 Lexington Avenue *	12	16-05-4135A	-
Lot 1, Block 3, Pheasant Run (742 154th Avenue) *	19	16-05-4188A	-
Lot 6, Block 2, Fox Tail Ridge (14953 Chisholm Street) *	20	16-05-4322A	-
Lot 1, Block 6, Lund's Pine Creek Estates (2514 148th Lane) *	28	16-05-4393A	-
1503 157th Avenue *	17	16-05-4435A	-
1755 176th Lane *	5	16-05-4641A	-
Lot 3, Block 1, Hastings Hill (15248 Hastings Street) *	20	16-05-4873A	-
Lot 5, Block 3, Fox Tail Ridge (1614 149th Lane) *	20	16-05-5068A	-
Lot 2, Block 4, Braastad Farms (15941 Madison Street) *	18	16-05-5132A	-
1555 166th Avenue *	8	16-05-5438A	-
Lot 12, Block 2, Lund's Pine Creek Estates (2527 148th Lane) *	28	16-05-5955A	-
1953 169th Avenue *	9	16-05-5791A	-
1605 166th Avenue *	8	16-05-6518A	-
Lot 4, Block 3, Fox Tail Ridge (1560 149th Lane) *	20	16-05-6784A	-
Lot 4, Block 1, West Coon Lake Shores Estates (17766 Oakland Drive) *	3	16-05-7260A	-
Lot 4, Block 1, Royal Woods (4513 176th Lane) *	1	17-05-0264A	-
4950 173rd Avenue *	12	17-05-1605A	-
Lot 8, Block 1, Bunker Meadows (1819 135th Lane) *	33	17-05-2646A	-
925 Constance Boulevard *	18	17-05-3884A	-
Lot 2, Block 5, Crosstown Shopping Center (17615 Chisholm Street) *	5	17-05-3982A	-
Lot 6, Block 3, Majestic Oaks West (13831 Washington Street) *	31	17-05-4271A	-
1601 153rd Avenue *	20	17-05-4374A	-
1015 154th Avenue *	20	17-05-5387A	-
17346 Xylite Street *	4	17-05-5598A	-
3038 Bunker Lake Boulevard	34	17-05-6014A	-
L5 B1 Rosewood Addition (1220 180th Lane) *	5	17-05-6538A	-
L7 B2 Oak Hill Estates (15338 Terrace Road) *	19	18-05-1122A	-
250 134th Avenue *	31	18-05-1341A	-
2251 174th Avenue *	4	18-05-1570A	-
L1 B3 Meadowlark Acres (4830 170th Lane)	12	18-05-3961A	-

* Removed Structure Only

§ No Amendment, elevation identified only

IV-4 Existing Land Use



- | | |
|-------------------------------|------------------------------------|
| Streams and Ditches | Mixed Use Commercial |
| Ham Lake Parcel | Office |
| 2018 Existing Land Use | Park, Open Space |
| Agriculture | Open Water |
| Commercial | Major Highway |
| Farmstead | Residential Multi-Family |
| Golf Course | Residential Single Family-Detached |
| Industrial | Residential Townhome |
| Institutional | Seasonal Recreational |
| Manufactured Housing Park | Undeveloped |
| Mixed Use Residential | |

Comprehensive Plan 2018 Update

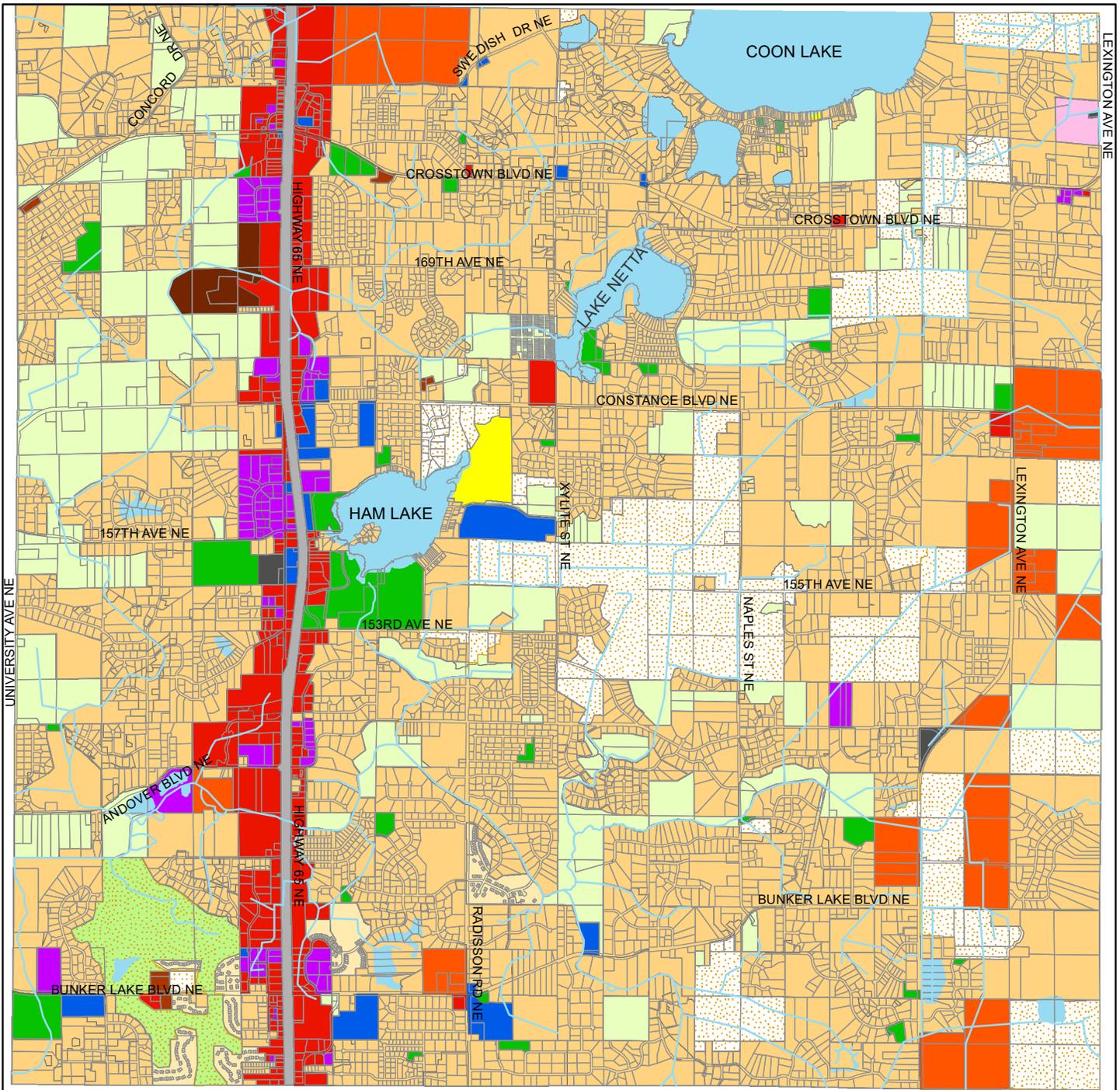


MAP DATE: 8/27/2020

Sources:
RFC Engineering, Inc.
Coon Creek Watershed District
Anoka County
Metropolitan Council
Minnesota Natural Resources
**HAM LAKE,
MINNESOTA**



Map IV-5 2040 Future Land Use



- Streams and Ditches
- Ham Lake Parcel
- Utility
- Seasonal Recreational
- Multiple Use Option
- Government
- Agriculture
- Commercial
- Farmstead
- Golf Course
- Industrial
- Institutional
- Manufactured Housing Park
- Park, Open Space
- Open Water
- Major Highway
- Residential Multi-Family
- Residential Single Family
- Residential Townhome
- Undeveloped

Comprehensive Plan 2018 Update



MAP DATE: 8/27/2020

Sources:
RFC Engineering, Inc.
Coon Creek Watershed District
Anoka County
Metropolitan Council

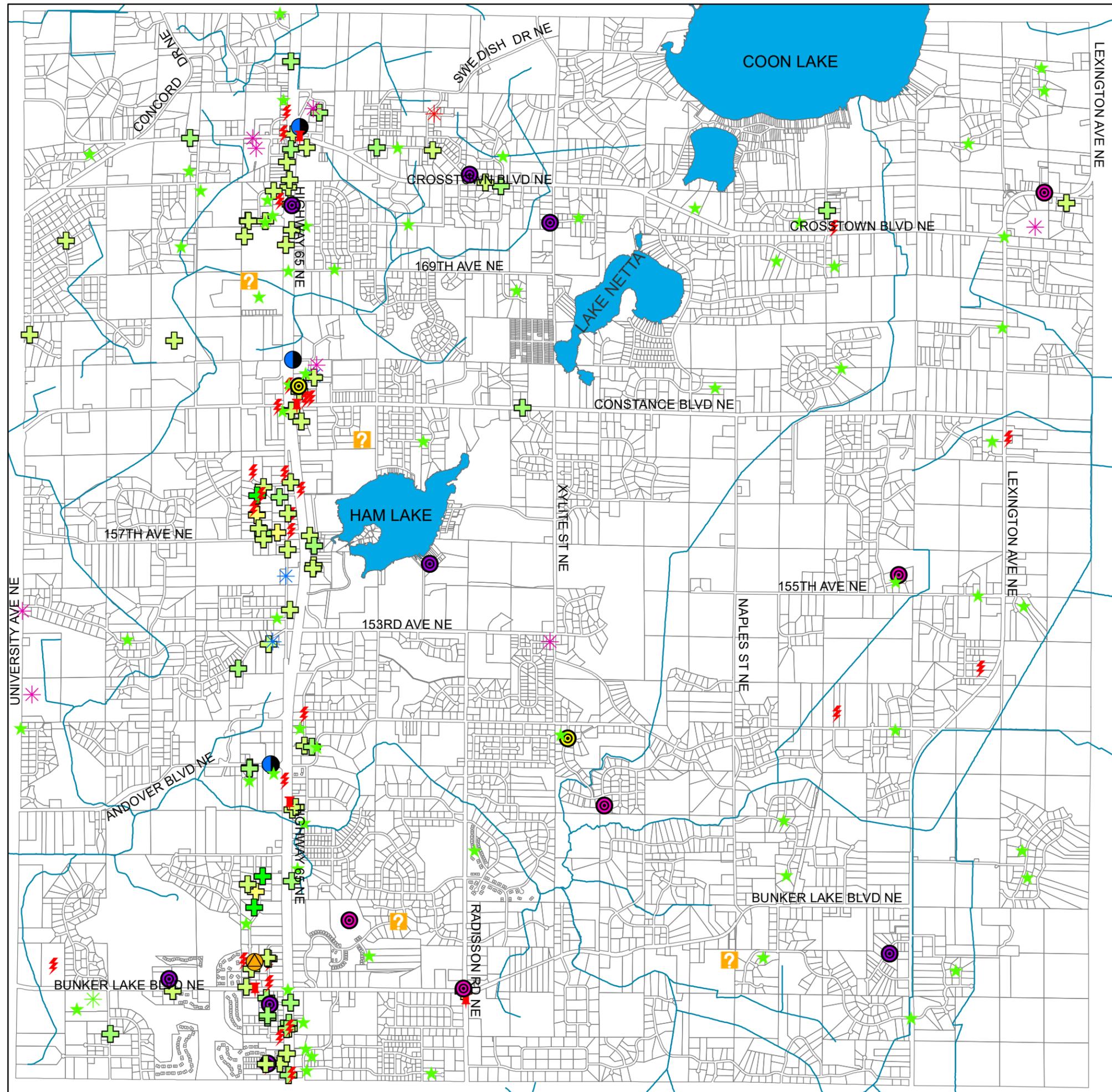
**HAM LAKE,
MINNESOTA**





HAM LAKE, MINNESOTA

MPCA POLLUTANT SOURCE LOCATIONS MAP VI-6



LEGEND

activity

-  Aboveground Tanks
-  Brownfields, Petroleum Brownfield
-  Brownfields, Voluntary Investigation and Cleanup
-  Construction Stormwater
-  Hazardous Waste
-  Hazardous Waste, Minimal quantity generator
-  Hazardous Waste, Small quantity generator
-  Hazardous Waste, Very small quantity generator
-  Industrial Stormwater
-  Multiple Activities
-  Petroleum Remediation, Leak Site
-  SSTS
-  SSTS, Licensed Organization
-  Site Assessment
-  Underground Tanks
-  Wastewater
-  Wastewater, Municipal SDS Permit
-  Lot Lines / Right-of-Way
-  Ditches
-  Lakes

INFORMATION RECEIVED FROM MPCA AUG 20



MAP DATE: 1/12/2021

Sources:

- Anoka County Engineering & Surveying Departments
- Minnesota Pollution Control Agency
- RFC Engineering, Inc.



V. ESTABLISHMENT OF GOALS AND POLICIES

The City of Ham Lake has developed a number of goals and policies that conform to the overall purpose that is specified in the Permit and Minnesota Statute Section 103B.201. The City's goals and policies have been developed to compliment the Watershed District, Watershed Management Organizations, County, Regional, State and Federal goals and policies.

Goals are the desired results toward which efforts are directed. A policy is defined as a governing principle that provides the means for achieving established goals. These goals and policies have been developed to preserve and to use natural water storage and retention subsystems in order to:

1. Minimize, to the greatest extent, the public expenditures necessary to control excessive volumes and rates of runoff.
2. Prevent flooding from surface water flows.
3. Maintain or improve the quality of water in lakes and streams located within or immediately downstream of the City.
4. Prevent erosion and sedimentation.
5. Protect wetlands in conformance with the requirements of the Wetland Conservation Act (WCA), or as amended.
6. Protect and enhance fish and wildlife habitat and water recreation.
7. Educate and inform the public on pertinent water resource management issues and increase public participation in water management activities.
8. Provide a mechanism through which City public and private ditch systems can be managed.
9. Comply with the MS4 and Watershed District/Watershed Management Organization Permit requirements.

The above goals are summarized for different subject areas as follows:

A. WATER QUANTITY

GOALS

1. Minimize, to the greatest extent, the public expenditures necessary to control excessive volumes and rates of runoff.
2. Prevent flooding from surface water flows.

POLICIES

1. The retention capacity of the existing drainage system will be optimized.
2. New developments will provide detention using the rate and volume control measures indicated in the technical criteria in the Implementation Programs and Priorities section.
3. Regional detention and/or on-site detention will be used to reduce flooding, control discharge rates and provide necessary storage volumes. Lake Amelia, located in Section

33, and Lake Diane, located in Sections 32 and 33, are man-made lakes located to the northwest of the intersection of Bunker Lake Boulevard and Radisson Road.

Sedimentation control is required prior to discharging storm runoff into these two lakes. Sedimentation control will also be required prior to discharging storm runoff into man-made lakes in Sections 18, 24, 29, 30, 33 and 36.

4. The design of storm water facilities will consider and identify overflow location to prevent property damage from extreme water levels. Landlocked areas will be evaluated for available storage volume and emergency outlet/overflow routes. Provide storage for back to back 100-year events if there is no outlet/overflow for the pond/wetland. All new developments will provide emergency outlet/overflow routes. Outlets provided for currently landlocked basins will comply with the WCA rules and regulations and include an analysis addressing the impact and potential impact of downstream flooding due to additional flow volumes. Emergency outlets set at the 100-year-elevation are exempt from the analysis addressing the impact and potential impact of downstream flooding due to the additional flow volume requirement.
5. Minimum building elevations will meet the technical criteria in the Implementation Programs and Priorities section.
6. Hydrologic studies will utilize hydrograph methodology.
7. Hydrologic studies will be based on the ultimate development of the entire tributary drainage area.
8. All storm drain and ditch analyses and design will be based on the 10-year rainfall event. Time of concentration will be calculated, not estimated.
9. Basin and overflow facilities will be designed for the 100-year, 24-hour rainfall event as required in the technical criteria in the Implementation Programs and Priorities section.
10. The City will work with the County, Watershed District and Watershed Management Organizations to provide for joint effort on sizing of culverts and ditches, and for system maintenance.
11. The City will maintain the adopted Floodplain Ordinance (Ham Lake Ordinance 15-27) conforming to State regulations. The Floodplain Ordinance is in Appendix B.
12. Preserve the original design capacities of the existing drainage system with proper maintenance.
13. Site development involving outside storage of soluble, toxic or buoyant material within the 100-year 24-hour storm floodplain will not be allowed.
14. NOAA Atlas 14, Volume 8 and subsequent updates, are to be used to calculate precipitation amounts and stormwater runoff rates.

B. WATER QUALITY

GOALS

1. Maintain or improve the quality of water in lakes and streams located within or immediately downstream of the City.
2. Reduce pollutants in any storm water runoff from construction activities.
3. Detect and eliminate illicit discharges.
4. Prohibit non-storm water discharges into the storm sewer system.

5. Detect and address non-storm water discharges.
6. Ensure compliance with erosion control standards.
7. Provide secondary aid to Coon Creek Watershed District and Upper Rum and Sunrise Watershed Management Organization in curtailing any excessive TMDL found within Ham Lake.

POLICIES

1. Natural vegetation will be preserved to the greatest practical extent.
2. Erosion control plans will be required for all land development disturbance activities. The erosion control plans will be consistent with the criteria established in the Minnesota Stormwater Manual, and all subsequent changes, Ham Lake City Codes and the technical criteria in the Implementation Programs and Priorities section. A separate submittal may be required by the appropriate government agencies.
3. Erosion and sediment control measures on the grading, drainage and erosion control plan must be installed prior to site and utility work.
4. Storm water detention basins will be used to maximize the enhancement of water quality by removing sediment and nutrients from runoff.
5. Outlet control structure will be used to maximize detention time and enhance sediment removal and nutrient assimilation.
6. Storm water facility outlets will be designed to prevent debris from entering the conveyance system, impeding the flow path and to control floatables from leaving the site.
7. All existing storm drain inlets and conveyance systems shall be adequately protected from erosion and sedimentation with methods consistent with the technical criteria in the Implementation Programs and Priorities section.
8. Temporary sediment basins for runoff will be constructed as needed in areas of new development to prevent sediment from leaving the construction area.
9. Establishment of temporary and permanent vegetation will meet the technical criteria in the Implementation Programs and Priorities section.
10. All disturbed areas will be protected from storm water runoff in a manner consistent with the technical criteria in the Implementation Programs and Priorities section.
11. The City shall develop and maintain records of all on-site wastewater systems and wells, active and abandoned.
12. Apply to the MPCA for NPDES Phase II Permit for all construction site activities that result in a land disturbance of equal to or greater than one acre and less than five acres.
13. Incorporate potential water quality impacts in site plan review.
14. Ensure private and public SSTS compliant systems with regular inspections within Ham Lake

C. WETLANDS

GOALS

1. Protect wetlands in conformance with the requirements of the WCA or as amended.

2. Protect and enhance fish and wildlife habitat and water recreation.

POLICIES

1. Alteration of wetlands is to be minimized. Alteration may be allowed on an individual basis if the alteration meets the requirements of the federal, state and local laws and regulations, the WCA and the technical criteria of the Implementation Programs and Priorities section.
2. The actual boundaries of each wetland must to be delineated by a certified wetland delineator and verified in the field by the LGU prior to any development activities which might affect the wetland. A wetland delineation report will be submitted to the LGU and the City Engineer.
3. Any person proposing or carrying out filling or other development activities in or affecting wetland areas will obtain a City, Watershed District, Watershed Management Organization, DNR and/or a U.S. Army Corps of Engineers (COE) permit(s).
4. Wetlands will be protected whenever possible to preserve the wetlands ability to assimilate nutrients from runoff. All development activities will meet the requirements of the WCA and the technical criteria of the Implementation Programs and Priorities section.
5. Buffer zones of a natural strip of land created for wetland mitigation will be maintained around detention basins and mitigated wetlands to provide habitat for wildlife, reduce erosion and reduce nutrient transfer to water courses. The minimum average width of a buffer zone is 25 feet, with a minimum width of 20 feet, up from the permanent pool (dead storage). The buffer zone will be located within the drainage easement. Upper Rum River Watershed Management Organization and Sunrise River Watershed Management Organization has their own wetland buffer requirements and will be required to be followed within their respective boundaries.
6. When modifying wetlands, existing habitats shall be considered, maintained and enhanced, or new habitats will be developed.
7. The water surface bounce of wetland detention basins will be avoided or minimized to prevent adverse habitat changes.
8. The State, County and City shall work together to enhance water-based recreation by promoting the improvement of public boat access to City lakes.

D. PUBLIC EDUCATION

GOALS

1. Educate and inform the public on pertinent water resource management issues and increase public participation in water management activities.
2. Inform citizens about the impacts polluted storm water runoff discharges can have on water quality.
3. Inform public of hazards associated with illegal discharges.

POLICIES

1. The City shall actively develop and implement a community education program relating to preserving and improving water quality.
2. The City shall actively develop and implement an awareness program on the proper use of fertilizer.
3. The City shall actively develop and implement an Education Program addressing each Minimum Control Measure (MCM).
4. The City shall make available Guidelines for Development.

E. DITCH SYSTEMS

GOALS

1. To provide a mechanism through which City public ditch systems will be managed, for the purpose of protecting local water resources from degradation, including private ditches that serve existing development and multiple owners.

POLICIES

1. Develop a ditch system management policy whereby public ditches and private ditches used by public runoff can be maintained and/or purchased.
2. Anoka County is to maintain County Ditches within the URRWMO and SRWMO located within the City. CCWD took over the County Ditches within the Watershed District.
3. CCWD is to maintain CCWD ditches located within the City.
4. The City is to obtain drainage easements for drainage areas and ditches which service the City, public and multiple owners except for ditches that fall under the jurisdiction of the County or the CCWD.
5. Anoka County shall obtain drainage easements for ditches under their jurisdiction.

F. RELATION OF GOALS AND POLICIES TO LOCAL, REGIONAL, STATE AND FEDERAL PLANS, GOALS AND PROGRAMS

The City of Ham Lake Engineering Department is responsible for the planning, design, inspection and administration of roadway improvements, including protection of surface waters. The Engineering Department coordinates with outside agencies regarding management and conservation of the City's water features. The agencies they work with include:

- Anoka County
- Anoka Conservation District (ACD)
- Coon Creek Watershed District (CCWD)
- Upper Rum River Watershed Management Organization (URRWMO)

- Sunrise River Watershed Management Organization (SRWMO)
- Minnesota Pollution Control Agency (MPCA)
- Board of Water and Soil Resources (BWSR) and the Wetland Conservation Act (WCA)
- US Army Corps of Engineers (USACE)
- Minnesota Department of Natural Resources (MnDNR)
- Minnesota Department of Transportation (MnDOT)
- US Environmental Protection Agency (EPA)
- Federal Emergency Management Agency (FEMA)
- Natural Resources Conservation Service (NRCS)
- U.S. Geological Survey

The City has partnered with the ACD, Anoka County, CCWD, MnDNR and SRWMO for educational articles in the local Ham Laker newsletter.

While the City of Ham Lake places a high importance on partnerships and coordination, avoiding duplication is equally important. Water resources in Minnesota are managed through a complex network of agencies. This plan is intentionally focused upon those issues that are not already handled by other entities, are best handled by a local entity or through a partnership that includes the local entity, and are most directly in the jurisdiction of the Coon Creek Watershed District, SRWMO and URRWMO.

The City has a strong partnership with the CCWD to ensure successful implementation of water quality improvement projects thru plan review and construction observation. From the CCWD – “The District’s principle strategy is ‘unified action with our collaborators’”. Vital to the day-to-day effective implementation of this strategy are close working relationships with the other MS4s in the District. Unified Action with our partners is best achieved through informal partnerships“.

The City partners with the ACD for any potential wetland violations.

The City has two appointed residents that are on the SRWMO Board. The City also partners with the URRWMO, and has two appointed residents that are on the URRWMO Board.

While the rules, policies and guidelines of these agencies are not restated in this plan, they are applicable and used in the projects, programs and planning within the City of Ham Lake. In addition, the Minnesota Stormwater Manual, written by the MPCA, is incorporated into the plan.

VI. ASSESSMENT OF PROBLEMS AND CORRECTIVE ACTIONS

A. 1994/1995 PROBLEM AREA QUESTIONNAIRE

Problem areas have been tabulated from the 1994/1995 questionnaire distributed to City Council, City officials, DNR, COE, Anoka County Highway Department, ACD, Watershed District, Watershed Management Organizations and from fieldwork. These problem areas have been corrected or are currently being studied for potential improvements and repairs. The 1994/1995 Problem Area Questionnaire results and dates completed or if ongoing maintenance is required are attached in Appendix C. See Map VI - 1, Drainage Problem Areas, for locations.

B. AREAS OF POTENTIAL CONTAMINATION

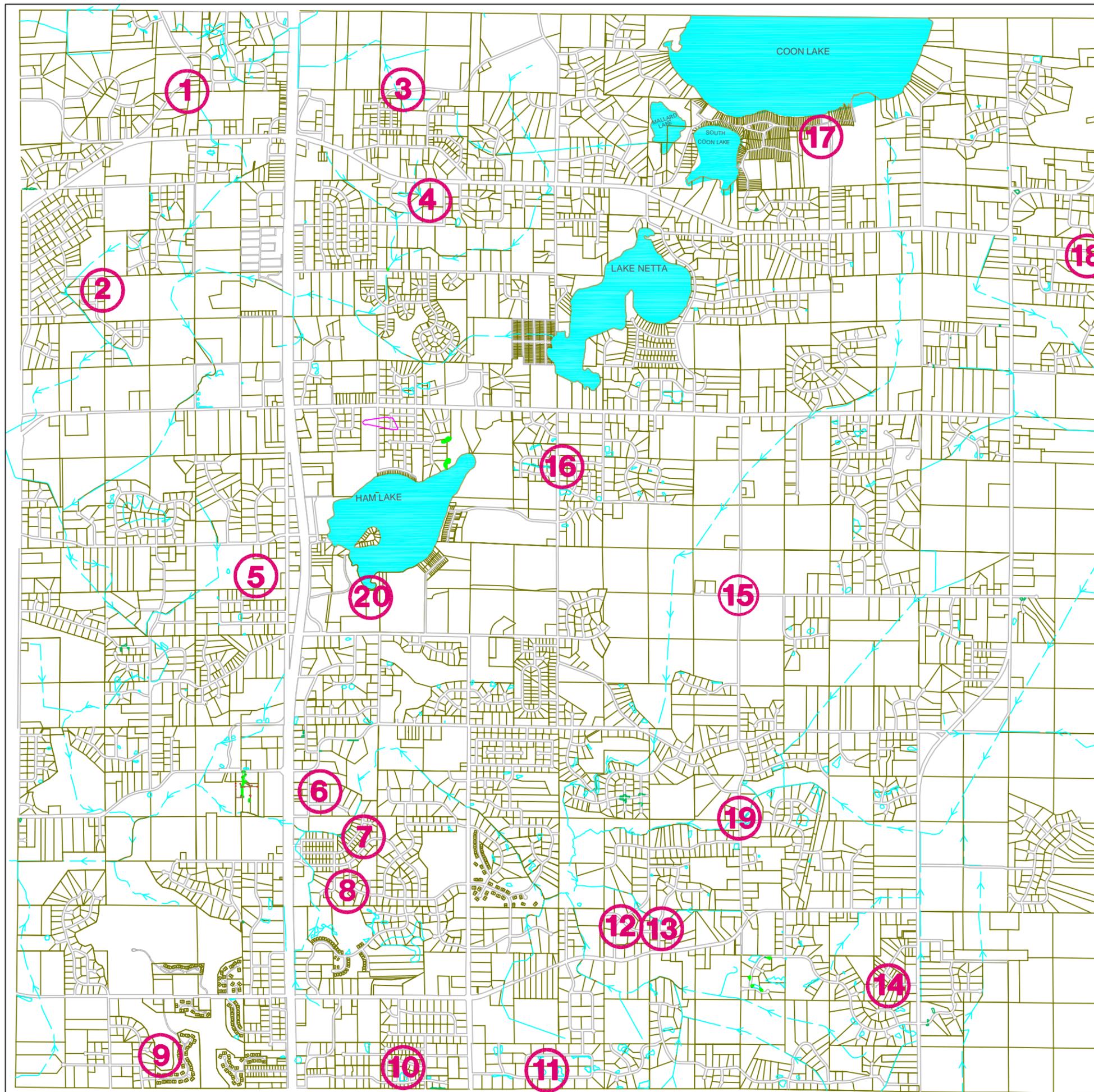
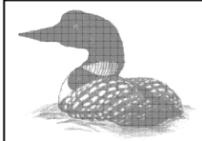
Some rural residences and commercial properties still make use of outdated and/or poorly maintained subsurface sewage treatment systems. These systems may have failing septic tanks, failing drain fields and/or sludge buildup. Tank deterioration or failure and drain field ponding can cause contamination of the area groundwater, lakes, streams and wetlands. Once failing systems have been reported to the City and to the Anoka County Public Health & Environmental Services, owners of the failing systems are required to bring their system into compliance with State septic system regulations. The City of Ham Lake does not require septic systems to be inspected at the point of sale of the property. The Anoka Conservation District administers grant funds from the MPCA to correct failing septic fields.

Increased residential development will result in an increased number of on-site subsurface sewage treatment systems which in turn may increase the potential for groundwater contamination. An increase in residential development denotes an increase in residential drinking water wells. As long as developments adhere to current state, county and local government regulations regarding on-site water supply and subsurface sewage treatment systems, no problems of this type are expected to be caused by new developments.

The main environmental hazards in the City of Ham Lake are from non-point sources of pollution such as surface water runoff from agricultural, urban areas and construction areas. The surface water runoff from these areas can cause a degradation of water quality in lakes and wetlands due to overloading of sediment, nutrients, toxic chemicals and fecal coliform bacteria.

Peterson Farm's (MPCA ID VP13660) is located at 1719 Bunker Lake Boulevard. The site was entered into the Voluntary Investigation Cleanup Program on October 31, 2000. The MPCA issued a No Further Action letter May 23, 2002.

The Deer Haven dump (MPCA ID VP16610) is located within the Deer Haven Hills Development in the vicinity of 148th Lane and Yancy Street. The site was entered into the Voluntary Investigation Cleanup Program on September 17, 2002. The MPCA issued the No Further Action letter on May 25, 2004.

HAM LAKE MINNESOTA

DRAINAGE PROBLEM AREAS MAP VI-1

LEGEND

NUMBERS CORRESPOND TO
APPENDIX C

-  LOT LINES
-  WATER-LAKES/STREAMS/DITCHES



MAP DATE: 8/27/2020

PREPARED BY:



Engineering, Inc.
Consulting Engineers

The Opal Street property (MPCA ID VP16220) is located at 17325 Opal Street. The MPCA considers the site inactive, with the No Action letter issued November 9, 2009.

The Robert Anderson parcel (MPCA ID VP19490) is located within the Fox Run 5th Addition north of 155th Avenue (former 4109 155th Avenue). The site was entered into the Voluntary Investigation Cleanup Program on August 18, 2004. The MPCA considers the site inactive, with a No Further Action letter sent November 6, 2006.

The Anoka County Highway Department located an old farm dump, which is identified as MPCA ID VP26180, when excavating a storm water retention pond at 1745 Bunker Lake Boulevard for the Bunker Lake Boulevard improvement project. The site was entered into the Voluntary Investigation Cleanup Program on May 20, 2010. The MPCA considers the site inactive, with the Response Action Plan approval and Phase II approval both on May 28, 2010.

There are four unpermitted dumps located in the City of Ham Lake. The Erickson dump is located south of the intersection of Bunker Lake Boulevard and Naples Street. Flamingo Terrace dump is located southwest of the intersection of 169th Avenue and Highway 65. The McKinley School dump is located south of Constance Boulevard and west of Hastings Street. The unpermitted dump identified as Peterson Dump-2 is located north of 140th Avenue west of Kenyon Street.

C. HYDRAULIC ANALYSIS

The City requires the use of the best available hydrologic data for stormwater modeling. The Coon Creek Watershed District has the best available hydrologic model for that portion of the City within the Coon Creek Watershed District. Anoka County maintains the best available hydrologic model for Upper Rum River and Sunrise Watershed Management Organizations.

D. STORM STRUCTURAL BMP EVALUATION

The City inspects and evaluates all public storm pond outfall control structures throughout a 5 year cycle as a requirement of the MS4 permit. Each detention pond is evaluated for sediment levels and is restored to construction levels as necessary. Any failing structures are remedied by Public Works or as a CIP project as needed.

VII. FINANCIAL CONSIDERATIONS

The City of Ham Lake has a limited amount of resources available for implementing storm water pollution prevention and water resource management practices. The highest management priorities are pollution prevention, storm water runoff and water quality management.

Funding sources for water quantity and water quality improvement projects will be determined for individual projects by the City. Possible funding sources include:

1. Special assessments for local improvements made under the authority granted by Minnesota Statute Chapter 429. Properties can be assessed annually to fund storm water management plans.
2. Revenue generated by Watershed Management Special Tax Districts provided for under Minnesota Statute Chapter 473.882.
3. For projects being completed by, or in cooperation with, the CCWD, the URRWMO and/or the SRWMO, funds could be obtained from Watershed District/Watershed Management Organization levies associated with their administrative funds, construction funds, preliminary funds, repair and maintenance funds and/or survey and data acquisition funds, as provided for in Minnesota Statute Section 103D.905, Funds of the Watershed District.
4. General Fund (Maintenance).
5. City funds for budgeted projects.
6. User fees.
7. Special benefit charges.
8. Groups such as sportsman's clubs and nature groups for projects that will enhance wildlife and other preservation objectives.
9. Grant and loan monies that may be secured from various local, regional, County, State or Federal agencies for some elements of the SWPPP, depending on the BMPs selected and the location.
10. Storm Water Utility Fees - Utility service charges are rates billed to customers for providing storm water management services. The service charges could be flat rates, or variable rated based on classes of customers. Utility service charges could represent a dedicated source of funding and an ongoing method of funding some or all storm water management programs.
11. The Drainage Fund (a.k.a. Future Drainage Fund and Drainage Improvement Fund) per Ham Lake City Code 10-420C.
12. Debt financing – The City could issue debt to finance the SWPPP, including revenue bonds and general obligation bonds.
13. Local Improvement – Under this type of funding system, individual properties benefited by storm water projects are assessed to fund the project.
14. Inspection Fees – plan review and inspection fees would allow the City to recover some or all of the direct cost associated with performing design reviews for pre and post construction BMPs.
15. Developer Fees – The developers construct needed facilities as a condition of development and bear associated costs.

VIII. IMPLEMENTATION PROGRAM AND PRIORITIES

Based on the information developed in the previous sections, the City of Ham Lake has developed a local surface water management program that reflects the needs and concerns of the City Council, City staff and private citizens, as well as the funding capabilities of the City. A listing of the studies, programs and capital improvements that have been identified as necessary to respond to the water resource needs within the City are outlined in this Section. See the Ham Lake City Ordinances Article 11 for complete rules regarding storm water requirements. Any rule that overlap in requirements between the City, and an overlapping Watershed, the more restrictive shall apply. While the City coordinates its review comments with the appropriate governmental agencies, a separate submittal may be required for approval to the appropriate agency.

A copy of the CCWD’s Rules adopted in 2009 amended in 2015 to require NAVD 1988 datum elevations in all submittals. You can find the rules that apply within the district at the following website.

<http://www.cooncreekwd.org>

The SRWMO Stormwater Standards from the November 2009 Fourth Generation Water Resource Management Plan as adopted November 2019 and is located at the following website

<http://www.srwmo.org>

The URRWMO Stormwater Infiltration Standards from the Comprehensive Watershed Management Plan dated, March 2007 and amended February 3, 2009 are available at the following website

<http://www.urrwmo.org>

A. CURRENT IMPLEMENTATION ACTIVITIES

Table VIII-1 outlines the surface water management practices that are already in place in the City. These will continue in the same manner, modified as necessary with changes to priorities and new requirements.

Table VIII-1. Current Implementation Activities for Stormwater. (Cost: Low<\$5000, Medium:\$5,000-\$75,000, High>\$75,000)

Required By	Description	Time Frame	Cost Estimate
MS4	Stormwater articles in the Ham Laker	1/Qtr	Low
MS4	Presentation to City Council and City Staff	1/Yr	Low
	Collaborate with watershed district and watershed management organizations on construction site management and wetland concerns.	Ongoing	Low
MS4	Provide communication channel to residents regarding stormwater issues	June	Low
MS4	Make SWPPP available online and at City Hall	Complete	Low
MS4	Enforce City Code related to erosion control and stormwater	Ongoing	Low

	runoff during and after construction projects		
MS4	Construction Site Inspections on road reconstruction projects and proposed developments in the City	Ongoing	Low
MS4	Ensure stormwater compliance for proposed developments during design and construction phases	Ongoing	Low
MS4	Stormwater management system inspections and mapping	Ongoing	Low
MS4	Street Sweeping	2x/Yr	Medium
MS4	Storm sewer repair and cleaning	Ongoing	Medium
MS4/CCWD	Ditch Maintenance	Ongoing	Medium
MS4	Stormwater pond Maintenance	Ongoing	Medium

B. FUTURE IMPLEMENTATION ACTIVITIES

Table VIII-2 outlines the surface water management practices that are proposed in this SWMP and the City's SWPPP that will begin being implemented.

Table VIII-2. Proposed Implementation Activities for Stormwater. (Cost: Low<\$5000, Medium:\$5,000-\$75,000, High>\$75,000)

Required By	Description	Time Frame	Cost Estimate
MS4	Verify that City documents and procedures reflect the Post-Construction Stormwater Management section of the SWPPP	Ongoing	Low
MS4	Ensure inspection and maintenance staff document their training in inspection and maintenance procedures (construction sites, permanent stormwater management, buildings, grading and stabilization)	Ongoing	Low
MS4	Update current procedures, documents and checklists used for construction site inspections to ensure they meet all requirements in the MS4 Permits	Ongoing	Low

MS4	Add additional stormwater BMPs to City mapping applications	Ongoing	Low
MS4	Develop procedures and schedules for assessing City ponds/BMPs	Complete	Low
CIP	Upgrade roads to address drainage concerns	Ongoing	High
MPCA	Obtain Smart Salting training and maintain Level 1 and Level 2 certification	2020	Low
MS4	Upon completion of updating the SWPPP to be in compliance, make minor amendments to this SWMP	2020	Low
CIP	Update storm sewer and culverts as needed	Annual	Medium

Currently there are no impairments for chlorides within Ham Lake. Future impairments may require the city to modify the snow removal policy. The nature and scope of reducing chlorides will be determined at that time.

C. FINANCIAL CONSIDERATIONS

The City of Ham Lake recognizes that ongoing capital improvements will be required to solve some of the water resources problems within the City. For the purposes of this document, the City has summarized needed capital improvements of which it is aware of, along with administrative studies needed to assess the scope of capital improvements of watershed-wide significance. To develop the capital improvements, the City first identified existing and potential problems, then assessed the need for further study and resulting capital improvements. The City staff defined the conceptual scope of work involved in each study or capital improvement. Total estimated costs and funding sources were then evaluated, or are to be evaluated. The capital improvement projects are broken down into City wide capital improvements (see Table VIII - 3, Capital Improvement Projects). Cost estimates provided are for planning purposes only and may vary greatly for final actual costs. Detailed feasibility studies have not been completed for these projects, therefore cost estimates are subject to change. The timeframe of the improvements is subject to change. The City will share information about capital improvement projects that may affect water quality with the appropriate WMO or WD as requested.

Currently the City has many stormwater CIP planned in the next 10 years. Occasionally, additional projects will arise. The City will include the watershed district and watershed organizations in the review of the CIP as they relate to stormwater. These projects will require funding beyond the City's Drainage Fund, most likely from outside sources.

IX. AMENDMENT PROCEDURES

The SWMP is intended to be in place for a 10-year period (until 2029). However, it is directly related to other programs, plans and standards both within the City and other encompassing jurisdictional bodies, and must remain flexible enough to incorporate changes as appropriate. Changes in watershed authority plans may require programmatic or implementation modifications to meet new requirements.

The SWMP is adopted by City Council as an official document, with regulatory policies on water resources issues set forth. The public may offer written requests for SWMP amendments, which will be addressed by City staff. Adjustments not impacting policies or programmatic activities that are required by the Permit shall be considered minor amendments for this document. Minor amendments, if approved, may be completed by staff without council approval. Major amendments will be reviewed by staff and brought before Council prior to action; a public hearing may be required before adopting official SWMP revisions.

To ensure conformance with all applicable rules, watershed authorities with jurisdiction in the City (the URRWMO, SRWMO and CCWD) shall be provided the opportunity to review and comment on major amendments before adoption.

Appendix A

MPCA Pollution Source Locations

NAME	ADDRESS	LEG_DIST	LATITUDE	LONGITUDE	CITY	ZIP_CODE	ACTIVITY	MPCA_ID	COUNTY	HUC8_ID	MAJ_WSHED	SITE_URL	COORD METH	STATUS
Lexington Sand LLC	17100 Highway 65 NE 55304	49A	45.21673732	93.18567039	Ham Lake	55304	Wastewater Discharger	MNG490210	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=253538	Public Land Survey-Quartering - MapTool	Active
Cedar Creek Homes Inc	14020 Highway 65 NE 55304	49A	45.21923772	93.23506629	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MNR000114819	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=120012	Address Matching House Number	Active
Superamerica #4537	1442 Constance Blvd NE 55304	49A	45.26614376	93.23371320	Ham Lake	55304	Tank Site	20048	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=227353	Address Matching House Number	Active
Wyatt Residence	1540 145th Ave NE 55304	49A	45.24291950	93.23065324	Ham Lake	55304	Multiple Activities	Multiple Activities	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=182958	Address Matching House Number	Inactive
Perfect Image	1330 133rd Ln NE 55304	49A	45.21282624	93.23680220	Ham Lake	55304	Leak Site	13346	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=248654	Address Matching House Number	Inactive
Intex Inc	13164 Highway 65 NE 55304	49A	45.21366190	93.23469120	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MNR000110486	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=190302	Address Matching House Number	Active
Crossstown Sign Inc - Highway 65	10166 NE Highway 65 55304	59A	45.03482056	93.24748230	Ham Lake	55304	Multiple Activities	Multiple Activities	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=38803	Zip Code Centroid	Active
Ham Lake Mining Project	13627 Lexington Ave NE 55448	47A	45.19675827	93.31431580	Ham Lake	55448	Construction Stormwater Permit	C00011775	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=137678	Zip Code Centroid	Inactive
Hidden Forest West	13351 Alamo St NE 55304	49A	45.21285629	93.20005305	Ham Lake	55304	Construction Stormwater Permit	C00009312	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=119555	Address Matching House Number	Inactive
Dependable Car Maintenance	554 134th Ln NE 553046609	49A	45.21377945	93.25540720	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MND985738527	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=34375	Address Matching House Number	Inactive
Safety Speed Cut	13460 N Highway 65 55303	49A	45.21498108	93.23376465	Ham Lake	55303	Leak Site	7553	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=243939	Interpolation Unknown	Inactive
T-Ray Construction Co Inc	13535 Johnson St NE 55304	49A	45.21577835	93.23661041	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MNR000113274	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=115584	Address Matching House Number	Active
Battery Bob Inc	13557 Highway 65 NE 553046921	49A	45.21633148	93.23432159	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MND985671890	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=33646	Address Matching House Number	Inactive
HeartStone Companies Inc	13625 Lexington Ave NE 55304	49A	45.21706772	93.16280365	Ham Lake	55304	Multiple Activities	Multiple Activities	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=130352	Address Matching House Number	Inactive
Ham Lake Mining Project - SW	13627 Lexington Ave NE 55304	49A	45.21709824	93.16280365	Ham Lake	55304	Industrial Stormwater Permit	A00013361	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=141257	Address Matching House Number	Inactive
ABB	13720 Lincoln St NE Ste B 553046946	49A	45.21907045	93.23938751	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MNR001000017	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=76471	Address Matching House Number	Active
City Of Ham Lake Sr Housing Parcels	Bunker Lake Rd 55304	49A	45.21912384	93.25463867	Ham Lake	55304	Leak Site	9159	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=245338	Interpolation Unknown	Inactive
Townhomes of Majestic Oaks 3rd Addition	See location description 55304	49A	45.21982193	93.21493336	Ham Lake	55304	Construction Stormwater Permit	C00001075	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=13594	Address Matching House Number	Inactive
CenterPoint Energy - Blaine	13562 Highway 65 NE 55304	49A	45.22298813	93.23430634	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MNR000248818	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=32756	Address Matching House Number	Inactive
Peterson Dump - 2	See location description 55303	49A	45.22441101	93.21899331	Ham Lake	55303	Unpermitted Dump Site	REM04822	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=172618	Digitized DRG	Inactive
SP 0208-91 TH 65	See location description 55304	49A	45.22992706	93.24062129	Ham Lake	55304	Construction Stormwater Permit	C00001117	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=62288	Zip Code Centroid	Inactive
Wildwood Preserve WWTP	Address Unknown 55304	49A	45.23095322	93.14489746	Ham Lake	55304	Wastewater Discharger	MNO067679	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=152192	Public Land Survey-Quartering	Inactive
Terry's Auto Service	14525 Highway 65 NE Ste A 553046111	49A	45.23346329	93.23414612	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MND985756184	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=63697	Address Matching House Number	Inactive
Miniature Circuits Inc	14205 Highway 65 NE 55304	49A	45.23368073	93.23375702	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MNR000110658	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=81893	Address Matching House Number	Active
Denny's Body Shop	1244 Andover Blvd NE 553046104	49A	45.23680115	93.23911285	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MND981950843	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=34370	Address Matching House Number	Active
Morken Transport Storage Inc	1247 Andover Blvd NE 553046105	49A	45.23689120	93.23905182	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MNR000024109	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=35845	Address Matching House Number	Active
Rapid Sport Center Ham Lake	1343 Andover Blvd NE 553046105	49A	45.23690414	93.23690611	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MNR000001735	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=36444	Address Matching House Number	Active
Fox Ridge - CSW	See location description 55304	49A	45.23754883	93.23271942	Ham Lake	55304	Construction Stormwater Permit	C00006362	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=36853	Zip Code Centroid	Inactive
Knollwood Estates	See location description 55304	49A	45.23767090	93.16275787	Ham Lake	55304	Construction Stormwater Permit	C00005836	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=61130	Zip Code Centroid	Inactive
Hoove 4x4 Inc	1435 147th Ave NE 55304	49A	45.23751833	93.20177807	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MNR00079384	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=72309	Address Matching House Number	Active
Illinois Tail Coatings	See location description 55304	49A	45.24652122	93.23274994	Ham Lake	55304	Construction Stormwater Permit	C00006309	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=62787	Zip Code Centroid	Inactive
Perfect Image Auto Body Inc	15002 Highway 65 NE 553046115	49A	45.24677650	93.23274994	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MNR000045776	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=72688	Address Matching House Number	Inactive
E & S Ham Lake Dr St Improvements	See location description 55304	49A	45.24778748	93.21853638	Ham Lake	55304	Construction Stormwater Permit	C00001105	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=62167	Zip Code Centroid	Inactive
Ham Lake city of	15544 Central Ave NE 55304	49A	45.25247574	93.23502350	Ham Lake	55304	Multiple Activities	Multiple Activities	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=144661	Address Matching House Number	Active
Heritage Furniture Restoration	16165 Highway 65 NE 55304	49A	45.25301361	93.23185730	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MNR000031153	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=31692	Address Matching House Number	Active
4 Wheel Parts & Service Inc	15625 Highway 65 NE 553045629	49A	45.25328827	93.23180389	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MND981951585	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=33269	Address Matching House Number	Active
RI Automotive	15709 Highway 65 NE 553045675	49A	45.25484467	93.23171234	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MND985736263	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=36543	Address Matching House Number	Active
Telar Industries	15720 Lincoln St NE 553045535	49A	45.25534821	93.23751420	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MNO000058909	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=37063	Address Matching House Number	Active
Gbs Engineering Inc	15760 Lincoln St NE 553042121	49A	45.25585938	93.23764038	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MND982607178	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=34809	Address Matching House Number	Active
Yale Materials Handling-MN Inc	15735 Central Ave NE 55304	49A	45.25598145	93.23444848	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MNR982644304	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=34536	Address Matching House Number	Active
Kenco Builders Inc	15745 Lincoln St NE 55304	49A	45.25624466	93.23809052	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MNR000116822	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=124512	Address Matching House Number	Active
Ceda Inc	15830 Lincoln St NE 553045535	49A	45.25670242	93.23790741	Ham Lake	55304	Multiple Activities	Multiple Activities	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=33972	Address Matching House Number	Active
Illinois Fixture & Wood Products Inc	15840 Central Ave NE 55304	49A	45.25743484	93.23453523	Ham Lake	55304	Multiple Activities	Multiple Activities	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=1919	Address Matching House Number	Inactive
Brooklyn Brothers Nursery	See location description 55304	49A	45.25789261	93.27400222	Ham Lake	55304	Construction Stormwater Permit	C00013795	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=148482	Zip Code Centroid	Inactive
Enchanted Estates	See location description 55304	49A	45.25789261	93.27400222	Ham Lake	55304	Construction Stormwater Permit	C00014060	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=149658	Zip Code Centroid	Inactive
Marshfield Ponds	See location description 55304	49A	45.25789261	93.27400222	Ham Lake	55304	Construction Stormwater Permit	C00013555	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=147338	Zip Code Centroid	Inactive
Heritage Forest	See location description 55304	49A	45.25789261	93.27400222	Ham Lake	55304	Construction Stormwater Permit	C00015020	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=158625	Zip Code Centroid	Active
SP 0216-06 (CSAH116)	See location description 55304	49A	45.25789261	93.27400222	Ham Lake	55304	Construction Stormwater Permit	C00012750	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=142294	Zip Code Centroid	Inactive
Third Coast Properties	See location description 55304	49A	45.27711244	93.23474992	Ham Lake	55304	Construction Stormwater Permit	C00012834	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=142743	Digitized - Map Tool	Active
Osborn Co Properties	See location description 55304	49A	45.28076285	93.23276044	Ham Lake	55304	Construction Stormwater Permit	C00011255	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=132415	Digitized - Map Tool	Active
Naples Estates 2nd	See location description 55304	49A	45.25789261	93.27400222	Ham Lake	55304	Construction Stormwater Permit	C00012159	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=139701	Zip Code Centroid	Active
Hamlet Estates 2nd	See location description 55304	49A	45.25789261	93.27400222	Ham Lake	55304	Construction Stormwater Permit	C00012247	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=139928	Zip Code Centroid	Active
Townhomes of Highland Bluffs 2 & 3rd	See location description 55304	49A	45.25789261	93.27400222	Ham Lake	55304	Construction Stormwater Permit	C00011489	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=134578	Zip Code Centroid	Inactive
Maple Hollow	See location description 55304	49A	45.25789261	93.27400222	Ham Lake	55304	Construction Stormwater Permit	C00009697	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=124672	Zip Code Centroid	Inactive
Schoumaier Pond Excavation	See location description 55304	49A	45.25789261	93.27400222	Ham Lake	55304	Construction Stormwater Permit	C00010427	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=128119	Zip Code Centroid	Active
Illinois Fixture & Wood Products Inc	See location description 55304	49A	45.25789261	93.27400222	Ham Lake	55304	Construction Stormwater Permit	C00012891	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=143033	Zip Code Centroid	Inactive
TH 65 and CR 16 Reconstruction	See location description 55304	49A	45.25789261	93.27400222	Ham Lake	55304	Construction Stormwater Permit	C00012992	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=143472	Zip Code Centroid	Inactive
Suburban Lawn	See location description 55304	49A	45.25789261	93.27400222	Ham Lake	55304	Construction Stormwater Permit	C00013900	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelform.cfm?siteid=148994	Zip Code Centroid	Inactive
Landburg Industrial Park	See location description 55304	49A												

Townhomes of Highland Bluffs 4th	See location description 55304	49A	45.25789261	-93.27404022	Ham Lake	55304	Construction Stormwater Permit	C00013350	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=146233	Zip Code Centroid	Inactive
Constance Estates - 2002	See location description 55304	49A	45.25789261	-93.27404022	Ham Lake	55304	Construction Stormwater Permit	C00009157	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=116580	Zip Code Centroid	Inactive
Mickman Brothers Nursery - CSW	14630 Highway 65 55304	49A	45.23575060	-93.23500014	Ham Lake	55304	Construction Stormwater Permit	C00006359	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=66852	Address Matching House Number	Active
Former Central Garage	17504 Highway 65 55304	49A	45.23817500	-93.23499690	Ham Lake	55304	Multiple Activities	C00000000	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=226507	Address Matching House Number	Active
Ham Lake Dr Property	2063 S Ham Lake Dr 55304	49A	45.25357441	-93.21840311	Ham Lake	55304	Leak Site	13164	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=247993	Address Matching House Number	Inactive
Arrow Designs	13735 Aberdeen St NE 55304	49A	45.21182251	-93.23286438	Ham Lake	55304	Hazardous Waste, Small to Minimal GG	MNR000032524	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=33334	Address Matching House Number	Active
Onville's Car Care - CM&K Inc	13327 Highway 65 NE 55304	49A	45.21196265	-93.23447418	Ham Lake	55304	Hazardous Waste, Small to Minimal GG	MND982231368	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=36325	Address Matching House Number	Active
Ham Lake Collision	13603 Johnson St NE 55304	49A	45.21365908	-93.23693085	Ham Lake	55304	Hazardous Waste, Small to Minimal GG	MND982128943	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=63646	Address Matching House Number	Active
Stans Auto	13621 Johnson St NE 553046933	49A	45.21677399	-93.23693085	Ham Lake	55304	Hazardous Waste, Small to Minimal GG	MND130730625	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=36892	Address Matching House Number	Active
ABRA Auto Body & Glass - Ham Lake	13819 Johnson St NE 55304	49A	45.22101212	-93.23673248	Ham Lake	55304	Multiple Activities	MND13070625	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=31612	Address Matching House Number	Active
Erickson Dump	See location description 55303	49A	45.22135544	-93.18383789	Ham Lake	55303	Unpermitted Dump Site	REM03989	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=17624	Digitized-DRG	Inactive
Larson's Heritage Oaks 6th Addition	1411 Lane NE & Radisson Dr 55304	49A	45.22676086	-93.21372223	Ham Lake	55304	Construction Stormwater Permit	C00007268	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=76291	Address Matching House Number	Inactive
Kings Wood Estates	County Road 17 & 136th Ave 55304	49A	45.22720206	-93.16255951	Ham Lake	55304	Construction Stormwater Permit	C00005736	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=54185	Address Matching House Number	Inactive
A OK Used Cars	14045 Highway 65 NE 553046714	49A	45.23123244	-93.23416138	Ham Lake	55304	Hazardous Waste, Small to Minimal GG	MND981793300	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=33284	Address Matching House Number	Inactive
Suburban Propane	14525 Highway 65 NE 553046111	49A	45.23346329	-93.23414612	Ham Lake	55304	Hazardous Waste, Small to Minimal GG	MND985723345	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=63316	Address Matching House Number	Inactive
A & R Collision	1248 Andover Blvd NE 553040104	49A	45.23680115	-93.23899078	Ham Lake	55304	Hazardous Waste, Small to Minimal GG	MND985705342	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=33283	Address Matching House Number	Inactive
Wasche Interiors Inc	14735 Highway 65 NE 553046101	49A	45.23279706	-93.23413849	Ham Lake	55304	Hazardous Waste, Small to Minimal GG	MND985722743	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=37393	Address Matching House Number	Active
Maple Ridge	See location description 55304	49A	45.23936462	-93.18297577	Ham Lake	55304	Construction Stormwater Permit	C00010774	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=13593	Address Matching House Number	Inactive
Berglen Steel Fabricating Inc	14835 Aberdeen St NE 553046225	49A	45.24110031	-93.23281007	Ham Lake	55304	Multiple Activities	C00000000	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=10155	Address Matching House Number	Active
Leturneau Trucking	1046 McKay Dr NE 553046122	49A	45.24089212	-93.24002212	Ham Lake	55304	Hazardous Waste, Small to Minimal GG	MND985765510	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=35513	Address Matching House Number	Active
Bear Creek	155th Ave NE & 1/2 Mile W of 55304	49A	45.25111389	-93.16692352	Ham Lake	55304	Construction Stormwater Permit	C00004424	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=11497	Zip Code Centroid	Inactive
RTD Co	15825 Central Ave NE 55304	49A	45.25272648	-93.23444448	Ham Lake	55304	Hazardous Waste, Small to Minimal GG	MNR000055186	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=36673	Address Matching House Number	Active
General Pattern Co - Ham Lake	15803 Central Ave NE 55304	49A	45.25743103	-93.23475647	Ham Lake	55304	Hazardous Waste, Small to Minimal GG	MNS000112382	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=16232	Address Matching House Number	Active
Naples Suburban Rental	See location description 55304	49A	45.25789261	-93.27404022	Ham Lake	55304	Construction Stormwater Permit	C00011829	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=137915	Zip Code Centroid	Inactive
North Estates	See location description 55304	49A	45.23268677	-93.17759863	Ham Lake	55304	Construction Stormwater Permit	C00009568	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=123714	Digitized - Map Tool	Active
Dynamic Smealing	See location description 55304	49A	45.25789261	-93.27404022	Ham Lake	55304	Construction Stormwater Permit	C00011366	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=132979	Zip Code Centroid	Inactive
Buchanan Street Reconstruction	See location description 55304	49A	45.25789261	-93.27404022	Ham Lake	55304	Construction Stormwater Permit	C00011562	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=135587	Zip Code Centroid	Inactive
Cottages of Heritage Oaks 2nd	See location description 55304	49A	45.25789261	-93.27404022	Ham Lake	55304	Construction Stormwater Permit	C00010570	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=128673	Zip Code Centroid	Active
Woodland Bluffs	See location description 55304	49A	45.25789261	-93.27404022	Ham Lake	55304	Construction Stormwater Permit	C00008699	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=104633	Zip Code Centroid	Inactive
Homesite Estates	See location description 55304	49A	45.25789261	-93.27404022	Ham Lake	55304	Construction Stormwater Permit	C00009158	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=116581	Zip Code Centroid	Inactive
Pg21	14125 Constance Blvd NE 553045039	49A	45.26060658	-93.20777893	Ham Lake	55304	Hazardous Waste, Small to Minimal GG	MND985723881	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=36241	Address Matching House Number	Active
J & R Graphic	27320 Rodney St NE 55304429	49A	45.28262711	-93.20061198	Ham Lake	55304	Hazardous Waste, Small to Minimal GG	MNR000063198	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=27598	Address Matching House Number	Active
CS Auto Repair	1219 Crosswood Blvd NE 553044411	49A	45.28423083	-93.21271629	Ham Lake	55304	Hazardous Waste, Small to Minimal GG	MNR000038089	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=36885	Address Matching House Number	Active
Strosson Dental Clinic	2765 Constance Blvd NE Site 20 55304	49A	45.28819656	-93.23425922	Ham Lake	55304	Hazardous Waste, Small to Minimal GG	MND985702232	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=34221	Address Matching House Number	Active
Westlund's Creekside Estates	See location description 55304	49A	45.25789261	-93.27404022	Ham Lake	55304	Construction Stormwater Permit	C00011152	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=132132	Zip Code Centroid	Active
Improuv for 149th Ave, Westlund, Naples	See location description 55304	49A	45.24039459	-93.19470215	Ham Lake	55304	Construction Stormwater Permit	C00001556	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=11380	Address Matching House Number	Inactive
Larson's Heritage Oaks West	See location description 55304	49A	45.25789261	-93.27404022	Ham Lake	55304	Construction Stormwater Permit	C00008985	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=108896	Address Matching House Number	Inactive
Perfect Image Auto Body	1320 & 1330 133rd Ln NE 55304	49A	45.21262741	-93.23675537	Ham Lake	55304	Multiple Activities	C00000000	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=127243	Digitized-DRG	Inactive
Jim Salvage	14205 Highway 65 NE 55304	49A	45.22767639	-93.23419189	Ham Lake	55304	Hazardous Waste, Small to Minimal GG	MND981959372	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=35256	Address Matching House Number	Active
Deer Haven Hills	See location description 55304	49A	45.25789261	-93.27404022	Ham Lake	55304	Construction Stormwater Permit	C00011551	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=135576	Zip Code Centroid	Active
McKinley School Absorption Pit/Surf Imp	See location description 55303	49A	45.26340103	-93.22634444	Ham Lake	55303	Unpermitted Dump Site	REM04567	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=17806	Digitized-DRG	Inactive
Casper Hardwood Floors	17255 Highway 65 NE 55304	49A	45.28251266	-93.23442078	Ham Lake	55304	Hazardous Waste, Small to Minimal GG	147341077	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=66960	Address Matching House Number	Inactive
Maestic Oaks	7013 Bunker Lake Blvd NE 553046799	49A	45.21871185	-93.24781799	Ham Lake	55304	Hazardous Waste, Small to Minimal GG	MND055326885	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=35613	Address Matching House Number	Active
Evergreen Woods - CSW	Constance Blvd & Wake St 55304	49A	45.26562390	-93.17201200	Ham Lake	55304	Construction Stormwater Permit	C00006271	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=68010	Address Matching House Number	Inactive
Bus Works Inc	14525 Highway 65 NE 553046111	49A	45.23463229	-93.23414612	Ham Lake	55304	Hazardous Waste, Small to Minimal GG	MND985761907	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=63315	Address Matching House Number	Inactive
Crossing Sign Inc - Aberdeen St	16307 Aberdeen St NE 55304	49A	45.26737213	-93.23467100	Ham Lake	55304	Hazardous Waste, Small to Minimal GG	MNR000106708	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=83054	Address Matching House Number	Active
Flamingo Terrace Mobile Home Park	17100 Highway 65 NE 55304	49A	45.27975082	-93.23472595	Ham Lake	55304	Wastewater Discharger	MND0051144	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=4888	Address Matching House Number	Active
Rinerson Residence	4105 Wildwood Dr 55304	49A	45.22185898	-93.16543579	Ham Lake	55304	Leak Site	7046	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=243716	Address Matching House Number	Inactive
Cylinder Head Exchange	17243 Rockney St NE 553044630	49A	45.28276443	-93.14524841	Ham Lake	55304	Hazardous Waste, Small to Minimal GG	MNR000025825	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=34261	Address Matching House Number	Active
Peterson's Farm	1719 Bunker Lake Boulevard NE 55304	49A	45.21855545	-93.22612762	Ham Lake	55304	Voluntary Investigation & Cleanup (VIC)	VP13660	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/sitelfno.cfm?siteid=176899	Digitized-DRG	Inactive
Dahlquist Machine Inc	1318 Bunker Lake Blvd NE 553046726	49A	45.21861267	-93.23680878	Ham Lake	55304	Hazardous Waste, Small to Minimal GG	MND0681						

Standard Diesel & Equipment Repair Inc	13412 Highway 65 NE 553046918	49A	45.22054672	-93.23432922	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MND985676477	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/siteinfo.cfm?siteid=36888	Address Matching House Number	Inactive
White Oak Ridge	Naples St & 151st Ave 55304	49A	45.24390793	-93.18341064	Ham Lake	55304	Construction Stormwater Permit	C00007272	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/siteinfo.cfm?siteid=76348	Address Matching House Number	Inactive
Enterprise Plaza	Unknown 55304	49A	45.25472260	-93.27436066	Ham Lake	55304	Construction Stormwater Permit	C00004070	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/siteinfo.cfm?siteid=13168	Zip Code Centroid	Inactive
Merit Business Center	See location description 55304	49A	45.25789261	-93.27404022	Ham Lake	55304	Construction Stormwater Permit	C00013268	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/siteinfo.cfm?siteid=145752	Zip Code Centroid	Inactive
Highland Meadows	E side of CR 52, 3/4 mi N of CR 116 55304	49A	45.25789261	-93.27404022	Ham Lake	55304	Construction Stormwater Permit	C00008176	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/siteinfo.cfm?siteid=82560	Zip Code Centroid	Inactive
Crosstown Masonry Inc	1322 159th Ave NE 55304	49A	45.25958252	-93.23754883	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MNR000110601	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/siteinfo.cfm?siteid=102683	Address Matching House Number	Active
Lilander Auto Sales	17255 Highway 65 NE Ste 9 55304	49A	45.28251266	-93.24550488	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MNR000059501	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/siteinfo.cfm?siteid=63760	Address Matching House Number	Active
Checker Auto Parts 1836	17638 Central Ave NE 55304	49A	45.29000092	-93.23342133	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MNS000106245	Anoka	07010207	Rum River	http://www.pca.state.mn.us/WIMN/siteinfo.cfm?siteid=145859	Address Matching House Number	Active
MSAP 197-109-01 Concord Dr NE	See location description 55304	49A	45.29346085	-93.24577332	Ham Lake	55304	Construction Stormwater Permit	C00001904	Anoka	07010207	Rum River	http://www.pca.state.mn.us/WIMN/siteinfo.cfm?siteid=54251	Address Matching House Number	Inactive
Neptune Register Service Co	3613 181st Ave NW 553041049	49A	45.29845428	-93.35732269	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MNR000065870	Anoka	07010207	Rum River	http://www.pca.state.mn.us/WIMN/siteinfo.cfm?siteid=69566	Address Matching House Number	Active
Majestic Oaks Townhomes 4	See location description 55304	49A	45.21424103	-93.24707031	Ham Lake	55304	Construction Stormwater Permit	C00003399	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/siteinfo.cfm?siteid=13599	Address Matching House Number	Inactive
Bunker Lake Blvd - Baptist Church Pond	Bunker Blvd & Radisson Rd 55304	49A	45.25789261	-93.27404022	Ham Lake	55304	Construction Stormwater Permit	C00005721	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/siteinfo.cfm?siteid=70007	Zip Code Centroid	Inactive
Nottingham Forest	E of Coral Sea St, S of 144th Ave, 55304	49A	45.25789261	-93.27404022	Ham Lake	55304	Construction Stormwater Permit	C00008048	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/siteinfo.cfm?siteid=81475	Zip Code Centroid	Inactive
Bendtsen's Transmission Center	13603 Johnson St NE 55304	49A	45.21659088	-93.23693085	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MNR000004523	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/siteinfo.cfm?siteid=63647	Address Matching House Number	Active
AME Red-i-Mix Inc - Ham Lake	15915 Highway 65 NE 55304	49A	45.25855637	-93.23220825	Ham Lake	55304	Multiple Activities	Multiple Activities	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/siteinfo.cfm?siteid=8134	Address Matching House Number	Active
Lares Corp - Ham Lake	13517 Highway 65 NE 55304	49A	45.21572113	-93.23433685	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MND985687847	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/siteinfo.cfm?siteid=35471	Address Matching House Number	Active
Lund John J	1625 145th Ln NE 553046205	49A	45.23448944	-93.22886658	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MND985766245	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/siteinfo.cfm?siteid=35566	Address Matching House Number	Inactive
Jellison Auto Wrecking	3817 149th Ave NE 553046610	49A	45.24009705	-93.17381287	Ham Lake	55304	Multiple Activities	Multiple Activities	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/siteinfo.cfm?siteid=35225	Address Matching House Number	Active
Design Homes Model Home Display	See location description 55304	49A	45.25789261	-93.27404022	Ham Lake	55304	Construction Stormwater Permit	C00010518	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/siteinfo.cfm?siteid=128494	Zip Code Centroid	Active
CP 99-04-60 County Road 60	See location description 55304	49A	45.26550674	-93.18830872	Ham Lake	55304	Construction Stormwater Permit	C00003675	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/siteinfo.cfm?siteid=61877	Zip Code Centroid	Inactive
Walsh Auto Repair	1766 Soderville Dr NE 553044323	49A	45.28710938	-93.22464752	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MND985678382	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/siteinfo.cfm?siteid=37387	Address Matching House Number	Active
Ham Lake Dental Association PA	16220 Aberdeen St NE Ste A1 55304	49A	45.26493209	-93.23321688	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MNR000112229	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/siteinfo.cfm?siteid=103344	Address Matching House Number	Active
Hooze 4x4 Trucks	13655 Highway 65 NE 553046956	49A	45.21782303	-93.23429874	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MND985707231	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/siteinfo.cfm?siteid=35054	Address Matching House Number	Active
Red Pine Estates	Unknown 55304	49A	45.25472260	-93.27436066	Ham Lake	55304	Construction Stormwater Permit	C00005002	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/siteinfo.cfm?siteid=13852	Zip Code Centroid	Active
Certified Auto Recyclers	3827 Crosstown Blvd NE 553045206	49A	45.27993774	-93.17654419	Ham Lake	55304	Multiple Activities	Multiple Activities	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/siteinfo.cfm?siteid=7695	Address Matching House Number	Active
John Meyer Warehouse Addition	1327 - 153rd Lane NE 55304	49A	45.24900436	-93.23681641	Ham Lake	55304	Industrial Stormwater Permit	A00012702	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/siteinfo.cfm?siteid=137378	Address Matching House Number	Inactive
North Country RV - Ham Lake	14525 Highway 65 NE 55304	49A	45.23346329	-93.23414612	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MND982636508	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/siteinfo.cfm?siteid=63696	Address Matching House Number	Active
L & S Electric Inc - Ham Lake	14115 Lincoln St Ste 100 55304	49A	45.22053528	-93.23879242	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MNR000116871	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/siteinfo.cfm?siteid=124558	Address Matching House Number	Active
Cliffs Auto Repair	13546 Highway 65 NE 553046920	49A	45.21617889	-93.23445129	Ham Lake	55304	Hazardous Waste, Small to Minimal QG	MND982220741	Anoka	07010206	Mississippi River (Twin Cities)	http://www.pca.state.mn.us/WIMN/siteinfo.cfm?siteid=34098	Address Matching House Number	Active

Appendix B
Floodplain Ordinance

Ordinance 15-27

An Ordinance relating to Floodplain in the City of Ham Lake.

Be it ordained by the City Council of the City of Ham Lake, Anoka County, Minnesota, as follows:

Ordinance 91-3 is hereby repealed, to be replaced by the following Ordinance 15-27.

SECTION - 1.0 STATUTORY AUTHORIZATION, FINDINGS OF FACT AND PURPOSE

1.1 Statutory Authorization: The legislature of the State of Minnesota has, in Minnesota Statutes Chapter 103F and Chapter 462 delegated the responsibility to local government units to adopt regulations designed to minimize flood losses. Therefore, the City Council of Ham Lake, Minnesota, does ordain as follows.

1.2 Purpose:

1.2.1 This Ordinance regulates development in the flood hazard areas of Ham Lake, Minnesota. These flood hazard areas are subject to periodic inundation, which may result in loss of life and 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. It is the purpose of this Ordinance to promote the public health, safety, and general welfare by minimizing these losses and disruptions.

1.2.2 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 Code of Federal Regulations Parts 59 -78, as amended, so as to maintain the community's eligibility in the National Flood Insurance Program.

1.2.3 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.

SECTION - 2.0 GENERAL PROVISIONS

2.1 How to Use This Ordinance: This Ordinance adopts the floodplain maps applicable to the City of Ham Lake and includes three floodplain districts: Floodway, Flood Fringe, and General Floodplain.

2.1.1 Where Floodway and Flood Fringe districts are delineated on the floodplain maps, the standards in Sections 4.0 or 5.0 will apply, depending on the location of a property.

2.1.2 Locations where Floodway and Flood Fringe districts are not delineated on the floodplain maps are considered to fall within the General Floodplain district. Within the General Floodplain district, the Floodway District standards in Section 4.0 apply unless the floodway boundary is determined, according to the process outlined in Section 6.0. Once the floodway boundary is determined, the Flood Fringe District standards in Section 5.0 may apply outside the floodway.

2.2 **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 Anoka County, Minnesota, and Incorporated Areas and the Flood Insurance Rate Map enumerated below, all dated December 16, 2015 and all prepared by the Federal Emergency Management Agency. These materials are on file in the Building Department.

- 27003C0195E
- 27003C0215E
- 27003C0220E
- 27003C0307E
- 27003C0309E
- 27003C0326E
- 27003C0327E
- 27003C0328E
- 27003C0329E
- 27003C0331E
- 27003C0333E
- 27003C0335E

2.3 **Regulatory Flood Protection Elevation:** The regulatory flood protection elevation (RFPE) is 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.

2.4 **Interpretation:** The boundaries of the zoning districts are determined by scaling distances on the Flood Insurance Rate Map.

2.4.1 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 Building Official 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.

2.4.2 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.

2.5 **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.

2.6 **Warning and Disclaimer of Liability:** This Ordinance does not imply that areas outside the floodplain districts or land uses permitted within such districts will be free from flooding or flood damages. This Ordinance does not create liability on the part of the City of Ham Lake or its officers or employees for any flood damages that result from reliance on this Ordinance or any administrative decision lawfully made hereunder.

2.7 **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.

2.8 **Definitions:** Unless specifically defined below, words or phrases used in this Ordinance must be interpreted according to common usage and so as to give this Ordinance its most reasonable application.

2.8.1 **Accessory Use or Structure** – a use or structure on the same lot with, and of a nature customarily incidental and subordinate to, the principal use or structure.

- 2.8.2 Base Flood Elevation -- The elevation of the "regional flood." The term "base flood elevation" is used in the flood insurance survey. The base flood elevation is to consider the highest elevation between the flood insurance study and watershed district/watershed management organization hydrologic modeling.
- 2.8.3 Basement -- 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.
- 2.8.4 Conditional Use -- 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:
- (a) Certain conditions as detailed in City Code Article 9 exist.
 - (b) The structure and/or land use conform to the comprehensive land use plan if one exists and are compatible with the existing neighborhood.
- 2.8.5 Critical Facilities -- facilities necessary to a community's public health and safety, those that store or produce highly volatile, toxic or water-reactive materials, and those that house occupants that may be insufficiently mobile to avoid loss of life or injury. Examples of critical facilities include hospitals, correctional facilities, schools, daycare facilities, nursing homes, fire and police stations, wastewater treatment facilities, public electric utilities, water plants, fuel storage facilities, and waste handling and storage facilities.
- 2.8.6 Development -- any manmade change to improved or unimproved real estate, including buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.
- 2.8.7 Equal Degree of Encroachment -- a method of determining the location of floodway boundaries so that floodplain lands on both sides of a stream are capable of conveying a proportionate share of flood flows.
- 2.8.8 Farm Fence -- A fence as defined by Minnesota Statutes Section 344.02, subdivision 1(a)-(d). An open type fence of posts and wire is not considered to be a structure under this Ordinance. Fences that have the potential to obstruct flood flows, such as chain link fences and rigid walls, are regulated as structures under this Ordinance.
- 2.8.9 Flood -- 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.
- 2.8.10 Flood Frequency -- the frequency for which it is expected that a specific flood stage or discharge may be equaled or exceeded.
- 2.8.11 Flood Fringe -- that portion of the floodplain outside of the floodway. Flood fringe is synonymous with the term "floodway fringe" used in the Flood Insurance Study for Anoka County, Minnesota.
- 2.8.12 Flood Prone Area -- any land susceptible to being inundated by water from any source (see "Flood").
- 2.8.13 Floodplain -- the beds proper and the areas adjoining a wetland, lake or watercourse which have been or hereafter may be covered by the regional flood.

- 2.8.14 Floodproofing – a combination of structural provisions, changes, or adjustments to properties and structures subject to flooding, primarily for the reduction or elimination of flood damages.
- 2.8.15 Floodway – the bed of a wetland or lake and the channel of a watercourse and those portions of the adjoining floodplain which are reasonably required to carry or store the regional flood discharge.
- 2.8.16 Lowest Floor – 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.
- 2.8.17 Manufactured Home – 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.”
- 2.8.18 Obstruction – 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 floodplain 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.
- 2.8.19 One Hundred Year Floodplain – lands inundated by the “Regional Flood” (see definition).
- 2.8.20 Principal Use or Structure – all uses or structures that are not accessory uses or structures.
- 2.8.21 Reach – a hydraulic engineering term to describe a longitudinal segment of a stream or river influenced by a natural or man-made obstruction. In an urban area, the segment of a stream or river between two consecutive bridge crossings would most typically constitute a reach.
- 2.8.22 Recreational Vehicle – 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 Ordinance, the term recreational vehicle is synonymous with the term “travel trailer/travel vehicle.”
- 2.8.23 Regional Flood – 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 1% chance or 100-year recurrence interval. Regional flood is synonymous with the term "base flood" used in a flood insurance study.
- 2.8.24 Regulatory Flood Protection Elevation (RFPE) - an elevation not less 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.
- 2.8.25 Repetitive Loss: Flood related damages sustained by a structure on two separate occasions during a ten year period for which the cost of repairs at the time of each

such flood event on the average equals or exceeds 25% of the market value of the structure before the damage occurred.

2.8.26 Special Flood Hazard Area – a term used for flood insurance purposes synonymous with “One Hundred Year Floodplain.”

2.8.27 Structure - 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 9.2.2 of this Ordinance and other similar items.

2.8.28 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.

2.8.29 Substantial Improvement - 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:

(a) 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 assure safe living conditions.

(b) Any alteration of a “historic structure,” provided that the alteration will not preclude the structure’s continued designation as a “historic structure.” For the purpose of this Ordinance, “historic structure” is as defined in 44 Code of Federal Regulations, Part 59.1.

2.9 **Annexations:** The Flood Insurance Rate Map panels adopted by reference into Section 2.2 above may include floodplain areas that lie outside of the corporate boundaries of the City of Ham Lake at the time of adoption of this Ordinance. If any of these floodplain land areas are annexed into the City after the date of adoption of this Ordinance, the newly annexed floodplain lands will be subject to the provisions of this Ordinance immediately upon the date of annexation.

SECTION 3.0 - ESTABLISHMENT OF ZONING DISTRICTS

3.1 Districts:

3.1.1 Floodway District. The Floodway District includes those areas designated as floodway on the Flood Insurance Rate Map adopted in Section 2.2. For lakes, wetlands and other basins, the Floodway District includes those areas designated as Zone A or AE on the Flood Insurance Rate Map that are at or below the ordinary high water level as defined in Minnesota Statutes, Section 103G.005, subdivision 14.

3.1.2 Flood Fringe District. The Flood Fringe District includes those areas designated as floodway fringe on the Flood Insurance Rate Map adopted in Section 2.2, as being within Zone AE but being located outside of the floodway. For lakes, wetlands and

other basins (that do not have a floodway designated), the Flood Fringe District includes those areas designated as Zone A or AE on the Flood Insurance Rate Map panels adopted in Section 2.2 that are below the 1% annual chance (100-year) flood elevation but above the ordinary high water level as defined in Minnesota Statutes, Section 103G.005, subdivision 14.

3.1.3 **General Floodplain District.** The General Floodplain District includes those areas designated as Zone A or Zone AE without a floodway on the Flood Insurance Rate Map adopted in Section 2.2, but not subject to the criteria in Sections 3.1.1 and 3.1.2 above.

3.2 **Compliance:** Within the floodplain districts established in this Ordinance, the use of any land, the use, size, type and location of structures on lots, the installation and maintenance of transportation, utility, water supply and waste treatment facilities, and the subdivision of land must comply with the terms of this Ordinance and other applicable regulations. All uses not listed as permitted uses or conditional uses in Sections 4.0, 5.0 and 6.0, respectively, are prohibited.

In addition, a caution is provided here that:

3.2.1 New and replacement manufactured homes and certain recreational vehicles are subject to the general provisions of this Ordinance and specifically Section 9.0.

3.2.2 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 Ordinance and specifically Section 11.0.

3.2.3 All structures must be 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.

3.2.4 As-built elevations for elevated or floodproofed 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 Ordinance and specifically as stated in Section 10.0 of this Ordinance.

3.2.5 Critical facilities, as defined in Section 2.8.5, are prohibited in all floodplain districts.

SECTION 4.0 - FLOODWAY DISTRICT (FW)

4.1 **Permitted Uses:** The following uses, subject to the standards set forth in Section 4.2, are permitted uses if otherwise allowed in the underlying zoning district:

4.1.1 General farming, pasture, grazing, outdoor plant nurseries, horticulture, truck farming, forestry, sod farming, and wild crop harvesting.

4.1.2 Industrial-commercial loading areas, parking areas, and airport landing strips.

4.1.3 Open space uses, including but not limited to 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, hunting and fishing areas, and single or multiple purpose recreational trails.

- 4.1.4 Residential lawns, gardens, parking areas, and play areas.
- 4.1.5 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, and that the standards in Sections 4.4.1, 4.4.3(a) and 4.4.6 of this Ordinance are met.

4.2 Standards for Floodway Permitted Uses:

- 4.2.1 The use must have low flood damage potential.
- 4.2.2 With the exception of the uses listed in Section 4.1.5, the use must not obstruct flood flows or increase flood elevations and must not involve structures, fill, obstructions, excavations or storage of materials or equipment.
- 4.2.3 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 regional (1% chance) flood.

4.3 Conditional Uses: The following uses may be allowed as conditional uses following the standards and procedures set forth in Section 10.4 of this Ordinance and further subject to the standards set forth in Section 4.4, if otherwise allowed in the underlying zoning district.

- 4.3.1 Extraction and storage of sand, gravel, and other materials.
- 4.3.2 Marinas, boat rentals, docks, piers, wharves, and water control structures.
- 4.3.3 Storage yards for equipment, machinery, or materials.
- 4.3.4 Placement of fill or construction of fences that obstruct flood flows. Farm fences, as defined in Section 2.8.8, are permitted uses.
- 4.3.5 Travel-ready recreational vehicles meeting the exception standards in Section 9.3.
- 4.3.6 Levees or dikes intended to protect agricultural crops for a frequency flood event equal to or less than the 10-year frequency flood event.

4.4 Standards for Floodway Conditional Uses:

- 4.4.1 All Uses. A conditional use must not cause any increase in the stage of the 1% chance or regional flood or cause an increase in flood damages in the reach or reaches affected.
- 4.4.2 Fill; Storage of Materials and Equipment:
 - (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 from erosion 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.
- 4.4.3 Structural works for flood control that will change the course, current or cross Section of protected wetlands or public waters are subject to the provisions of Minnesota Statutes, Section 103G.245.

- 4.4.4 A levee, dike or floodwall constructed in the floodway must not cause an increase to the 1% chance or regional flood. The technical analysis must assume equal conveyance or storage loss on both sides of a stream.
- 4.4.5 Floodway developments must not adversely affect the hydraulic capacity of the channel and adjoining floodplain of any tributary watercourse or drainage system.

SECTION - 5.0 FLOOD FRINGE DISTRICT (FF)

- 5.1 **Permitted Uses:** Permitted uses are those uses of land or structures allowed in the underlying zoning district(s) that comply with the standards in Section 5.2.
- 5.2 **Standards for Flood Fringe Permitted Uses:**
 - 5.2.1 All structures, including accessory structures, must be elevated 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 the structure.
 - (a) All service utilities, including ductwork, must be elevated or water-tight to prevent infiltration of floodwaters.
 - 5.2.2 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 5.2.1 of this Ordinance, or if allowed as a conditional use under Section 5.3.3 below.
 - 5.2.3 The storage of any materials or equipment must be elevated on fill to the regulatory flood protection elevation.
 - 5.2.4 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.
 - 5.2.5 Fill must be properly compacted and the slopes must be properly protected by the use of riprap, vegetative cover or other acceptable method.
 - 5.2.6 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 /emergency evacuation plan acceptable to the City Council.
 - 5.2.7 Accessory uses such as yards, railroad tracks, and parking lots may be at an elevation lower than the regulatory flood protection elevation. However, any facilities 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 regional (1% chance) flood.
 - 5.2.8 Interference with normal manufacturing/industrial plant operations must be minimized, especially along streams having protracted flood durations. In considering permit applications, due consideration must be given to the needs of industries with operations that require a floodplain location.
 - 5.2.9 Flood fringe developments must not adversely affect the hydraulic capacity of the channel and adjoining floodplain of any tributary watercourse or drainage system.
 - 5.2.10 Manufactured homes and recreational vehicles must meet the standards of Section 9.0 of this Ordinance.

5.3 Conditional Uses: The following uses and activities may be allowed as conditional uses, if allowed in the underlying zoning district(s), following the procedures in Section 10.4 of this Ordinance. Conditional uses must meet the standards in Sections 5.2.4 thru 5.2.10 and Section 5.4.

5.3.1 Any structure that is not elevated on fill.

5.3.2 Storage of any material or equipment below the regulatory flood protection elevation.

5.3.3 The cumulative placement of more than 1,000 cubic yards of fill when the fill is not being used to elevate a structure in accordance with Section 5.2.1 of this Ordinance.

5.4 Standards for Flood Fringe Conditional Uses:

5.4.1 The standards listed in Sections 5.2.4 thru 5.2.10 apply to all conditional uses.

5.4.2 Basements, as defined by Section 2.8.3 of this Ordinance, are subject to the following:

(a) Basement construction is not allowed below the regulatory flood protection elevation.

5.4.3 The placement of more than 1,000 cubic yards of fill or other similar material on a parcel (other than for the purpose of elevating a structure to the regulatory flood protection elevation) must comply with an approved erosion/sedimentation control plan.

(a) 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 (1% chance) flood event.

(b) The plan must be prepared and certified by a registered professional engineer or other qualified individual acceptable to the City Council.

(c) The plan may incorporate alternative procedures for removal of the material from the floodplain if adequate flood warning time exists.

5.4.4 Storage of materials and equipment below the regulatory flood protection elevation must comply with an approved emergency plan providing for removal of such materials within the time available after a flood warning.

5.4.5 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) The minimum area of openings in the walls where internal flooding is to be used as a floodproofing 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 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; 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.

SECTION 6.0 - GENERAL FLOODPLAIN DISTRICT (GF)

6.1 Permitted Uses:

- 6.1.1 The uses listed in Section 4.1 of this Ordinance, Floodway District Permitted Uses, are permitted uses.
- 6.1.2 All other uses are subject to the floodway/flood fringe evaluation criteria specified in Section 6.2 below. Section 4.0 applies if the proposed use is determined to be in the Floodway District. Section 5.0 applies if the proposed use is determined to be in the Flood Fringe District.

6.2 Procedures for Floodway and Flood Fringe Determinations:

- 6.2.1 Upon receipt of an application for a permit or other approval within the General Floodplain District, the Building Official must obtain, review and reasonably utilize any regional flood elevation and floodway data available from a federal, state, or other source.
- 6.2.2 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 6.2.3 below.
- 6.2.3 The determination of floodway and flood fringe must include the following components, as applicable:
 - (a) Estimate the peak discharge of the regional (1% 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 (0.5) foot. A lesser stage increase than 0.5 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.
- 6.2.4 The Building Official 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 Building Official may seek technical assistance from the City Engineer or other expert person or agency, including the Department of Natural Resources. Based on this assessment, the Building Official may approve or deny the application.
- 6.2.5 Once the Floodway and Flood Fringe District boundaries have been determined, the Building Official must process the permit application consistent with the applicable provisions of Section 4.0 and 5.0 of this Ordinance.

SECTION 7.0 - LAND DEVELOPMENT STANDARDS

- 7.1 **In General:** Recognizing that flood prone areas may exist outside of the designated floodplain districts, the requirements of this Section apply to all land within the City of Ham Lake.
- 7.2 **Subdivisions:** No land may be subdivided which is unsuitable for reasons of flooding or inadequate drainage, water supply or sewage treatment facilities. Manufactured home parks and recreational vehicle parks or campgrounds are considered subdivisions under this Ordinance.
 - 7.2.1 All lots within the floodplain districts must be able to contain a building site outside of the Floodway District at or above the regulatory flood protection elevation.
 - 7.2.2 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 (1% chance) flood has been approved by the City Council. The plan must be prepared by a registered engineer or other qualified individual, and must demonstrate that adequate time and personnel exist to carry out the evacuation.
 - 7.2.3 For all subdivisions in the floodplain, 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.
 - 7.2.4 In the General Floodplain District, applicants must provide the information required in Section 6.2 of this Ordinance to determine the regional flood elevation, the Floodway and Flood Fringe District boundaries and the regulatory flood protection elevation for the subdivision site.
 - 7.2.5 If a subdivision proposal or other proposed new development is in a flood prone area, any such proposal must be reviewed to assure 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.

7.3 **Building Sites:** If a proposed building site is in a flood prone area, all new construction and substantial improvements (including the placement of manufactured homes) 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.

SECTION 8.0 - PUBLIC UTILITIES, RAILROADS, ROADS, AND BRIDGES

8.1 **Public Utilities:** All public utilities and facilities such as gas, electrical, sewer, and water supply systems to be located in the floodplain must be floodproofed in accordance with the State Building Code or elevated to the regulatory flood protection elevation.

8.2 **Public Transportation Facilities:** Railroad tracks, roads, and bridges to be located within the floodplain must comply with Sections 4.0 and 5.0 of this Ordinance. These transportation facilities must be elevated to the regulatory flood protection elevation where failure or interruption of these 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.

8.3 **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 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 and they must 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 is considered to be in compliance with this Section.

SECTION 9.0 - MANUFACTURED HOMES, MANUFACTURED HOME PARKS, AND RECREATIONAL VEHICLES.

9.1 **Manufactured Homes:** New manufactured home parks and expansions to existing manufactured home parks are prohibited in any floodplain district. For existing manufactured home parks or lots of record, the following requirements apply:

9.1.1 Placement or replacement of manufactured home units is prohibited in the Floodway District.

9.1.2 If allowed in the Flood Fringe District, placement or replacement of manufactured home units is subject to the requirements of Section 5.0 of this Ordinance and the following standards.

- (a) New and replacement manufactured homes must be elevated in compliance with Section 5.0 of this Ordinance and 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.
- (b) New or replacement manufactured homes in existing manufactured home parks must meet the vehicular access requirements for subdivisions in Section 7.2.2.

9.2 **Recreational Vehicles:** New recreational vehicle parks or campgrounds and expansions to existing recreational vehicle parks or campgrounds are prohibited in any floodplain district. Placement of recreational vehicles in existing recreational vehicle parks or campgrounds in the floodplain must meet the exemption criteria below or be treated as new structures meeting the requirements of this Ordinance.

9.2.1 Recreational vehicles are exempt from the provisions of this Ordinance if they are placed in any of the following areas and meet the criteria listed in Section 9.2.2:

- (a) Individual lots or parcels of record.
- (b) Existing commercial recreational vehicle parks or campgrounds.
- (c) Existing condominium-type associations.

9.2.2 **Criteria for Exempt Recreational Vehicles:**

- (a) The vehicle must have a current license required for highway use.
- (b) The vehicle must be highway ready, meaning on wheels or the internal jacking system, attached to the site only by quick disconnect type utilities commonly used in campgrounds and recreational vehicle parks.
- (c) No permanent structural type additions may be attached to the vehicle.
- (d) The vehicle and associated use must be permissible in any pre-existing, underlying zoning district.
- (e) Accessory structures are not permitted within the Floodway District. Any accessory structure in the Flood Fringe District must be constructed of flood-resistant materials and be securely anchored, meeting the requirements applicable to manufactured homes in this Section.
- (f) An accessory structure must constitute a minimal investment

9.2.3 Recreational vehicles that are exempt in Section 9.2.2 lose this exemption when development occurs on the site that exceeds a minimal investment for an accessory structure such as a garage or storage building. The recreational vehicle and all accessory structures will then be treated as new structures subject to the elevation and floodproofing requirements of Section 5.0 of this Ordinance. No development or improvement on the parcel or attachment to the recreational vehicle is allowed that would hinder the removal of the vehicle should flooding occur.

SECTION 10.0 - ADMINISTRATION

10.1 Building Official: The Building Official or other official designated by the City Council must administer and enforce this Ordinance.

10.2 Permit Requirements:

10.2.1 Permit Required. A permit must be obtained from the Building Official prior to conducting the following activities:

- (a) The erection, addition, modification, rehabilitation, 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.
- (b) The use or change of use of a building, structure, or land.
- (c) The construction of a dam, fence, or on-site septic system, although a permit is not required for a farm fence as defined in this Ordinance.
- (d) The change or extension of a nonconforming use.
- (e) The repair of a structure that has been damaged by flood, fire, tornado, or any other source.
- (f) The placement of fill, excavation of materials, or the storage of materials or equipment within the floodplain.
- (g) Relocation or alteration of a watercourse - including new or replacement culverts and bridges), unless a public waters work permit has been applied for.
- (h) Any other type of "development" as defined in this Ordinance.

10.2.2 Application for Permit. Permit applications must be submitted to the Building Official on forms provided by the Building Official. The permit application must include the following as applicable:

- (a) A site plan showing all pertinent dimensions, existing or proposed buildings, structures, and significant natural features having an influence on the permit.
- (b) Location of fill or storage of materials in relation to the stream channel.
- (c) Copies of any required municipal, county, state or federal permits or approvals.
- (d) Other relevant information requested by the Building Official as necessary to properly evaluate the permit application.

10.2.3 Certificate of Zoning Compliance for a New, Altered, or Nonconforming Use. No building, land or structure may be occupied or used in any manner until a certificate of zoning compliance has been issued by the Building Official stating that the use of the building or land conforms to the requirements of this Ordinance.

10.2.4 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. Floodproofing measures must be certified by a registered professional engineer or registered architect.

- 10.2.5 Record of First Floor Elevation. The Building Official 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 Building Official must also maintain a record of the elevation to which structures and alterations or additions to structures are floodproofed.
- 10.2.6 Notifications for Watercourse Alterations. Before authorizing any alteration or relocation of a river or stream, the Building Official must notify adjacent communities. If the applicant has applied for a permit to work in public waters pursuant to Minnesota Statutes, Section 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).
- 10.2.7 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 Building Official must notify the Chicago Regional Office of FEMA of the changes by submitting a copy of the relevant technical or scientific data.

10.3 Variances:

- 10.3.1 Variance Applications. An application for a variance to the provisions of this Ordinance will be processed and reviewed in accordance with applicable state statutes and Section 9-360 of City Code.
- 10.3.2 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.
- 10.3.3 Additional Variance Criteria. The following additional variance criteria of the Federal Emergency Management Agency must be satisfied:
- (a) 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.
 - (b) Variances may only be issued by a community upon (i) a showing of good and sufficient cause, (ii) a determination that failure to grant the variance would result in exceptional hardship to the applicant, and (iii) 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.
 - (c) Variances may only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
- 10.3.4 Flood Insurance Notice. The Building Official 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 for \$100 of insurance coverage; and 2) Such construction below the base or regional flood level increases risks to life and property. Such notification must be maintained with a record of all variance actions.

10.3.5 General Considerations. The community may consider the following factors in granting variances and imposing conditions on variances and conditional uses in floodplains:

- (a) The potential danger to life and property due to increased flood heights or velocities caused by encroachments;
- (b) The danger that materials may be swept onto other lands or downstream to the injury of others;
- (c) 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;
- (d) The susceptibility of any proposed use and its contents to flood damage and the effect of such damage on the individual owner;
- (e) The importance of the services to be provided by the proposed use to the community;
- (f) The requirements of the facility for a waterfront location;
- (g) The availability of viable alternative locations for the proposed use that are not subject to flooding;
- (h) The compatibility of the proposed use with existing development and development anticipated in the foreseeable future;
- (i) The relationship of the proposed use to the Comprehensive Land Use Plan and flood plain management program for the area;
- (j) The safety of access to the property in times of flood for ordinary and emergency vehicles;
- (k) The expected heights, velocity, duration, rate of rise and sediment transport of the flood waters expected at the site.

10.3.6 Submittal of Hearing Notices to the Department of Natural Resources (DNR). The Building Official 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.

10.3.7 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.

10.3.8 Record-Keeping. The Building Official must maintain a record of all variance actions, including justification for their issuance, 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.

10.4 Conditional Uses:

10.4.1 Administrative Review. An application for a conditional use permit under the provisions of this Ordinance will be processed and reviewed in accordance with Section 9-310 of the City Code.

- 10.4.2 Factors Used in Decision-Making. In passing upon conditional use applications, the City Council must consider all relevant factors specified in other Sections of this Ordinance, and those factors identified in Section 10.3.5 of this Ordinance.
- 10.4.3 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:
- (a) Modification of waste treatment and water supply facilities.
 - (b) Limitations on period of use, occupancy, and operation.
 - (c) Imposition of operational controls, sureties, and deed restrictions.
 - (d) Requirements for construction of channel modifications, compensatory storage, dikes, levees, and other protective measures.
- 10.4.4 Submittal of Hearing Notices to the Department of Natural Resources (DNR). The Building Official must submit hearing notices for proposed conditional uses 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.
- 10.4.5 Submittal of Final Decisions to the DNR. A copy of all decisions granting conditional uses 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.

SECTION 11.0 - NONCONFORMITIES

- 11.1 **Continuance of Nonconformities:** 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 this Ordinance may be continued subject to the following conditions. Historic structures, as defined in Section 2.8.29(b) of this Ordinance, are subject to the provisions of Sections 11.1.1 thru 11.1.7 of this Ordinance.
- 11.1.1 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 except as provided in 11.1.2 below. Expansion or enlargement of uses, structures or occupancies within the Floodway District is prohibited.
- 11.1.2 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 floodproofing techniques (i.e., FP-1 thru FP-4 floodproofing classifications) allowable in the State Building Code, except as further restricted in 11.1.3 and 11.1.7 below.
- 11.1.3 If the cost of all previous and proposed alterations and additions exceeds 50 percent of the market value of any nonconforming structure, then the entire structure must meet the standards of Sections 4.0 or 5.0 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 manpower or labor.

- 11.1.4 If any nonconforming use, or any use of a nonconforming structure, is discontinued for more than one year, any future use of the premises must conform to this Ordinance. The Assessor must notify the Building Official in writing of instances of nonconformities that have been discontinued for a period of more than one year.
- 11.1.5 If any nonconformity is substantially damaged, as defined in Section 2.8.28 of this Ordinance, it may not be reconstructed except in conformity with the provisions of this Ordinance. The applicable provisions for establishing new uses or new structures in Sections 4.0 or 5.0 will apply depending upon whether the use or structure is in the Floodway or Flood Fringe, respectively.
- 11.1.6 If any nonconforming use or structure experiences a repetitive loss, as defined in Section 2.8.25 of this Ordinance, it must not be reconstructed except in conformity with the provisions of this Ordinance.
- 11.1.7 Any substantial improvement, as defined in Section 2.8.29 of this Ordinance, to a nonconforming structure requires that the existing structure and any additions must meet the requirements of Sections 4.0 or 5.0 of this Ordinance for new structures, depending upon whether the structure is in the Floodway or Flood Fringe District.

SECTION 12.0 - PENALTIES AND ENFORCEMENT

- 12.1 **Violation Constitutes a Misdemeanor:** 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 grants of variances or conditional uses) constitute a misdemeanor and will be punishable as defined by law.
- 12.2 **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 Building Official within the specified period of time, each additional day that lapses will constitute an additional violation of this Ordinance and will be prosecuted accordingly.
- 12.3 **Enforcement:** In responding to a suspected ordinance violation, the Building Official and City Council 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.
 - 12.3.1 When a violation is either discovered by or brought to the attention of the Building Official, the Official shall immediately investigate the situation and document the nature and extent of the violation of the official control. As soon as it is reasonably possible, this information will be submitted to the appropriate State Department of Natural Resources and Federal Emergency Management Agency regional office along with the city's plan of action to correct the violation to the degree possible.
 - 12.3.2 The Building Official 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 Building Official may order the construction or development immediately halted until a proper permit or approval is granted by the city. If the construction or development is already completed, the Building Official may either: 1) issue an order identifying the corrective actions that must be made within a specified time period to bring the use or structure into compliance with the official controls; or 2) 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.

SECTION 13.0 AMENDMENTS

- 13.1 **Floodplain Designation – 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 elevation of 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.
- 13.2 **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.
- 13.3 **Map Revisions Require Ordinance Amendments.** The floodplain district regulations must be amended to incorporate any revisions by the Federal Emergency Management Agency to the floodplain maps adopted in Section 2.2 of this Ordinance.

Presented to the Ham Lake City Council on November 2, 2015 and adopted by a unanimous vote this 16th day of November, 2015.



Denise Webster, City Clerk



Michael G. Van Kirk, Mayor

Appendix C

1994-1995 Problem Area Questionnaire

1994/1995 PROBLEM AREA QUESTIONNAIRE RESULTS

1. Basin at 17717 Concord Drive (PIN 06 32 23 14 0009). Basin level has risen during the wet years. Public Works Department has had to pump out the basin.

Resolved 2005

2. Drainage problem at 16829 Washington Street (Lot 2, Block 10, Pinger's Plaza). Resident noted that the problem is the culvert under road.

Resolved _____

3. Ditch 28-11 and culvert at 17655 Swedish Drive (PIN 04 32 23 32 0004). During heavy rains, water backs up in the ditch along 176th and causes basement flooding. Culvert and ditch to North are in need of repair.

Resolved – Unknown Date

4. Rose Crest basin and City ditch. Basin levels seem to be high and ditch needs cleaning.

Resolved _____

5. City Hall complex basins and ditch. Basin levels uncontrolled and ditch needs cleaning.

Resolved 2008

6. Basement and property at 1531-145th Lane (Lot 2, Block 3, North Pines Addition) are flooding after some storms.

Resolved – Continued maintenance every 10 years or as necessary.

7. Backyard flooding in the spring at 1724-143rd Lane (Lot 9, Block 1, Marshall Manor 2" Addition). City ditch to Ditch 59 needs cleaning.

Resolved – Continued maintenance every 10 years or as necessary.

8. Both the culvert under road at the intersection of 141st Lane and Eveleth Street and the City ditch through Outlet A need cleaning.

Resolved – Unknown Date

9. Yard flooding in the spring and after heavy rains at 750 Quincy Street (Lot 5, Block 4, Jefferson Oaks Estates).

Resolved 2006

10. Rasmusson Basin in Rasmusson Addition. Flooded over road and into basement on several occasions.

Resolved _____

11. Basement flooding at 2525-133rd Lane (Lot 9, Block 4, Twin Birch Acres). Public Works Department has pumped the area out to the North over 134th Lane into Twin Birch Acres park,

Resolved: Proposed 2021

12. Backyard flooding at 2850-140th Avenue (Lot 2, Block 1, North Woods Estates 1st Addition). Floods annually due to no outlet.

Resolved Unknown Date

13. Culvert at the intersection of Guadalcanal Street and 140th Avenue. Water backing up East of Guadalcanal Street. Culvert has been cleaned several times.

Resolved Unknown Date

14. Backyard flooding at 4020 Wildwood Drive (Lot 3, Block 5, Wildwood Park). Backyard drains to Ditch 59-5, which may need cleaning.

Resolved _____

15. Flooding at 155th Avenue and Naples Street. The road flooded over during the heavy rains of 1993. Culverts need cleaning and repair.

Resolved 2020

16. Obstruction of Lund's Lakeview Forest ditch.

Resolved 1996

17. Restricted flow of Interlachen Drive culvert West of Vickers Street.

Resolved 2015

18. Backyard and basement flooding at 4950-1701h Lane (Lot 3, Block 3 Meadowlark Acres). An overflow outlet is to be constructed to the Lexington Estates basin northwest of the intersection of 168th Lane and Packard Street.

Resolved 2016

19. Hydraulic problem at Ditch 44 under Naples Street. Water backs up behind culverts.

Resolved 1998

20. Hydraulic problem at private ditch from Ham Lake outlet to Ditch 59.

Resolved – Continued maintenance every 10 years or as necessary.

Appendix D

Sunrise Management Organization

Joint Powers Agreement

AMENDED

SUNRISE RIVER WATERSHED MANAGEMENT ORGANIZATION

JOINT POWERS AGREEMENT

THIS AMENDED JOINT POWERS AGREEMENT made and entered into as of the date of execution by and between the Local Government Units of the City of Columbus, City of East Bethel, City of Ham Lake and Linwood Township. The purpose of this Joint Powers Agreement is to establish a Water Management Organization to assist the member local units of government with surface water, ground water, water quality and water usage issues.

WHEREAS, the parties to this Agreement have authority pursuant to Minnesota Statutes, Chapter 471.59, to jointly or cooperatively, by agreement, exercise any power common to the contracting parties. Pursuant to Minnesota Statutes, Chapters 103B.201 to 103B.255, these local units of government have authority to jointly or cooperatively manage or plan for the management of surface water within a defined watershed; and

WHEREAS the parties to this Agreement desire to prepare a surface water management plan for the purpose of management and implementation of the programs identified by Minnesota Statutes, Chapters 103B.201 through 103B.255.

NOW, THEREFORE, the parties to this Agreement do mutually agree as follows:

SECTION I

General Purpose

1.1 It is the general purpose of the parties to this Agreement to establish a Water Management Organization to jointly and cooperatively develop a Watershed Management Plan for the purposes of (a) protecting, preserving, and using natural surface and groundwater storage and retention systems in the Sunrise River Watershed; (b) minimizing public capital expenditures needed to correct flooding and water quality problems; (c) identifying and planning for means to effectively protect and improve surface and groundwater quality; (d) assist with establishing more uniform local policies and official controls for surface and ground water management; (e) preventing erosion of soil into surface water systems; (f) promoting groundwater recharge; (g) protecting and enhancing fish and wildlife habitat and water recreational facilities; and (h) securing other benefits associated with the proper management of surface and groundwater. The plan and programs shall operate within the boundaries of the Sunrise River Watershed as set forth in Appendix 1 and 2, attached hereto (hereinafter "Area").

SECTION II

Sunrise River Watershed Management Organization

2.1 Establishment: There is hereby established the "Sunrise River Watershed Management Organization" whose membership shall be appointed in accordance with the provisions of this section and whose duties shall be to carry out the purposes contained herein. The Sunrise River Watershed Management Organization (hereinafter "Organization") shall be constituted as described in Section 2.2.

2.2 Membership Appointment: Each party to this Agreement shall appoint two (2) representatives to serve as members of the Organization board. Each representative of a party to this agreement who is current in the payment of operating costs shall have one (1) vote. Representatives appointed to the Organization board shall be evidenced by a resolution or certified copy of official meeting minutes of the governing body of each party and filed with the Organization.

2.3 Alternate Members: One alternate member of the Organization board may be appointed by appropriate resolution or certified copy of official meeting minutes of the governing body of each party to this Agreement filed with the Organization. The alternate member may attend any meeting of the Organization board when a regular member representing that party is absent and vote on behalf of the party the member represents. If an Organization board member is also an officer of the Organization, the alternate member shall not be entitled to serve as such officer.

2.4 Term: The members of the Organization board shall be filled by the governing body of the party whose membership position on the board is vacant. Removal of a board member or alternate board member shall be at the sole discretion of the appointing authority. The term of appointment is at the sole discretion of the appointing authority.

2.5 Vacancies: The Organization shall notify the Board of Water and Soil Resources of member appointments and vacancies in member positions within 30 days. A vacancy on the Organization board shall be filled by 90 days after the vacancy occurs by the governing body of the party whose membership position on the board is vacant.

Vacancies resulting from expiration of members' terms or other reasons shall be filled only after published notice of the vacancy once a week for two (2) successive weeks in a newspaper of general circulation in the watershed management organization area. The notices must state that the party is considering applications for appointment of a member to the Organization board and that persons interested in being appointed to serve on the board may submit their names to the appointing authority for consideration. A vacancy shall not be filled until at least 15 days have elapsed after the last published notice.

2.6 Compensation and Expenses: The Organization members shall not be entitled to compensation or reimbursement for expenses incurred in attending meetings, except to the extent that the governing body of a party may determine to compensate or reimburse the

expenses of the member(s) it appoints, in which case the obligation to make such payments shall be that of the party and not that of the Organization.

2.7 Officers: The Organization board shall elect from its membership a chair, a vice-chair, a secretary, and a treasurer. All such officers shall hold office for a term of one (1) year and until their successors have been qualified and duly elected by the board. An officer may serve only while a member of the Organization. A vacancy in an office shall be filled from the membership of the board by election for the remainder of the unexpired term of such office.

2.8 Duties of Officers: The duties of the officers of the Organization shall be as outlined in Parts 40 and 41, Article VII, Robert's Rules of Order, as the board deems necessary.

2.9 Quorum: Voting members of the Organization board representing a majority of the parties to this Agreement shall constitute a quorum. Less than a quorum may adjourn a scheduled meeting.

2.10 Meetings:

A. Meetings of the Organization board will be scheduled as needed, with the annual meeting held in February at the East Bethel City Hall, 2241 221st Avenue NE, East Bethel, MN 55011. Notice of all regular meetings shall be provided with a minimum of thirty (30) days advance notice of the meeting by the secretary of the Board to all parties to this Agreement. Such meeting notice shall be posted on the official notification board for each party to this agreement.

At the annual meeting the board, at a minimum, shall:

1. Elect officers for the next fiscal year;
2. Establish the annual budget and work plan;
3. Hear recommendations on amendments to this agreement and the watershed management plan;
4. Biennially renew or decide on contracts for professional, legal, and administrative services; and
5. Decide on meeting dates.

B. Special meetings may be held at the call of the chair or by any three (3) members of the board giving not less than 72 hours written notice of the time, place, and purpose of such meeting delivered by mailed or email to the residence of each Organization member and delivered to the City or Town Hall of each party to this Agreement.

C. All meetings of the board are subject to Minnesota Statutes, Section 13D and the notice provisions contained therein. Posted notice, when required, shall be given separately to each party to this Agreement.

2.11 Conduct of Meetings: The Organization board shall adopt rules of order and procedure for the conduct of its meetings; the board may adopt any such rules as a

majority of all voting members shall agree. Decisions by the board may not require more than a majority vote, except a decision on a capital improvement project may require a unanimous vote by all parties.

2.12 Organization Office: The office of the Organization shall be the East Bethel City Hall, 2241 221st Avenue NE, East Bethel, MN 55011. All notices to the Organization shall be delivered or served at said office.

SECTION III

Organization Powers and Duties

3.1 Authority: Upon execution of the Agreement by all parties, the Organization shall have authority provided for in Minnesota Statutes, Chapter 103B.211 through 103B.255, unless otherwise limited by this Agreement that provides for, in part:

A. The authority to prepare, adopt and implement a plan for the Sunrise River Watershed meeting the requirements of Minnesota Statutes, Chapter 103B.231.

B. The authority to review and approve local water management plans as provided in Minnesota Statutes, Chapter 103B.235, Subd. 3, Review.

C. Other powers necessary to exercise the authority under clauses A and B, including the power to enter into contracts for the performance of functions with governmental units or persons.

3.2 Watershed Management Plan: The Organization shall prepare a Watershed Management Plan for the Sunrise River Watershed. The plan shall be in compliance with Minnesota Statutes, chapter 103B.231, Subd. 4 as from time to time amended. This Chapter describes plan contents to include but not limited to the following:

A. Description of the existing physical environment, land use and development in the Sunrise River Watershed. It shall further describe the environment, land use and development proposed in existing local and metropolitan comprehensive plans; and

B. Present information on the hydrologic system in the Sunrise River Watershed and its components, including any drainage systems previously constructed under Minnesota Statutes, Chapter 103E, and existing and potential problems relating thereof; and

C. State objectives and policies, including management principles, alternatives and modifications, water quality, and protection of natural characteristics; and

D. Set forth a management plan, including the hydrologic and water quality conditions that will be sought and significant opportunities for improvement; and

E. Describe the effect of the Watershed Management Plan on existing drainage systems; and

F. Describe conflicts between the Watershed Management Plan and existing plans of local government units; and

G. Set forth an Implementation Program consistent with the Watershed Management Plan, which may include a Capital Improvement Program; and

H. Set out a procedure for amending the Watershed Management Plan. The plan shall be amended as required from time to time.

3.3 Employment: The Organization may contract for services, may contract services from parties to this Agreement, or may employ such other persons as it deems necessary. Where staff services of a party are contracted, such services shall not reduce the financial commitment of such party to the operating fund of the Organization unless the Organization so authorizes.

3.4 Committees: The Organization may appoint such committees and subcommittees as it deems necessary. The Organization shall establish a citizen advisory committee and technical advisory committee and promote other means of public participation.

Citizen and/or technical advisory committees will be formed from time-to-time as deemed appropriate by the Organization board and shall be issue-specific. Committees may be formed that include both citizens and technical experts. Committees shall operate by seeking consensus, while noting any dissenting opinions. Committee findings shall be reduced to writing and submitted to the Organization board. In all cases, committees shall be advisory in nature and their findings shall be referred to the Organization board. Issues that may warrant formation of advisory committees include but are not limited to amendments or updates to the Organization's Watershed Management Plan; lake level or water quality issues; a total maximum daily load (TMDL) impaired waters study or implementation of the study; capital improvement projects; major hydrological changes in the watershed and others as deemed appropriate by the Organization board.

Technical advisory committees shall include technical experts in areas relating to land use, natural resources, pollution control, and soil and water resources.

Citizen advisory committees shall include residents and elected officials from the affected area including but not limited to homeowners; business owners; lake association or lake improvement district representatives; and, others, as deemed appropriate by the Organization Board.

All advisory committees shall include at least one Organization board member.

3.5 Rules and Regulations: The Organization may prescribe and promulgate such rules and regulations as it deems necessary or expedient to carry out its powers and duties and the purpose of the Agreement.

3.6 Review and Recommendations: Where the Organization is authorized or requested to review and make recommendations on any matter relating to the Watershed Management Plan, the Organization shall act on such matter within 60 days of receipt of the matter referred. Failure of the Organization to act within 60 days shall constitute approval of the matter referred, unless the Organization requests and receives from the referring unit of government an extension of time to act on the matter referred. Such extension shall be in writing and acknowledged by both parties.

The Board shall adopt an appeal procedure for any party aggrieved by a decision of the Board or an alleged failure to implement the Plan pursuant to Minnesota Statutes, Chapter 103B.231, Subd. 13.

3.7 Ratification: The Organization may, and where required by this Agreement shall, refer matters to the governing bodies of the parties for review, comment or action

3.8 Financial Matters:

A. Method of Operation: The Organization may collect and receive money and contract for services subject to the provision of the Agreement from the parties and from any other sources approved by the Organization. The organization may incur expenses and make disbursements necessary and incidental to the effectuation of the purposes of this Agreement. Funds may be expended by the Organization in accordance with procedures established herein. Checks shall be signed by the chair or treasurer. Other legal instruments shall be executed on behalf of the Organization by the chair or vice-chair and an appointed Board member.

B. Operating Funds. On or before June 1st of each year, the Organization shall prepare a work plan and operating budget for the following year. The annual budget shall provide details to support the proposed revenues and expenditures for the Organization. This detail shall be sufficient to meet standard budget and/or accounting principles generally recognized for governmental organizations. Expenditures may include administrative expenses, plan development costs, review expenses, capital improvement costs authorized in Section 3.12, and insurance costs as authorized in Section 3.14. Upon the approval of a majority of the partners of this agreement, the budget shall be recommended to the parties for ratification along with a statement showing each party's proposed share of the budget. The budget shall be implemented only after ratification by all parties to this Agreement. Failure to ratify or pay its share of the budget by any party to this Agreement shall be subject to the procedures in Section 3.6. Each party's share of the operating cost is based on 50% of their portion of the watershed's Total Market Value (TMV) and 50% of their portion of the Total Taxable Watershed Acreage (TWA).

Work Plan - $((PA / WA) + (PV / WV)) / 2$ = the party's percentage share of the organization's operating budget.

PA = Party's area within the watershed organization area

WA = watershed organization area

PV = party's market valuation within the watershed organization area

WV = market valuation of the watershed organization area

Operating Costs - Total amount to be divided equally between members of the Joint Powers Agreement. Operating costs per the operating budget are defined as copies, postage, recording secretary fees, insurance, and administrative fee charged to each member community.

After ratification by the organization, the Organization Chair or Vice Chair shall certify the recommended budget to each party on or before June 1 of each year together with a statement showing the budgeted amounts applicable to each party. Each party shall pay over to the Organization the amount owing in two (2) equal installments, the first on or before January 15 and the second on or before July 15 in accordance with the tax year for which the amount due is being paid.

C. Review Services: When the Organization is authorized or requested to undertake a review and submit recommendations to a party as provided in this Agreement, the Organization shall conduct such review, without charge, except as provided below. Where the project size and complexity of review are deemed by the Organization to be extraordinary and substantial, the Organization may charge a fee for such review services, the amount to be based upon direct and indirect costs attributable to that portion of review services determined by the Organization to be extraordinary and substantial. Where the Organization determines that a fee will be charged for extraordinary and substantial review services, or where the flowage enters the Sunrise River, but the party is not a member of the Sunrise River Watershed Management Organization, the party to be charged shall receive written notice from the Organization of the services to be performed and the fee therefore, prior to undertaking such review services. Unless the party to be charged objects within fifteen (15) days of receipt of such written notice to the amount of the fee to be charged, such review services shall be performed and the party shall be responsible for the cost thereof. If the party to be charged objects to the proposed fee for such services within fifteen (15) days and the party and the Organization are unable to agree on a reasonable alternative amount for review services, such extraordinary and substantial review services shall not be undertaken by the Organization. Payment for such services shall be in advance of any work performed.

3.9 Annual Audit. The Organization shall annually prepare a comprehensive financial report on operations and activities. An annual audit, by an independent accounting firm or the State Auditor, shall be provided for that includes a full and complete audit of all books and accounts the Organization is charged with maintaining. Such audit shall be conducted in accordance with generally accepted auditing principles and guidelines. A copy of the annual financial report and auditor's statement shall be provided to all parties to this agreement and to the Board of Water and Soil Resources no later than June 30th of each year. The report to the Board of Water and Soil Resources shall include an annual

activity report. All of its books, reports and records shall be available for and open to examination by any party at all reasonable times.

3.10 Gifts, Grants, Loans. The Organization may, within the scope of this Agreement, accept gifts, may apply for and use grants of money or other property from the United States, the State of Minnesota, a local government unit or other governmental unit or organization or any person or entity for the purpose described herein. The Organization may enter into any reasonable agreement required in connection therewith. The Organization shall comply with any laws or regulations applicable to grants, donations and agreements. The Organization may hold, use, and dispose of such money or property in accordance with the terms of the gift, grant, or agreement relating thereto.

3.11 Contracts. The Organization may make such contracts and enter into any such agreements as it deems necessary to make effective any power granted to it by this Agreement. Every contract for the purchase or sale of merchandise, materials, or equipment by the Organization shall be let in accordance with the Uniform Municipal Contracting Law, Minnesota Statutes, Section 471.345 and the Joint Exercise of Powers Statute, Minnesota Statutes, Section 471.59. No member or employee of the Organization or officer or employee of any of the parties shall be directly or indirectly have an interest in any contract made by the Organization.

3.12 Works of Improvement: Works of improvement for protection and management of the natural resources of the Area, including, but not limited to, improvements to property, land acquisition, easements, or right-of-way, may be initiated by:

- A. Recommendation of the Organization to a party or parties; or
- B. Petition to the Organization by the governing body of a party or parties.

Where works of improvement are recommended by the Organization, the Organization shall first determine whether such improvement will result in a local or regional benefit to the area. Where the Organization determines that the benefits from the improvement will be local or not realized beyond the boundaries of the party in which the improvement is to be established, the Organization may recommend such improvement to the governing body of the unit of government which the Organization determines will be benefited. The recommendation shall include the total estimated cost of the improvement and a detailed description of the benefits to be realized.

Where the Organization determines that the benefits from the improvement will be beyond the local unit or beyond the boundaries of the party in which the improvement is to be established, the Organization may recommend such improvement to each party to this Agreement which the Organization determines will be benefited thereby. The recommendation of the Organization shall include the total estimated cost of the improvement, a description of the extent of the benefits to be realized by each party to this Agreement and the portion of the cost to be borne by each party benefited in accordance with the benefit of party to this Agreement.

Each party to whom the Organization submits such recommendation shall respond within 60 days from receipt of such recommendation. Where the Organization determines that the benefits of such improvement will be local, the unit of government to whom such recommendation is made may decline to ratify and undertake said improvement. Where the Organization determines that the benefits of such improvement will be regional, all Parties to this Agreement must ratify the project proposal before any project is moved forward by the Organization. Should the project not be ratified by all Parties to this Agreement, the Organization shall continue to review and recommend alternative methods of cooperation and implementation among those parties ratifying the recommendation of the Organization, unless and until the Organization determines that said improvement is no longer feasible.

When works of improvement are initiated by a Party to this Agreement, a copy of the proposed project shall be submitted to the Organization for review and comment. The Organization shall review and make recommendations on the proposed improvement and its compliance with the Organization's management plan in accordance with the provisions of Section 3.5 of this Agreement.

When a proposed improvement may be eligible for federal or state funds as a cost-share project, the Organization shall receive the approval of all Parties to this Agreement prior to submission of any grant request. No member Party shall unreasonably withhold approval for a grant application. All improvements that are considered for state or federal grant funding that have a local or member share (matching funds) must be submitted for approval in advance of the proposed grant award. All improvements that are considered for state or federal grant funding shall be presented to each Party to the Agreement for review, comment and approval and shall provide details to include projects scope, estimated cost, estimated matching share, benefits to be derived and project timing.

3.13 Claims. The Organization or its agents may enter upon lands within or without the Sunrise River Watershed to make surveys and investigations to accomplish the purpose of the Organization. The Organization shall be liable for actual damages resulting there from. But every person who claims damages shall serve the Chairperson or Secretary of the Organization with a notice of claim as required by Minnesota Statutes, Section 466.05. The Organization shall obtain court orders authorizing and directing such entries when necessary due to refusals of landowners to allow the same.

3.14 Indemnification and Insurance. Any and all claims that arise or may arise against the Organization, its agents or employees as a consequence of any act or omission on the part of the Organization or its agents or employees while engaged in the performance of this Agreement shall in no way be the obligation or responsibility of the parties. The Organization shall indemnify, hold harmless and defend the parties, their officers and employees against any and all liability, loss, costs, damages, expenses, claims, or actions, including attorney's fees which the parties, their officers, or employees may hereafter sustain, incur, or be required to pay, arising out of or by reason of any act or omission of the Organization, its agents or employees in the execution, performance, or failure to

adequately perform the Organization's obligations and understandings pursuant to the Agreement.

The Organization agrees that in order to protect itself as well as the parties under the indemnity provision set forth above, it will at all times during the term of this Agreement keep in force the following insurance policies in the limits specified.

A. Commercial General Liability/Professional Liability: \$1,250,000 per incident and shall include the following endorsements:

B. Automobile Coverage (\$0)

C. Worker's Compensation Coverage (statutory minimum)

The minimum liability limits shall be increased to the statutory limits provided for member local units of government in Minnesota Statutes.

Any policy obtained and maintained under this clause shall provide that it shall not be cancelled, materially changed or not renewed without a minimum of thirty (30) days prior notice thereof to each of the parties.

Prior to the effective date of this Agreement, and as a condition precedent to this Agreement, the Organization will furnish the parties with certificates of insurance listing each party to the Agreement as an additional insured.

3.15 General: The Organization may take all such other actions as are reasonably necessary and convenient to carry out the purpose of this Agreement.

SECTION IV

Mediation

4.1 The parties agree that any controversy that cannot be resolved between parties shall be submitted to for mediation. Mediation shall be conducted by a mutually agreeable process by all parties.

SECTION V

Termination of Agreement

5.1 This Agreement may be terminated by approval of two-thirds vote of the governing bodies of each party hereto, provided that all such approvals occur within a ninety (90) day period. Withdrawal of any party may be accomplished by filing written notice with the Organization and the other parties sixty (60) days prior to the effective date of termination. No party may withdraw from this Agreement until the withdrawing party has met its full financial obligations through the effective date of such withdrawal.

SECTION VI

Dissolution of Organization

6.1 The Organization shall be dissolved under any of the following conditions:

A. Upon termination of this Agreement;

B. Upon unanimous agreement of all parties; or

C. Upon the membership of the Organization being reduced to fewer than three (3) parties.

D. Process. At least 90 days notice of the intent to dissolve shall be given to affected counties and the Board of Water and Soil Resources. Upon dissolution, all personal property of the Organization shall be sold, and the proceeds thereof, together with monies on hand after payment of all obligations, shall be distributed to the parties. Such distribution of Organization assets shall be made in proportion to the total contributions to the Organization for such costs made by each party. All payments due and owing for operating costs under Section 3.8, B, or other unfilled financial obligations, shall continue to be the lawful obligation of the parties.

SECTION VII

Amendment

7.1 The Organization may recommend changes and amendments to this Agreement to the governing bodies of the parties. Amendments shall be adopted by all governing bodies of the parties. Adopted amendments shall be evidenced by appropriate resolutions or certified copies of meeting minutes of the governing bodies of each party filed with the Organization and shall, if no effective date is contained in the amendment, become effective as of the date all such filings have been completed.

SECTION VIII

Counterparts

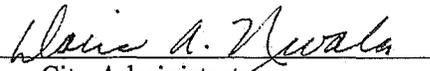
8.1 This Agreement shall be executed in several counterparts and all so executed shall constitute one Agreement, binding on all of the parties hereto. Each party to the agreement shall receive a fully executed copy of the entire document following adoption by all parties.

IN WITNESS OF, the parties hereto have executed this Agreement as of the 20 day of April, 2011.

CITY OF HAM LAKE

By: 
Mayor

Dated: 4/20/11

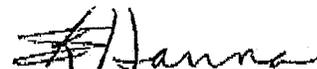
By: 
City Administrator

IN WITNESS OF, the parties hereto have executed this Agreement as of the 12 day of July, 2011.

LINWOOD TOWNSHIP

By: 
Board Chair

Dated: 7/12/11

By: 
Township Clerk

SRWMO JPA Appendix 1

SUNRISE RIVER WATERSHED MANAGEMENT ORGANIZATION
LEGAL DESCRIPTION OF SUBJECT PROPERTY

All of Linwood Township, Anoka County.

That part of East Bethel Township, Anoka County lying Easterly of the following described line:

Beginning on the Anoka and Isanti County Line at the Northwest corner of East Half of East Half of Section 25, Township 34 North, Range 23 West, Anoka County, Minnesota; thence South along the West line of East Half of East Half of Section 25 and East Half of East Half of Section 36 to the Southeast corner of Northwest Quarter of Northeast Quarter of Section 36; thence Southwesterly in a straight line to the intersection of Durant Street and 231st Lane NE on the East line of Section 35, Township 34 North, Range 23 West, thence South along Durant Street to 229^h Avenue at the Northeast corner of Section 2, Township 33 North, Range 23 West; thence West along 229^h Avenue and North line of Section 2 to East Bethel Boulevard at the Northwest corner of Section 2; thence Southerly along East Bethel Boulevard to 221st Avenue and the North line of Section 11, Township 33 North Range 23 West; thence in a straight line to East Bethel Boulevard at the Northwest corner of the Southwest Quarter of Section 11; thence Southerly along East Bethel Boulevard to the center of Section 22, Township 33 North Range 23 West; thence in a straight line to the Northwest corner of the Southeast quarter of the Southwest Quarter of Section 22. Thence South along the West line of East Half of Southwest Quarter of Section 22 and the East Half of Northwest Quarter of Section 27 to the Southwest corner of East Half of Northwest Quarter Section 27;

Thence West along the North line of Southwest Quarter Section 27 to the West line of Section 27; thence South along the West line of Sections 27 and 34 to the Northeast corner of the Southeast Quarter of Section 33, Township 33 North, Range 23 West:

Thence West along the North line of the Southeast Quarter of Section 33 to the centerline of County Road No. 68 (Greenbrook Drive); thence Southerly along the centerline of County Road No. 68 to the South line of Section 33, which is also the South line of East Bethel, and the North line of Ham Lake; and there terminating.

That part of Columbus Township, Anoka County lying Northerly of the following described line:

Beginning at the West line of Section 6, Township 32 North, Range 22 West, at the Northwest corner of the South Half of Section 6, which is the Northerly line of Coon Creek Watershed District; thence Easterly along the Northerly line of the South Half of Section 6 to the Southwest corner of East Half of Northeast Quarter of Section 6; thence North along the West line of East Half of Northeast Quarter to the Northwest

corner of the East Half of Northeast Quarter; thence East along the North line of Section 6 to the Southwest corner of Section 32, Township 33 North, Range 22 West;

Thence North along the West line of Section 32 to the Northwest corner of the South Half of the South Half of Section 32, thence Easterly along the North line of South Half of South Half to the East line of Section 32; thence Southerly along the Easterly line of Section 32 and Section 5, Township 32 North, Range 22 West, to the Southwest corner of Northwest Quarter of Section 4; thence Easterly along the South line of the Northwest Quarter to Northwest corner of East Half of Southwest Quarter; thence Southerly along the West line of East Half of Southwest Quarter to South line of Section 4; thence Easterly along the South line of Section 4 to the Northeast corner of Northwest Quarter of Section 9;

Thence Southerly along the East line of Northwest Quarter to Northeast corner of Southwest Quarter, of Section 9; thence, departing from the boundary of Coon Creek Watershed District to follow the Northerly line of Rice Creek Watershed District, Southerly on the East line of the Southwest Quarter to the Southeast corner of the Northeast Quarter of the Southwest Quarter; thence Easterly on the North line of the South Half of the Southeast Quarter to the Northeast corner of the South Half of the Southeast Quarter of Section 9; thence Northerly on the West line of Section 10 to the Northwest corner of the South Half of the Northwest Quarter of Section 10;

Thence Easterly on the North line of the South Half of the North Half of Section 10 and South Half of the Northwest Quarter of Section 11 to the Northeast corner of the South Half of the Northwest Quarter of Section 11; thence Northerly on the West line of the East Halves of Sections 11 and 2 to the Northwest corner of South Half of Southeast Quarter of Section 2; thence Easterly on the South line of North half of Southeast Quarter of Section 2 to a point of intersection with the Southerly extension of the East line of Lot 1, Block 2, (Hansen Farms); thence North on said line to the Northeast corner of Lot 1, Block 2, (Hansen Farms); thence Northeasterly to the Southeast corner of Lot 8, Block 1, (Hansen Farms); thence North along the East line of Lot 8, Block 1, (Hansen Farms) to the Northeast corner of Lot 8, Block 1, (Hansen Farms) at the North line of South Half of Section 2; thence Easterly on the North line of the South Halves of Section 2 and 1 to the Northeast corner of the Southwest Quarter of Section 1; thence Southerly on the East line of the Southwest Quarter to the Southeast corner of the Southwest Quarter; thence Easterly on the North line of Section 12 to the Northeast corner of the West Half of the Northeast Quarter of Section 12;

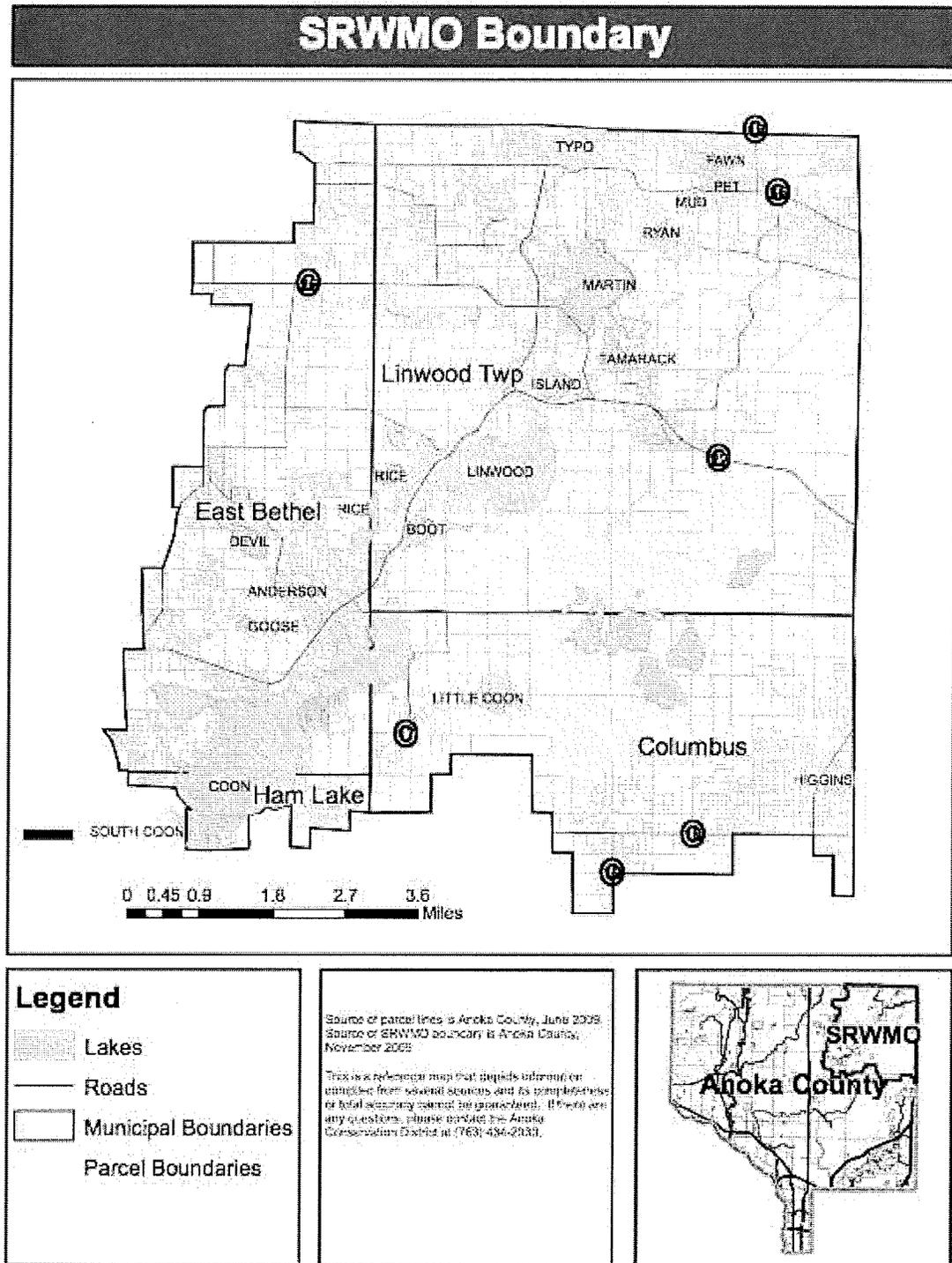
Thence Southerly on the East line of the West Half of the Northeast Quarter to the Southeast corner of the West Half of the Northeast Quarter; thence Easterly on the North line of the Southeast Quarter to the Northeast corner of the Southeast Quarter; this point being on the East boundary of Columbus Township, and the East boundary of Anoka County; and there terminating.

That part of Ham Lake, Anoka County described as follows:

Government Lot 1 and Government Lot 2 Section 1, the Northeast Quarter of Section 1, the Northwest Quarter of the Southeast Quarter of Section 1, the Southeast Quarter of the Northwest Quarter of Section 1, the North Half of the Southwest Quarter of Section 1, the Southwest Quarter of the Southwest Quarter of Section 1 and that part of Government Lot 1 of Section 2 lying North of the Southeast Quarter, Government Lot 3 and Government Lot 4, Section 2 and Government Lot one and Government Lot 3 in Section 3, the Southeast Quarter of the Southeast Quarter of Section 3, that part of Government Lot 2 in Section 3 lying East of the West Half of the Northeast Quarter, all in Township 32 North, Range 23 West.

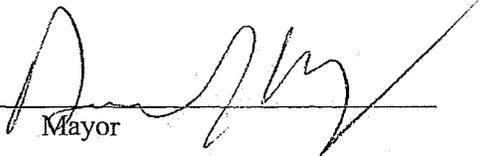
That part of Forest Lake Township, Washington County lying Westerly of the following described line:

The center line of Elmcrest Ave N within the Northeast Quarter of Section 6, Township 32 North, Range 21 West.

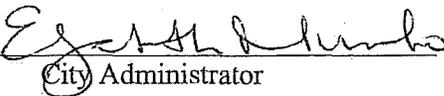


IN WITNESS OF, the parties hereto have executed this Agreement as of the 26th day of April, 2011.

CITY OF COLUMBUS

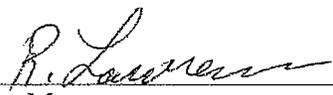
By: 
Mayor

Dated: April 26th, 2011

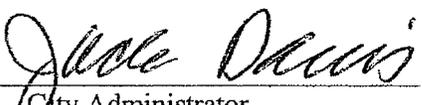
By: 
City Administrator

IN WITNESS OF, the parties hereto have executed this Agreement as of the 31st day of May, 2011.

CITY OF EAST BETHEL

By: 
Mayor

Dated: May 31, 2011

By: 
City Administrator

Appendix E

Upper Rum River Management Organization

Joint Powers Agreement

AMENDED
JANUARY 2011

UPPER RUM RIVER WATERSHED MANAGEMENT ORGANIZATION
JOINT POWERS AGREEMENT

THIS AGREEMENT, made and entered into as of the date of execution by and between the Local Government Units of: City of Bethel, City of East Bethel, City of Ham Lake, City of Nowthen, City of Oak Grove, and City of St. Francis for the establishment of a watershed management organization. The purpose of this Joint Powers Agreement is to establish a Water Management Organization to assist the member local units of government with surface water, ground water, water quality and water usage issues.

WHEREAS, the parties to this Agreement have authority pursuant to Minnesota Statutes, Chapter 471.59 to jointly or cooperatively by agreement exercise any power common to the contracting parties and pursuant to Minnesota Statutes, Sections 103B.201 to 103B.255 have authority to jointly or cooperatively manage or plan for the management of surface water;

WHEREAS the parties to this Agreement desire to prepare a surface water management plan for the purpose of management and implementation of the programs required by Minnesota Statutes, Sections 103B.201 to 103B.255.

NOW, THEREFORE, the parties to this Agreement do mutually agree as follows:

SECTION I
General Purpose

1.1 It is the general purpose of the parties to this Agreement to establish an organization to jointly and cooperatively develop a Watershed Management Plan and an Implementation Program and a Capital Improvement Program for the purposes of (a) protecting, preserving, and using natural surface and groundwater storage and retention systems in the Upper Rum River Watershed; (b) minimizing public capital expenditures needed to correct flooding and water quality problems; (c) identifying and planning for means to effectively protect and improve surface and groundwater quality; (d) establishing more uniform local policies and official controls for surface and ground water management; (e) preventing erosion of soil into surface water systems; (f) promoting groundwater recharge; (g) protecting and enhancing fish and wildlife habitat and water recreational facilities; and (h) securing the other benefits associated with the proper management of surface and groundwater. The plan and programs shall operate within the boundaries of the Upper Rum River Watershed as set forth in Addendum 1 attached hereto (hereinafter "Area").

SECTION II
Upper Rum River Watershed Management Organization

2.1 Establishment: There is hereby established the "Upper Rum River Watershed Management Organization" whose membership shall be appointed in accordance with the

provisions of this section and whose duties shall be to carry out the purposes contained herein. The Upper Rum River Watershed Management Organization (hereinafter "Organization") shall be constituted as described in Section 2.2.

2.2 Membership Appointment: Each party to this Agreement shall appoint two (2) representatives to serve as members of the Organization board. Each representative of a party to this agreement who is current in the payment of their share of operating expenses shall have one (1) vote. Representatives appointed to the Organization board shall be evidenced by a resolution or certified copy of official meeting minutes of the governing body of each party and filed with the Organization.

2.3 Alternate Members: One (1) alternate member of the Organization board may be appointed by appropriate resolution or certified copy of official meeting minutes of the governing body of each party to this Agreement, filed with the Organization. The alternate member may attend any meeting of the Organization board when a regular member representing that party is absent and vote on behalf of the party the member represents. If an Organization board member is also an officer of the Organization, the alternate member shall not be entitled to serve as such officer.

2.4 Term: The members of the Organization board shall be filled by the governing body of the party whose membership position on the board is vacant. Removal of a board member or alternate board member shall be at the sole discretion of the appointing authority. The term of appointment is at the sole discretion of the appointing authority.

2.5 Vacancies: The Organization shall notify the Board of Water and Soil Resources of member appointments and vacancies in member positions within thirty (30) days. A vacancy on the Organization board shall be filled by ninety (90) days after the vacancy occurs by the governing body of the party whose membership position on the board is vacant.

Vacancies resulting from expiration of members' terms and other reasons shall be filled only after published notice of the vacancy once a week for two (2) successive weeks in a newspaper of general circulation in the watershed management organization area; the notices must state that the party is considering applications for appointment of a member to the Organization board and that persons interested in being appointed to serve on the board may submit their names to the appointing authority for consideration. A vacancy shall not be filled until at least fifteen (15) days have elapsed after the last published notice.

2.6 Additional Parties – Membership: The Organization, with the ratification of the governing bodies of all voting members of the Organization, may invite other local government units within the Upper Rum River Watershed to also become parties to this Agreement. The governing body of any such additional party shall appoint a member to the Organization who shall have voting rights in accordance with the provisions of Section 2.2 and in all respects thenceforth enjoy the full rights, duties, and obligations of this Agreement.

2.7 Compensation and Expenses: The Organization members shall not be entitled to compensation or reimbursement for expenses incurred in attending meetings, except to the

extent that the governing body of a party may determine to compensate or reimburse the expenses of the member(s) it appoints, in which case the obligation to make such payments shall be that of the party and not that of the Organization.

2.8 Officers: The Organization board shall elect from its membership a chair, a vice-chair, a secretary. All such officers shall hold office for a term of one (1) year and until their successors have been qualified and duly elected by the board. An officer may serve only while a member of the Organization. A vacancy in an office shall be filled from the membership of the board by election for the remainder of the unexpired term of such office.

2.9 Duties of Officers: The duties of the officers of the Organization shall be as outlined in Robert's Rules of Order Newly Revised 10th Edition.

2.10 Quorum: Voting members of the Organization board representing a majority of the parties to this Agreement shall constitute a quorum. Less than a quorum may adjourn a scheduled meeting.

2.11 Meetings:

- A. Annual Meeting. The annual meeting of the Organization board will be held in May of each year at Oak Grove City Hall. At the annual meeting the board, at a minimum, shall:
 - 1. Elect officers;
 - 2. Establish the annual budget and work plan;
 - 3. Hear recommendations on amendments to this agreement and the watershed management plan;
 - 4. Biennially renew or decide on contracts for professional, legal, and administrative services; and
 - 5. Decide on regular meeting dates.
- B. Meeting Notices. Notice of all regular and special meetings shall be provided with a minimum of seventy-two (72) hours advance notice of the meeting to all parties of this agreement. Such meeting notice shall be posted on the official notification board for each party to this Agreement.
- C. Special meetings may be held at the call of the chair or by any three (3) members of the board giving not less than seventy-two (72) hours written notice of the time, place and purpose of such meeting delivered, mailed or e-mailed to the residence of each Organization member and delivered, mailed or e-mailed to the City Hall of each party to this Agreement.
- D. All meetings of the board are subject to Minnesota Statutes and the notice provisions contained therein. Posted notice, when required, shall be given separately by each party to this Agreement.

2.12 Conduct of Meetings: The Organization board shall adopt rules of order and procedure

for the conduct of its meetings in accordance with Robert's Rules of Order Newly Revised 10th Edition; the board may adopt any such rules as a majority the parties to this Agreement shall agree. Decisions by the board may not require more than a majority vote, except a decision on a capital improvement project may require no more than a two-thirds vote. All meetings of the board are subject to Minn. Stat. 13D (Minnesota Open Meeting Law).

2.13 Organization Office: The office of the Organization shall be the Oak Grove City Hall, 19900 Nightingale Street NW, Cedar, Minnesota 55011. All notices to the Organization shall be delivered or served at said office.

SECTION III Organization Powers and Duties

3.1 Authority: Upon execution of the Agreement by the parties, the Organization shall have authority provided for in Minnesota Statutes, Chapter 103B.211 through 103B.255 that provides for, in part:

- A. The authority to prepare, adopt, and implement a plan for the Upper Rum River Watershed meeting the requirements of Minnesota Statutes, Section 103B.231.
- B. The authority to review and approve local water management plans as provided in Minnesota Statutes, Section 103B.235C. This is subject to amendment by the legislature.

3.2 Watershed Management Plan: The Organization shall prepare a Watershed Management Plan for the Upper Rum River Watershed. The plan shall be in compliance with Minnesota Statutes, Chapter 103B.231, Subd. 4 and 6 as from time to time amended. The Chapter describes plan contents to include but not limited to the following.

- A. Describe the existing physical environment, land use and development in the Upper Rum River Watershed, and shall further describe the environment, land use and development proposed in existing local and metropolitan comprehensive plans;
- B. Present information on the hydrologic system in the Upper Rum River Watershed and its components, including any drainage systems previously constructed under Minnesota Statutes, Chapter 103E, and existing and potential problems relating thereof;
- C. State objectives and policies, including management principles, alternatives and modifications, water quality, and protection of natural characteristics;
- D. Set forth a management plan, including the hydrologic and water quality conditions that will be sought and significant opportunities for improvement;
- E. Describe the effect of the Watershed Management Plan on existing drainage systems;

- F. Describe conflicts between the Watershed Management Plan and existing plans of local government units;
- G. Set forth an Implementation Program consistent with the Watershed Management Plan, which includes a Capital Improvement Program and standards and schedules for amending the comprehensive plans and official controls of local government units in the watershed to bring about conformance with the Watershed Management Plan; and
- H. Set out a procedure for amending the Watershed Management Plan.

The plan shall be amended as required from time to time.

3.3 Employment: The Organization may contract for services from parties to this Agreement, or may employ such other persons as it deems necessary. Where staff services of a party are utilized, such services shall not reduce the financial commitment of such party to the operating fund of the Organization unless the Organization so authorizes.

3.4 Committees: The Organization may appoint such committees and sub-committees as it deems necessary. The Organization shall establish citizen and technical advisory committees unless other means of public participation are established. See Addendum 2 attached.

3.5 Rules and Regulations: The Organization may prescribe and promulgate such rules and regulations as it deems necessary or expedient to carry out its powers and duties and the purpose of the Agreement.

3.6 Review and Recommendations: Review and Recommendations: Where the Organization is authorized or requested to review and make recommendations on any matter relating to the Watershed Management Plan, the Organization shall act on such matter within sixty (60) days of receipt of the matter referred. Failure of the Organization to act within sixty (60) days shall constitute approval of the matter referred, unless the Organization requests and receives from the referring unit of government an extension of time to act on the matter referred. Such extension shall be in writing and acknowledged by both parties.

The Board shall adopt an appeal procedure for any party aggrieved by a decision of the Board or an alleged failure to implement the Plan pursuant to Minnesota Statutes, Chapter 103B.231, Subd. 13.

3.7 Ratification: The Organization may, and where required by this Agreement shall, refer matters to the governing bodies of the parties for review, comment or action.

3.8 Financial Matters:

Subdivision 1 - Method of Operation: The Organization may collect and receive money and contract for services subject to the provision of the Agreement from the parties and from any other sources approved by the Organization. The Organization may incur expenses and make disbursements necessary and incidental to the effectuation of the

purposes of this Agreement. Funds may be expended by the Organization in accordance with procedures established herein. Upon Board approval, invoices shall be initialed by the chair or vice-chair for payment by the Organization office. Other legal instruments shall be executed on behalf of the Organization by the chair, vice-chair or an appointed Board member.

Subdivision 2 - Operating Funds : On or before June 1 of each year, Organization shall prepare a work plan and an operating budget for the following year. The annual budget shall budget provide details to support the proposed revenues and expenditures for the Organization. This detail shall be sufficient to meet standard budget and/or accounting principles generally recognized for governmental organizations. Expenditures may include administrative expenses, plan development costs, review expenses, capital improvement costs, Management Programs, Management Studies costs in Section 3.12, and insurance costs as authorized in Section 3.14. Upon the approval of the majority of voting members of the Organization, the budget shall be recommended to the parties for ratification along with a statement showing each party's proposed share of the budget. The budget shall be implemented only after ratification by each party to this Agreement. Failure to ratify or pay its share of the budget by any party to this Agreement shall be subject to the procedures in Section 3.6. Each party shall contribute funds toward the budget according to the following methods:

Work Plan – $((PA / WA) + (PV / WV)) / 2$ = the party's percentage share of the organization's operating budget.

PA = Party's area within the watershed organization area

WA = watershed organization area

PV = party's market valuation within the watershed organization area

WV = market valuation of the watershed organization area

Operating Costs – Total amount to be divided equally between each community member of the Joint Powers Agreement. Operating costs per the operating budget are defined as copies, postage, recording secretary fees, insurance, and administrative fee charged to each member community.

After ratification the chair or vice-chair shall certify the recommended budget to each party on or before June 1 of each year together with a statement showing the amounts due from each party. Each party shall pay over to the Organization the amount owing in two equal installments, the first on or before January 1 and second on or before July 1 in accordance with the tax year for which the amount due is being paid.

Subdivision 3 - Review Services: When the Organization is authorized or requested to undertake a review and submit recommendations to a party as provided in this Agreement, the Organization shall conduct such review, without charge, except as provided below. Where the project size and complexity of review are deemed by the Organization to be extraordinary and substantial, the Organization may charge a fee for such review services, the amount to be based upon direct and indirect costs attributable to that portion of review services determined by the Organization to be extraordinary and substantial. Where the

Organization determines that a fee will be charged for extraordinary and substantial review services, or where the flowage enters the Upper Rum River, but the party is not a member of the Upper Rum River Watershed Management Organization, the party to be charged shall receive written notice from the Organization of the services to be performed and the fee therefore, prior to undertaking such review services. Unless the party to be charged objects within fifteen (15) days of receipt of such written notice to the amount of the fee to be charged, such review services shall be performed and the party shall be responsible for the cost thereof. If the party to be charged objects to the proposed fee for such services within fifteen (15) days, and the party and the Organization are unable to agree on a reasonable alternative amount for review services, such extraordinary and substantial review services shall not be undertaken by the Organization.

3.9 Annual Audits: The Organization shall annually prepare a comprehensive financial report on operations and activities for the fiscal year defined as January 1 through December 31. An annual audit shall be provided that includes a full and complete audit of all books and accounts the Organization office is charged with maintaining. Such audits shall be conducted in accordance with generally accepted auditing principles and guidelines. A copy of the annual financial report and auditor's statement shall be provided to all parties and to the Board of Water and Soil Resources. The report to the Board of Water and Soil Resources shall include an annual activity report. All of its books, reports, and records shall be available for and open to examination by any party at all reasonable times.

3.10 Gifts, Grants, Loans: The Organization may, within the scope of this Agreement, accept gifts; may apply for and use grants of money or other property from the United States, the State of Minnesota, a local government unit or other governmental unit or organization or any person or entity for the purpose described herein. The Organization may enter into any reasonable agreement required in connection therewith. The Organization shall comply with any laws or regulations applicable to grants, donations and agreements. The Organization may hold, use, and dispose of such money or property in accordance with the terms of the gift, grant, or agreement relating thereto.

3.11 Contracts: The Organization may make such contracts and enter into any such agreements as it deems necessary to make effective any power granted to it by this Agreement. Every contract for the purchase or sale of merchandise, materials, or equipment by the Organization shall be let in accordance with the Uniform Municipal Contracting Law, Minnesota Statutes, Section 471.345 and the Joint Exercise of Powers Statute, Minnesota Statutes, Section 471.59. No member or employee of the Organization or officer or employee of any of the parties shall have direct or indirect interest in any contract made by the Organization.

3.12 Works of Improvement: Works of improvement for protection and management of the natural resources of the Area, including, but not limited to, improvements to property, land acquisition, easements, or right-of-way, may be initiated by:

- A. Recommendation of the Organization to a party or parties; or

B. Petition to the Organization by the governing body of a party or parties.

Where works of improvement are recommended by the Organization, the Organization shall first determine whether such improvement will result in a local or regional benefit to the Area. Where the Organization determines that the benefits from the improvement will be local or not realized beyond the boundaries of the party in which the improvement is to be established, the Organization shall recommend such improvement to the governing body of the unit of government which the Organization determines will be benefited thereby, with the total estimated cost of the improvement and a description of the benefits to be realized.

The Organization shall recommend such improvement to each governing body of the units of government which the Organization determines will be benefited thereby. The recommendation of the Organization shall include the total estimated cost of the improvement, a description of the extent of the benefits to be realized by each unit of government and the portion of the cost to be borne by each party benefited in accordance with the extent of the benefit of each unit of government as described by the Organization.

Each party to whom the Organization submits such recommendation shall respond within sixty (60) days from receipt of such recommendation. Where the Organization determines that the benefits of such improvement will be local, the unit of government to whom such recommendation is made may decline to ratify and undertake said improvement. Where the Organization determines that the benefits of such improvement will be regional, unless all parties to whom such recommendation is directed decline to ratify and undertake said improvement, the Organization shall continue to review and recommend alternative methods of cooperation and implementation among those parties ratifying the recommendation of the Organization, unless and until the Organization determines that said improvement is no longer feasible.

When works of improvement are initiated by the governing body of a party or parties to this Agreement, said governing body or bodies shall submit a petition to the Organization setting forth a description of the proposed work of improvement, the benefits to be realized by said improvement, its total estimated cost and a proposed cooperative method for implementation of the improvement, if applicable. The Organization shall review and make recommendations on the proposed improvement and its compliance with the Organization's management plan in accordance with the provisions of Section 3.5 of this Agreement.

When a proposed improvement may be eligible for federal or state funds as a cost-share project, the Organization may undertake a proposed work of improvement for the area, subject to Organization recommendation to and ratification by the parties to this Agreement, as required for an improvement of regional benefit.

The Organization is further authorized to undertake experimental improvement projects within the Area to serve as a basis for evaluation of other improvements by the parties. When the Organization determines to undertake an experimental improvement project, the costs of such project shall be the obligation of the Organization and not of the parties to this Agreement.

3.13 Claims: The Organization or its agents may enter upon lands within or without the Upper Rum River Watershed to make surveys and investigations to accomplish the purpose of the Organization. The Organization shall be liable for actual damages resulting there from, but every person who claims damages shall serve the Chairperson or Secretary of the Organization with a notice of claim as required by Minnesota Statutes, Section 466.05. The Organization shall obtain court orders authorizing and directing such entries when necessary due to refusals of landowners to allow the same.

3.14 Indemnification and Insurance: Any and all claims that arise or may arise against the Organization, its agents or employees as a consequence of any act or omission on the part of the Organization or its agents or employees while engaged in the performance of this Agreement shall in no way be the obligation or responsibility of the parties. The Organization shall indemnify, hold harmless and defend the parties, their officers and employees against any and all liability, loss, costs, damages, expenses, claims, or actions, including attorney's fees which the parties, their officers, or employees may hereafter sustain, incur, or be required to pay, arising out of or by reason of any act or omission of the Organization, its agents or employees in the execution, performance, or failure to adequately perform the Organization's obligations and understandings pursuant to the Agreement.

The Organization agrees that in order to protect itself as well as the parties under the indemnity provision set forth above, it will at all times during the term of this Agreement keep in force the following protection in the limits specified:

- A. Commercial General Liability / Professional Liability (\$500,000 per individual; \$1,500,000 per incident) including the following endorsements:
- B. Automobile Coverage (\$0)
- C. Worker's Compensation Coverage (statutory minimum)

The minimum liability limits shall be increased to the statutory limits provided for member local units of government in Minnesota Statutes.

Any policy obtained and maintained under this clause shall provide that it shall not be cancelled, materially changed or not renewed without thirty (30) days prior notice thereof to each of the parties.

Prior to the effective date of this Agreement, and as a condition precedent to this Agreement, the Organization will furnish the parties with certificates of insurance listing each party to the Agreement as an additional insured.

3.15 General: The Organization may take all such other actions as are reasonably necessary and convenient to carry out the purpose of this Agreement.

SECTION IV Mediation

4.1 The parties agree that any controversy that cannot be resolved shall be submitted for mediation. Mediation shall be conducted by a mutually agreeable process by all parties.

SECTION V
Termination of Agreement

5.1 This Agreement may be terminated by approval of two-thirds vote of the governing bodies of each party hereto, provided that all such approvals occur within a ninety (90) day period. Withdrawal of any party may be accomplished by filing written notice with the Organization and the other parties 60 days prior to the effective date of termination. No party may withdraw from this Agreement until the withdrawing party has met its full financial obligations through the effective date of such withdrawal.

SECTION VI
Dissolution of Organization

6.1 The Organization shall be dissolved under any of the following conditions:

- A. Upon termination of this Agreement;
- B. Upon unanimous agreement of all parties; or
- C. Upon the membership of the Organization being reduced to fewer than three (3) parties.

At least 90 days notice of the intent to dissolve shall be given to affected counties and the Board of Water and Soil Resources. Upon dissolution, all personal property of the Organization shall be sold, and the proceeds thereof, together with monies on hand after payment of all obligations, shall be distributed to the parties. Such distribution of Organization assets shall be made in proportion to the total contributions to the Organization for such costs made by each party. All payments due and owing for operating costs under Section 3.8,B or other unfilled financial obligations, shall continue to be the lawful obligation of the parties.

SECTION VII
Amendment

7.1 The Organization may recommend changes and amendments to this Agreement to the governing bodies of the parties. Amendments shall be adopted by a two-thirds majority vote of the governing bodies of the parties as evidenced by meeting minutes of the governing body, within ninety (90) days of referral. Amendments shall be evidenced by appropriate resolutions or certified copies of meeting minutes of the governing bodies of each party filed with the Organization and shall, if no effective date is contained in the amendment, become effective as of the date all such filings have been completed.

SECTION VIII
Counterparts

8.1 This Agreement may be executed in several counterparts and all so executed shall constitute one Agreement, binding on all of the parties hereto. Each party to the agreement shall receive a fully executed copy of the entire document following adoption by all parties.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the 15 day
of April, 2011.

CITY OF HAM LAKE

By: *Carroll M. Vahl*

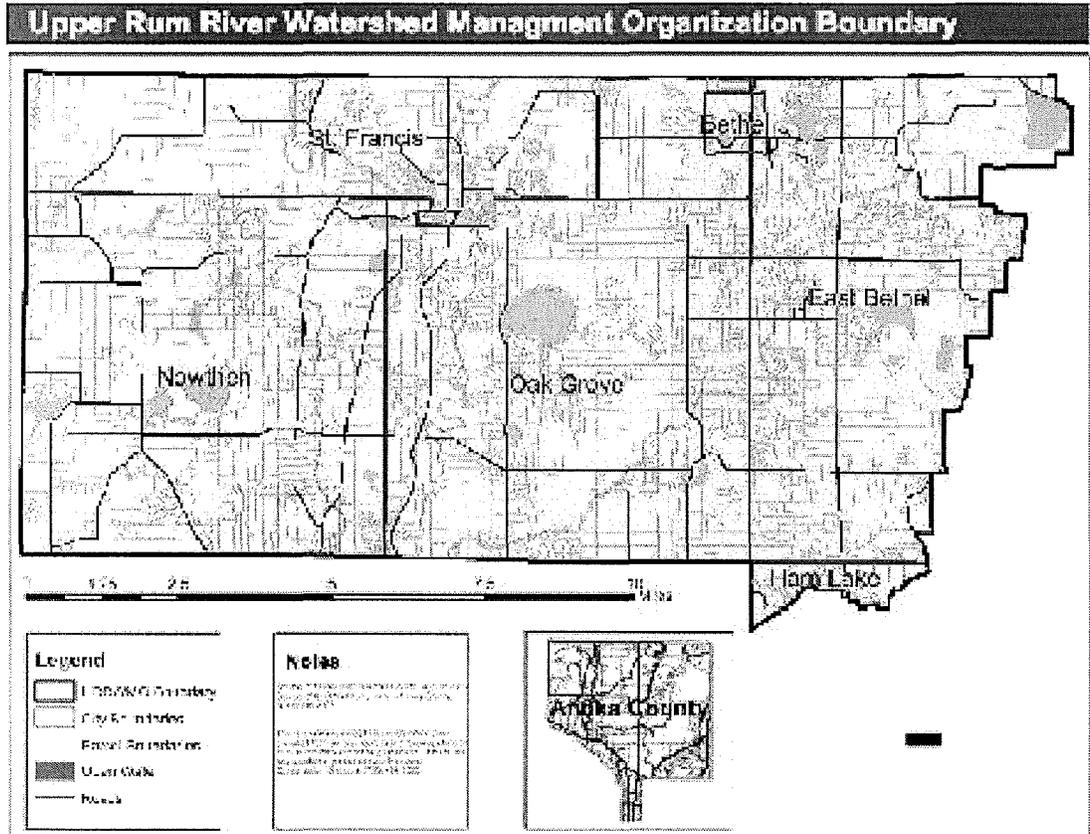
Mayor

By: *Heleen A. Nivola*

City Administrator / City Clerk



Addendum 1



Addendum 2

The Organization shall establish citizen and technical advisory committees and other means of public participation.

Regular, recurring public participation opportunities shall include:

- Open mike at each Organization meeting,
- Contact information posted on the Organization website, such that the public may contact an Organization representative outside of public meetings.

Citizen and/or technical advisory committees will be formed from time-to-time as deemed appropriate by the Organization and shall be issue-specific. Committees may be formed that include both citizens and technical experts. Committees shall operate by seeking consensus, while noting any dissenting opinions. Committee findings shall be reduced to writing and submitted to the Organization Board. In all cases, committees shall be advisory and their findings shall be referred to the Organization Board for final decision-making.

Issues that may warrant formation of advisory committees include:

- Amendments or updates to the Organization's watershed Management Plan
- Lake level or water quality issues,
- A total maximum daily load (TMDL) impaired waters study or implementation of the study,
- Capital improvement projects,
- Major hydrological changes in the watershed,
- Others as deemed appropriate by the Organization Board.

Technical advisory committees shall include technical experts, and invited members may include:

- Staff and/or elected officials from affected communities,
- MN Department of Natural Resources,
- MN Pollution Control Agency,
- MN Board of Water and Soil Resources,
- Metropolitan Council,
- Anoka Conservation District,
- Others, as deemed appropriate by the Organization Board.

Citizen advisory committees shall include residents and elected officials from the affected area, and invited members may include:

- Homeowners,
- Business owners
- Lake association or lake improvement district representatives,
- Others, as deemed appropriate by the Organization Board.

All advisory committees shall include at least one URRWMO Board member.