



INVER GROVE HEIGHTS
Northwest Area

Appendix G

Northwest Area (NWA) Inver Grove Heights Stormwater Manual



Appendix G

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I. NWA Planned Unit Development Overlay District

Subd 39. Northwest Area Planned Unit Development Overlay District.

- A. Findings. The City of Inver Grove Heights finds that the Northwest Area of the community presents unique development challenges and opportunities. Its varied physical topography, areas of extensive tree cover and numerous landlocked, defined wetland basins not only are valued natural features, but also would likely increase the costs for storm sewer infrastructure if a traditional stormwater management plan were implemented. The Northwest Quadrant Study (prepared by Hoisington Kogler Group, 2001) and Northwest Quadrant Hydrologic & Hydraulic Analysis (prepared by Emmons & Olivier Resources, 2004) indicate that alternative land planning, engineering and development practices may be more cost effective in addressing infrastructure needs and meeting the City's Comprehensive Plan goal of preserving unique natural areas/open space.
- B. Purpose and Intent. The Northwest Area Planned Unit Development Overlay District is established for the purposes of regulating development in a manner which is consistent with the City's Comprehensive Plan while creating a cost-efficient storm sewer system. In accordance with the City's Comprehensive Plan and the Northwest Quadrant Study: City of Inver Grove Heights and South Robert Trail Neighborhood Association (prepared by Hoisington Kogler Group in 2001), the Northwest Area Planned Unit Development Overlay District will encourage development which provides diverse housing styles, incorporates natural features as integral elements, promotes cluster development practices which preserve significant natural features by concentrating building locations, fosters pedestrian connections and uses on-site retention of stormwater in existing landlocked basins preserved in open space areas. The provisions of the Northwest Area Planned Unit Development Overlay District will also reduce the amount of stormwater runoff from the district through minimizing impervious surface coverage. Provisions will also maximize the ability to infiltrate stormwater without piping to a remote outlet (i.e. Mississippi River) through the preservation of natural areas for infiltration. The Northwest Area Planned Unit Development Overlay District will have clustered housing and will permit mixtures of housing types to encourage greater preservation of natural areas/open space as long as requirements for stormwater management features are met.

All development within the Northwest Area Planned Unit Development Overlay District shall be by Planned Unit development according to: 1) the platting procedures as established in the City's Subdivision Ordinance (Sections 510.05, 510.07, 510.09, 510.10 and 510.11); 2) the Planned Unit Development procedures established in the City's Zoning Ordinance (Section 515.80, Subdivision 28); and 3) the provisions found in this Section of the City Code, Section 515.80, Subdivision 39. If there are any conflicts in these standards, the most restrictive standard shall apply, unless specifically approved otherwise by the City Council.

- C. Property without Municipal Sewer and Water. The Northwest Area Planned Unit Development Overlay District does not have municipal sewer or water available as of the date of adoption of this Section 515.80, Subd. 39. As municipal sewer and water become available to properties in the Northwest Area Planned Unit Development Overlay District, development shall be allowed subject to this Section 515.80, Subd. 39. Until such time as municipal sewer and water become available and final Planned Unit Development plans are approved by the City for the specific property, lots are required to have a minimum size of 10 acres. All lots of record in existence prior to November 28, 1988 shall be exempt from the 10-acre minimum lot area requirement. Instead, all such lots of record shall have minimum lot sizes as specified by the lot size regulations for the underlying zoning district within which the lot of record is located.

The minimum lot size of 10 acres is established for properties that do not yet have municipal sewer and water in order to:



1. Prevent parcelization of land before municipal sewer and water become available.
2. Reduce the density of residential development in areas lying outside the area of the City where municipal utilities are available in order to prevent the untimely, non-cost effective extension of City utilities due to the failure of on-site septic systems.
3. Prevent adverse effects upon the environment due to the failure of on-site waste disposal systems.
4. Promote the provision of residential lot areas that more easily facilitate re-subdivision when City utilities become available, particularly in those areas where utility extensions may occur in the reasonably foreseeable future.
5. Lessen the potential demand in the rural areas for City services such as police and fire protection and street and park services.
6. Channel development of significant tax base into the areas of the City that have municipal sewer.

D. Subdivision of Property not served by Municipal Sewer and Water. Subdivision of property in the Northwest Area Planned Unit Development Overlay District that is not served by municipal sewer and water is prohibited, except as provided for in this Subsection D. Limited subdivision will be allowed without municipal sewer and water if the subdivision meets all of the following standards:

1. The subdivision shall be memorialized through platting. No Waiver of Plat procedure shall be allowed.
2. A property must have a minimum of 20 acres (excluding right of way) in order to be subdivided.
3. The subdivision shall result in a density no greater than one home per 10 acres of land (excluding right of way).
4. The resulting plat shall include buildable lots of a size no less than 1.0 acres and no greater than 1.5 acres. The remainder of the property shall be platted as an outlot, or outlots. The outlot(s) shall be considered unbuildable, and no further subdivision of the outlot(s) shall be allowed until such time as municipal sewer and water become available to the property. When municipal sewer and water become available to the property, the outlot(s) may develop, but will be required to develop according to: 1) the platting procedures as established in the City's Subdivision Ordinance (Sections 510.05, 510.07, 510.09, 510.10 and 510.11); 2) the Planned Unit Development procedures established in the City's Zoning Ordinance (Section 515.80, Subdivision_28); and 3) the provisions found in this Section of the City Code, Section 515.80, Subdivision 39.

Planned Unit Development procedures and standards shall not apply to subdivisions that are eligible for subdivision according to the provision of this Subsection D.

E. District Boundaries and Applicability. The Northwest Area Planned Unit Development Overlay District, further defined in this Section 515.80, Subd. 39 is hereby established as a part of the Zoning Ordinance of the City of Inver Grove Heights (Inver Grove Heights City Code, Section 515). The Northwest Area Planned Unit Development Overlay District shall be an overlay district such that any parcel lying in the overlay district shall also lie within one or more of the underlying zoning districts. Regulations and procedures set forth in underlying zoning districts shall apply unless specifically addressed in this Section 515.80, Subdivision 39 or if determined by the City Council to be inconsistent with the purpose and intent outlined in Subsection B of this Section 515.80, Subdivision 39 and approved by the City Council as part of the final Planned Unit Development plans. For purposes of determining the application of this Section 515.80, Subd. 39, the boundaries of the Northwest Area Planned Unit Development Overlay District shall be established and shown on the Official Zoning Map of the City of Inver Grove Heights, on file in the office of the City Clerk. Said map and the boundaries shown thereon are hereby incorporated herein by reference with the



same force and effect as if fully set forth herein.

F. Definitions. [NOTE: the definitions in this section will be incorporated into the definition section for the entire zoning code. But they are included here for the draft ordinance] The provisions of this Section 515.80, Subd. 39 shall be interpreted in accordance with the definitions identified in Section 515.30, Subd. 2 in addition to the following:

1. Homeowners association - an incorporated nonprofit organization operating under recorded land agreements through which (a) each lot and/or homeowner is automatically a member; (b) each lot is automatically subject to a charge for a proportionate share of the expenses for the organization's activities, such as maintaining a common property; and (c) the charge, if unpaid, becomes a lien against the property.
2. Infiltration basins/trenches - an area that allows stormwater rainfall/runoff to gradually seep into the ground.
3. Infiltration raingardens - landscaped garden designed and planted to receive and infiltrate stormwater runoff.
4. Low impact development (LID) - an ecologically friendly approach to site development and stormwater management that aims to mitigate development impacts to land, water, and air by integrating site design and planning techniques that conserve natural systems and hydrologic functions of the site.
5. Natural area/open space - any unimproved land or water that is set aside, dedicated, designated or reserved for perpetuity.
6. Natural plant materials - use of vegetation which occurred naturally prior to development, preferably native plants.
7. Net developable area – the area of a property remaining after excluding those portions that are either: a) encumbered by right of way for arterial roads as defined in the Inver Grove Heights Comprehensive Plan; or b) lying below the ordinary high water level of public waters as identified in the Shoreland Overlay District (see City Code Section 515.80, Subd. 30); or c) lying within the boundaries of wetlands delineated according to the Minnesota Wetland Conservation Act; or d) bluffs in Shoreland Overlay Districts abutting public waters; or e) land to be dedicated to the City of Inver Grove Heights for public park/recreation area purposes.
8. Bioretention - a landscaped area typically located at the edge of parking lots and may have an underdrain present where stormwater runoff is directed for filtering and discharge to other stormwater features.
9. Steep slopes - a predevelopment grade of 25% or more for a horizontal distance of 50 feet or more.
10. Stormwater management features - a feature used to treat, detain, and/or retain stormwater.
11. Stormwater management plans - document which identifies stormwater management features to be used in a development, how they will be designed and constructed, how and what type of maintenance to be completed, when and what type of inspections will be necessary, and who will be responsible for ongoing maintenance and inspections.



- G. Planned Unit Development. All development in the Northwest Area Planned Unit Development (PUD) Overlay District shall be pursuant to an approved final PUD plan set, except as allowed in Subsection D above. The procedures and regulations set forth in Section 515.80, Subd. 28 (Planned Unit Development) shall apply unless specifically addressed in the following subsections. The following subsections are hereby deemed to be requirements for all PUDs in the Northwest Area Planned Unit Development Overlay District unless otherwise approved by the City Council.
1. Minimum Area for Planned Unit Development. There is no minimum required site size for a PUD in the Northwest Area Planned Unit Development Overlay District. However, all land in the PUD must be contiguous unless specifically approved otherwise by the City Council.
 2. Ownership. The tract of land may be held in single and separate ownership or in multiple ownerships. However, when a tract is held in multiple ownerships, it shall be planned as a single entity with common authority and common responsibility as demonstrated through all property owners being signatories on the PUD application.
 3. Bulk Standards.
 - a. All setbacks on the perimeter of a PUD must conform to the setbacks of the underlying zoning district-
 - b. Except as provided in Section 515.80, Subd. 39 G.3.a above, property in a PUD shall conform to the bulk standards established in the following table:

Use (Correlates with underlying zoning district as specified below)	Density ¹		Front Yard Setbacks ²		Side Yard	Impervious Surface Coverage	Building Coverage	Building Height
	Minimum	Maximum	Min.	Max.	Min. Principal Structure Separation ³	Maximum per lot	Maximum per lot	Maximum per lot
Residential								
Single Family (Correlates with R-1C)	2 units/ac.	4 units/ac.	20 ft.	30 ft.	20 ft.	25%	None	35 ft.
Two Family/ Twinhome (Correlates with R-2)	3 units/ac.	8 units/ac.	20 ft.	30 ft.	20 ft.	30%	None	35 ft.
Multi-Family (3-4 units) (Correlates with R-3A)	5 units/ac.	12 units/ac.	20 ft.	30 ft.	20 ft.	35%	20%	35 ft.
Multi-Family (4 to 7 units) (Correlates with R-3B)	8 units/ac.	15 units/ac.	20 ft.	30 ft.	20 ft.	55%	20%	56 ft.
Multi-Family (7+ units) (Correlates with R-3C)	12 units/ac.	NA	20 ft.	30 ft.	20 ft.	65%	20%	70 ft.
Commercial								
Retail (Correlates with B-2, B-3, or B-4)	0.25 FAR	0.35 FAR	10 ft.	30 ft.	20 ft.	70%	25%	50 ft.
Neighborhood Office (Correlates with B-1)	0.25 FAR	0.5 FAR	10 ft.	30 ft.	20 ft.	70%	25%	50 ft.
Office PUD and other office (Correlates with B-1 or Office PUD)	0.25 FAR	0.5 FAR	30 ft.	40 ft.	20 ft.	70%	30%	100 ft.
Industrial (Correlates with I-1, I-2, or IOP)	0.25 FAR	0.35 FAR	30 ft.	40 ft.	20 ft.	70%	30%	60 ft.
Mixed Use	As defined through the Final PUD plans as approved by the City Council							

¹ Density is calculated as per Section G.7.c. Procedures, which is based upon net developable area. However, in no instance may the density exceed that established for the property in the Inver Grove Heights Comprehensive Plan, and such density limits are incorporated by reference and hereby made a part of this Section 515.80, Subdivision 39.

² Rear yard setbacks shall follow the underlying zoning district setback standards

³ In no instance may a building lie within an area of the lot encumbered by an easement.

4. Natural Area/Open Space

- a. An amount of land equal to at least 20% of the net developable area within the PUD shall be preserved as natural area/open space, which may include greenways as shown in the City of Inver Grove Heights Natural Resources Inventory and Management Plan (Bonestroo Rosene Anderlik & Associates, 2004).



- b. Natural Area/Open Space shall be designated in the following priority order:
- (i). The first priority is to protect slopes of 25% or greater in those subwatersheds that have a significant portion of their drainage area covered in slopes of 25% or greater, as follows: (insert list of identified subwatersheds).
 - (ii). The second priority is to incorporate public trails or public open space designated in the Comprehensive Plan. This would be in addition to any land that would be used to satisfy the public park dedication requirement found in the City's Subdivision Ordinance (Section 510).
 - (iii). The third priority for natural area/open space designation is the protection of natural features such as slopes of 25% or greater, and environmentally sensitive areas and scenic features of the site identified as Manage 1 or 2 resources or priority sites in the City of Inver Grove Heights Natural Resource Inventory and Management Plan for the Northwest Expansion Area (Bonestroo Rosene Anderlik & Associates, 2004).
 - (iv). The fourth priority is to create natural area/open spaces in and around neighborhoods. This priority is satisfied by providing continuity of adjacent natural area/open space corridors or parkways; network of interconnected natural area/open space corridors; or buffers between incompatible or conflicting land uses.
- c. At least 75% of the natural area/open space shall be contiguous with no portion less than 100 feet wide, unless otherwise approved by the City Council.
- d. At least 50% of the natural area/open space shall be maintained in a natural, undisturbed condition with natural plant materials and shall not be graded or improved with any building, structure or other impervious surface except: 1) public utilities; 2) limited access in the form of a paved walking or hiker/biker path, the total impervious area of which shall not be more than 2% of the total natural area/open space; and 3) unless otherwise approved by the City Council.
- e. The remaining 50% of designated natural area/open space may be used for passive or active recreation or the location of stormwater management features. If used for active recreation, impervious cover shall not exceed 5% of the remaining area.
- f. The entire area set aside for natural area/open space shall be maintained in perpetuity. This restriction shall run with the land and be binding on successors and assigns of land owner.
- g. The boundaries of designated natural area/open space and recreation areas shall be clearly delineated on the approved final PUD plans. These areas shall be delineated in the field with signage approved by the City of Inver Grove Heights.
- h. The designated natural area/open space may be owned and managed by one or more of the following:
- (i). Property owner, provided either: 1) the deed to each lot includes a proportionate share of the natural area/open space or common facilities; or 2) an easement for the natural area/open space is provided for the benefit of the lots in the subdivision.
 - (ii). Homeowners association, provided all of the following conditions are met:
 - (a). The homeowner's association must be established prior to filing of any plats.
 - (b). Membership must be mandatory for each owner and any successive buyer.
 - (c). The association must be responsible for liability insurance, local taxes and maintenance of the natural area/open space.

- (d). Landowners must pay their pro rata share of the cost and the assessment levied by the association that can become a lien on the property in accordance with Minnesota Statutes.
 - (e). The association must be able to adjust the assessment to meet changed needs.
 - (iii). Third-party (non-profit) organization whose primary purpose is to hold or manage the natural area/open space; subject to a reversionary clause in the event of dissolution of the non-profit organization.
 - (iv). Dedicated to the City of Inver Grove Heights, if the City Council determines there is a demonstrated public need.
- i. The maintenance of the natural area/open space shall be the responsibility of one of the entities identified above in Section 515.80, Subd. 39 G.4.h. Public stormwater or utility improvements may be located within a portion of the natural area/open space, as specified above in Section 515.80, Subd. 39 G.4.d and e, in which case the City of Inver Grove Heights shall be responsible for maintenance of that portion of the natural area/open space.
 - j. Authorized representatives of the City of Inver Grove Heights may conduct inspections at any reasonable time to ensure proper maintenance of such areas and/or to respond to citizen complaints.
 - k. The legal instrument creating the restrictions, easements and covenants in the natural area/open space shall be subject to approval by the City, and the instrument recorded with Dakota County shall state that the restrictions, easements and covenants shall not be terminated or altered without the written consent of the City.
 - l. If the property to be subdivided contains natural resources identified as Manage 1 or 2 resources or priority sites in the City of Inver Grove Heights Natural Resource Inventory and Management Plan for the Northwest Expansion Area (Bonestroo Rosene Anderlik & Associates, 2004), the City Council may at its discretion require the Manage 1 or 2 resource or priority site to be encumbered with a conservation easement to the public. Said conservation easement would include at least the following provisions:
 - (i). No vegetation shall be removed or mowed from the easement area, except for invasive vegetation species when removed according to a plan approved by the City.
 - (ii). No private structures may be placed within the easement area
 - (iii). No grading shall be allowed except as approved with the final Planned Unit Development Plan, or subsequent City approved amendments thereto.
 - (iv). No gardening shall be permitted within the easement area.

5. Allowed Uses

- a. Except those uses identified in subpart c. below as “interim uses”, all permitted, conditional, and accessory uses as defined, regulated and administered for the underlying zoning districts shall continue and remain in effect within the Northwest Area Planned Unit Development Overlay District. If a final PUD plan is approved by the City Council, the underlying zoning for the subject property shall be amended, though the overlay district shall remain the Northwest Area Overlay District. The permitted uses shall then be those found in the amended underlying zoning district. Except that PUD developments in the Northwest Area Planned Unit Development Overlay District are allowed to have an increased mixture of housing types provided that the provisions of this Section 515.80, Subd. 39 are met. The table below identifies



which uses are permitted and the maximum percentage of the total development units which can be of that housing type. The total number and location of housing units and housing types for a specific property shall be established by the City Council at the time of final PUD plan approval for that specific property. Moreover, the location of housing units not normally associated with the amended underlying zoning district may not be altered from that approved with the final PUD plan, nor may the number of housing units not normally associated with the amended underlying zoning district be increased over the number approved with the final PUD plan. For example, if the amended underlying zoning district is R-1C, and the City Council approves housing types other than permitted in the R-1C zoning district, those housing types not permitted in the R-1C zoning district shall be limited in terms of number and location to those approved by the City Council with the final PUD plan.



Uses	Zoning District				
	R-1C	R-2	R-3A, or B	R-3C	MU
Single Family Dwellings	100%	100%	10%	10%	10%
Twinhomes/Two-Family Dwellings	30%	100%	30%	10%	15%
Multiple dwelling unit building (7 or fewer units)	10%	30%	100%	40%	100%
Multiple dwelling unit building (7 + units)	0%	0%	50%	100%	100%

Note: The % in the above table represents the total percent of units allowed by unit type or “use” in each district. For example, in the R-1C district, up to 30% of the total units in the proposed PUD may be twinhomes or two-family dwellings, or alternatively, the entire PUD could consist of all (100%) single family housing.

- b. **Multiple dwelling units (including townhomes) permitted as of right.** Within the overlay district, where multiple dwelling units are indicated as permitted (see above table), they shall be permitted as of right provided they follow the performance standards as specified in Section 515.90 (specifically those in subd. 26 and 27), those specified in this Section 515.80, Subd. 39, and the approved final PUD plans.
- c. **Interim Uses.**
 - (i). Purpose and Intent: The Northwest Area Planned Unit Development Overlay District is envisioned to develop at urban development densities over the next 20 or more years. The premature development of this area in an estate type development pattern (large residential lots with sizes of 2 ½ to 5 acres on private sanitary sewer systems and private wells) presents challenges to the efficiency and coherency of future development. In addition to rural development patterns, rural uses (boarding of horses, agriculture, etc.) that are incompatible with urban development will also pose challenges to the orderly development of the Northwest Area Planned Unit Development Overlay District. Consequently, it is the purpose of this subsection of the City Code to establish interim uses that are appropriate to the Northwest Area Planned Unit Development Overlay District while preserving the reasonable use of private property.
 - (ii). Uses Requiring an Interim Use Permit: Regardless whether the following uses are considered permitted uses in the underlying A, Agricultural Zoning District, the following uses shall be considered interim uses in the Northwest Area Planned Unit Development Overlay District and shall require approval of an Interim Use Permit by the City Council pursuant to the procedures established in Section 515.80, Subd. 38 of the City Code:
 - (a) Agriculture buildings
 - (b) Commercial greenhouse / nurseries
 - (c) Commercial horse stables
 - (d) Commercial kennels

6. Stormwater Management



- a. **Design.** All development in the Northwest Area Planned Unit Development Overlay District shall be designed such that stormwater runoff is managed on-site within the planned unit development to match predevelopment runoff, as demonstrated by matching pre and post development runoff volume for the 5-year, 24-hour event. The stormwater system shall also have managed overflows to the regional system of natural depressions such that the stormwater rainfall/runoff for a 100 year event is safely transported. Contingencies for emergency overflows at least one foot below the lowest structure shall be provided.
- (i). For any proposed PUD development the developer shall submit a stormwater management plan which contains supporting computations, drawings and sufficient information describing the manner, location and type of measures in which stormwater runoff will be managed from all phases of the PUD development. The developer shall also submit soil borings for the site including proposed stormwater infiltration areas.
 - (ii). The stormwater management plan shall be prepared by an individual whose qualifications are acceptable to the City of Inver Grove Heights. The City of Inver Grove Heights may require that the design be prepared by a professional licensed in the State of Minnesota, as necessary to protect the public or the environment.
 - (iii). Stormwater management plans shall use one or more of the following features to address onsite stormwater management. These measures shall be designed in accordance with the most recent version of the City of Inver Grove Heights Stormwater Manual. The performance criteria specified in the City of Inver Grove Heights Stormwater Manual shall be considered when selecting the appropriate management features such as:
 - Infiltration raingardens (encumbered by public easement and maintained by the City of Inver Grove Heights)
 - Vegetated swales (encumbered by public or private easement and maintained by the City of Inver Grove Heights or private parties, as approved by the City together with the final PUD plans and stormwater management plan.)
 - Parking lot bioretention (encumbered by a private easement if found necessary by the City and maintained by private parties.)
 - Infiltration basins/trenches (encumbered by public or private easement and maintained by the City of Inver Grove Heights or private parties, as approved by the City together with the final PUD plans and stormwater management plan.)
 - Disconnection of impervious surfaces, e.g. diverted roof leaders, rain barrels, permeable pavement (These features are to be encumbered by a private easement if found necessary by the City and maintained by private parties.)
 - Green roofs (Private maintenance)
 - Other Low Impact Development (LID) techniques
 - (iv). Stormwater management plans will stage construction and specifically address temporary erosion and sediment control measures to preserve the infiltration capacity of proposed onsite and regional stormwater management features to ensure that such features are not impaired at conclusion of construction.
 - (v). Stormwater easements over those stormwater management features that the City chooses to maintain shall be provided by the property owner for access, facility inspections and public maintenance. The easements shall be fully executed and submitted to the City of Inver Grove Heights prior to the release of the final plat from City offices for recording by Dakota County.
 - (vi). Covenants and/or maintenance agreements found acceptable to the City

relating to all stormwater management features not to be maintained by the City shall be provided by the property owner. The covenants and/or maintenance agreements shall be fully executed and submitted to the City of Inver Grove Heights prior to the release of the final plat from City offices for recording by Dakota County.

- (vii) The legal instrument creating the restrictions, easements and covenants in the natural area/open space shall be subject to approval by the City, and the instrument recorded with Dakota County shall state that the restrictions, easements and covenants shall not be terminated or altered without the written consent of the City.
- (viii) Final design of the stormwater management plan shall be approved by the Inver Grove Heights City Council and shall be filed in the chain of title for each property that lies within the Planned Unit Development. A condition of approval shall be that the landowner shall enter into a license contract with the City allowing authorized representatives from the City of Inver Grove Heights to conduct inspections on a regular basis at any reasonable time to assure the safe and proper functioning of the private stormwater management features and/or to respond to citizen concerns. The license contract shall also permit authorized representatives of the City to enter upon the private property for the purpose of correcting or maintaining any private stormwater management feature approved as a part of the stormwater management plan if after proper and reasonable notice by the City to the landowner the landowner has not corrected or maintained the stormwater management feature to the standards established in the approved stormwater management plan, the most recent version of the City of Inver Grove Heights Stormwater Manual and/or this Section 515.80, Subd. 30. Moreover, the license contract shall permit the City to certify the costs of the maintenance/correction to the taxes for the subject private property.

b. Ownership

- (i). The boundaries of stormwater management features shall be clearly delineated on all plans, including final PUD plans, preliminary plats and final plats.
- (ii). The designated stormwater management features may be owned by one or more of the following:
 - (a). Property owner, provided the deed to each lot includes a proportionate share of the stormwater management features.
 - (b). Homeowners association, provided all of the following conditions are met:
 - (1) The homeowner's association must be established prior to any sale.
 - (2) Membership must be mandatory for each owner and any successive buyer.
 - (3) The association must be responsible for liability insurance, local taxes and maintenance of the stormwater management features.
 - (4) Landowners must pay their pro rata share of the cost and the assessment levied by the association that can become a lien on the property in accordance with Minnesota Statutes.
 - (5) The association must be able to adjust the assessment to meet changed needs.
 - (c). Third-party (non-profit) organization whose primary purpose is to hold or manage the stormwater management features; subject to a reversionary clause in the event of dissolution of the non-profit organization.
 - (d). The City will accept ownership by easement of the stormwater management features including rainwater gardens when the features serve as a part of



the larger regional or neighborhood stormwater management needs as defined by the Northwest Area Hydrologic & Hydraulic Analysis completed by Emmons & Olivier Resources in 2002 or the Northwest Area Alternative Urban Areawide Review prepared by Bonestroo Rosene and Anderlik & Associates in 2005. The City will not accept ownership of such features as downspouts, cisterns, green roofs, parking lot remediation or other such systems or features interior to the parcel.

c. **Maintenance**

- (i). All stormwater features encumbered by public easements as described above in Section 515.80, Subd. 39 G.6.a.(v) shall be maintained by the City of Inver Grove Heights according to the measures outlined in the most recent version of the City of Inver Grove Heights Stormwater Manual.
- (ii). All stormwater features that are not encumbered by public easements as described above in Section 515.80, Subd. 39 G.6.a.(v) shall be maintained according to the covenants and/or maintenance agreements approved by the City pursuant to Section 515.80, Subd. 39 G.6.a.(vi) above, the stormwater management plan approved by the City with the Planned Unit Development and the development contract approved by the City together with the Planned Unit Development plans.

d. **Inspections**

- (i). Authorized representatives of the City of Inver Grove Heights may conduct inspections at reasonable times throughout the construction process to meet the specifications in the Stormwater Design Manual and the stormwater management plan approved by the City together with the Planned Unit Development plans.
- (ii). Authorized representatives from the City of Inver Grove Heights may conduct inspections on a regular basis at any reasonable time to assure the safe and proper functioning of the features and/or to respond to citizen concerns.

- e. **Stormwater Manual** The City of Inver Grove Heights Stormwater Manual for the Northwest Area is hereby incorporated herein by reference with the same force and effect as if full set forth herein.

7. Procedures

- a. **Sketch Plan.** Preparation of a sketch plan by the developer is strongly encouraged. Given the site design complexities of the Northwest Area Planned Unit Development Overlay District, a sketch plan should be prepared and submitted for each development. Without a thoroughly prepared sketch plan, the likelihood increases that the preliminary development plan application will be found inadequate by the City. The sketch plan should be prepared following the submittal requirements outlined in Section 510.07, Subd. 1 of the Subdivision Ordinance. In addition, the sketch plan should include the following elements: 1) a preliminary stormwater management concept should be provided in outline format identifying desired techniques for the development proposal based upon the City of Inver Grove Heights Stormwater Manual; 2) identification of the natural resources as included within the City of Inver Grove Heights Natural Resource Inventory and Management Plan for the Northwest Expansion Area (Bonestroo Rosene Anderlik & Associates, 2004); 3) a conceptual yield plan as described below in Section 515.80, Subd. 39 G.7.c; and 4) a conceptual scaled natural area/open space plan identifying all natural area/open spaces as required above in Section 515.80, Subd. 39 G.4. The sketch plan should be prepared and presented to City Staff 30 days prior to



submittal of the preliminary PUD plan.

- b. **Preliminary Development Plan.** A Preliminary Development Plan shall be prepared and submitted by the developer. It shall include: 1) a preliminary plat prepared pursuant to Section 510.07, Subd. 2; 2) a preliminary PUD development plan prepared pursuant to Section 515.80, Subd. 28, Subsection K; and 3) a stormwater management plan consistent with the City of Inver Grove Heights Stormwater Manual and consistent with the stipulations provided in this Section 515.80, Subd. 39, G.6.
- c. **Yield Plan Required.** A “yield plan” shall be prepared by the developer as part of the preliminary development plan for every residential project. The yield plan shall determine the total number of units that could be developed on the site according to the underlying zoning district regulations. The total unit count determined through the yield plan shall then become the total number of units permitted under the Northwest Area Planned Unit Development Overlay District regulations.

Calculation of the total number of permitted residential units shall be determined in the following manner:

- (i). Determine the total net developable area (in acres) per the definition of net developable area as found in Section 515.80, Subd. 39 G.7.
- (ii). Divide the developable area determined in step (i) above by the minimum lot area as established for the applicable underlying zoning district and found in City Code Section 515.80, Subdivisions 8-9 and 11-13. The result is the total number of units that could be developed on the site in the underlying zoning district.
- (iii). The total number of units determined in step (ii) above shall be the total number of units permitted under this Northwest Area Planned Unit Development Overlay District section of the City Code.

- d. **Final Development Plan.** A final development plan shall be prepared and submitted by the developer. It shall include: 1) a final plat prepared pursuant to Section 510.07, Subd. 3; 2) a final PUD development plan prepared pursuant to Section 515.80, Subd. 28, Subsection L; and 3) the final development plans in the Northwest Area Planned Unit Development Overlay District shall follow the procedures outlines in Section 430.11 Stormwater Management. No physical alteration or improvement of the property may commence until after the final development plan and development contract are approved by the City Council, except that site grading may begin earlier if the City Council approves a land alteration permit for the grading.

H. Performance Standards. Developments shall follow the standards of Section 515.90 unless otherwise addressed in this Subsection.

- 1. Site Landscaping Within the Northwest Area Planned Unit Development Overlay District, the use of natural plant materials for landscaping is encouraged in common areas. Areas preserved with natural landscaping shall be maintained in accordance with local and state regulations governing control of noxious weeds. Mass grading for landscaping areas should be avoided to reduce compaction of natural area/open space areas.
- 2. Off-Street Parking and Loading
 - a. **Joint Parking.** Joint Parking arrangements are encouraged in the Northwest Area Planned Unit Development Overlay District.
 - b. **Off-Site or Remote Parking Facilities.** Within the Northwest Area Planned Unit



Development Overlay District remote parking is permitted so long as it is within reasonable walking distance to the principal use and that it does not require crossing major physical barriers such as freeways, four lane arterials, water bodies or other non-pedestrian friendly features. Reasonable walking distance is considered no more than a 1/8th mile or a five minute walk.

- c. **Parking Surfaces.** Parking surfaces may be made of pervious materials such as pavers, pervious asphalt or concrete or other technology as identified in the City of Inver Grove Heights Stormwater Manual. These areas shall still be considered as impervious surfaces for stormwater calculations; however, 50% of pervious pavement areas may be credited toward the 20% natural area/open space requirements (see Section 515.80, Subd. 39 G.4.a). Long term redevelopment and maintenance must preserve the pervious pavement surface.
- d. **Parking Lot Curbing.** Curbs shall be designed to meet the standards set forth in the City of Inver Grove Heights Stormwater Manual so as to insure safety and best management of stormwater. Generally curbs shall either be flat or have breaks at regular intervals to convey runoff into the stormwater system unless a stormwater management plan demonstrates that another curbing system meets stormwater management performance objectives.
- e. **Minimum and Maximum Number of Permitted Off-Street Parking Spaces.** City Code Section 515.90 Subdivision 21 D.9. establishes a minimum number of required off-street parking spaces for various land uses. With the exception of Single Family Dwellings and Two-Family Dwellings, this section 515.80, Subd. 39 re-establishes the minimum required off-street parking spaces and establishes a maximum allowed number of parking spaces as well.
 - (i). The minimum required off street parking spaces shall be no less than 75% of the minimum parking required by City Code Section 515.90 Subdivision 21 D. 9.
 - (ii). The maximum allowed off street parking spaces shall be no more than 100% of the minimum parking required by City Code Section 515.90 Subdivision 21 D. 9.
 - (iii). The maximum allowed off street parking identified above, may be exceeded by no more than 10% of the total number of parking spaces provided that at least 50% of the total parking lot surface area is paved with a pervious material consistent with techniques identified in the Stormwater Design Manual or 50% of the parking spaces are in a deck structure or underground.
- f. **Parking for Multi-Family (including townhomes) Residential and Mixed Use.** 50% of total parking required for Multi-Family and Mixed Use development shall be underground parking, tuck-under parking or structured parking within or under the principal structure. The intent of this regulation is to minimize impervious surface that would result from surface parking lots.
- g. **Alternative Paving for Overflow Parking.** Pervious paving materials shall/may [need to determine which] be used for that portion of parking over the minimum required off-street parking spaces.
- h. **Proof of Parking.** Developments that can accommodate parking allotments less than the minimum parking spaces required may do so provided that the final PUD plan includes the identification of area dedicated for future parking needs to satisfy the minimum parking needs.



- i. **On-Street Parking Provision.** Where on-street parking is available, parking spaces that are adjacent to the lot frontage of the subject use may be counted towards the off-street parking requirement.
- j. **Parking Lot Landscaping.** Surface parking lots in excess of 100 spaces shall provide landscaped islands between double loaded rows of parking. Such landscaped islands shall also serve as a stormwater cell and shall be designed according to the guidelines established in the City of Inver Grove Heights Stormwater Manual.

3. Driveways

- a. Driveway widths for single-family detached residential dwellings, two family and twin home dwellings shall be no more than 20 feet. In all other cases it shall be no more than 32 feet. Where additional hard surface is desired such as an additional parking space near the garage or where a turn around/guest parking space is desired it must be of a permanent pervious surface such as brick pavers, pervious concrete/asphalt or other technique as approved through the City of Inver Grove Heights Stormwater Manual.
- b. Shared driveways are encouraged within the Northwest Area Planned Unit Development Overlay District to reduce impervious surface coverage. No more than two parcels may be served by a shared driveway, unless otherwise approved by the City Council. Shared driveways shall extend from a public or private street and shall not connect to any other existing or planned public or private street. Appropriate cross easements and maintenance agreements are required with submittal of final PUD plan and shall be recorded with the final plat.
- c. Single-family residential driveways are encouraged to be constructed of pervious materials such as pavers, pervious concrete or pervious asphalt.

4. Miscellaneous

- a. All residential downspouts and sump pumps shall discharge to cisterns and/or permeable surfaces.
- b. All non-residential downspouts and sump pumps shall discharge to permeable surfaces if reasonably possible.

- I. Subdivision Ordinance Regulations. The standards and regulations identified in Section 510 shall be followed except when standards are identified in this section.

1. Streets

- a. Streets designed as collectors or arterials shall be designed based on City of Inver Grove Height standards.
- b. Local streets may take the form of a two-way street, a pair of one-way streets on either side of a landscaped median, or a one-way loop street.
- c. Local Streets shall have the following design standards
 - (i). Right-of-Way widths shall be between 50 and 60 feet as dictated by the location of stormwater features.
 - (ii). Local public streets shall have a 28 foot paved width in addition to a sidewalk or trail on one side of the street. This street dimension shall restrict parking to only



- one side of the street.
- (iii). Local private streets with a 24 foot width shall be acceptable with no parking on either side. Homes fronting on these streets shall demonstrate where parking is to be accommodated on site discouraging parking on curbs or in boulevards but consistent with the other provisions of this ordinance.
- d. The developer/applicant must demonstrate that access to the development has the capacity to handle traffic generated by the proposed project and will not endanger the safety of the general public.
 - e. Cul-de-sac dead end streets are discouraged. Cul-de-sac dead end streets, designed to be so permanently shall be provided at the closed end with a turn-around having an outside roadway radius of 35 feet and a street property line (ROW) radius of 50 feet. Cul-de-sacs can be designed with larger diameters provided a landscaped island is included and designed for stormwater storage. Landscaped medians are encouraged to be designed in cul-de-sac bulbs to handle stormwater runoff and provide a place for snow storage during snow season.
 - f. Where proposed streets will connect with existing streets having differing standards, the street dimension shall be the same as those of the existing connecting street. All street widening shall occur at the nearest intersection.



II. MPCA Permit



**GENERAL PERMIT
AUTHORIZATION TO DISCHARGE
STORM WATER ASSOCIATED WITH CONSTRUCTION ACTIVITY
UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION
SYSTEM/STATE DISPOSAL SYSTEM PERMIT PROGRAM**

ISSUANCE DATE: August 1, 2003 EXPIRATION DATE: August 1, 2008

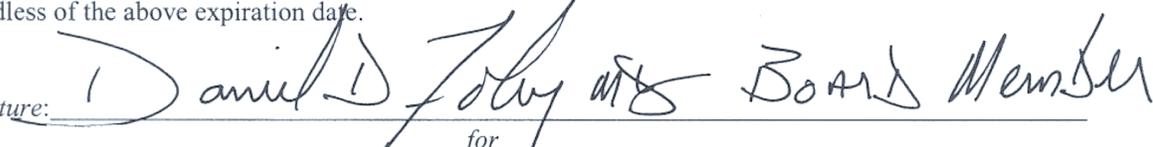
In compliance with the provisions of the Clean Water Act, as amended, (33 U.S.C. 1251 et seq.; hereinafter, the “Act”), 40 CFR 122, 123, and 124, as amended, et seq.; Minn. Stat. Chs. 115 and 116, as amended, and Minn. R. Ch. 7001:

This permit regulates the discharges of **storm water** to the **waters of the state** of Minnesota associated with **construction activity**. This permit covers the **storm water** discharges identified in Part I.A. of this permit. The limitations on permit coverage are identified in Part I.B. of this permit.

This permit requires the development and implementation of a **Storm Water Pollution Prevention Plan (SWPPP)**. No person shall commence **construction activity** covered by Part I.A. until permit coverage under this permit is effective or, if applicable, until the Minnesota Pollution Control Agency (MPCA) has issued an individual NPDES/SDS construction **storm water** permit for the project. The **SWPPP** must be completed prior to submitting any permit application and prior to conducting any **construction activity** by any required **Permittee**.

Unless notified by the MPCA to the contrary, applicants who submit a completed application (including permit fee) in accordance with the requirements of this permit are authorized to discharge **storm water** from construction sites under the terms and conditions of this permit 7, 30, or 90 days after the postmarked date of the completed application as described in Part II.B.

Coverage under this permit will remain in effect until the **owner** has submitted a **Notice of Termination**, regardless of the above expiration date.

Signature: 
for
Minnesota Pollution Control Agency

If you have questions on this permit, including the specific permit requirements, permit reporting or permit compliance status, please contact the appropriate MPCA offices.

**Minnesota Pollution Control Agency
Construction Storm Water Program
520 Lafayette Road North
St. Paul, MN 55155-4194
Telephone (651) 297-2274**

wq-strm2-51

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PART I. PERMIT COVERAGE AND LIMITATIONS

A. PERMIT COVERAGE

1. This permit is required for **storm water** discharges associated with **construction activity** and with **small construction activity** as defined in 40 C.F.R. part 122.26(b)(14)(x) and (b)(15), respectively.
2. This permit authorizes, subject to the terms and conditions of this permit, the discharge of **storm water** associated with **construction activity** and **small construction activity**.

Construction activity includes clearing, grading and excavation, that disturbs land of equal to or greater than five (5) acres and includes the disturbance of less than five (5) acres of total land area that is a part of a larger **common plan of development or sale** if the larger common plan will ultimately disturb five (5) acres or more.

Small construction activity includes clearing, grading and excavation, that disturbs land of equal to or greater than one (1) acre, and includes the disturbance of less than one (1) acre of total land area that is part of a larger **common plan of development or sale** if the larger common plan will ultimately disturb equal to or greater than one and less than five (5) acres. **Small construction activity** does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the facility.

3. This permit covers all areas of the state of Minnesota.
4. For Parts I.B through Appendix A of this permit, all reference to **construction activity** includes both **small construction activity** and **construction activity**.

B. LIMITATIONS OF COVERAGE

This permit does not cover the following activities:

1. Discharges or releases that are not **storm water** except those non-**storm water** discharges authorized under Part IV.D.
2. The placement of fill into **waters of the state** requiring local, state, or federal authorizations (such as U.S. Army Corps of Engineers Section 404 permits, Department of Natural Resources Public Waters Work Permits or Local Governmental Unit Wetland Conservation Act replacement plans or determinations).
3. **Storm water** discharges associated with industrial activity that originate from the site after construction activities have been completed and the site has undergone **final stabilization**. Post-construction industrial **storm water** discharges may need to be covered by a separate NPDES/SDS permit.
4. Non-point source agricultural and silvicultural discharges excluded from **NPDES** permit requirements under 40 CFR part 122.3(e).
5. **Discharges** to the waters identified below unless the requirements of Appendix A. are complied with:



- a. Discharges into outstanding resource value waters (ORVWs) as defined in Minn. R. 7050.0180, subp. 3 and 6, except calcareous fens listed in Minn. R. 7050.0180, subp. 6.b.
 - b. Discharges into Trout waters as listed in Minn. R. 6264.0050, subp. 2 and 4.
 - c. Discharges into **Wetlands** as listed in Minn. R. 7050.0130, item. F.
 - d. Discharges from projects that have not met applicable Environmental Review requirements under state or federal laws.
 - e. Discharges that adversely impact or contribute to adverse impacts on a listed endangered or threatened species or adversely modify a designated critical habitat.
 - f. Discharges which adversely affect properties listed or eligible for listing in the National Register of Historic Places or affecting known or discovered archeological sites.
6. Discharges to calcareous fens listed in Minn. R. 7050.0180, subp. 6.b.
 7. Discharges to waters for which there is a total maximum daily load (TMDL) allocation for sediment and parameters associated with sediment transport are not eligible for coverage under this permit unless the **Permittee(s)** develop and certify a **SWPPP** that is consistent with the assumptions, allocations and requirements in the approved TMDL. To be eligible for coverage under this general permit, **Permittee(s)** must incorporate into their **SWPPP** any conditions applicable to their discharges necessary for consistency with the assumptions, allocations and requirements of the TMDL within any time frames established in the TMDL. The **SWPPP** must include the provisions in Part III.A.7. If a specific numeric wasteload allocation has been established that would apply to the project's discharges, the **Permittee(s)** must incorporate that allocation into its **SWPPP** and implement necessary steps to meet that allocation.

PART II. SUBMITTING THE APPLICATION

A. PREREQUISITE FOR SUBMITTING A PERMIT APPLICATION

The **owner** must develop a **Storm Water Pollution Prevention Plan (SWPPP)** in accordance with Part III (Storm Water Discharge Design Requirements) of this permit. The plans are not to be submitted to the MPCA (unless the project size is 50 acres or more and will discharge to certain waters as described in Part II.B.1.b.) but are to be retained by the **owner** in accordance with Part III.D (Record Retention). The applicants' failure to complete the **SWPPP** prior to submitting the application will result in the application being returned and the **storm water** discharges associated with **construction activity** will not be authorized by this permit.

B. APPLICATION AND DURATION OF COVERAGE

1. Application Required.
 - a. The **owner** and **operator** shall submit a completed application form (or a photocopy thereof) with the appropriate fee for project size (see application form) to the MPCA for each project which disturbs one (1) or more acres of land. The **owner** and **operator** of a **common plan of development or sale** that will ultimately disturb one (1) or more acres

must submit a completed application to the MPCA.

- b. For certain projects or **common plans of development or sale** disturbing 50 acres or more, the application must be submitted at least 30 days before the start of construction activity. This requirement pertains to projects that have a discharge point on the project that is within 2000 feet of, and flows to, a special water listed in Appendix A, Part B. or waters listed as impaired under section 303(d) of the federal Clean Water Act (see MPCA's web site). Applicants must submit a completed application form and **Storm Water Pollution Prevention Plan** including all calculations for the Permanent Storm Water Management System (see Part III.A – C).
2. The **Owner** and **Operator** are **Permittee(s)**. The **owner** who signs the application is a **Permittee** and is responsible for compliance with all terms and conditions of this permit. The **operator** (usually the **general contractor**) who signs the application is a **Permittee** for Parts II.B., Part II.C. and Part IV. of this permit and is jointly responsible with the **owner** for compliance with those portions of the permit.
 3. Permit Coverage. The commencement of any **construction activity** (e.g., land disturbing activities) covered under Part I.A. of this permit is prohibited until permit coverage under this permit is effective or, if applicable, until the MPCA has issued an individual NPDES/SDS construction **storm water** permit for the project.
 - a. Except as provided in subp. 3.b. and 3.c. below, permit coverage will become effective seven (7) days after the postmarked date of the completed application form.
 - b. For projects disturbing 50 acres or more, that have a discharge point on the project that is within 2000 feet of, and flows to, a special water listed in Appendix A, Part B. or waters listed as impaired under section 303(d) of the federal Clean Water Act, the applicants must submit a completed application and **SWPPP** to the MPCA at least thirty (30) days prior to the commencement of construction activities. MPCA staff will review the **SWPPP** submitted with the completed application and unless the **Permittee** is notified in writing that the **SWPPP** does not meet the general permit requirements, permit coverage will become effective 30 days after the postmarked date or MPCA date-stamp (whichever is first) of the completed application.
 - c. For proposals to use Alternative Method(s) for the Permanent Storm Water Management System under Part III.C.5, the applicants must submit a completed application and **SWPPP**, including the Alternative Method documentation under Part III.C.5, to MPCA for review and approval at least 90 days prior to the proposed starting date of **construction activity**.
 - i. The MPCA will notify the applicant within the 90-day period, in writing, whether the alternative method is approved or not approved and, if applicable, the basis for denial.
 - ii. The applicant may re-submit the alternative method after addressing the MPCA's basis for denial. The MPCA will respond within 30 days.
 - iii. Permit coverage will become effective upon receipt of an alternative treatment method approval letter from MPCA. Any **construction activity** on the project is not covered under this permit until receiving the alternative treatment approval letter.



4. Coverage Letter. For projects under subpart 3.a. of this part, the **Permittee(s)** will receive a permit letter and certificate acknowledging permit coverage, usually within 30 days of the postmarked date of the completed application.
5. Change of Coverage. For **storm water** discharges from construction projects where the **owner** or **operator** changes, (e.g., an original developer sells portions of the property to various home builders) the new **owner** or **operator** must submit a subdivision registration within 7 days of assuming operational control of the site, commencing work on their portion of the site, or of the legal transfer, sale or closing on the property. For instances where an **owner** or **operator** of an entire project changes after an application has been submitted under Part II, the new **owner** or **operator** must submit an application for permit transfer/modification within 7 days of assuming control of the site or commencing work on-site, or of the legal transfer, sale or closing on the property. Late submittals will not be rejected; however, the MPCA reserves the right to take enforcement for any unpermitted discharges or permit noncompliance for the new registered party that has assumed control of the site. For **storm water** discharges from construction activities where the **owner** or **operator** changes, the new **owner** or **operator** can implement the original **SWPPP** created for the project or develop and implement their own **SWPPP**. **Permittee(s)** shall ensure either directly or through coordination with other **Permittee(s)** that their **SWPPP** meets all terms and conditions of this permit and that their activities do not render another party's **erosion prevention** and **sediment control Best Management Practices (BMPs)**.”

C. TERMINATION OF COVERAGE

1. **Permittee(s)** wishing to terminate coverage under this permit must submit a **Notice of Termination (NOT)** to the MPCA. Compliance with this permit is required until a **NOT** is submitted. The **Permittee(s)** authorization to discharge under this permit terminates at midnight of the day the **NOT** is signed.
2. All **Permittee(s)** must submit a **NOT** within thirty (30) days after one or more of the following conditions have been met:
 - a. **Final stabilization** (see Part IV.G. and definition in Appendix B) has been achieved on all portions of the site for which the **Permittee** is responsible (including the removal of all temporary measures such as silt fence, and if applicable, returning agricultural land to its pre-construction agricultural use);
 - b. Another **owner/operator (Permittee)** has assumed control according to Part II.B.5 over all areas of the site that have not been finally **stabilized**; or
 - c. For residential construction only, **temporary erosion protection** and down gradient perimeter control for individual lots has been completed and the residence has been transferred to the homeowner. Additionally, the **Permittee** must distribute the MPCA's "**homeowner factsheet**" to the homeowner to inform the homeowner of the need for, and benefits of, **final stabilization**.
3. **Permittee(s)** that use an alternative method for the permanent **storm water** management system as described in Part III.C.5, are prohibited from terminating this permit until final stabilization has been achieved on site and either:



- a. The two years of monitoring data has been submitted to the MPCA and the MPCA has determined that the required treatment has been achieved. The Permittee will be notified in writing within 30 days after the monitoring data has been submitted. If the Permittee has not heard from the MPCA within 30 days after submitting the required data, the Permittee can submit a **Notice of Termination**.
- b. The Permittee can submit a **Notice of Termination**, even if the time frame is less than two years, if the MPCA determines that the alternative method is achieving the required treatment.

During the monitoring and evaluation of the alternative method, the **Permittee** is not responsible for other permit requirements that have been transferred as described in Part II.B.5.

PART III. STORM WATER DISCHARGE DESIGN REQUIREMENTS

A. STORM WATER POLLUTION PREVENTION PLAN

The **owner** must develop a **Storm Water Pollution Prevention Plan (SWPPP)**. The **SWPPP** shall be completed prior to submitting any permit application and prior to conducting any **construction activity** by any required **Permittee(s)**. The plan must be a combination of narrative, plan sheets and if appropriate standard detail sheets that address the foreseeable conditions, at any stage in the construction or post construction activities. The plan must include a description of the nature of the **construction activity**. The plan must address the potential for discharge of sediment and/or other potential pollutants from the site. For **storm water** discharges from construction activities where the **owner** or **operator** changes, the new **owner** or **operator** can implement the original **SWPPP** created for the project or develop and implement their own **SWPPP**. **Permittee(s)** shall ensure either directly or through coordination with other **Permittee(s)** that their **SWPPP** meets all terms and conditions of this permit and that their activities do not render another party's **erosion prevention and sediment control Best Management Practices (BMPs)** ineffective.

1. As part of the **SWPPP** the **owner** must identify a person knowledgeable and experienced in the application of **erosion prevention and sediment control BMPs** who will oversee the implementation of the **SWPPP**, and the installation, inspection and maintenance of the **erosion prevention and sediment control BMPs** before and during construction. The **owner** must identify who will have the responsibility for long term operation and maintenance of the permanent **storm water** management system (see Part III.C.). The **owner** shall develop a chain of responsibility with all **operators** on the site to ensure that the **SWPPP** will be implemented and stay in effect until the construction project is complete, the entire site has undergone **final stabilization**, and a **NOT** has been submitted to the MPCA.
2. The **SWPPP** must incorporate the requirements of Part III (Storm Water Discharge Design Requirements), Part IV (Construction Activity Requirements) and Appendix A for the project. A narrative describing the timing for installation of all **erosion prevention and sediment control BMPs** required in Part III, Part IV and Appendix A must also be included in the plan.
3. The **SWPPP** requirements must be incorporated into the project's final plans and specifications and/or project documentation, as appropriate, and must include:
 - a. Location and type of all temporary and permanent **erosion prevention and sediment control**



- BMPs** along with procedures to be used to establish additional temporary **BMPs** as necessary for the site conditions during construction. **Standard plates** and/or specifications for the **BMPs** used on the project must be included in the final plans and specifications for the project.
- b. A site map with existing and final grades, including dividing lines and direction of flow for all pre and post-construction **storm water** runoff drainage areas located within the project limits. The site map must also include **impervious surfaces** and soil types.
 - c. Locations of areas not to be disturbed.
 - d. Location of areas where construction will be phased to minimize duration of exposed soil areas.
 - e. All **surface waters** and existing **wetlands**, which can be identified on maps such as United States Geological Survey 7.5 minute quadrangle maps or equivalent maps within one-half mile from the project boundaries, which will receive **storm water** runoff from the construction site, during or after construction. Where **surface waters** receiving runoff associated with **construction activity** will not fit on the plan sheet, they must be identified with an arrow, indicating both direction and distance to the **surface water**.
 - f. Methods to be used for **final stabilization** of all exposed soil areas.
4. The **Permittee(s)** must amend the **SWPPP** as necessary to include additional requirements, such as additional or modified **BMPs**, designed to correct problems identified or address situations whenever:
- a. There is a change in design, construction, operation, maintenance, weather or seasonal conditions that has a significant effect on the discharge of pollutants to **surface waters** or **underground waters**;
 - b. Inspections or investigations by site **operators**, local, state or federal officials indicate the **SWPPP** is not effective in eliminating or significantly minimizing the discharge of pollutants to **surface waters** or **underground waters** or that the discharges are causing water quality standard exceedances; or
 - c. The **SWPPP** is not achieving the general objectives of controlling pollutants in **storm water** discharges associated with **construction activity**, or the **SWPPP** is not consistent with the terms and conditions of this permit.
 - d. At any time after permit coverage is effective, the MPCA may determine that the project's **storm water** discharges may cause, have reasonable potential to cause, or contribute to non-attainment of any applicable water quality standard, or that the **SWPPP** does not incorporate the requirements in Part III.A.7 related to an approved Total Maximum Daily Load (TMDL) implementation plan that contains construction **storm water** related requirements. If MPCA makes such determination(s) or any of the determinations in Parts III.A.4.a.-4.c., MPCA will notify the **Permittees** in writing. In response, the **Permittees** must develop a supplemental **BMP** action plan or appropriate **SWPPP** amendments describing **SWPPP** modifications to address the

identified concerns and submit information requested by MPCA, which may include an individual permit application. If MPCA's written notification requires a response, failure to respond within the specified time frame constitutes a permit violation.

5. The **SWPPP** must factor in any findings of and include any **storm water** mitigation measures required as the result of any environmental, archeological or other required local, state or federal review conducted for the project. For the purposes of this permit provision, mitigation measures mean avoiding, minimizing, rectifying (e.g., repairing, rehabilitating, restoring), reducing, eliminating or compensating for impacts related to: (1) **storm water** discharges associated with the project's **construction activity**; and (2) **erosion prevention, sediment control** and the permanent **storm water** management system for the project.
6. The **SWPPP** must provide additional measures as necessary to assure compliance with surface and ground water standards in Minn. R. chapters 7050 and 7060 in karst areas and to ensure protection of drinking water supply management areas (see Minn. R. 4725.4450).
7. If runoff from the site discharges to an impaired water which has an approved TMDL implementation plan containing requirements for construction **storm water** discharges, the **Permittee** must include the following in the SWPPP:
 - a. identify the receiving water and the areas of the site discharging to it; and
 - b. BMPs that are appropriate for the site and sufficient to comply with all applicable requirements of the TMDL implementation plan.

B. TEMPORARY SEDIMENT BASINS

Where ten (10) or more acres of disturbed soil drain to a common location, a temporary (or permanent) sediment basin must be provided prior to the runoff leaving the construction site or entering **surface waters**. The **Permittee** is encouraged, but not required, to install temporary sediment basins where appropriate in areas with steep slopes or highly erodible soils even if less than ten (10) acres drains to one area. The basins must be designed and constructed according to the following requirements:

1. The basins must provide storage below the outlet pipe for a calculated volume of runoff from a 2 year, 24 hour storm from each acre drained to the basin, except that in no case shall the basin provide less than 1800 cubic feet of storage below the outlet pipe from each acre drained to the basin.
2. Where no such calculation has been performed, a temporary (or permanent) sediment basin providing 3,600 cubic feet of storage below the outlet pipe per acre drained to the basin, shall be provided where attainable until **final stabilization** of the site.
3. Temporary basin outlets must be designed to prevent short-circuiting and the discharge of floating debris. The basin must be designed with the ability to allow complete basin drawdown (e.g., perforated riser pipe wrapped with filter fabric and covered with crushed gravel, pumps or other means, see Part IV.D.) for maintenance activities, and provide a **stabilized** emergency overflow to prevent failure of pond integrity. **Energy dissipation** must be provided for the basin outlet (see Part IV.B.4).



4. The temporary (or permanent) basins must be constructed and made operational concurrent with the start of soil disturbance that is upgradient of the area and contributes runoff to the pond.
5. Where the temporary sediment basin is not attainable due to site limitations, equivalent **sediment controls** such as smaller sediment basins, and/or sediment traps, silt fences, vegetative buffer strips, or any appropriate combination of measures are required for all down slope boundaries of the construction area and for those side slope boundaries deemed appropriate as dictated by individual site conditions. In determining whether installing a sediment basin is attainable, the **Permittee** must consider public safety and may consider factors such as site soils, slope, and available area on site. This determination must be documented in the **SWPPP**.

C. PERMANENT STORM WATER MANAGEMENT SYSTEM

All **storm water** must be discharged in a manner that does not cause nuisance conditions, erosion in receiving channels or on downslope properties, or inundation in **wetlands** causing a significant adverse impact to the wetlands.

Where a project's ultimate development replaces vegetation and/or other pervious surfaces with one or more acres of cumulative **impervious surface**, a **water quality volume** of ½ inch of runoff from the new **impervious surfaces** created by the project must be treated by one of the methods outlined in Part III.C.1 through Part III.C.5 prior to the runoff leaving the construction site or entering **surface waters** (excluding drainage systems that convey **storm water** to a constructed permanent **storm water** management facility designed to treat the **water quality volume** from the project).

For those areas of a project where there is no feasible way to meet the treatment requirement for the **water quality volume**, other treatment such as grassed swales, smaller ponds or grit chambers is required prior to discharge to **surface waters**. A cumulative maximum of (3) three acres or 1% of project size whichever is larger can be treated in this manner.

Where the proximity to bedrock precludes the installation of any of the permanent **storm water** management practices outlined in Part III.C., other treatment, such as grassed swales, smaller ponds, or grit chambers, is required prior to discharge to **surface waters**.

For work on road projects where the lack of right of way precludes the installation of any of the permanent **storm water** management practices outlined in Part III.C., other treatment such as grassed swales, smaller ponds, or grit chambers, is required prior to discharge to **surface waters**.

1. Wet Sedimentation Basin

- a. The basin must have a permanent volume of 1800 cubic feet of storage below the outlet pipe for each acre that drains to the basin. The basin's permanent volume must reach a minimum depth of at least 3 feet and must have no depth greater than 10 feet. The basin must be configured such that scour or resuspension of solids is minimized.
- b. The basin's **water quality volume** is calculated as ½ inch of runoff from the new **impervious surfaces** created by the project.
- c. Basin outlets shall be designed such that the **water quality volume** is discharged at no more



- than 5.66 cubic feet per second (cfs) per acre of surface area of the pond.
- d. Basin outlets must be designed to prevent short-circuiting and the discharge of floating debris. Basin outlets must have **energy dissipation**.
 - e. The basin must provide a **stabilized** emergency overflow to accommodate storm events in excess of the basin's hydraulic design.
 - f. Adequate maintenance access must be provided (typically 8 ft. wide) for future maintenance of the basin.

2. Infiltration/Filtration

Infiltration/Filtration options include but are not limited to: infiltration basins, infiltration trenches, rainwater gardens, sand filters, organic filters, bioretention areas, enhanced swales, dry storage ponds with underdrain discharge, off-line retention areas and natural depressions. Infiltration must be used only as appropriate to the site and land uses. Settleable solids, floating materials, oils and grease should be removed from the runoff to the maximum extent practicable before runoff enters the infiltration/filtration system. Filtration systems must have a reasonable chance of achieving approximately 80% removal of total suspended solids. The **Permittee(s)** must evaluate the impact of constructing an infiltration practice on existing hydrologic features (e.g., existing **wetlands**) and try to maintain pre-existing conditions (e.g., do not breach a perched water table which is supporting a **wetland**). For a discussion of ground water warnings, design measures, maintenance considerations or other retention, detention, and treatment devices, see the MPCA's **Protecting Water Quality in Urban Areas** found on the MPCA's web-site.

- a. Infiltration systems should not be excavated to final grade until the contributing drainage area has been constructed and fully **stabilized**.
- b. During construction of an infiltration system, rigorous sediment and erosion controls (e.g., diversion berms) should be used to keep sediment and runoff completely away from the infiltration area. The area must be staked off and marked so that heavy construction equipment will not compact the soil in the proposed infiltration area.
- c. To prevent clogging of the infiltration or filtration system, a pretreatment device such as a vegetated filter strip, small sedimentation basin, or water quality inlet (e.g., grit chamber) must be used to settle particulates before the **storm water** discharges into the infiltration or filtration system.
- d. Infiltration or filtration systems shall be sufficient to infiltrate or filter a **water quality volume** of ½ inch of runoff from the new **impervious surfaces** created by the project.
- e. The **water quality volume** shall discharge through the soil or filter media in 48 hours or less. Additional flows that cannot be infiltrated or filtered in 48 hours should be routed to bypass the system through a **stabilized** discharge point. A way to visually verify that the system is operating as designed must be provided.
- f. Appropriate on-site testing shall be conducted to ensure a minimum of 3 feet of separation from the seasonally **saturated soils** (or from bedrock) and the bottom of the proposed infiltration system. Calculations and computer model results that demonstrate the design



adequacy of the infiltration system must be included as part of the **SWPPP**.

- g. Adequate maintenance access must be provided (typically 8 ft. wide) along with a maintenance plan identifying whom will be performing future maintenance of the infiltration or filtration system.
- h. Use of designed infiltration systems from industrial areas with exposed significant materials or from vehicle fueling and maintenance areas is prohibited.

3. Regional Ponds

Regional ponds can be used provided that they are constructed ponds, not a natural **wetland** or water body, (**wetlands** used as regional ponds must be mitigated for, see Appendix A) and designed in accordance with this permit's design requirements (see Part III.C.1) for all water from **impervious surfaces** that reach the pond. **Permittees** shall not construct regional ponds in **wetlands**, regardless of their condition, quality or designation by local plans, unless the mitigative sequence in Appendix A. D.2 of this permit has been completed. There must be no significant degradation of the waterways between the project and the regional pond. The **owner** must obtain written authorization from the applicable local governmental unit (LGU) or private entity that owns and maintains the regional pond. The LGU's or private entity's written authorization must identify that the regional pond will discharge the **water quality volume** ($\frac{1}{2}$ inch of runoff from the impervious watershed area) at no more than 5.66 cfs per acre of surface area of the pond. The **owner** must include the LGU's or private entity's written authorization in the **SWPPP**. The LGU's or private entity's written authorization must be obtained before the **owner** finalizes the **SWPPP** and before any application for this permit is made to the MPCA.

4. Combination of Practices

A combination of practices, including those required by a LGU, which meet the requirements of Part III.C.1, 2 and 3 respectively, (i.e., wet sedimentation basins, infiltration/filtration, and regional ponds) may be used such that the **water quality volume** of $\frac{1}{2}$ inch of runoff from the new **impervious surfaces** created by the project is accounted for in the **owner's** permanent **storm water** management system (e.g., $\frac{1}{4}$ inch infiltrated and $\frac{1}{4}$ inch treated through a wet sedimentation basin). If any combination of these practices is used, the **SWPPP** must contain documentation (e.g., LGU or private entity's authorization, infiltration computer model results or calculations, etc.) identifying the volume that each practice addresses.

5. Alternative Method

Where an alternative, innovative treatment system is proposed and demonstrated by calculation, design or other independent methods to achieve approximately 80% removal of total suspended solids on an annual average basis, the **Commissioner** will approve the method if the process outlined in Part II.B.3.c. is completed, and the following information is submitted:

- a. All calculations, drainage areas, plans, and specifications for the proposed alternative method and a graphic representation of the area to be served by the method. These items must be included in the **SWPPP** and submitted to the MPCA at least 90 days prior to the proposed starting date of the **construction activity**.



- b. A 2 year monitoring plan to sample runoff from the proposed method. The plan must include a discussion of the methods used to collect samples, location where samples will be taken (upstream and downstream of the proposed method), frequency of samples (minimum of six runoff events sampled), identify lab used to analyze the samples and quality assurance and quality control methods to be used. The plan must include a schedule for submitting the monitoring data annually.
- c. A mitigation plan that addresses how the **water quality volume** will be treated in the event that the monitoring data shows the proposed alternative treatment method does not function as designed.
- d. The alternative method must achieve approximately 80% removal of total suspended solids on an average annual basis for the conditions expected at the site. The design must also consider public safety, health and water quality concerns. Proprietary information on effectiveness will not be considered for alternative treatment method review and approval.

No **construction activity** on the project is covered under this permit until the applicant receives an alternative treatment approval letter from the MPCA as described in Part II.B.3.c.

D. RECORD RETENTION

The **SWPPP**, all changes to it, and inspections and maintenance records must be kept at the site during construction by the **Permittee** who has operational control of that portion of the site. The **SWPPP** can be kept in either the field office or in an on site vehicle.

All **owner(s)** must keep the **SWPPP**, along with the following additional records, on file for three years after submittal of the **NOT** as outlined in Part II.C. This does not include any records after submittal of the **NOT**.

1. Any other permits required for the project;
2. Records of all inspection and maintenance conducted during construction (see Part IV.E. Inspections and Maintenance);
3. All permanent operation and maintenance agreements that have been implemented, including all right of way, contracts, covenants and other binding requirements regarding perpetual maintenance; and
4. All required calculations for design of the temporary and permanent **storm water** management systems.

PART IV. CONSTRUCTION ACTIVITY REQUIREMENTS

A. STORM WATER POLLUTION PREVENTION PLAN

The **Permittee(s)** must implement the **SWPPP** and the requirements of this part. The **Best Management Practices (BMPs)** identified in the **SWPPP** and in this permit must be installed in an appropriate and functional manner.



B. EROSION PREVENTION PRACTICES

1. The **Permittee(s)** must plan for and implement appropriate construction phasing, vegetative buffer strips, horizontal slope grading, and other construction practices that minimize erosion, so that the inspection and maintenance requirements of Part IV.E. are complied with. The location of areas not to be disturbed must be delineated (e.g. with flags, stakes, signs, silt fence etc.) on the development site before work begins.
2. All exposed soil areas with a continuous positive slope within 200 lineal feet of a **surface water**, must have **temporary erosion protection** or **permanent cover** for the exposed soil areas year round, according to the following table of slopes and time frames:

<u>Type of Slope</u>	<u>Time</u>	(Maximum time an area can remain open when the area is not actively being worked.)
Steeper than 3:1	7 days	
10:1 to 3:1	14 days	
Flatter than 10:1	21 days	

These areas include constructed **storm water** management pond side slopes, and any exposed soil areas with a positive slope to a **storm water** conveyance system, such as a curb and gutter system, storm sewer inlet, temporary or permanent drainage ditch or other natural or man made systems that discharge to a **surface water**. Temporary stockpiles without significant silt, clay or organic components (e.g., clean aggregate stockpiles, demolition concrete stockpiles, sand stockpiles) are exempt from this requirement but must comply with Part IV.C.5.

3. The **normal wetted perimeter** of any temporary or permanent drainage ditch that drains water from a construction site, or diverts water around a site, must be **stabilized** within 200 lineal feet from the property edge, or from the point of discharge to any **surface water**. Stabilization must be completed within 24 hours of connecting to a **surface water**.
4. Pipe outlets must be provided with temporary or permanent **energy dissipation** within 24 hours of connection to a **surface water**.

C. SEDIMENT CONTROL PRACTICES

1. **Sediment control** practices must minimize sediment from entering **surface waters**, including curb and gutter systems and storm sewer inlets.
 - a. Temporary or permanent drainage ditches and sediment basins that are designed as part of a treatment system (e.g., ditches with rock check dams) require **sediment control** practices only as appropriate for site conditions.
 - b. If the down gradient treatment system is overloaded, additional upgradient **sediment control** practices must be installed to eliminate the overloading, and the **SWPPP** must be amended to identify these additional practices as required in Part III.A.4, a. through c.
 - c. In order to maintain sheet flow and minimize rills and/or gullies, there shall be no unbroken slope length of greater than 75 feet for slopes with a grade of 3:1 or steeper.



2. **Sediment control** practices must be established on all down gradient perimeters before any upgradient land disturbing activities begin. These practices shall remain in place until **final stabilization** has been established in accordance with Part IV.G.
3. The timing of the installation of **sediment control** practices may be adjusted to accommodate short-term activities such as clearing or grubbing, or passage of vehicles. Any short-term activity must be completed as quickly as possible and the **sediment control** practices must be installed immediately after the activity is completed. However, **sediment control** practices must be installed before the next precipitation event even if the activity is not complete.
4. All storm drain inlets must be protected by appropriate **BMPs** during construction until all sources with potential for discharging to the inlet have been **stabilized**.
5. Temporary soil stockpiles must have silt fence or other effective **sediment controls**, and cannot be placed in **surface waters**, including **storm water** conveyances such as curb and gutter systems, or conduits and ditches.
6. Vehicle tracking of sediment from the construction site must be minimized by **BMPs** such as stone pads, concrete or steel wash racks, or equivalent systems. Street sweeping must be used if such **BMPs** are not adequate to prevent sediment from being tracked onto the street (see Part IV.E.4.d.).
7. The **Permittee** must install temporary sedimentation basins as required in Part III.B. of this permit.

D. DEWATERING AND BASIN DRAINING

1. **Dewatering** or basin draining (e.g., pumped discharges, trench/ditch cuts for drainage) related to the **construction activity** that may have turbid or sediment laden discharge water must be discharged to a temporary or permanent sedimentation basin on the project site whenever possible. If the water cannot be discharged to a sedimentation basin prior to entering the **surface water**, it must be treated with the appropriate **BMPs**, such that the discharge does not adversely affect the receiving water or downstream landowners. The **Permittee(s)** must ensure that discharge points are adequately protected from erosion and scour. The discharge must be dispersed over natural rock riprap, sand bags, plastic sheeting or other accepted **energy dissipation** measures. Adequate sedimentation control measures are required for discharge water that contains suspended solids.
2. All water from **dewatering** or basin draining activities must be discharged in a manner that does not cause nuisance conditions, erosion in receiving channels or on downslope properties, or inundation in **wetlands** causing significant adverse impact to the **wetland**.

E. INSPECTIONS AND MAINTENANCE

1. The **Permittee(s)** (either the **owner** or **operator**, whoever is identified in the **SWPPP**) must routinely inspect the construction site once every seven (7) days during active construction and within 24 hours after a rainfall event greater than 0.5 inches in 24 hours.
2. All inspections and maintenance conducted during construction must be recorded in writing and



these records must be retained with the **SWPPP** in accordance with Part III.D. Records of each inspection and maintenance activity shall include:

- a. Date and time of inspections;
 - b. Name of person(s) conducting inspections;
 - c. Findings of inspections, including recommendations for corrective actions;
 - d. Corrective actions taken (including dates, times, and party completing maintenance activities);
 - e. Date and amount of all rainfall events greater than 1/2 inch (0.5 inches) in 24 hours; and
 - f. Documentation of changes made to the **SWPPP** as required in Part III.A.4.
3. Where parts of the construction site have undergone **final stabilization**, but work remains on other parts of the site, inspections of the **stabilized** areas may be reduced to once per month. Where work has been suspended due to frozen ground conditions, the required inspections and maintenance must take place as soon as runoff occurs at the site or prior to resuming construction, whichever comes first.
4. All **erosion prevention** and **sediment control BMPs** must be inspected to ensure integrity and effectiveness. All nonfunctional **BMPs** must be repaired, replaced, or supplemented with functional **BMPs**. The **Permittee(s)** must investigate and comply with the following inspection and maintenance requirements:
- a. All silt fences must be repaired, replaced, or supplemented when they become nonfunctional or the sediment reaches 1/3 of the height of the fence. These repairs must be made within 24 hours of discovery, or as soon as field conditions allow access.
 - b. Temporary and permanent sedimentation basins must be drained and the sediment removed when the depth of sediment collected in the basin reaches 1/2 the storage volume. Drainage and removal must be completed within 72 hours of discovery, or as soon as field conditions allow access (see Part IV.D.).
 - c. **Surface waters**, including drainage ditches and conveyance systems, must be inspected for evidence of sediment being deposited by erosion. The **Permittee(s)** must remove all deltas and sediment deposited in **surface waters**, including drainage ways, catch basins, and other drainage systems, and restabilize the areas where sediment removal results in exposed soil. The removal and stabilization must take place within seven (7) days of discovery unless precluded by legal, regulatory, or physical access constraints. The **Permittee** shall use all reasonable efforts to obtain access. If precluded, removal and stabilization must take place within seven (7) calendar days of obtaining access. The **Permittee** is responsible for contacting all local, regional, state and federal authorities and receiving any applicable permits, prior to conducting any work.
 - d. Construction site vehicle exit locations must be inspected for evidence of off-site sediment tracking onto paved surfaces. Tracked sediment must be removed from all off-site paved



surfaces, within 24 hours of discovery, or if applicable, within a shorter time to comply with Part IV.C.6.

- e. The **Permittee(s)** are responsible for the operation and maintenance of temporary and permanent water quality management **BMPs**, as well as all **erosion prevention and sediment control BMPs**, for the duration of the construction work at the site. The **Permittee(s)** are responsible until another **Permittee** has assumed control according to Part II.B.5 over all areas of the site that have not been finally **stabilized** or the site has undergone **final stabilization**, and a **NOT** has been submitted to the MPCA.
 - f. If sediment escapes the construction site, off-site accumulations of sediment must be removed in a manner and at a frequency sufficient to minimize off-site impacts (e.g., fugitive sediment in streets could be washed into storm sewers by the next rain and/or pose a safety hazard to users of public streets).
5. All infiltration areas must be inspected to ensure that no sediment from ongoing **construction activities** is reaching the infiltration area and these areas are protected from compaction due to construction equipment driving across the infiltration area.

F. POLLUTION PREVENTION MANAGEMENT MEASURES

The **Permittee(s)** shall implement the following pollution prevention management measures on the site:

1. Solid Waste: Collected sediment, asphalt and concrete millings, floating debris, paper, plastic, fabric, construction and demolition debris and other wastes must be disposed of properly and must comply with MPCA disposal requirements.
2. Hazardous Materials: Oil, gasoline, paint and any hazardous substances must be properly stored, including secondary containment, to prevent spills, leaks or other discharge. Restricted access to storage areas must be provided to prevent vandalism. Storage and disposal of hazardous waste must be in compliance with MPCA regulations.
3. External washing of trucks and other construction vehicles must be limited to a defined area of the site. Runoff must be contained and waste properly disposed of. No engine degreasing is allowed on site.

G. FINAL STABILIZATION

The **Permittee(s)** must ensure **final stabilization** of the site. The **Permittee(s)** must submit a **NOT** within 30 days after **final stabilization** is complete, or another **owner/operator (Permittee)** has assumed control according to Part II.B.5 over all areas of the site that have not undergone **final stabilization**. **Final stabilization** can be achieved in one of the following ways:

1. All soil disturbing activities at the site have been completed and all soils must be **stabilized** by a uniform perennial vegetative cover with a density of 70 percent over the entire pervious surface area, or other equivalent means necessary to prevent soil failure under erosive conditions and;
 - a. All drainage ditches, constructed to drain water from the site after construction is complete,



must be **stabilized** to preclude erosion;

- b. All temporary synthetic, and structural **erosion prevention** and **sediment control BMPs** (such as silt fence) must be removed as part of the site **final stabilization**; and
 - c. The **Permittee(s)** must clean out all sediment from conveyances and from temporary sedimentation basins that are to be used as permanent water quality management basins. Sediment must be **stabilized** to prevent it from being washed back into the basin, conveyances or drainageways discharging off-site or to **surface waters**. The cleanout of permanent basins must be sufficient to return the basin to design capacity.
2. For residential construction only, **final stabilization** has been achieved when **temporary erosion protection** and down gradient perimeter control for individual lots has been completed and the residence has been transferred to the homeowner. Additionally, the **Permittee** must distribute the MPCA “**homeowner fact sheet**” to the homeowner to inform the homeowner of the need for, and benefits of, **final stabilization**.

PART V. GENERAL PROVISIONS

A. APPLICABILITY CRITERIA

1. If the **Commissioner** determines that **storm water** discharges associated with a **construction activity** are contributing to a violation of a water quality standard or would be more appropriately regulated by an individual permit, the **Commissioner** may require the **owner** to be covered by an individual **storm water** discharge permit. The **Commissioner** may require the **owner** to develop and implement specific **BMPs** and monitor the discharge from the site. If applicable, upon issuance of an individual permit, this general permit would no longer apply.
2. If the terms and conditions of this general permit cannot be met, an **owner** may request an individual permit, in accordance with Minn. R. 7001.

B. RESPONSE

The **SWPPP**, including all certificates, reports, records, or other information required by this permit, must be made available to federal, state, and local officials within 72 hours upon request for the duration of the permit and for three years following the **NOT**. This does not include any records after submittal of the **NOT**.

C. PROHIBITIONS

This permit prohibits discharges of any material other than **storm water**, and discharges from **dewatering** or basin draining activities in accordance with Part IV.D.1 and 2. For example, prohibited discharges include but are not limited to vehicle and equipment washing, maintenance spills, wash water, and discharges of oil and other hazardous substances.

D. TRANSFER OF OWNERSHIP OR CONTROL

This permit may not be assigned or transferred by the permit holder except when transfer occurs in accordance with the applicable requirements of Part II.B.5.



E. CIVIL AND CRIMINAL LIABILITY

Nothing in this permit must be construed to relieve the **Permittee(s)** from civil or criminal penalties for noncompliance with the terms and conditions provided herein. Nothing in this permit must be construed to preclude the initiation of any legal action or relieve the **Permittee(s)** from any responsibilities, liabilities, or penalties to which the **Permittee(s)** is or may be subject to under Section 311 of the Act and Minn. Stat. chs. 115 and 116, as amended. The **Permittee(s)** are not liable for permit requirements for activities occurring on those portions of a site where another party has submitted a subdivision short form registration as described in Part II. B.5 or a **NOT** has been issued by the MPCA except for responsibilities listed under Part III.C.5 if applicable.

F. SEVERABILITY

The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit must not be affected thereby.

G. NPDES/SDS RULE STANDARD CONDITIONS

The **Permittee(s)** must comply with the provisions of Minn. R. 7001.0150, subp. 3 and 7001.1090, subp. 1.A,B,C,H,I. This permit does not require the submittal of a data monitoring report, except where monitoring is required in Part III.C.5.

H. INSPECTION AND ENTRY

The **Permittee(s)** must comply with the provisions of 40 CFR 122.41(i), Minn. Stat. Ch. 115.04 and Minn. Stat. Ch. 115B.17. The **Permittee(s)** shall allow representatives of the MPCA or any member, employee or agent thereof, when authorized by it, upon presentation of credentials, to enter upon any property, public or private, for the purpose of obtaining information or examination of records or conducting surveys or investigations.

APPENDIX A

A. GENERAL REQUIREMENTS

All requirements in this Appendix are in addition to **BMPs** already specified in the permit. Where provisions of Appendix A conflict with requirements elsewhere in the permit, the provisions in Appendix A take precedence. All **BMPs** used to comply with this Appendix must be documented in the **SWPPP** for the project. If the terms and conditions of this Appendix cannot be met, an individual permit will be required in accordance with Minn. R. ch. 7001.

B. REQUIREMENTS FOR DISCHARGES TO SPECIAL WATERS

Additional **BMPs** together with enhanced runoff controls, are required for discharges to the following special waters (part B.1 through B.8 of Appendix A). The **BMPs** identified for each special water are required for those areas of the project draining to a discharge point on the project that is within 2000 feet of a special water and flows to that special water.



1. **Wilderness areas:** Boundary Waters Canoe Area Wilderness; Voyageurs National Park; Kettle River from the site of the former dam at Sandstone to its confluence with the Saint Croix River; Rum River from Ogechie Lake spillway to the northernmost confluence with Lake Onamia. Discharges to these waters must incorporate the **BMPs** outlined in C.1, C.2, C.3 and C.4 of this appendix.
2. **Mississippi River:** Those portions from Lake Itasca to the southerly boundary of Morrison County that are included in the Mississippi Headwaters Board comprehensive plan dated February 12, 1981. Discharges to these waters must incorporate the **BMPs** outlined in C.1, C.2 and C.3 of this appendix.
3. **Scenic or recreational river segments:** Saint Croix river, entire length; Cannon River from northern city limits of Faribault to its confluence with the Mississippi River; North Fork of the Crow River from Lake Koronis outlet to the Meeker-Wright county line; Kettle River from north Pine County line to the site of the former dam at Sandstone; Minnesota River from Lac qui Parle dam to Redwood County state aid highway 11; Mississippi River from county state aid highway 7 bridge in Saint Cloud to northwestern city limits of Anoka; and Rum River from state aid Highway 27 bridge in Onamia to Madison and Rice streets in Anoka. Discharges to these waters must incorporate the **BMPs** outlined in C.1, C.2 and C.3 of this appendix.
4. **Lake Superior:** (prohibited and restricted) Discharges to Lake Superior must incorporate the **BMPs** outlined in C.1, C.2 and C.3 of this appendix.
5. **Lake Trout Lakes:** Identified in Minn. R. 7050.0470, including those inside the boundaries of the Boundary Waters Canoe Area Wilderness and Voyageurs National Park. Discharges to these waters must incorporate the **BMPs** outlined in C.1, C.2, C.3 and C.4 of this appendix.
6. **Trout Lakes:** identified in Minn. R. 6264.0050, subp. 2. Discharges to these waters must incorporate the **BMPs** outlined in C.1, C.2, C.3, and C.4 of this appendix.
7. **Scientific and natural areas:** Boot Lake, Anoka County; Kettle River in sections 15, 22, 23, T 41 N, R 20, Pine County; Pennington Bog, Beltrami County; Purvis Lake-Ober Foundation, Saint Louis County; Waters within the borders of Itasca Wilderness Sanctuary, Clearwater County; Iron Springs Bog, Clearwater County; Wolsfeld Woods, Hennepin County; Green Water Lake, Becker County; Blackdog Preserve, Dakota County; Prairie Bush Clover, Jackson County; Black Lake Bog, Pine County; Pembina Trail Preserve, Polk County; and Falls Creek, Washington County. Discharges to these waters must incorporate the **BMPs** outlined in C.1, C.2, C.3 and C.4 of this appendix.
8. **Trout Streams:** listed in Minn. R. 6264.0050, subp. 4. Discharges to these waters must incorporate the **BMPs** outlined in Appendix A C.1, C.2, C.3, and C.5 of this appendix.

C. ADDITIONAL BMPS FOR SPECIAL WATERS

For the BMPs described in C.2, C.4 and C.5 of this Appendix:

Where the proximity to bedrock precludes the installation of any of the permanent **storm water** management practices outlined in Appendix A, other treatment such as grassed swales, smaller ponds, or grit chambers is required prior to discharge to **surface waters**.

For work on road projects where the lack of right of way precludes the installation of any of the permanent **storm water** management practices outlined in Appendix A, other treatment such as grassed swales, smaller ponds, or grit chambers is required prior to discharge to **surface waters**.

1. During construction.
 - a. All exposed soil areas with a slope of 3:1 or steeper, that have a continuous positive slope to a special water must have **temporary erosion protection** or **permanent cover** within 3 days after the area is no longer actively being worked. All other slopes that have a continuous positive slope to a special water must have **temporary erosion protection** or **permanent cover** within 7 days after the area is no longer actively being worked.
 - b. Temporary sediment basin requirements described in Part III.B.1-5 must be used for common drainage locations that serve an area with five (5) or more acres disturbed at one time.
2. Post construction. The **water quality volume** that must be treated by the project's permanent **storm water** management system described in Part III.C. shall be one (1) inch of runoff from the new **impervious surfaces** created by the project.
3. Buffer zone. An undisturbed buffer zone of not less than 100 linear feet from the special water (not including tributaries) shall be maintained at all times. Exceptions from this requirement for areas, such as water crossings or limited water access, are allowed if the **Permittee** fully documents in the **SWPPP** the circumstances and reasons that the buffer encroachment is necessary. All potential water quality, scenic and other environmental impacts of these exceptions must be minimized and documented in the **SWPPP** for the project.
4. Enhanced runoff controls. The permanent **storm water** management system must be designed such that the pre and post project runoff rate and volume from the 1, and 2-year 24-hour precipitation events remains the same.
5. Temperature Controls. The permanent **storm water** management system must be designed such that the discharge from the project will minimize any increase in the temperature of trout stream receiving waters resulting from the 1, and 2-year 24-hour precipitation events. This includes all tributaries of designated trout streams within the section that the trout stream is located. Projects that discharge to trout streams must minimize the impact using one or more of the following measures, in order of preference:
 - a. Minimize new **impervious surfaces**.
 - b. Minimize the discharge from connected **impervious surfaces** by discharging to vegetated areas, or grass swales, and through the use of other non-structural controls.
 - c. Infiltration or evapotranspiration of runoff in excess of pre-project conditions (up to the 2-year 24-hour precipitation event).
 - d. If ponding is used, the design must include an appropriate combination of measures such as shading, filtered bottom withdrawal, vegetated swale discharges or constructed **wetland** treatment cells that will limit temperature increases. The pond should be designed to draw down in 24 hours or less.
 - e. Other methods that will minimize any increase in the temperature of the trout stream.



D. REQUIREMENTS FOR DISCHARGING TO WETLANDS

If the project has any **storm water** discharges with the potential for significant adverse impacts to a **wetland** (e.g., conversion of a natural **wetland** to a **storm water** pond) , the **Permittee(s)** must demonstrate that the **wetland** mitigative sequence has been followed in accordance with D.1 or D.2 of this appendix.

1. If the potential adverse impacts to a **wetland** on a specific project site have been addressed by permits or other approvals from an official statewide program (U.S. Army Corps of Engineers 404 program, Minnesota Department of Natural Resources, or the State of Minnesota Wetland Conservation Act) that are issued specifically for the project and project site, the **Permittee** may use the permit or other determination issued by these agencies to show that the potential adverse impacts have been addressed. For the purposes of this permit, de minimus actions are determinations by the permitting agency that address the project impacts, whereas a non-jurisdictional determination does not address project impacts.
2. If there are impacts from the project that are not addressed in one of the permits or other determinations discussed in Appendix A, Part D.1 (e.g., permanent inundation or flooding of the **wetland**, significant degradation of water quality, excavation, filling, draining), the **Permittee** must minimize all adverse impacts to **wetlands** by utilizing appropriate measures. Measures used must be based on the nature of the **wetland**, its vegetative community types and the established hydrology. These measures include in order of preference:
 - a. Avoid all significant adverse impacts to **wetlands** from the project and post project discharge.
 - b. Minimize any unavoidable impacts from the project and post project discharge.
 - c. Provide compensatory mitigation when the **Permittee** determines that there is no reasonable and practicable alternative to having a significant adverse impact on a **wetland**. For compensatory mitigation, wetland restoration or creation shall be of the same type, size and whenever reasonable and practicable in the same watershed as the impacted wetland.

E. DISCHARGES REQUIRING ENVIRONMENTAL REVIEW

This permit does not replace or satisfy any environmental review requirements, including those under the Minnesota Environmental Policy Act (MEPA) or the National Environmental Policy Act (NEPA). The **owner** must complete any environmental review required by law, including any required Environmental Assessment Work Sheets or Environmental Impact Statements, Federal environmental review, or other required review.

F. DISCHARGES AFFECTING ENDANGERED OR THREATENED SPECIES

This permit does not replace or satisfy any review requirements for Endangered or Threatened species, from new or **expanded discharges** that adversely impact or contribute to adverse impacts on a listed endangered or threatened species or adversely modify a designated critical habitat. The **owner** must conduct any required review and coordinate with appropriate agencies for any project with the potential of affecting threatened or endangered species, or their critical habitat.

G. DISCHARGES AFFECTING HISTORIC PLACES OR ARCHEOLOGICAL SITES

This permit does not replace or satisfy any review requirements for Historic Places or Archeological Sites, from new or **expanded discharges** which adversely affect properties listed or eligible for listing in the National Register of Historic Places or affecting known or discovered Archeological Sites. The **owner** must be in compliance with National Historic Preservation Act and conduct all required review and coordination related to historic preservation, including significant anthropological sites and any burial sites, with the Minnesota Historic Preservation Officer.

APPENDIX B. DEFINITIONS

1. “**Best Management Practices (BMPs)**” means erosion and **sediment control** and water quality management practices that are the most effective and practicable means of controlling, preventing, and minimizing degradation of **surface water**, including avoidance of impacts, construction-phasing, minimizing the length of time soil areas are exposed, prohibitions, and other management practices published by state or designated area-wide planning agencies.

Individual **BMPs** found in this permit are described in the current version of **Protecting Water Quality in Urban Areas**, Minnesota Pollution Control Agency 2000. **BMPs** must be adapted to the site and can be adopted from other sources. However, they must be similar in purpose and at least as effective and stringent as MPCA’s **BMPs**. (Other sources include manufacturers specifications, **Storm Water Management for Construction Activities: Developing Pollution Prevention Plans and Best Management Practices**, U.S. Environmental Protection Agency 1992, and **Erosion Control Design Manual**, Minnesota Department of Transportation, et al, 1993).

2. “**Commissioner**” means the **Commissioner** of the Minnesota Pollution Control Agency or the **Commissioner’s** designee.
3. “**Common Plan of Development or Sale**” means a contiguous area where multiple separate and distinct land disturbing activities may be taking place at different times, on different schedules, but under one proposed plan. One plan is broadly defined to include design, permit application, advertisement or physical demarcation indicating that land-disturbing activities may occur.
4. “**Construction Activity**” For this permit, **construction activity** includes **construction activity** as defined in 40 C.F.R. part 122.26(b)(14)(x) and **small construction activity** as defined in 40 C.F.R. part 122.26(b)(15). This includes a disturbance to the land that results in a change in the topography, existing soil cover (both vegetative and non-vegetative), or the existing soil topography that may result in accelerated **storm water** runoff, leading to soil erosion and movement of sediment into **surface waters** or drainage systems. Examples of construction activity may include clearing, grading, filling and excavating. **Construction activity** includes the disturbance of less than one acre of total land area that is a part of a larger **common plan of development or sale** if the larger common plan will ultimately disturb one (1) acre or more.
5. “**Dewatering**” means the removal of water for **construction activity**. It can be a discharge of appropriated surface or groundwater to dry and/or solidify a construction site. It may require Minnesota Department of Natural Resources permits to be appropriated and if contaminated may require other MPCA permits to be discharged.
6. “**Energy Dissipation**” means methods employed at pipe outlets to prevent erosion. Examples include, but are not limited to: concrete aprons, riprap, splash pads, and gabions that are designed to prevent erosion.



7. “**Erosion Prevention**” means measures employed to prevent erosion including but not limited to: soil stabilization practices, limited grading, mulch, temporary or **permanent cover**, and construction phasing.
8. “**Final Stabilization**” means that either:
- All soil disturbing activities at the site have been completed and a uniform (e.g., evenly distributed, without large bare areas) perennial vegetative cover with a density of 70% of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures, or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed;
 - For individual lots in residential construction by either: (a) The home builder completing **final stabilization** as specified above, or (b) the home builder establishing temporary stabilization including perimeter controls for an individual lot prior to occupation of the home by the homeowner and informing the homeowner of the need for, and benefits of, **final stabilization**. (Homeowners typically have an incentive to put in the landscaping functionally equivalent to **final stabilization** as quick as possible to keep mud out of their homes and off sidewalks and driveways.); or
 - For construction projects on land used for agricultural purposes (e.g., pipelines across crop or range land) **final stabilization** may be accomplished by returning the disturbed land to its preconstruction agricultural use. Areas disturbed that were not previously used for agricultural activities, such as buffer strips immediately adjacent to **surface waters** and drainage systems, and areas which are not being returned to their preconstruction agricultural use must meet the **final stabilization** criteria in (a) or (b) above.
9. “**General Contractor**” means the party who signs the construction contract with the **owner** to construct the project described in the final plans and specifications. Where the construction project involves more than one contractor, the **general contractor** will be the party responsible for managing the project on behalf of the **owner**. In some cases, the **owner** may be the **general contractor**. In these cases, the **owner** may contract an individual as the **operator** who would become the Co-Permittee.
10. “**Homeowner Fact sheet**” means a fact sheet developed by the MPCA to be given to homeowners at the time of sale by a builder to inform the homeowner of the need for, and benefits of, **final stabilization**.
11. “**Impervious Surface**” means a constructed hard surface that either prevents or retards the entry of water into the soil and causes water to run off the surface in greater quantities and at an increased rate of flow than prior to development. Examples include rooftops, sidewalks, patios, driveways, parking lots, storage areas, and concrete, asphalt, or gravel roads.
12. “**National Pollutant Discharge Elimination System (NPDES)**” means the program for issuing, modifying, revoking, reissuing, terminating, monitoring, and enforcing permits under the Clean Water Act (Sections 301, 318, 402, and 405) and United States Code of Federal Regulations Title 33, Sections 1317, 1328, 1342, and 1345..
13. “**Normal Wetted Perimeter**” means the area of a conveyance, such as a ditch, channel, or pipe that is in contact with water during flow events that are expected to occur once every year.
14. “**Notice of Termination**” means notice to terminate coverage under this permit after construction is complete, the site has undergone **final stabilization**, and maintenance agreements for all permanent facilities have been established, in accordance with all applicable conditions of this permit. **Notice of Termination** forms are available from the MPCA.

15. “**Operator**” means the person (usually the **general contractor**), designated by the **owner**, who has day to day operational control and/or the ability to modify project plans and specifications related to the **SWPPP**. The person must be knowledgeable in those areas of the permit for which the **operator** is responsible, (Part II.B. and Part IV.) and must perform those responsibilities in a workmanlike manner.
16. “**Owner**” means the person or party possessing the title of the land on which the construction activities will occur; or if the **construction activity** is for a lease holder, the party or individual identified as the lease holder; or the contracting government agency responsible for the **construction activity**.
17. “**Permanent Cover**” means **final stabilization**. Examples include grass, gravel, asphalt, and concrete.
18. “**Permittee**” means a person or persons, firm, or governmental agency or other institution that signs the application submitted to the MPCA and is responsible for compliance with the terms and conditions of this permit.
19. “**Saturated Soil**” means the highest seasonal elevation in the soil that is in a reduced chemical state because of soil voids being filled with water. **Saturated soil** is evidenced by the presence of redoximorphic features or other information.
20. “**Sediment Control**” means methods employed to prevent sediment from leaving the site. **Sediment control** practices include silt fences, sediment traps, earth dikes, drainage swales, check dams, subsurface drains, pipe slope drains, storm drain inlet protection, and temporary or permanent sedimentation basins.
21. “**Small Construction Activity**” means small construction activity as defined in 40 C.F.R. part 122.26(b)(15) . Small construction activities include clearing, grading and excavating that result in land disturbance of equal to or greater than one acre and less than five acres. **Small construction activity** includes the disturbance of less than one (1) acre of total land area that is part of a larger **common plan of development or sale** if the larger common plan will ultimately disturb equal to or greater than one and less than five (5) acres.
22. “**Stabilized**” means the exposed ground surface has been covered by appropriate materials such as mulch, staked sod, riprap, wood fiber blanket, or other material that prevents erosion from occurring. Grass seeding is not stabilization.
23. “**Standard Plates**” means general drawings having or showing similar characteristics or qualities that are representative of a construction practice or activity.
24. “**Storm water**” is defined under Minn. R. 7077.0105, subp. 41(b), and includes precipitation runoff, **storm water** runoff, snow melt runoff, and any other surface runoff and drainage.
25. “**Storm Water Pollution Prevention Plan**” means a plan for **storm water** discharge that includes **erosion prevention** measures and **sediment controls** that, when implemented, will decrease soil erosion on a parcel of land and decrease off-site nonpoint pollution.
26. “**Surface Water or Waters**” means all streams, lakes, ponds, marshes, **wetlands**, reservoirs, springs, rivers, drainage systems, waterways, watercourses, and irrigation systems whether natural or artificial, public or private.



27. **“Temporary Erosion Protection”** means methods employed to prevent erosion. Examples of temporary cover include; straw, wood fiber blanket, wood chips, and erosion netting.
28. **“Underground Waters”** means water contained below the surface of the earth in the saturated zone including, without limitation, all waters whether under confined, unconfined, or perched conditions, in near surface unconsolidated sediment or regolith, or in rock formations deeper underground. The term ground water shall be synonymous with underground water.
29. **“Waters of the State”** (as defined in Minn. Stat. § 115.01, subd. 22) means all streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems and all other bodies or accumulations of water, surface or underground, natural or artificial, public or private, which are contained within, flow through, or border upon the state or any portion thereof.
30. **“Water Quality Volume”** means ½ inch of runoff from the new **impervious surfaces** created by this project and is the volume of water to be treated in the permanent **storm water** management system, as required by this permit except as provided in Appendix A.C.2.
31. **“Wetland” or “Wetlands”** is defined in Minn. R. 7050.0130, subp. F and includes those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in **saturated soil** conditions. **Wetlands** generally include swamps, marshes, bogs, and similar areas. Constructed **wetlands** designed for wastewater treatment are not **waters of the state**. **Wetlands** must have the following attributes:
- a. A predominance of hydric soils;
 - b. Inundated or saturated by **surface water** or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in a **saturated soil** condition; and
 - c. Under normal circumstances support a prevalence of such vegetation.

