

STANDARDS

STANDARDS OF THE ELM CREEK WATERSHED MANAGEMENT COMMISSION

The standards outlined below have been developed based on the goals and policies of the Commission provided in **Section III**. The policies that led to the standards are also listed in the boxes for reference purposes. The member communities will need to adopt the applicable standards within this section.

A. WATER QUANTITY

Policies

A1. The Commission adopts the current FEMA study as part of the Elm Creek floodplain for parts of Hassan and Dayton that drain to the Crow and Mississippi Rivers. This study is available in the Water Resource Library.

A2. The Commission adopts the Elm Creek Watershed Study and its associated flood elevations. This study is available in the Water Resource Library.

A3. The Commission shall establish floodplain management standards.

A4. The Commission shall establish water quantity management standards.

A5. The Commission shall develop standards to reduce the severity and frequency of flooding and high water by preventing the loss of floodplain storage below the established 100-year flood elevation.

A6. The Commission shall develop standards to manage the change in conveyance and the timing of flood waters.

A7. The Commission shall develop standards to reduce the severity and frequency of flooding and high water by avoiding the loss of wetland storage.

A8. The Commission shall develop standards to reduce the severity and frequency of flooding and high water by minimizing development in 100-year floodplains.

A9. Costs associated with floodplain management studies or projects shall be borne by all communities in the watershed in an equitable manner, as determined by the Commission and Joint Powers Agreement.

A10. The Commission prefers that stormwater rate control is provided through the use of regional stormwater retention systems when it is reasonable and practical to do so. The Commission also supports site-by-site retention systems when regional systems are not reasonable and practical.

A11. The Commission shall promote infiltration of precipitation and runoff.

A12. The Commission shall establish a water quantity monitoring plan.

A13. The local communities shall be responsible for removing deadfall in creek channels as appropriate provided that the deadfall is no longer attached to the land. For deadfall that remains attached to the land, it is the responsibility of the landowner to remove the deadfall. The Commission shall mediate deadfall removal issues as requested by the member communities.

I. Floodplain

1. The Commission requires a plan review to be completed by the local permitting authority for development or redevelopment if any part of the development is within a

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- 100-year floodplain or upland flood storage area and/or the project changes the timing, storage, or carrying capacity of any tributaries of the 100-year floodplain. The 100-year floodplain is defined as that area associated with a storm event that has a 1 percent chance of being equaled or exceeded any year as stated in **Appendix C**.
2. All member communities shall restrict or prohibit uses within the floodplain that are dangerous to health, safety, or property in times of flood or which cause increase in flood elevations or velocities.
 3. The Commission shall encourage the removal of existing structures from the 100-year floodplain.
 4. The Commission and member communities shall encourage the use of mitigating measures such as flood proofing to existing structures and dwellings in the 100-year floodplain which are subject to dangers to health, safety, or property during the 100-year flood if they cannot be removed from the floodplain.
 5. Local communities, or property owners, as determined on a site-by-site case, shall be financially responsible for funding the removal or implementation of mitigating measures to protect structures or property from the 100-year flood. The Commission may assist in securing grant monies to the extent reasonable.
 6. Wetlands, lakes, and other water bodies shall be maintained and utilized to store and retard flood waters to be consistent with the local Stormwater Management Plan.
 7. The Commission prohibits activities that impact the storage volume within the 100-year floodplain unless compensatory floodplain mitigation is provided at a 1:1 ratio by volume and it is demonstrated that the 100-year floodplain will not be impacted. In addition, no filling within the designated floodway shall be allowed. Suitable calculations must be submitted and approved demonstrating that filling in the flood fringe will not impact the 100-year flood profile. The 100-year floodplain is defined as that area associated with a storm event that has a 1 percent chance of being equaled or exceeded any year as stated in **Appendix C**.
 8. Structural flood control projects in the main tributaries of the Elm Creek Watershed drainage system shall be considered only if other measures are not feasible.
 9. The lowest floor elevation of new structures must be a minimum of 2-feet above the 100-year high water elevation. Runoff from back-to-back 100-year critical events will be used to analyze the storage capacity and freeboard for landlocked areas
 10. Member communities within the Commission shall adopt a floodplain management ordinance in conformance with the Commission's policies and standards.

II. Water Quantity

1. For areas where the Commission is the local permitting authority, the fee schedule in **Appendix B** shall apply.
2. A development plan review by the local permitting authority is required for the following projects:

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- a. Residential development or redevelopment on sites 8 acres or more, or
 - b. Residential development or redevelopment on sites 5 acres or more with a density of more than 2 units per acre, or
 - c. Commercial and industrial development or redevelopment on sites of one acre or more, or
 - d. Road projects that result in a net increase in impervious surface area of one acre or more.
3. A plan review by the Commission is required for projects that transcend the boundaries of an adjoining community and will affect the communities' approved stormwater management plan.
 4. Changes in the local communities' water quantity policies require review and approval of the Commission
 5. Plans must be submitted to the local permitting authority for any proposed alteration of waterways, culvert or bridge installations or replacements in waterways. Plans must show the location of installation, diameter, length and type of culverts, proposed invert elevations, bridge details, etc. along with pertinent hydrologic computations.
 6. The Commission promotes infiltration practices of the 2-year rainfall event for new development and redevelopment wherever it is practical and reasonable to do so, provided that past and existing land use practices do not have a significant potential to contaminate the stormwater runoff, the infiltration will not contaminate groundwater, the infiltration will have a regional benefit, and the soil characteristics are suitable for infiltration.
 7. Landlocked depressions that presently do not have a defined outlet and do not typically overflow may be allowed a positive outlet provided the downstream impacts are addressed and the plan is approved by the local permitting authority. The project proposer shall provide this information.
 8. The Commission recognizes that areas other than ponds, streams, wetlands, and lakes may be subject to storing stormwater runoff. These areas include acceptable levels of flooding within general depressions, low points, and street where structures and/or property are not damaged and any inundation that occurs is temporary in nature.
 9. Unless regional storm water management facilities are available to accommodate the development, future discharge rates from new development and redevelopment shall not exceed the existing discharge rates during 2-, 10-, and 100-year storm events.
 10. Flow rates in Elm, Diamond, and Rush Creek stream channels are to be maintained at pre-development flow rates for the 2-, 10-, and 100-year rainfall events by limiting

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the discharge rates from new development and redevelopment to equal to or less than the existing discharge rates.

11. Projects requiring review as defined in paragraphs 2., 3., and 4. above shall provide extended detention and/or runoff volume reduction to protect stream channels in the watershed.

a. The minimum runoff volume to be controlled shall be the channel protection volume (V_{CP}) in acre-feet, obtained from Table 11.1 (below) by using the following methods:

$$V_{CP} = \frac{\text{Area of Site/Project in acres} \times \text{Value of R from Table 11.1, in inches}}{12 \text{ inches/foot}} = \text{Volume in acre-feet}$$

- i. Determine V_{CP} for the new site/project with the existing impervious ratio.
- ii. Determine V_{CP} for the new site/project with the improved impervious ratio.
- iii. Use the difference between the two V_{CP} values to determine the runoff volume to be controlled.

Table 11.1 Inches of Runoff to be used in Determining V_{CP}

Impervious Ratio	A Soils	B Soils	C Soils	D Soils
0.00	0.03	0.18	0.22	0.17
0.05	0.07	0.23	0.28	0.22
0.10	0.11	0.29	0.34	0.28
0.15	0.16	0.36	0.40	0.33
0.20	0.21	0.43	0.47	0.39
0.25	0.28	0.50	0.54	0.45
0.30	0.35	0.58	0.61	0.51
0.35	0.43	0.67	0.68	0.58
0.40	0.53	0.76	0.76	0.65
0.45	0.63	0.85	0.84	0.71
0.50	0.74	0.96	0.93	0.79
0.55	0.86	1.07	1.02	0.86
0.60	0.99	1.18	1.11	0.93
0.65	1.13	1.30	1.20	1.01
0.70	1.29	1.44	1.30	1.09
0.75	1.46	1.58	1.41	1.17
0.80	1.64	1.72	1.52	1.26
0.85	1.84	1.88	1.63	1.35
0.90	2.06	2.05	1.75	1.44
0.95	2.30	2.23	1.87	1.54
1.00	2.57	2.42	2.00	1.63

b. Extended detention storage time is defined as the time between the

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center of mass of the inflow and outflow hydrographs. The minimum storage time shall be obtained from Table 11.2 (below).

Table 11.2 Required Storage Time

Site Area (acres)	Extended Detention Storage Time (hrs)
0 to 1	not required
1 to 30	24
30 to 40	36
40 +	48

- c. The minimum recommended outflow orifice diameter is 3". (Alternative equivalent outflow such as V-notch weir can be used.) Lower release rates will require infiltration, filtration or alternative practices to provide control of the channel protection volume V_{cp} .
 - d. Infiltration, permanent storage or other volume reduction methods are encouraged and may be applied to reduce or eliminate the volume needed for extended detention storage.
 - e. Current Elm Creek standards (no. 10, above) require control of 2-year peak flows. This standard will result in 2-year peak discharges that are far less than existing conditions; therefore, sites meeting the proposed standard will not be required to demonstrate compliance with the current 2-year peak control standard.
 - f. Sidewalks and trails that do not exceed twelve feet (12'0") in width, are not constructed with other improvements, and have a minimum of five feet (5'0") of vegetated buffer on both sides are exempt from the channel protection volume reduction requirement. Road and driveway crossings do not disqualify the exemption.
12. The design of all major stormwater storage facilities shall attempt to accommodate the 100-year critical duration event.
13. Stormwater rate control structures and drainageways shall be placed within a drainage, utility, or flowage easement.
14. All new outlet structures must have outlet erosion control devices.
15. All submitted development plans must be in conformance with the approved local stormwater management plans

B. WATER QUALITY

Policies

B1. The Commission encourages the adoption of the DNR's model shoreland ordinance.

B2. The Commission adopts the Minnesota Pollution Control Agency's Best Management Practices and Metropolitan Council's Minnesota Urban Small Site BMP Manual by reference.

B3. The Commission shall establish standards for stormwater treatment practices to prevent

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further degradation of lakes, streams, and wetlands.

B4. The Commission will establish a comprehensive water quality monitoring plan for area lakes and streams.

B5. The Commission will establish water quality goals for judging the adequacy of its water quality protection programs.

B6. The Commission shall promote the management of stormwater runoff quality on a regional basis in areas where it is reasonable and practical to do so. The Commission shall also manage stormwater runoff quality on a site-by-site basis when regional methods are not feasible.

B7. The Commission will coordinate with other agencies' efforts in monitoring, maintaining, and improving surface water quality within the watershed.

B8. The Commission shall provide services to assist the member communities in obtaining National Pollutant Discharge Elimination System (NPDES) Phase II permits once this program is implemented by the Minnesota Pollution Control Agency, if requested by the local community.

B9. The Commission shall establish manure management standards.

B10. The Commission shall develop standards and/or a model ordinance related to manure management, feedlots, and fencing/setback standards for livestock near water bodies.

B11. The Commission shall review progress and policies relating to Total Maximum Daily Loads (TMDL's) as they become available.

1. The Commission shall require conformance with the Minnesota Pollution Control Agency's Best Management Practices and the Metropolitan Council's Minnesota Urban Small Site BMP Manual.
2. The Commission shall require member communities to adopt the Minnesota Pollution Control Agency's Best Management Practices and the Metropolitan Council's Minnesota Urban Small Site BMP Manual as part of local surface water management plan development or implementation.
3. A plan review by the local permitting authority is required for the following projects:
 - a. Residential development or redevelopment on sites 8 acres or more, or
 - b. Residential development or redevelopment on sites 5 acres or more with a density of more than 2 units per acre, or
 - c. Commercial and industrial development or redevelopment on sites of one acre or more, or
 - d. Road projects that result in a net increase in impervious surface area of one acre or more.
4. The Commission encourages member communities to adopt a shoreland ordinance in conformance with the Department of Natural Resources. If the community does not have a shoreland ordinance, the Commission shall enforce the DNR sample shoreland ordinance. A sample ordinance is included in **Appendix H**.

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5. The Commission encourages the member communities to work with Hennepin County to develop a program to ensure that solid or liquid waste such as hazardous household waste is disposed of properly.
6. The Commission shall require member communities to develop a stormwater system maintenance plan that addresses public and private stormwater pond clean-out, public sump catch basin/manhole clean-out, and street sweeping of curb-and-gutter streets to the extent feasible and practical. A sample maintenance plan is contained in **Appendix I**.
7. The Commission shall require member communities to sweep City-owned paved streets at least once annually on rural section roads and twice annually on urban section roads.
8. The Commission encourages each member community to establish the street width for all public roads undergoing development or redevelopment in conformance with City Code. The Commission recognizes that narrow streets reduce pollutants loads, decrease runoff volumes, and increase infiltration. The municipality should give these factors consideration in concert with consideration for parking, public safety, and maintenance needs.
9. Phosphorus loadings from new or redeveloped sites shall not exceed predevelopment phosphorus levels. The following phosphorus export coefficients shall be used to calculate predevelopment and post-development land use phosphorus loadings:

Pre-developed land use

Woodland or wetlands: 0.1 pounds/acre/year

Grasslands, meadows, open space: 0.4 pounds/acre/year

Cropland: 1.0 pound/acre/year

Pasture: 2.0 pounds/acre/year

Urban (applicable for redevelopment): See Post-development land use

Post-development land use (to be used with runoff volumes)

Industrial/Commercial: 600 parts per billion

Single-family residential: 450 parts per billion

Multi-family residential: 500 parts per billion

This standard can be achieved through the use of ponding, Low Impact Development techniques, reduction in impervious surfaces, or other Best Management Practices deemed reasonable by the Commission. The local permitting authority shall consider a variance or flexibility to this standard if impacts to other natural resources are demonstrated. The local permitting authority can consider the implementation of this standard on regional/drainage area basis if this standard is deemed impractical on a site-by-site basis.

10. The Commission requires the pretreatment of stormwater runoff that conforms to Nationwide Urban Runoff Program (NURP) recommendations be provided for new or modifications to the stormwater conveyance system prior to discharge to wetlands, streams, and lakes.

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- a. A permanent pool ("dead storage") volume below the principal spillway (normal outlet) which shall be greater than or equal to the runoff from a 2.5 inch storm over the entire contributing drainage area assuming full development.
 - b. A permanent pool average depth (basin volume/basin area) which shall be > 4 feet, with a maximum depth of < 10 feet.
 - c. An emergency overflow (emergency outlet) adequate to control the one percent frequency/critical duration rainfall event.
 - d. Basin side slopes above the normal water level should be no steeper than 3:1, and preferably flatter. A basin shelf with a minimum width of 10 feet and one foot deep below the normal water level is recommended to enhance wildlife habitat, reduce potential safety hazards, and improve access for long-term maintenance.
 - e. To prevent short-circuiting, the distance between major inlets and the normal outlet shall be maximized.
 - f. A flood pool ("live storage") volume above the principal spillway shall be adequate so that the peak discharge rates from 99%, 10%, and 1% chance critical duration storms are no greater than pre-development basin watershed conditions.
 - g. Retardance of peak discharges for the more frequent storms can be achieved through a principal spillway design that may include a perforated vertical riser, small orifice retention outlet, or compound weir.
11. The Commission shall require a 60% phosphorus removal efficiency for stormwater pretreatment systems. The PondNet model (Walker, 1987) or model approved by the local permitting authority as equally applicable shall be used to determine the removal efficiency of the stormwater treatment system based on a 2.5-inch rainfall. This standard can be achieved through the use of ponding, Low Impact Development techniques, reduction in impervious surfaces, or other Best Management Practices deemed reasonable by the local permitting authority. The local permitting authority shall consider a variance or flexibility to this standard if impacts to other natural resources are demonstrated. The local permitting authority can consider the implementation of this standard on regional/ drainage area basis if this standard is deemed impractical on a site-by-site basis.
 12. The Commission will review the use of other Best Management Practices or innovative stormwater management practices that can be practically implemented for water quality treatment on a case-by-case basis.
 13. Buffer width standards for water quality ponds shall be at the discretion of the member community.
 14. In areas where NURP treatment basins are not feasible to construct, the MPCA Guidelines for Protecting Water Quality in Urban Areas or other methods may be substituted.

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15. The Commission requires treatment pond outlets to remove floating debris for a 2-year event.
16. The Commission shall develop water quality goals for specific water bodies within the watershed that transcend municipal boundaries. Development and redevelopment plans within the waterbodies' subwatershed shall include provisions to assist the Commission in meeting these water quality goals.
17. The local communities shall develop water quality goals for specific water bodies that are located entirely within their municipal boundaries. Assistance from the Commission for this task will be provided, if requested.
18. The following water quality goals have been established by a local community or organization for the following water bodies:

Plymouth	Water Quality Goals
Elm Creek	TP: 250mg/l TSS: 25 mg/l TN: 3 mg/l COD: 100 mg/l
See local plan for more details	
Maple Grove	Classification
Rice Lake	Class II – Indirect contact
Weaver Lake	Class I – Direct contact
Fish Lake	Class I – Direct contact
Cook Lake	Class I – Direct contact
Three Rivers Park District	Classification
Fish Lake	Class I – Direct contact
Elm Creek Pond	Class I – Direct contact
Lemans Lake	Class III – Wildlife/Interpretation
Elm Creek	Class III – Wildlife/Interpretation
Mud Lake	Class III – Wildlife/Interpretation
Rush Creek	Class III – Wildlife/Interpretation
Diamond Creek	Class III – Wildlife/Interpretation
Metropolitan Council	Classification
Fish Lake	Priority Water Body
Weaver Lake	Priority Water Body

19. The Commission shall promote and encourage all property owners adjacent to lakes, streams, and wetlands to have an established native vegetative buffer strip of at least 20 feet. This standard shall be promoted through education efforts.
20. The Commission shall implement a water quality monitoring program for area lakes and streams. More information about this program is included in **Appendix J**.
21. The Commission encourages member cities to develop and implement a water quality monitoring program for those lakes and streams not being monitored by the Commission.

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22. The Commission encourages local cities to maintain an inventory of wetland and public water bodies to assist in the management of these resources.
23. The Commission shall develop manure management and feedlot standards and/or model ordinances

C. RECREATION, FISH, AND WILDLIFE

Policies

C1. The Commission encourages fish and wildlife habitat protection and enhancement opportunities as part of surface and groundwater management practices.

C2. The Commission shall establish standards for the protection of water based recreational activities.

C3. The Commission will work with and support to the maximum extent practical the efforts of the Minnesota Department of Natural Resources, the US Corps of Engineers, the US Environmental Protection Agency, the US Fish and Wildlife Service, the Hennepin Conservation District, and Three Rivers Park District and other appropriate agencies in promoting public enjoyment and protecting fish, wildlife, and recreational resource values in the watershed.

1. The Commission shall encourage landowners to maintain wetlands and open space areas for the benefit of wildlife. This standard shall be promoted through education efforts.
2. The Commission shall require a 50-foot native vegetation buffer from Elm Creek, Rush Creek, North Fork Rush Creek, and Diamond Creek for any new development.
3. The Commission shall require member communities to develop buffer width policies for development around wetlands. Information about buffers is included in **Appendix K.**
4. The Commission shall promote and encourage property owners adjacent to lakes, streams, and wetlands to establish a buffer around the water resources of at least 20 feet. This standard shall be promoted through education efforts.
5. The Commission shall encourage the maintenance of existing water based recreational resources.
6. The Commission shall encourage member communities to address control of exotic plant species such as purple loosestrife at construction sites and elsewhere. Information on Best Management Practices for control of exotic species is available from the Department of Natural Resources.
7. Member communities are encouraged to utilize Minnesota Land Cover Classification System (MLCCS) data, where available, or other inventory methods to identify existing habitat patches and wildlife corridors and develop land use policies and strategies to protect these resources. Assistance for this task is available from the DNR.

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8. The Commission will continue to work cooperatively with the local communities and Three Rivers Park District to ensure protection and proper management of local and regional parks within the watershed.

D. ENHANCEMENT OF PUBLIC PARTICIPATION, INFORMATION, AND EDUCATION

Policies

D1. The Commission shall establish a public education program regarding watershed management practices. Information about this program can be found in Appendix G.

D2. The Commission encourages member cities to develop coordinated water resource public education programs to avoid duplication of effort and cost.

D3. The Commission will work with and support to the extent deemed necessary the efforts of the Hennepin Conservation District, Department of Natural Resources and others to develop and enhance public education programs.

1. The Commission shall promote responsible watershed management practices through a public education program in conformance with the NPDES Phase II program (see **Appendix G**). This program shall include, but not be limited to:
 - a. Publication of a newsletter twice annually. The newsletter shall be distributed to member communities and area libraries for distribution. The newsletter shall contain information on pertinent water resource issues such as lawn care and fertilizer use, Commission activities, and feedlot management.
 - b. Annual educational programs, classes, and/or workshops such as Project NEMO for member communities' elected officials and staff regarding watershed management practices.
 - c. A public input meeting and/or water resource survey every other year to obtain information related to the concerns of the general public within the watershed and determine the effectiveness of the Commission's implementation of the Watershed Management Plan.
 - d. Establishment of an internet web-site to promote the goals and policies of the Commission.
2. The Commission shall actively pursue grant funding to assist in public and member community education efforts related to watershed management. This assistance could be used to assist local communities with public education efforts such as catch basin stenciling programs, clean water festivals, and local newsletter and outreach efforts.
3. The Commission shall encourage member communities to include regular articles in city newsletters and/or on city web sites on pertinent water management issues.
4. The Commission shall work with area Lake Associations to the greatest extent practical and feasible to implement responsible watershed management practices

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around area lakes, streams, and wetlands.

5. The Commission will consider ways to assist the member communities as future implementation of NPDES Phase II.

E. PUBLIC DITCH SYSTEMS

Policies

E1. The public ditch systems within the Commission will be managed by Hennepin County, which is the public ditch authority.

E2. The Commission shall work with Hennepin County in resolving any issues associated with management of the public ditch systems in the watershed.

1. The Commission shall defer all public ditch authority to Hennepin County.

F. GROUNDWATER

Policies

F1. The Commission shall develop standards to improve and protect the groundwater within the watershed.

F2. The Commission will promote and coordinate with other agencies the continuation of existing groundwater monitoring, inventories, and/or permitting programs.

F3. The Commission will encourage member cities to develop and implement wellhead protection plans.

F4. The Commission will assist member communities or other governmental agencies in resolving groundwater quality problems.

F5. The Commission shall promote groundwater infiltration and recharge.

1. The Commission supports efforts to gather information on the hydrogeology of the region and identify potential sources of groundwater pollution.
2. The Commission shall encourage efforts to delineate and protect groundwater recharge areas.
3. The Commission shall encourage infiltration of the 2-year event for new and redevelopment wherever it is practical and reasonable to do so, provided that past and existing land use practices do not have a significant potential to contaminate the stormwater runoff, the infiltration will have a regional benefit, will not contaminate groundwater, and the soil characteristics are suitable for infiltration.
4. The Commission shall encourage member communities to develop spill prevention, control, and counter measure plans that are consistent with state and/or federal regulations.

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5. The Commission requires that member communities cooperate with the Department of Health to ensure that all unsealed or improperly abandoned wells within the watershed are properly sealed in accordance with state regulations.
6. The Commission will work towards educating the Commission members and member community officials about stormwater and groundwater interactions, especially those entirely within the Commission's boundaries.
7. The Commission will review the local wellhead protection plans as part of the local storm water management plan review or when available.
8. The Commission will work to coordinate efforts to include review of the local wellhead protection plan as part of the development plan review process.
9. The local communities shall forward their local wellhead protection plans to the Commission upon completion.
10. The Commission shall develop and maintain a map showing the wellhead protection zones within its boundaries upon completion of a local wellhead protection plan.

G. WETLANDS

Policies

G1. The Commission shall act as the Wetland Conservation Act's Local Government Unit (LGU) for those communities that choose to utilize this service.

G2. The Commission will protect and manage wetlands in conformance with the State Wetland Conservation Act (WCA).

G3. The Commission will support the local cities' efforts to become qualified to assume the LGU role to manage wetlands.

G4. The Commission shall promote and facilitate the creation of new wetland bankings within the watershed.

G5. The order of descending priority for the location of replacement wetlands, including the use of wetland bank credits, is as follows:

- a. On-site;***
- b. Within the same subwatershed;***
- c. Within the Elm Creek Watershed; and***
- d. Outside the Elm Creek Watershed within major Watershed No. 20 only under extreme and unusual circumstances.***

1. The Commission or designated Local Government Unit (LGU) shall protect and manage wetlands in conformance with the Wetland Conservation Act. A copy of Minnesota Rules 8410 is contained within the Water Resource Library.
2. The Commission or designated Local Government Unit (LGU) requires the developers to complete a wetland delineation by a trained wetland professional to identify the location and extent of any wetlands present within the development site.

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3. For areas where the Commission is the local permitting authority, the fee schedule in **Appendix B** shall apply.
4. The Commission shall review wetland delineations as part of the development plan review for all new developments and redevelopments for those communities where the Commission is the LGU.
5. The Commission shall require a wetland inventory, functions and values assessment, and wetland management plan be completed by each community as part of development or implementation of a local water resource management plan. This Plan can be in conformance with Minnesota Rules 8420 or can be developed in another acceptable manner agreed upon by the community and Commission. The Commission shall assist in approving the wetland evaluation method.
6. The Commission shall support local city efforts to manage wetlands for habitat diversity, water quality, and stormwater management. These efforts may include dredging of sediments to the extent allowed by the Wetland Conservation Act or construction of treatment basins. These activities will be supported provided that it can be demonstrated that the project will result in no net loss of wetland area.
7. The Commission encourages member communities to adopt a Shoreland Ordinance, as required by the timeline set forth by the DNR, as part of the development or implementation of a local water resource management plan. If the community does not have a shoreland ordinance, the Commission shall enforce the DNR sample shoreland ordinance. A sample ordinance is included in **Appendix H**.
8. The Commission shall require a 50 foot native vegetation buffer from Elm Creek, Rush Creek, North Fork Rush Creek, and Diamond Creek for any new or redevelopment.
9. The Commission shall encourage all property owners adjacent to lakes, streams, and wetlands to have a buffer of at least 20 feet. This standard will be promoted through public education efforts.

H. EROSION

Policies

H1. The Commission shall develop standards to minimize erosion due to development activities.

H2. The Commission will coordinate, where appropriate, with other agencies' efforts to implement Best Management Practice regarding erosion and sedimentation control.

H3. The Commission will identify locations for erosion control improvement projects.

H4. The Commission encourages the adoption of NRCS standards for cropland erosion control.

H5. The Commission shall coordinate with the Hennepin Conservation District and the Natural Resource Conservation Service to provide technical assistance and cost share programs regarding erosion control for farmers.

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1. The local permitting authority shall review plans for conformance with Best Management Practices for the following developments:
 - Residential development or redevelopment greater than 1 acre in size, or
 - Commercial/industrial development or redevelopment, or
 - Any road, street, or highway project that results in a net increase in impervious surface.
2. Sediment and erosion control plans shall conform to the general criteria set forth by the most recent versions of the Minnesota Construction Site Erosion Control Handbook, practices outlined in the Minnesota Pollution Control Agency “Protecting Water Quality in Urban Areas”, the local erosion control ordinance, the Metropolitan Council’s Minnesota Urban Small Sites BMP Manual, and/or the NPDES Construction site permit.
3. The Commission shall require member communities to adopt erosion control ordinances in conformance with the Commission policies and standards as part of development or implementation of the local water resource management plan. **Appendix H** contains a sample erosion control ordinance.
4. The Commission shall support the efforts of the Natural Resource Conservation Service, the Hennepin Conservation District, and the Minnesota Pollution Control Agency to the extent reasonable and practical in addressing soil stabilization within the watershed.
5. The Commission shall identify locations for erosion control improvement projects.
6. The Commission shall provide technical assistance to farmers who wish to evaluate the erosion potential on cropland fields and for the installation of soil conservation practices when requested as funding becomes available.