

Storm Water Pollution Prevention Plan

Brainerd Industrial Park Phase IV

City of Brainerd
Crow Wing County
Minnesota

June 6, 2007

Services Performed for:

City of Brainerd
501 Laurel Street
Brainerd, MN 5601

Services Performed by:

Kramer Leas DeLeo
1120 Industrial Park Road
Brainerd, MN 56401





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August 8, 2007

City of Brainerd
Attn. Jeff Hulsether, City Engineer
501 Laurel Street
Brainerd, MN 56401

Dear Mr. Hulsether,

Attached is a Storm-water Management Pollution Prevention Plan (SWPPP) for the proposed Brainerd Industrial Park Phase IV project. This SWPPP was developed in accordance with the National Pollution Discharge Elimination System (NPDES) requirements as administered by the Minnesota Pollution Control Agency.

Please note that before any construction activities begin, it is the owner and/or contractor's responsibility to:

1. Understand the NPDES requirements (see SWPPP Appendix A and SWPPP).
2. Apply for NPDES permit (see SWPPP Appendix B).
 - a. Draft Application and instructions included within.
 - Owner and contractor to sign, include site map, and \$400 fee.
 - b. SWPPP are not to be submitted with application.
 - c. Permit coverage is effective 7 days after postmarked application date.

Thereafter, it is the owner/contractor's responsibility to:

3. Implement this SWPPP and adhere to all NPDES permit requirements.
4. Identify a knowledgeable and experienced person to oversee and implement SWPPP as well as monitor site, conduct required inspections, and provide required documentation (example form in SWPPP Appendix C).
5. Terminate coverage of permit for roadway through Notice of Termination (NOT).
6. Ensure that a copy of this SWPPP is kept on the job site at all times.

If you have any questions about this plan, please feel free to contact me.

Sincerely,

Bob Miller, Director of Engineering Services

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1.0 INTRODUCTION

1.1 Background

In 1972, Congress passed the Federal Water Pollution Act (FWPCA), also known as the Clean Water Act (CWA), to restore and maintain the quality of the nation's waterways. The ultimate goal was to make sure that rivers and streams were fishable, swimmable, and drinkable. In 1987, the Water Quality Act (WQA) added provision to the CWA that allowed the Environmental Protection Agency (EPA) to govern storm water discharges from construction sites through implementation of a two-phase comprehensive national program. The EPA delegated the National Pollutant Discharge Elimination System (NPDES) program permitting authority to the Minnesota Pollution Control Agency (MPCA). Minnesota's new Phase II General Storm-water Permit for Construction Activity (MN R100001) went into effect August 1, 2003. The general permit includes provisions for development of a Storm Water Pollution Prevention Plan (SWPPP) to maximize the potential of benefits of pollution prevention and sediment and erosion control measures at construction sites.

Development, implementation, and maintenance of the SWPPP will provide general contractor and/or owner with the framework for reducing soil erosion and minimizing pollutants in storm water during construction of Brainerd Industrial Park Phase IV. The SWPPP will:

- Define the characteristics of the site and the type of construction occurring.
- Describe the site plan for the facility to be constructed.
- Describe the practices that will be implemented to control erosion and the release of pollutants in storm water.
- Create an implementation schedule to ensure that the practices described in this SWPPP are in fact implemented and to evaluate the plan's effectiveness in reducing erosion, sediment, and pollutant levels in storm water discharged from the site.
- Describe the final stabilization/termination design to minimize erosion and prevent storm water impacts after construction is complete

1.2 SWPPP Content

This SWPPP includes the following:

- Description of the existing site conditions including existing land use for the site (i.e. wooded areas, open grassed areas, pavement, buildings, etc.), soil types at the site, as well as the

location of surface waters which are located on or next to the site (wetlands, streams, rivers, lakes, ponds, etc.).

- Identification of the body of water(s), which will receive runoff from the construction site, including the ultimate body of water that receives the storm water.
- The following additional project documentation shall also be considered part of this SWPPP, but is not being duplicated within this document.
 - Site Grading, Road and Utility Construction Plan
 - Specifications
 - Boring logs
 - Final Plat
- Description of storm water management controls and various Best Management Practices (BMP's) necessary to reduce erosion, sediment and pollutants in storm water discharge.
- Description of SWPPP Coordinator's duties. Description of the facility-monitoring plan and how controls will be coordinated with construction activities.
- Description of the implementation schedule and provisions for amendment of the plan.
- Provisions for permanent turf establishments and ponding for impervious surfaces for ultimate development. However, individual owners/developers must also address temporary/permanent erosion/sediment control when individual residential sites are developed.

2.0 SWPPP COODINATOR AND DUTIES

The construction site SWPPP coordinator for the facility shall be assigned to Kuechle Underground Inc. Duties of SWPPP Coordinator shall include the following:

- Implement the SWPPP plan
- Oversee maintenance practices identified as BMP's in the SWPPP.
- Conduct or provide for inspection and monitoring activities.
- Identify potential pollutant sources and make sure they are added to the plan.
- Identify any deficiencies in the SWPPP and make sure they are corrected.
- Ensure that any changes in construction plans are addressed in the SWPPP.
- Educated and/or insure contractor's and sub-contractor's are aware of SWPPP and practice erosion/sediment controls, spill prevention and response, good housekeeping, proper material handling, disposal and control of waste, equipment fueling, and proper storage, washing, and inspection procedures.

3.0 FACILITY DESCRIPTION

3.1 Site Location

The construction site is located in The City of Brainerd, Minnesota.

The legal description is:

Part of the “The Southwest Quarter of the Northwest Quarter and the Southeast Quarter of the Northwest Quarter, of Section 6, Township 44 North, Range 30 West, Crow Wing County, Minnesota.”

This development is bound to the South and East by agricultural /undeveloped land, to the north by wetlands and to the west by CoRd #45.

See Figure 1 for the USGS Quad Map and Figure 2 for the Plat Map.

3.2 Construction Type

The Brainerd Industrial Park Phase IV is a commercial development. This development will consist of a mass site grading to create building pads for the commercial/light industrial lots. The site is design for 70% impervious on each lot at full build out (impervious coverage: lots @23 acres, Road and Trail @ 5.0 acres). Storm water ponds are design for a 100 yr 24 hrs storm. Municipal sewer and water will serve the commercial lots. Roadway construction will include some rural ditching, curb and gutter and a storm sewer system. The site is designed to treat the storm water by draining it thru a wet pond system. Construction is scheduled to start in August of 2007.

3.3 Existing Site Conditions

This site consists of fair conditioned rolling agricultural field. Existing soils are typically silty-sand with some areas identifying some silty sands to clayey sand.

Project Specifications include a soils boring map and soil boring logs.

3.4 Site Plan

Refer to Project Construction Plan for grading and temporary erosion control plan and the permanent erosion control plan.

It is anticipated that approximately 52 acres will be disturbed during construction activities.

4.0 IDENTIFICATION OF POTENTIAL STORM WATER CONTAMINANTS

The purpose of this section is to identify pollutants that could impact storm water during construction of the facility.

4.1 Significant Material Inventory

Pollutants that result from clearing, grading, excavation, and building materials that will have the potential to be present in storm water runoff are listed in Table 1. This table includes information regarding material type, chemical and physical description, and the specific regulated storm water pollutants associated with each material.

4.2 Potential Areas for Storm Water Contamination

The following potential source areas of storm water contamination were identified and evaluated:

- Cleared and graded areas.
- Roadway construction (including asphalt pavement).

Table 2 presents site-specific information regarding storm water pollution potential from each of these areas.

4.3 A Summary of Potential Storm Water Pollutants Sampling Data

Table 1: Potential Construction Site Storm Water Pollutants

Trade Name Material	Chemical/Physical Description	Storm Water Pollutants
Pesticides (insecticides, fungicides, herbicides, rodenticides)	Various colored to colorless liquid, powder, pellets, or grains	Chlorinated hydrocarbons, organophosphates, carbonates, arsenic
Fertilizer	Liquid or solid grains	Nitrogen, phosphorus
Plaster	White granules or powder	Calcium sulphate, calcium carbonate, sulfuric acid
Cleaning solvents	Colorless, blue, or yellow-green liquid	Perchloroethylene, methylene chloride, trichloroethylene, petroleum distillates
Asphalt	Black solid	Oil, petroleum distillates
Concrete	White solid	Limestone, sand
Glue, adhesives	White or yellow liquid	Polymers, epoxies
Paints	Various colored liquid	Metal oxides, Stoddard solvent, talc, calcium carbonate, arsenic
Curing compounds	Creamy white liquid	Naphtha
Wastewater from construction equipment washing	Water	Soil, oil, grease, solids
Wood preservatives	Clear amber or dark brown liquid	Stoddard solvent, petroleum distillates, arsenic, copper, chromium
Hydraulic oil/fluids	Brown oily petroleum hydrocarbon	Mineral oil
Gasoline	Colorless, pale brown or pink petroleum hydrocarbon	Benzene, ethyl benzene, toluene, xylene, MTBE
Diesel Fuel	Clear, blue-green to yellow liquid	Petroleum distillate, oil and grease, Naphthalene, xylenes
Kerosene	Pale yellow liquid petroleum hydrocarbon	Coal oil, petroleum distillates
Antifreeze/ coolant	Clear green/yellow liquid	Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc)
Erosion	Solid Particles	Soil, Sediment

Table 2: Locations of Potential Sources of Storm Water Contamination

Drainage Area	Potential Storm Water Contamination Point	Potential Pollutants	Potential Problem
All	Clearing, grading	Soil erosion, fertilizer, pesticides	Erosion of soils from cleared and graded areas have the potential to discharge into Wetlands
All	Roadway construction and building construction	Plaster, cleaning solvents, asphalt, concrete, paints, hydraulic oil, gasoline, antifreeze, pesticides, glue, adhesives, curing compounds, wood preservatives, kerosene	Accidental spills of paints and cleaning solvents, leaking hydraulic oil and antifreeze from construction equipment, gasoline and diesel fuel spills while fueling construction equipment, erosion of exposed and stockpiled soils, and degradation of scrap drywall can potentially contaminate storm water. Asphalt chemicals can be released to storm water if a rain event occurs before curing is complete. Tracking of soil into the road through the construction entrance.

5.0 STORM WATER MANAGEMENT CONTROLS

The purpose of this section is to identify the types of temporary and permanent erosion and sediment controls that will be used during construction activities. The controls will provide soil stabilization for disturbed areas and structural controls to divert runoff and remove sediment. This section will also address control of other potential storm water pollutant sources such as construction materials (paint, concrete dust, solvents, and plaster), waste disposal, control of vehicle traffic, and sanitary waste disposal.

5.1 Temporary and Permanent Erosion Control Practices

A list of Best Management Procedures (BMP's) has been developed and the locations of these BMP's are shown within the roadway plan. Construction activities will be planned and coordinated so appropriate BMP's are in place before construction begins. A number of the BMP's included in this plan have been developed to also serve as post-construction storm water controls. The following BMP's will be implemented:

- Silt fence barriers will be placed at appropriate perimeter control locations prior to commencement of any clearing or grading operations. These

temporary perimeter controls will not be removed until all construction activities at those sites are complete and soils have been stabilized.

- A stabilized construction entrance/exit will be maintained throughout the project. Construction of a “rock shredded mulch” pad may be required to reduce vehicle tracking of sediments from the site. Regular maintenance may need to be performed to insure sediment is not tracked onto local roadways or deposition of sediment material hinders performance of constructed entrance.
- Ponding locations and earthen berms shall be established and stabilized before any construction begins. Upon the grading completion of these basins, topsoil will be restored and turf established. Pond volume calculations provide storage for the increased impervious area for run-off from a 100-year event. Ponding locations will remain as a permanent storm-water detention structures following construction activities. When up slope areas are stabilized, any accumulated sediment will be removed from sedimentation basins. Ponds will drain through infiltration or culvert discharge.

5.2 Construction Practices to Minimize Storm Water Contamination

All construction waste materials will be collected and disposed of properly according to all local and regulatory requirements. Good housekeeping, monitoring and spill control practices will be followed during construction to minimize storm water contamination from petroleum products, fertilizers, paints, and concrete.

- Environmentally friendly fertilizers will only be applied within this area and will be worked into the soil to limit exposure to storm water.
- All vehicles on site will be monitored for leaks and receive regular preventive maintenance to reduce the chance for leakage.
- Any asphalt substances used onsite will be applied according to the manufacturer’s recommendation.
- Sanitary waste will be monitored and collected at regular intervals from portable units to avoid overfilling.
- All spills will be cleaned up immediately upon discovery.
- Concrete trucks will only be allowed to wash out or discharge surplus concrete or drum wash water at specified and environmentally secure locations within the property site.
- After the entire site is stabilized, the accumulated sediment will be removed from the basin.

6.0 MAINTENANCE/INSPECTION PROCEDURES

6.1 Inspections

At least once a week and/or within 24 hours of a rainfall event greater than 0.5 inches, visual inspections of the entire construction site will be performed. Inspections will be conducted by the SWPPP Coordinator or his/her designee. The inspection will verify the

erosion/sediment BMP's are functioning properly. The following inspection and maintenance practices will be used to maintain erosions and sediment controls:

- Built up sediment will be removed from silt fencing when it has reached one-third the height of the fence.
- Silt fences will be inspected for depth of sediment, for tears, to see if the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground.
- Sediment basins will be inspected for depth of sediment and built up sediment will be removed when it reaches one foot in depth.
- Temporary and permanent seeding will be inspected for bare spots, washouts, and healthy growth.
- The stabilized construction entrance will be inspected for sediment tracked on the road, for clean gravel, and to make sure that the culvert beneath the entrance is working and that all traffic use the stabilized entrance when leaving the site.

The maintenance inspection report will be made after each inspection. A copy of the report form will be complete by the SWPPP Coordinator. An example report is provided in Appendix B of this SWPPP. Completed forms will be maintained on-site during the entire construction project. Following construction, the completed forms will be retained by the Owner or his/her designee for a minimum of one year.

If construction activities or design modifications are made to the site plan, which could impact storm water, this SWPPP will be amended appropriately. Documentation of modifications to SWPPP will have a description of the new activities that contribute to the increased pollutant loading and the planned source control activities.

Appendix A:

MPCA's NPDES General Permit Requirements

**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: Daniel D. Foley *for* BOARD MEMBER
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**

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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 timeframes 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 homebuilders) 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 timeframe 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 timeframe 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 waterbody, (**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 factsheet**" 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:
 - a. 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;

- b. For individual lots in residential construction by either: (a) The homebuilder completing **final stabilization** as specified above, or (b) the homebuilder 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
 - c. 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 Factsheet**" 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.

Appendix B:

Draft NPDES Permit Application

Construction Activity Information

5. **Project Name** Brainerd Industrial Park Phase IV

6. **Project Location**

0.5 miles south of the four way stop, CoRd #45 and CoRd #117 in Brainerd. East side of the road.

Briefly describe where construction activity occurs - Example: Intersection of 45th Street and Irving Avenue. *Include address if available*

Brainerd MN 56401

City or Township State Zip Code

750062400000009, 750062300A00009

County Parcel ID # *Attach list if necessary*

Brainerd

All cities where construction will occur

Crow Wing

All counties where construction will occur

All townships where construction will occur

7. **Project Size** 52
Number of acres to be disturbed

8. **Project Map** Is the required 8 1/2 x 11" United States Geological Survey (USGS) 7.5 minute quad or equivalent map indicating site boundaries attached? **Yes**

9. **Project Type** Residential Commercial/Industrial Road Construction
 Other

10. **Cumulative Impervious Surface**
a. Existing area of impervious surface 0.0 (to the nearest quarter acre)
b. Post construction area of impervious surface 28 (to the nearest quarter acre)
If new impervious surface created by the project is less than one acre, skip to question 12.

11. **Permanent Stormwater Management** What types (check all that apply) of permanent stormwater management will be used if more than one acre of new impervious surface is created by the project? [Part III. C]
 Wet Sedimentation Basin Infiltration/Filtration Regional Ponding
 Alternative Methods (If using alternative methods, construction cannot commence until receiving approval from the MPCA.)
 Other (Specify reason and list other treatment allowed by Part III. C)

12. **Receiving Waters** Identify surface waters within 1/2 mile of project boundary that will receive storm water from the site or discharge from permanent Stormwater management system. Include waters shown on USGS 7.5 minute quad or equivalent, all Special Waters identified in Appendix A of the permit and/or any impaired waters (To find Special or Impaired Waters, use the [Special and Impaired Waters Search tool](http://www.pca.state.mn.us/water/stormwater/stormwater-c.html) at www.pca.state.mn.us/water/stormwater/stormwater-c.html). Use additional paper if necessary.

Name of Water Body	Type (ditch, pond, wetland, lake, stream, river)	Special Water? (See Stormwater Permit Appendix A)	Impaired Water?
		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

13. **Dates of Construction** 8 / 20 / 2007 7 / 15 / 2008
a. Construction Start Date b. Estimated Completion Date



This form will not be accepted if the Owner and Contractor contact information sections, below, are BOTH not completed and signed. If the owner is also the contractor, or a contractor hasn't yet been selected, the owner must also fill out the contractor information section and sign again.

Responsible Parties **BOTH PARTIES MUST SIGN**

14. Owner
City Of Brainerd

Business or Firm Name			Federal Tax ID	State Tax ID
Hulsether	Jeffery	Engineer		(218) 828 - 2309 ext.
Last Name	First Name	Title	E-mail	Telephone (include area code)
501 Laurel Street			Brainerd	MN 56401
Mailing Address			City	State
Klien	Donald			Zip Code (218) 829 - 2309 ext.
Last Name (Alternate Contact)	First Name		E-mail	Telephone (include area code)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this system, or the persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I also certify under penalty of law that I have read, understood, and accepted all terms and conditions of the NPDES/SDS General Stormwater Permit Construction Activity (MN R100001) that authorizes stormwater discharges associated with the construction site identified on this form.

X

Authorized Signature _____ Date _____

This Application must be signed by:

- **Corporation:** a principal executive officer of at least the level of vice-president or the duly authorized representative or agent of the executive officer if the representative or agent is responsible for the overall operation of the facility that is the subject of the permit application.
- **Partnership or Sole Proprietorship:** a general partner or the proprietor.
- **Municipality, State, Federal or Other Public Agency:** principal executive officer or ranking elected official.

15. Contractor
Kuechle Underground Inc.

Business or Firm Name			Federal Tax ID	State Tax ID
Kuechle	Donald			(320) 389 - 8888 ext.
Last Name	First Name	Title	E-mail	Telephone (include area code)
10998State Hwy 53			Kimball	MN 55353
Mailing Address			City	State
Kuechle	Jeromy			Zip Code (320) 389 - 8888 ext.
Last Name (Alternate Contact)	First Name		E-mail	Telephone (include area code)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this system, or the persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I also certify under penalty of law that I have read, understood, and accepted all terms and conditions of the NPDES/SDS General Stormwater Permit for Construction Activity (MN R100001) that authorizes stormwater discharges associated with the construction site identified on this form.

X

Authorized Signature _____ Date _____

This Application must be signed by:

- **Corporation:** a principal executive officer of at least the level of vice-president or the duly authorized representative or agent of the executive officer if the representative or agent is responsible for the overall operation of the facility that is the subject of the permit application.
- **Partnership or Sole Proprietorship:** a general partner or the proprietor.
- **Municipality, State, Federal or Other Public Agency:** principal executive officer or ranking elected official.

Appendix C:

**Storm Water Pollution Prevention Plan
Inspection and Maintenance Log Form**

Appendix D:

Notice of Termination



Minnesota
Pollution
Control
Agency

National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS)
General Storm-water Permit for Construction Activity (MN R100001)

Notice of Termination

Minnesota Pollution Control Agency
REM Division, Construction Storm-water Permit Program
520 Lafayette Road North, St. Paul, MN 55155-4194

Refer to the NPDES/SDS General Storm-water Permit for Construction Activity (MN R100001) and the original owner's coverage notification letter as you complete this form.
Call the MPCA Customer Assistance Center at 651-297-2274 or 800-646-6247 (in Minn.) for assistance.

Construction Activity Information

1. Storm-water Permit Identification Number *See Notice of Storm-water Permit Coverage or coverage notification letter* MN R100001-C000

2. Project Name (As listed on the existing permit)

3. County Parcel ID # _____
Attach list if necessary

Stabilization Certification

4. The entire site has been closed for termination by one or more of the following methods. *Check all that apply*
- a. Final stabilization has been achieved on all portions of the site for which I am responsible. [Part II.C.2.a and Part IV.G]
 - b. Another owner has assumed control over all areas of the site that have not been finally stabilized. [Part II.C.2.b and Part II B. 5] A list including new owner name, business, complete address and telephone is attached.
 - c. **Residential Construction Only** - I have provided temporary erosion protection and down gradient perimeter control, transferred ownership, and distributed the MPCA *Sediment and Erosion Control for New Homeowners* fact sheet to the homeowners. [Part II.C.2.c]
5. The project used an alternative method for permanent storm-water treatment Yes No and check one below. *If no skip to next page.*
- a. After submitting all required monitoring data to the MPCA, I was notified in writing that the required treatment has been achieved and my storm-water permit can be terminated.
 - b. I have not been notified in writing, but 30 days have passed since submitting all required monitoring data to the MPCA.

Owner Information and Certification

Business or Firm Name

Last Name First Name Title E-mail Telephone (include area code)

Mailing Address City State Zip Code

I understand that, as a permittee, I am legally accountable under the Clean Water Act to ensure compliance with the terms and conditions of the NPDES/SDS General Storm-water Permit for Construction Activity (MN R100001).

I understand that by submitting this Notice of Termination I am no longer authorized to discharge storm water associated with the construction activity identified on this form under the terms and condition of the NPDES/SDS General Storm-water Permit for Construction Activity (MN R100001), and that discharging storm water associated with a construction activity to waters of the state is unlawful under the Clean Water Act unless the discharge is authorized by an NPDES/SDS permit. I understand the submittal of this Notice of Termination does not release my company or agency from liability for any violations of the NPDES/SDS General Storm-water Permit for Construction Activity (MN R100001) or the Clean Water Act.

I certify under penalty of law that the answers to the questions above, are true and correct, and this information is based on my own assessment, or on my inquiry of the person or persons responsible for gathering the information.

Authorized Signature

Date

The Subdivision Registration form must be signed by:

- **Corporation:** a principal executive officer of at least the level of vice-president or the duly authorized representative or agent of the executive officer if the representative or agent is responsible for the overall operation of the facility that is the subject of the permit application.
- **Partnership or Sole Proprietorship:** a general partner or the proprietor.
- **Municipality, State, Federal or Other Public Agency:** principal executive officer or ranking elected official.

Contractor Information and Certification

Business or Firm Name

Last Name First Name Title E-mail Telephone (include area code)

Mailing Address City State Zip Code

I understand that, as a permittee, I am legally accountable under the Clean Water Act to ensure compliance with the terms and conditions of the NPDES/SDS General Storm-water Permit for Construction Activity (MNR100001).

I understand that by submitting this Notice of Termination I am no longer authorized to discharge storm water associated with the construction activity identified on this form under the terms and condition of the NPDES/SDS General Storm-water Permit for Construction Activity (MN R100001), and that discharging storm water associated with a construction activity to waters of the state is unlawful under the Clean Water Act unless the discharge is authorized by an NPDES/SDS permit. I understand the submittal of this Notice of Termination does not release my company or agency from liability for any violations of the NPDES/SDS General Storm-water Permit for Construction Activity (MN R100001) or the Clean Water Act.

I certify under penalty of law that the answers to the questions above, are true and correct, and this information is based on my own assessment, or on my inquiry of the person or persons responsible for gathering the information.

Authorized Signature

Date

The Subdivision Registration form must be signed by:

- **Corporation:** a principal executive officer of at least the level of vice-president or the duly authorized representative or agent of the executive officer if the representative or agent is responsible for the overall operation of the facility that is the subject of the permit application.
- **Partnership or Sole Proprietorship:** a general partner or the proprietor.
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Appendix E:

Subdivision Registration

This form is for subdivisions of a permitted site with an existing SWPPP. Each new owner must complete this form. An Application for General Storm-water Permit for Construction Activity must be used to obtain a new permit. Use an Application for Permit Transfer/Modification to transfer the permit for an entire site from one party to one other party.



National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS)
General Storm-water Permit for Construction Activity (MN R100001)

Subdivision Registration

Minnesota Pollution Control Agency
REM Division, Construction Storm-water Permit Program
520 Lafayette Road North, St. Paul, MN 55155-4194

Refer to the NPDES/SDS General Storm-water Permit for Construction Activity (MN R100001) and the original owner's coverage notification letter as you complete this form. Call the MPCA Customer Assistance Center at 651-297-2274 or 800-646-6247 (in Minn.) for assistance.

Subdivision Registration Prerequisites

- 1. Do you have a copy of the site's original Storm-water Pollution Prevention Plan (SWPPP)?
2. Which SWPPP will you be using to meet the permit requirements for this site?
a. The site's original SWPPP
b. A SWPPP I have developed according to the requirements under the permit
3. Do you have a copy of Minnesota's NPDES/SDS General Storm-water Permit for Construction Activity?

STOP A SWPPP must be developed prior to submitting this form. Subdivisions may either use the SWPPP developed by the original owner or develop and implement their own SWPPP. Subdivisions registrants must also have a copy of the permit. Complete the above requirements before submitting this registration. Continue if you responded yes to questions 1, 2, a or 2. b AND question 3 above.

Construction Activity Information

4. Storm-water Permit Identification Number MN R100001-C000

5. Project Name (As listed on the existing permit)

6. New Project Name (if applicable)

7. Subdivision Location

Briefly describe where construction activity occurs and what portion of the project will be under your ownership or control. Example: Intersection of 45th Street and Irving Avenue, Lots 1-17. Include list of addresses if available

City or Township State Zip Code

County Parcel ID # Attach list if necessary

8. Project Map Is the required 8 1/2 x 11" United States Geological Survey (USGS) 7.5 minute quad or equivalent map indicating the location of property covered under this permit and under your ownership attached?

Responsible Parties

9. New Owner

Business or Firm Name			Federal Tax ID	State Tax ID
Last Name	First Name	Title	E-mail	Telephone (include area code)
Mailing Address			City	State Zip Code
Alternate Contact Last Name	First Name	E-mail		Telephone (include area code)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this system, or the persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I also certify under penalty of law that I have read, understood, and accepted all terms and conditions of the NPDES/SDS General Storm-water Permit Construction Activity (MN R100001) that authorizes storm-water discharges associated with the construction site identified on this form.

Authorized Signature _____ Date _____

The Subdivision Registration form must be signed by:

- **Corporation:** a principal executive officer of at least the level of vice-president or the duly authorized representative or agent of the executive officer if the representative or agent is responsible for the overall operation of the facility that is the subject of the permit application.
- **Partnership or Sole Proprietorship:** a general partner or the proprietor.
- **Municipality, State, Federal or Other Public Agency:** principal executive officer or ranking elected official.

10. New Contractor

Business or Firm Name			Federal Tax ID	State Tax ID
Last Name	First Name	Title	E-mail	Telephone (include area code)
Mailing Address			City	State Zip Code
Alternate Contact Last Name	First Name	E-mail		Telephone (include area code)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this system, or the persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I also certify under penalty of law that I have read, understood, and accepted all terms and conditions of the NPDES/SDS General Storm-water Permit for Construction Activity (MN R100001) that authorizes storm-water discharges associated with the construction site identified on this form.

Authorized Signature _____ Date _____

The Subdivision Registration form must be signed by:

- **Corporation:** a principal executive officer of at least the level of vice-president or the duly authorized representative or agent of the executive officer if the representative or agent is responsible for the overall operation of the facility that is the subject of the permit application.
- **Partnership or Sole Proprietorship:** a general partner or the proprietor.
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Figure 1:

USGS Quadrangle Map

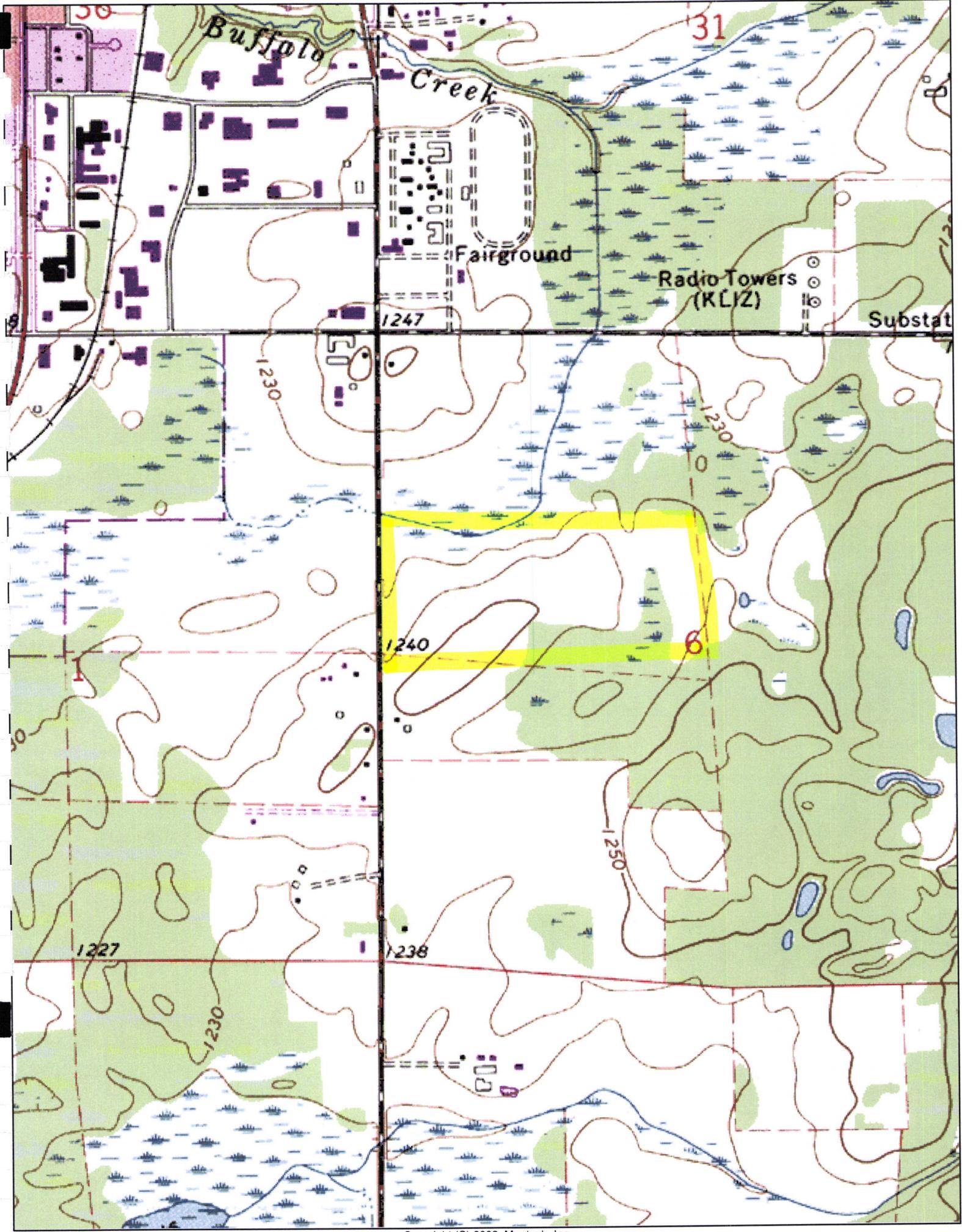


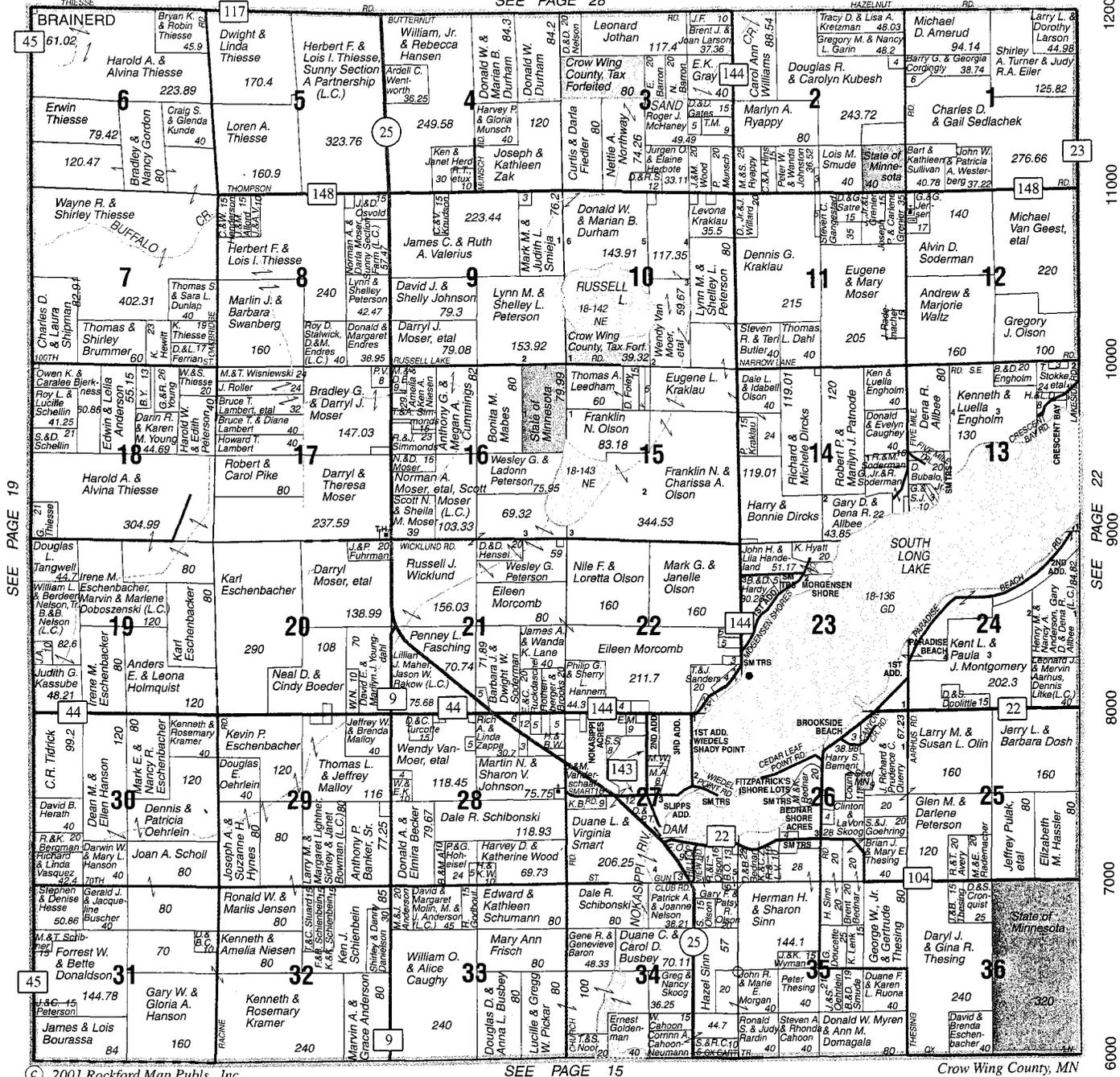
Figure 2:

Plat Map

LONG LAKE

SEE PAGE 28

T.44N.-R.30W.



SEE PAGE 15

Crow Wing County, MN

10000 11000 12000 13000 14000 15000 16000

<p>SCHULT MANUFACTURED HOMES</p> <p>BRAINERD HOMES, INC.</p> <p>3215 OAK STREET BRAINERD, MINNESOTA 56401 Just West of JCT. 18 & 25</p> <p>Gerald Yliniemi (218) 829-3046 President (1800) 452-0165 ID #20137722 Fax: (218) 829-0426 brdhomes@brainerd.net www.brainerdhomesinc.com</p>	<p>WISCONSIN MODULAR HOMES</p> <p>BURT ELECTRIC COMPANY</p> <p>COMPLETE ELECTRICAL CONTRACTING AND QUALITY SERVICES</p> <p>829-8922</p> <p>701 CHARLES STREET • BRAINERD, MINNESOTA 56401 GEORGE BURTON E-MAIL: norpac@brainerd.net</p>
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