

Duluth Township

St. Louis County

2008

Storm Water Pollution Prevention Plan

Revised November 2008

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NPDES Phase II MS4 Permit Application Storm Water Pollution Prevention Program

General Storm Water Permit Application
(MN R 040000)

Duluth Township

Duluth Township's SWPPP is designed to reduce the discharge of pollutants from the Township's storm sewer system to the maximum extent practicable. To achieve this goal, standard Best Management Practices (BMP's) have been developed. The BMP measures are intended to address the 6 minimum control measures (MCM's) outlined in the MS4 Permit. The 6 MCM's are:

1. Public Education and Outreach
2. Public Participation/Involvement
3. Illicit Discharge Detection and Elimination
4. Construction Site Stormwater Runoff Control
5. Post-Construction Stormwater Management in New Development and Redevelopment
6. Pollution Prevention/Good Housekeeping

The following table provides the title of each BMP measure and its location in the SWPPP.

| BMP ID Numbers | Best Management Practice | Permit Reference | Page |
|----------------|---|------------------|------|
| 1a-1 | Distribute Educational Materials | V.G.1.a | |
| 1b-1 | Implement an Education Program | V.G.1.b | |
| 1c-1 | Education Program: Public Education and Outreach | V.G.1.c | |
| 1c-2 | Education Program: Public Participation | V.G.1.c | |
| 1c-3 | Education Program: Illicit Discharge Detection and Elimination | V.G.1.c | |
| 1c-4 | Education Program: Construction Site Run-off Control | V.G.1.c | |
| 1c-5 | Education Program: Post-Construction Stormwater Management in New Development and Redevelopment | V.G.1.c | |
| 1c-6 | Education program: Pollution Prevention/Good Housekeeping for Municipal Operations | V.G.1.c | |
| 1d-1 | Coordination of Education Program | V.G.1.d | |
| 1e-1 | Annual Public Meeting | V.G.1.e | |
| 2a-1 | Comply with Public Notice Requirements | V.G.2.a | |
| 2b-1 | Solicit Public Input and opinion on the Adequacy of the SWPPP | V.G.2.b | |
| 2c-1 | Consider Public Input | V.G.2.c | |
| 3a-1 | Storm Sewer System Map | V.G.3.a | |
| 3b-1 | Regulatory Control Program | V.G.3.b | |
| 3c-1 | Illicit Discharge Detection and Elimination Plan | V.G.3.c | |
| 3d-1 | Public and Employee Illicit Discharge Information Program | V.G.3.d | |
| 3e-1 | Identification of Non Stormwater Discharges and Flows | V.G.3.e | |
| 4a-1 | Ordinance or other Regulatory Mechanism | V.G.4.a | |

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|---------------------|--|--------------------------------------|--|
| 4b-1 | Construction Site Implementation of Erosion and Sediment Control BMP's | V.G.4.b | |
| 4c-1 | Waste Controls for Construction Site Operators | V.G.4.c | |
| 4d-1 | Procedure for Site Plan Review | V.G.4.d | |
| 4e-1 | Establishment of Procedures for the Receipt and Consideration of Reports of Stormwater Noncompliance. | V.G.4.e | |
| 4f-1 | Establishment of Procedures for Site Inspections and Enforcement | V.G.4.f | |
| 5a-1 | Development and implementation of Structural and/or Non-structural BMP's | V.G.5.a | |
| 5b-1 | Regulatory Mechanism to Address Post Construction Runoff from New Development and Redevelopment | V.G.5.b | |
| 5c-1 | Long-term Operation and Maintenance Program | V.G.5.c | |
| 6a-1 | Municipal Operations and Maintenance Program | V.G.6.a | |
| 6b-2 | Annual Inspection of All Structural Pollution Control Devices | V.G.6.b.2 | |
| 6b-3 | Inspection of a Minimum of 20 percent of the MS4 Outfalls, Sediment Basins and Ponds each Year on a Rotating basis | V.G.6.b.3 | |
| 6b-4 | Annual Inspection of all Exposed Stockpile, Storage and Material Handling Areas: | V.G.6.b.4 | |
| 6b-5 | Inspection Follow-up Including the Determination of Whether Repair, Replacement, or Maintenance Measures are Necessary and the Implementation of the Corrective Measures | V.G.6.b.5 | |
| 6b-6 | Record Reporting and Retention of all Inspections and Responses to the Inspections | V.G.6.b.6 | |
| 6b-7 | Evaluation of Inspection Frequency | V.G.6.b.7 | |
| 7-a | Impaired Waters BMP | | |
| 7-b | Trout Waters BMP | | |
| 7-c | ORVW Waters (<i>Outstanding Resource Value Waters</i>) BMP | IX.Appendix C. Part A and/or Part B. | |
| MAPS | Stormwater and Zoning Maps | | |
| Example Information | Internet Land Use/ Stormwater Planning Tools – land use permit application -- http://www.boulderlake.org/stormwaterims/application/example.html | | |
| Example Information | Township Zoning Ordinance Outline | | |

BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: 1-PUBLIC EDUCATION AND OUTREACH

Unique BMP Identification Number: 1a-1

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|---|
| <p>* BMP Title: Distribute Education Materials</p> |
| <p>* BMP Description:</p> <ul style="list-style-type: none">• Distribute brochures as appropriate at annual stormwater meeting; work with RSPT (Regional Stormwater Protection Team) to identify appropriate materials for distribution.• Send stormwater brochure with each land use permit.• RSPT Information will be available to all Township residents via websites.• The RSPT and Duluth Township website with SWPPP information to be noted in the Township newsletter and on the Township website. <p>Location(s) in SWPPP of detailed information relating to this BMP: Duluth Township web site. http://duluthstreams.org/stormwater/duluth/stormwater_plan.html; http://www.duluthmn.gov/city/publicworks/index.htm; Lake Superior streams: http://www.duluthstreams.org/stormwater/toolkit/resources.html</p> |
| <p>*Measurable Goals</p> <ul style="list-style-type: none">• Number of brochures distributed at stormwater meetings.• Number of brochures distributed with land use permits. |
| <p>*Timeline/Implementation Schedule:</p> <ul style="list-style-type: none">• Ongoing.• Evaluate resident feedback at Township meetings for possible additions or changes on an annual basis until 2010. |
| <p>Specific Components and Notes:</p> <ul style="list-style-type: none">• None |
| <p>*Responsible Party for this BMP:</p> <ul style="list-style-type: none">• Name: Duluth Township• Department: General Township• Phone: 218-525-5705• E-Mail: Townclerk@lakenet.com |

** Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.*

BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: 1-PUBLIC EDUCATION AND OUTREACH

Unique BMP Identification Number: 1b-1

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| <p>* BMP Title: Implement an Education Program</p> |
| <p>* BMP Description:</p> <ul style="list-style-type: none">• Include articles on stormwater topics in Township Newsletter with rotating information each year.• Hold annual stormwater meeting with discussion and question and answer session.• Keep the Township Planning and Zoning Commission informed of stormwater education activities, and have stormwater educational materials available at township office for citizens, builders, and developers when permits and zoning approvals are requested.• Annually designate a Town Board member to participate in RSPT activities.• Keep the public informed on the Duluth Township and Lake Superior Streams websites.• Help residents use the Township's Land Use/Stormwater Planning Resources website for on-line land use permit applications and planning process.• Aerial photos, topographical maps, soil, and watershed information available at: www.boulderlake.org/stormwaterims/default.html |
| <p>Location(s) in SWPPP of detailed information relating to this BMP: Section 1.</p> |
| <p>*Measurable Goals</p> <ul style="list-style-type: none">• Number of articles published in Township Newsletter.• Amount of stormwater-related responses from residents received at monthly board and annual stormwater meetings or through Planning Department . Input received at Township meetings will be noted in meeting minutes.• Participation of township officials and Planning and Zoning Commission members attending collaborative education group meetings, including RSPT. |
| <p>*Timeline/Implementation Schedule:</p> <ul style="list-style-type: none">• Ongoing for the Duluth area collaborative education group, RSPT. Developed the plan in 2002 and implemented it throughout the remaining term of permit.• Newsletter articles commenced in 2008 and will continue through the term of the permit.. |
| <p>Specific Components and Notes:</p> <ul style="list-style-type: none">• None |
| <p>*Responsible Party for this BMP:</p> <ul style="list-style-type: none">• Name: Duluth Township• Department: General Township• Phone: 218-525-5705• E-Mail: Townclerk@lakenet.com |

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BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: 1-PUBLIC EDUCATION AND OUTREACH

Unique BMP Identification Number: 1c-1

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| * BMP Title: Education Program: Public Education and Outreach |
| *Audience(s) Involved: <ul style="list-style-type: none">• Duluth Township residents• Use the communication arrangements between the County, RSPT, and the Duluth Township contact person to receive changing SWPPP and educational information by direct mailing or by email.• This information is then made available to residents on the township website, at the Town Hall office, and at annual stormwater meetings. |
| *Educational Goals for Each Audience <ul style="list-style-type: none">• Keep residents informed about the importance of stormwater discharge, and actions for residents to take to reduce pollutants in and amounts of stormwater. |
| *Activities used to reach educational goals: <ul style="list-style-type: none">• Township newsletter• Annual stormwater meeting• General monthly board and planning and zoning meetings• Inform public of township's websites and the Lake Superior Streams website using the above mechanisms. |
| *Activity Implementation Plan: <ul style="list-style-type: none">• Mail Township Newsletter• Hold annual stormwater meeting• Provide information updates at general Township meetings• Since 2002 the Township has been in partnership with RSPT for distribution of educational materials. This partnership will continue throughout the term of the permit. |
| *Performance Measures: <ul style="list-style-type: none">• Constituent questions and comments will be noted and recorded at monthly Town Board, planning and zoning, and annual stormwater meetings. |
| *Responsible Party for this BMP: <ul style="list-style-type: none">• Name: Duluth Township• Department: General Township• Phone: 218-525-5705• E-Mail: Townclerk@lakenet.com |

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BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

Unique BMP Identification Number: 1c-2

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| * BMP Title: Education Program: Public Participation |
| *Audience(s) Involved: <ul style="list-style-type: none">• Duluth Township residents |
| *Educational Goals for Each Audience <ul style="list-style-type: none">• Encourage Township residents to stay informed and report any stormwater related incidents to township officers. |
| *Activities used to reach educational goals: <ul style="list-style-type: none">• Articles in Township Newsletter• Annual stormwater meeting: use meeting to gain Township residents' participation in available stormwater protection and pollution prevention programs. |
| *Activity Implementation Plan: <ul style="list-style-type: none">• Mail Township Newsletter• Annual stormwater meeting• General Township meetings |
| *Performance Measures: <ul style="list-style-type: none">• Constituent questions and comments will be noted and recorded at monthly regular and annual storm-water meetings. |
| *Responsible Party for this BMP: <ul style="list-style-type: none">• Name: Duluth Township• Department: General Township• Phone: 218-525-5705• E-Mail: Townclerk@lakenet.com |

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BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

Unique BMP Identification Number: 1c-3

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| * BMP Title: Education Program: Illicit Discharge Detection and Elimination |
| *Audience(s) Involved: <ul style="list-style-type: none">• Duluth Township residents |
| *Educational Goals for Each Audience <ul style="list-style-type: none">• Educate residents on how to identify and report any new or unusual discharge.• Members of the general public should understand:<ul style="list-style-type: none">○ The impact of illicit discharges on water quality○ The definition of illicit discharges to the point of being able to recognize them.○ The safety precautions that should be considered when near illicit discharges• How to report illicit discharges to the Duluth Township authorities or St. Louis County Health Department. |
| *Activities used to reach educational goals: <ul style="list-style-type: none">• Township newsletter will list contacts for reporting incidents.• Information on identifying and reporting illicit discharges will be included in Township Newsletter, annual stormwater meeting, and other outreach activities as appropriate. |
| *Activity Implementation Plan: <ul style="list-style-type: none">• Township newsletter and annual stormwater meeting will be used as a forum to educate township residents on how to identify, describe, and report incidents of illicit discharge. |
| *Performance Measures: <ul style="list-style-type: none">• Constituent questions and comments will be noted and recorded at monthly regular and annual stormwater meetings. |
| *Responsible Party for this BMP: <ul style="list-style-type: none">• Name: Duluth Township• Department: General Township• Phone: 218-525-5705• E-Mail: Townclerk@lakenet.com |

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BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

Unique BMP Identification Number: 1c-4

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| * BMP Title: Education Program: Construction Site Run-off Control |
| *Audience(s) Involved: <ul style="list-style-type: none">• Developers and/or builders involved within Duluth Township. |
| *Educational Goals for Each Audience <ul style="list-style-type: none">• Ensuring that developers and builders are aware of the current Township zoning regulations and construction requirements and procedures that are administered by the Township. Township Planning and Zoning Commission can ask parties seeking permits or approval to indicate whether:<ol style="list-style-type: none">1. those parties hired by the Township for construction projects have the appropriate BMP training2. developers are aware of construction site run-off control requirements and have the materials described in 1c-1• Letting citizens of the township know of training opportunities provided by RSPT and Duluth Township using delivery techniques described in 1c-1 |
| *Activities used to reach educational goals: <ul style="list-style-type: none">• Township Zoning Ordinances will be made available at the Town Hall and on the Township website.• |
| *Activity Implementation Plan: <ul style="list-style-type: none">• Ongoing throughout the term of the permit. |
| *Performance Measures: <ul style="list-style-type: none">• All site plans approved by Planning Director or Planning and Zoning Commission comply with Township zoning regulations, especially those regulations dealing with stormwater runoff and protection of streams and Lake Superior. |
| *Responsible Party for this BMP: <ul style="list-style-type: none">• Name: Duluth Township• Department: General Township• Phone: 218-525-5705• E-Mail: Townclerk@lakenet.com |

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BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

Unique BMP Identification Number: 1c-5

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| * BMP Title: Education Program: Post-Construction Storm Water Management in New Development and Redevelopment. |
| *Audience(s) Involved: <ul style="list-style-type: none">Duluth Township property owners and Township officials. |
| *Educational Goals for Each Audience <ul style="list-style-type: none">Comply with County/Township zoning ordinances related to post-construction runoff. Understand roles and responsibilities related to construction projects. |
| *Activities used to reach educational goals: <ul style="list-style-type: none">Work with Planning and Zoning Commission on determining compliance of land use plan with zoning regulations and codes. |
| *Activity Implementation Plan: <ul style="list-style-type: none">Ongoing throughout the term of the SWPPP |
| *Performance Measures: <ul style="list-style-type: none">All site plans approved by the Planning and Zoning Commission comply with Township zoning regulations, especially those regulations dealing with stormwater runoff and protection of streams and Lake Superior. |
| *Responsible Party for this BMP: <ul style="list-style-type: none">Name: Duluth TownshipDepartment: General TownshipPhone: 218-525-5705E-Mail: Townclerk@lakenet.com |

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BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

Unique BMP Identification Number: 1c-6

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| * BMP Title: Education Program: Pollution Prevention/Good Housekeeping for Municipal Operations. |
| *Audience(s) Involved: <ul style="list-style-type: none">• Duluth Township officials with responsibilities for Township property and/or Township roads.• Township road contractor |
| *Educational Goals for Each Audience <ul style="list-style-type: none">• Yard, driveway, and roadway maintenance for the proper stormwater management• Keep informed about current property maintenance issues relating to stormwater management.• Recognize activities and materials that have the potential to pollute stormwater, and identify practices that can reduce negative effects on water quality.• Ensure that Township road contractor is trained in stormwater management |
| *Activities used to reach educational goals: <ul style="list-style-type: none">• Maintain active participation in Regional Stormwater Protection Team to stay abreast of applicable stormwater management techniques.• Support attendance of relevant Township officials at local and/or state training on stormwater pollution prevention best management practices for townships including, but not limited to, maintenance of stormwater conveyances (ditches) and town roads.• Require that Township road contractor has stormwater training |
| *Activity Implementation Plan: <ul style="list-style-type: none">• Annual road inspection by Township officials.• Attendance at training activities as opportunities arise.• Include stormwater training requirement in road maintenance contract beginning in 2009. |
| *Performance Measures: <ul style="list-style-type: none">• Lists of Township officials attending training, dates attended, and training type will be kept at the town hall.• Records of the annual road, ditch, and culvert inspection will be kept, including notes/images of problems, and records of each problem's resolution, including dates. |
| *Responsible Party for this BMP: <ul style="list-style-type: none">• Name: Duluth Township• Department: General Township• Phone: 218-525-5705• E-Mail: Townclerk@lakenet.com |

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BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

Unique BMP Identification Number: 1d-1

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| * BMP Title: Coordination of Education Program. |
| *BMP Description: <ul style="list-style-type: none">• The Town Board will annually appoint a Supervisor to serve as stormwater coordinator.• Coordination and collaboration with the Regional Stormwater Protection Team• Appointed stormwater coordinator to interface with Planning Director and Planning and Zoning Commission on stormwater issues. |
| *Measurable Goals <ul style="list-style-type: none">• Records of stormwater coordinator appointment.• Attendance at RSPT meetings and identification of appropriate materials or elements of Township stormwater education program. |
| *Timeline/Implementation Schedule: <ul style="list-style-type: none">• Implemented in 2003 and ongoing throughout the term of the permit.• Attend monthly RSPT meetings throughout the term of the permit. . |
| *Specific Components and Notes: <ul style="list-style-type: none">• None |
| *Responsible Party for this BMP: <ul style="list-style-type: none">• Name: Duluth Township• Department: General Township• Phone: 218-525-5705 E-Mail: Townclerk@lakenet.com |
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BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

Unique BMP Identification Number: 1e-1

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| * BMP Title: Annual Public Stormwater Meeting and Monthly Town Board Meetings. |
| *BMP Description: <ul style="list-style-type: none">• Annual Township stormwater meeting.• Monthly Town Board meetings where stormwater management is discussed within the agenda. |
| *Measurable Goals <ul style="list-style-type: none">• Hold a meeting that includes SWPPP and stormwater information discussion and response• Not to exclude the annual stormwater meeting. |
| *Timeline/Implementation Schedule: <ul style="list-style-type: none">• Annual stormwater meetings were begun in 2003 and included published newsletter notice.• An annual stormwater meeting is held once a year prior to the June 30th deadline for submitting the SWPPP annual report. |
| *Specific Components and Notes: <ul style="list-style-type: none">• None |
| *Responsible Party for this BMP: <ul style="list-style-type: none">• Name: Duluth Township• Department: General Township• Phone: 218-525-5705 E-Mail: Townclerk@lakenet.com |

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BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: 2-PUBLIC PARTICIPATION/INVOLVEMENT

Unique BMP Identification Number: 2a-1

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| * BMP Title: Comply with Public Notice Requirements |
| *BMP Description: <ul style="list-style-type: none">• Notice of the Township annual stormwater meeting is published in the Township Newsletter, the local newspaper, and is posted at the town hall.• Public hearings regarding public hearings on Planning and Zoning matters are posted at Township official posting places.• Summaries of Planning and Zoning hearings are provided to the Town Board by the Planning Director or designate at monthly Town Board meetings and recorded in the meeting minutes.. |
| *Measurable Goals <ul style="list-style-type: none">• Compliance with state law on notification requirements. |
| *Timeline/Implementation Schedule: <ul style="list-style-type: none">• Annually or when required by law. |
| *Specific Components and Notes: <ul style="list-style-type: none">• None |
| *Responsible Party for this BMP: <ul style="list-style-type: none">• Name: Duluth Township• Department: General Township• Phone: 218-525-5705 E-Mail: Townclerk@lakenet.com |

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BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: 2-PUBLIC PARTICIPATION/INVOLVEMENT

Unique BMP Identification Number: 2b-1

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| * BMP Title: Solicit Public Input and Opinion on the Adequacy of the SWPPP |
| *BMP Description: <ul style="list-style-type: none">• Solicit questions and comments from Township residents who attend the annual township stormwater meeting or monthly Town Board meetings.• Solicit questions and comments from residents reading the SWPPP on the Township or Lake Superior Streams websites.• Invite both oral and written comments from the Township residents.• Publish information on availability of SWPPP for public comment in Township Newsletter |
| *Measurable Goals <ul style="list-style-type: none">• Resident comments will be noted and recorded in minutes of relevant meetings, and compiled from emails generated from on-line viewing or received in the mail. |
| *Timeline/Implementation Schedule: <ul style="list-style-type: none">• Ongoing through the public comment period and throughout the life of the SWPPP. |
| *Specific Components and Notes: <ul style="list-style-type: none">• None |
| *Responsible Party for this BMP: <ul style="list-style-type: none">• Name: Duluth Township• Department: General Township• Phone: 218-525-5705 E-Mail: Townclerk@lakenet.com |

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BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: 2-PUBLIC PARTICIPATION/INVOLVEMENT

Unique BMP Identification Number: 2c-1

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| * BMP Title: Consider Public Input |
| *BMP Description: <ul style="list-style-type: none">• Comments about the SWPPP will be noted, recorded, and summarized in the minutes of the meeting where they were raised, and/or will be summarized in the response to comments written by the Township following the public comment period. |
| *Measurable Goals <ul style="list-style-type: none">• Recording public comments for consideration of modification to the Township SWPPP. |
| *Timeline/Implementation Schedule: <ul style="list-style-type: none">• Comments will be solicited at Town Board meetings, the annual stormwater meeting, and via the websites, and will be entertained throughout the term of the permit. |
| *Specific Components and Notes: <ul style="list-style-type: none">• None |
| *Responsible Party for this BMP: <ul style="list-style-type: none">• Name: Duluth Township• Department: General Township• Phone: 218-525-5705 E-Mail: Townclerk@lakenet.com |

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BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: 3-ILLCIT DISCHARGE DETECTION AND
ELIMINATION.

Unique BMP Identification Number: 3a-1

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| * BMP Title: Storm Sewer Map |
| *BMP Description: <ul style="list-style-type: none">• St. Louis County and Duluth Township maintain and update a road right-of-way map showing all stormwater related structures (e.g., ditches, culverts).• The Township Planning Department will have on file a list of all stormwater structures. |
| *Measurable Goals <ul style="list-style-type: none">• Annual update of Township right-of-way maps to include any new stormwater structures. |
| *Timeline/Implementation Schedule: <ul style="list-style-type: none">• Completeness of map will be verified during annual Town Board road inspection tour |
| *Specific Components and Notes: <ul style="list-style-type: none">• None |
| *Responsible Party for this BMP: <ul style="list-style-type: none">• Name: Duluth Township• Department: General Township• Phone: 218-525-5705 E-Mail: Townclerk@lakenet.com |

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BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: 3-ILLCIT DISCHARGE DETECTION AND
ELIMINATION.

Unique BMP Identification Number: 3b-1

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| * BMP Title: Regulatory Control Program |
| *BMP Description: <ul style="list-style-type: none">The Township does not have an ordinance provision that addresses illicit stormwater discharge detection and elimination. It is the policy of the Township to address this matter to the St. Louis County Health Department. St. Louis County maintains the appropriate ordinances to deal with such issues. |
| *Measurable Goals <ul style="list-style-type: none">Reporting of all illicit discharge observations or reports to St. Louis County for enforcement. |
| *Timeline/Implementation Schedule: <ul style="list-style-type: none">Ongoing, with the County ordinance covering illicit discharges. |
| *Specific Components and Notes: <ul style="list-style-type: none">None |
| *Responsible Party for this BMP: <ul style="list-style-type: none">Name: Duluth TownshipDepartment: General TownshipPhone: 218-525-5705 E-Mail: Townclerk@lakenet.com |

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BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: 3-ILLCIT DISCHARGE DETECTION AND ELIMINATION.

Unique BMP Identification Number: 3c-1

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| * BMP Title: Illicit Discharge Detection and Elimination Plan |
| *BMP Description: <ul style="list-style-type: none">• Surveillance for illicit discharges during annual Town Board road inspection tour.• Ongoing surveillance for illicit discharges by Town Board Supervisor with responsibility for roads, and by Township road contractor. Observations of illicit discharges to be reported at monthly Town Board meetings and recorded in the meeting minutes.• Residents' reports and comments, either written or oral, will be referred to the Road Supervisor and noted in the minutes of the monthly Town Board meeting.• When an illicit discharge is identified, the Township will work with the responsible party to eliminate the discharge through education and/or County enforcement.• Where evidence of failing septic systems is noted (e.g., seepage with septic odor), Township will work with the County Health Department to take corrective measures. |
| *Measurable Goals <ul style="list-style-type: none">• Report to the St. Louis County Health Department all instances of possible illicit discharge issues.• Recording of relevant events in Town Board minutes. |
| *Timeline/Implementation Schedule: <ul style="list-style-type: none">• Annual Town Board road inspection tour.• Ongoing monitoring by Road Supervisor and Township road contractor.• Correct and/or refer cases of illicit discharges as such situations arise. |
| *Specific Components and Notes: <ul style="list-style-type: none">• None |
| *Responsible Party for this BMP: <ul style="list-style-type: none">• Name: Duluth Township• Department: General Township• Phone: 218-525-5705 E-Mail: Townclerk@lakenet.com |

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BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: 3-ILLCIT DISCHARGE DETECTION AND ELIMINATION.

Unique BMP Identification Number: 3d-1

| |
|---|
| * BMP Title: Public and Employee Illicit Discharge Information Program |
| *BMP Description: <ul style="list-style-type: none">• Public education through annual stormwater meeting and Township Newsletter to include information on septic system maintenance, and hazardous waste and chemical waste disposal. Partner with the Western Lake Superior Sanitary District (WLSSD), St. Louis County Health Department, and the Duluth/North Shore Sanitary District (D/NSSD) on distribution of educational information to Township residents and Township employees. Educational information should include:<ul style="list-style-type: none">○ The impact of illicit discharges on water quality○ The definition of illicit discharges for proper identification○ The safety precautions to be followed near illicit discharges How to report illicit discharges to St. Louis County, WLSSD, and D/NSSD. <ul style="list-style-type: none">• Post illicit discharge reporting information on Township website. |
| *Measurable Goals <ul style="list-style-type: none">• Documentation of information distributed through annual stormwater meeting and Township newsletter. |
| *Timeline/Implementation Schedule: <ul style="list-style-type: none">• Ongoing. |
| *Specific Components and Notes: <ul style="list-style-type: none">• None |
| *Responsible Party for this BMP: <ul style="list-style-type: none">• Name: Duluth Township• Department: General Township• Phone: 218-525-5705 E-Mail: Townclerk@lakenet.com |

** Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.*

BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: 3-ILLCIT DISCHARGE DETECTION AND ELIMINATION.

Unique BMP Identification Number: 3e-1

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|---|
| * BMP Title: Identification of Non Stormwater Discharges and Flows |
| *BMP Description: <ul style="list-style-type: none">• Annual road inspection to identify possible non-stormwater discharges.• Note instances of non-stormwater discharge and evaluate for potential of pollutants• Septic discharge will be reported by Township officials to the St. Louis County Health Department• Any sanitary discharges from the Duluth /North Shore Sanitary District will be reported.• Residents' reports of illicit non-stormwater discharges will be forwarded to the appropriate county authority. |
| *Measurable Goals <ul style="list-style-type: none">• Investigation and correction/referral of all identified or reported instances of non-stormwater discharges. |
| *Timeline/Implementation Schedule: <ul style="list-style-type: none">• Initiate identification of illicit non-stormwater discharge and continue annually during annual road and ditch inspection. |
| *Specific Components and Notes: <ul style="list-style-type: none">• None |
| *Responsible Party for this BMP: <ul style="list-style-type: none">• Name: Duluth Township• Department: General Township• Phone: 218-525-5705 E-Mail: Townclerk@lakenet.com |

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BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: 4 – Construction Site Stormwater Run-off
Control

Unique BMP Identification Number: 4a-1

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| * BMP Title: Ordinance or Other Regulatory Mechanism |
| *BMP Description: <ul style="list-style-type: none">• Township Planning and Zoning Ordinance <i>Article 3, Section 3 & 4</i> sets controls for soil erosion, sedimentation, runoff, and slope stability:<ul style="list-style-type: none">○ The construction site plan submittal by site operators to the Township requires inclusion of erosion and sediment control and stormwater treatment BMPs.○ Requirements and design standards for temporary erosion and sediment controls during construction activities○ Approval of site plan and sediment, erosion, and runoff controls by the Planning and Zoning Commission.○ Requirements and criteria for BMP maintenance○ Requirements and design standards for permanent stormwater management controls following the completion of construction activities.○ Requirements for stable slopes and the establishment of perennial vegetative cover on all exposed surfaces upon the completion of any construction activity.○ The regulatory mechanism outlines sanctions to ensure compliance, which includes a viable enforcement component. Compliance tools include, but are not limited to: (1) verbal warnings, (2) written warnings, (3) stop-work orders, and (4) fines. |
| *Measurable Goals <ul style="list-style-type: none">• The Township Zoning Ordinance was updated and adopted in 2005 to encompass up-to-date land use planning and stormwater issues |
| *Timeline/Implementation Schedule: <ul style="list-style-type: none">• Ongoing throughout the term of the permit• Post-construction runoff is addressed in the Township Zoning Ordinance Article 3, Section 4c. |
| *Specific Components and Notes: <ul style="list-style-type: none">• None |
| *Responsible Party for this BMP: <ul style="list-style-type: none">• Name: Duluth Township• Department: General Township• Phone: 218-525-5705 E-Mail: Townclerk@lakenet.com |

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BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: 4 – Construction Site Stormwater Run-off
Control

Unique BMP Identification Number: 4b-1

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| * BMP Title: Construction Site Implementation of Erosion and Sediment Control BMP's |
| *BMP Description: <ul style="list-style-type: none">• Township Planning Director will determine compliance of construction site plans with the Township Zoning Ordinance. Non-compliant plans will not be approved. |
| *Measurable Goals <ul style="list-style-type: none">• Compliance of site plan erosion control and stormwater runoff BMPs with Township Zoning Ordinance.• Landowner's use of land use permit application and mapping system to properly apply for and receive stormwater management element approvals, such as assuring proper setbacks and erosion control measures |
| *Timeline/Implementation Schedule: <ul style="list-style-type: none">• Ongoing throughout the term of the permit |
| *Specific Components and Notes: <ul style="list-style-type: none">• None |
| *Responsible Party for this BMP: <ul style="list-style-type: none">• Name: Duluth Township• Department: General Township• Phone: 218-525-5705 E-Mail: Townclerk@lakenet.com |

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BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: 4 – Construction Site Stormwater Run-off
Control

Unique BMP Identification Number: 4c-1

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|---|
| * BMP Title: Waste Controls for Construction Site Operators |
| *BMP Description: <ul style="list-style-type: none">• The Township will use the Western Lake Superior Sanitary District's and the County's solid waste ordinances, to address waste management problems.• The Township will utilize Township Police, or WLSSD/County enforcement mechanisms, as needed and appropriate, to address non-compliant sites. |
| *Measurable Goals <ul style="list-style-type: none">• Reporting of known instances of non-compliance to the appropriate enforcement officials, with documentation in minutes of monthly Town Board meetings. |
| *Timeline/Implementation Schedule: <ul style="list-style-type: none">• Ongoing throughout the term of the permit. |
| *Specific Components and Notes: <ul style="list-style-type: none">• None |
| *Responsible Party for this BMP: <ul style="list-style-type: none">• Name: Duluth Township• Department: General Township• Phone: 218-525-5705 E-Mail: Townclerk@lakenet.com |

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BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: 4 – Construction Site Stormwater Run-off
Control

Unique BMP Identification Number: 4d-1

| |
|---|
| * BMP Title: Procedure for Site Plan Review |
| *BMP Description: <ul style="list-style-type: none">• The Township Planning and Zoning Director will review all site plans as required in Article X of the Ordinance. |
| *Measurable Goals <ul style="list-style-type: none">• Only site plans complying with the Township Zoning Ordinance will be approved, especially in relation to stormwater runoff. |
| *Timeline/Implementation Schedule: <ul style="list-style-type: none">• Ongoing throughout the term of the permit. |
| *Specific Components and Notes: <ul style="list-style-type: none">• None |
| *Responsible Party for this BMP: <ul style="list-style-type: none">• Name: Duluth Township• Department: General Township• Phone: 218-525-5705 E-Mail: Townclerk@lakenet.com |

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BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: 4 – Construction Site Stormwater Run-off
Control

Unique BMP Identification Number: 4e-1

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|--|
| * BMP Title: Establishment of Procedures for the Receipt and Consideration of Reports of Storm Water Noncompliance |
| *BMP Description: <ul style="list-style-type: none">• Reports and inquiries about possible construction site stormwater runoff noncompliance will be directed to the Planning Director.• Contact information for the Planning Director and Town Board Supervisors are posted on the Township website and published in the Township Newsletter. |
| *Measurable Goals <ul style="list-style-type: none">• Actions of the Planning Director regarding reports of noncompliance with stormwater management on construction sites will be summarized by the Planning Director in his/her monthly report to the Town Board and will be recorded in the meeting minutes. |
| *Timeline/Implementation Schedule: <ul style="list-style-type: none">• Ongoing throughout the term of the permit.• Contact information will be posted on the Township website and noted in the newsletter. |
| *Specific Components and Notes: <ul style="list-style-type: none">• None |
| *Responsible Party for this BMP: <ul style="list-style-type: none">• Name: Duluth Township• Department: General Township• Phone: 218-525-5705 E-Mail: Townclerk@lakenet.com |

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BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: 4 – Construction Site Stormwater Run-off
Control

Unique BMP Identification Number: 4f-1

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|---|
| * BMP Title: Establishment of Procedures for Site Inspections and Enforcement |
| *BMP Description: <ul style="list-style-type: none">• The Township implements the provisions of the Township Zoning Ordinance Article 3, Section 3 & 4 for soil erosion, sedimentation, run-off, and slope stability.• The Planning Director or designate will inspect all sites for which complaints of noncompliance are received, and inspect 10% of construction sites each year. Emphasis will be given to sites with significant potential for stormwater-related impact, such as those with proximity to an impaired stream, trout stream, or Lake Superior, sites with unusually large construction activity, and significant projects in the Sensitive Area Overlay.• Enforcement process outlined in Article X of the Township Zoning Ordinance will be implemented if needed. |
| *Measurable Goals <ul style="list-style-type: none">• Enforce compliance with the Zoning Ordinance Article 3, Section 3 & 4• Number of inspections, complaints, and enforcement actions annually.• Records kept on results of all inspections, complaints, and enforcements and their outcome. |
| *Timeline/Implementation Schedule: <ul style="list-style-type: none">• Ordinance is in place and implementation will be ongoing throughout the term of the permit. |
| *Specific Components and Notes: <ul style="list-style-type: none">• None |
| *Responsible Party for this BMP: <ul style="list-style-type: none">• Name: Duluth Township• Department: General Township• Phone: 218-525-5705 E-Mail: Townclerk@lakenet.com |

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BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: 5 – Post –Construction Stormwater
Management in New Development and
Redevelopment

Unique BMP Identification Number: 5a-1

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|---|
| * BMP Title: Development and Implementation of Structural and/or Non-structural BMP's |
| *BMP Description: <ul style="list-style-type: none">• Ensure compliance with development or re-development plans that include structural and/or non-structural BMPs by annually inspecting 10% of permitted construction sites.• Enforcement of Township post-construction stormwater controls are accomplished through the construction project approval processes, site inspections, and, when necessary, by withholding permits or issuing stop-work or correction orders. |
| *Measurable Goals <ul style="list-style-type: none">• Records of annual inspections are maintained, along with notes on resolution of any problems noted.• Records of all permits approved and any enforcement actions taken are maintained by the Planning Department. |
| *Timeline/Implementation Schedule: <ul style="list-style-type: none">• Ongoing throughout the term of the permit.• The Township Planning and Zoning Commission will only approve permits for development or redevelopment that include appropriate BMPs to manage post-construction stormwater runoff.• Post-construction erosion control measures were adopted in 2005 in the Township Zoning Ordinance. |
| *Specific Components and Notes: <ul style="list-style-type: none">• None |
| *Responsible Party for this BMP: <ul style="list-style-type: none">• Name: Duluth Township• Department: General Township• Phone: 218-525-5705 E-Mail: Townclerk@lakenet.com |

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BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: 5 – Post –Construction Stormwater
Management in New Development and
Redevelopment

Unique BMP Identification Number: 5b-1

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| * BMP Title: Regulatory Mechanism to Address Post-Construction Runoff from New Development and Redevelopment |
| *BMP Description: <ul style="list-style-type: none">• Ongoing compliance with applicable section of the Township Zoning Ordinance, Article 3, Sections 3 & 4.• The Township land use permit process identifies sites with potential for post-construction runoff issues.• Duluth Township accomplishes post-construction stormwater runoff controls via Zoning Ordinance requirements passed in 2005 through the construction project approval process and, when enforcement, is necessary by withholding permits or issuing correction orders. |
| *Measurable Goals <ul style="list-style-type: none">• Records describing all instances of non-compliance, discovered during inspection of 10% of construction permits (or via complaints), including steps taken to resolve issue.• Only permits with appropriate post-construction runoff controls, as described in the Township Zoning Ordinance, are approved. |
| *Timeline/Implementation Schedule: <ul style="list-style-type: none">• Regulations and ordinances are in place and ongoing. |
| *Specific Components and Notes: <ul style="list-style-type: none">• None |
| *Responsible Party for this BMP: <ul style="list-style-type: none">• Name: Duluth Township• Department: General Township• Phone: 218-525-5705 E-Mail: Townclerk@lakenet.com |

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BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: 5 – Post –Construction Stormwater
Management in New Development and
Redevelopment

Unique BMP Identification Number: 5c-1

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| * BMP Title: Long-term Operation and Maintenance of BMP's |
| *BMP Description: <ul style="list-style-type: none">• Continue annual inspections of Township roads, road right-of-ways, ditches, and culverts to ensure proper stormwater runoff and functional road right-of-ways.• Any storm water-related problems that are encountered will be assessed and corrected either by the Township road contractor or by the responsible party. |
| *Measurable Goals <ul style="list-style-type: none">• Maintain clean and operable road right-of-way infrastructure. |
| *Timeline/Implementation Schedule: <ul style="list-style-type: none">• Ongoing throughout the term of the permit. |
| *Specific Components and Notes: <ul style="list-style-type: none">• None |
| *Responsible Party for this BMP: <ul style="list-style-type: none">• Name: Duluth Township• Department: General Township• Phone: 218-525-5705 E-Mail: Townclerk@lakenet.com |

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BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: 6 – Pollution Prevention/Good Housekeeping

Unique BMP Identification Number: 6a-1

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| * BMP Title: Municipal Operations and Maintenance Program |
| *BMP Description: <ul style="list-style-type: none">• Routine road inspection by the Town road supervisor, and maintenance by qualified road contractor.• Ongoing participation by Township officials and staff in educational programs provided by the RSPT, County, or State. |
| *Measurable Goals <ul style="list-style-type: none">• .Maintain clean and operable road right-of-way and infrastructure• Ensure that Township officials, staff, and contractors are appropriately trained and understand the issues of stormwater management in rural townships. |
| *Timeline/Implementation Schedule: <ul style="list-style-type: none">• Ongoing for the term of the permit |
| *Specific Components and Notes: <ul style="list-style-type: none">• None |
| *Responsible Party for this BMP: <ul style="list-style-type: none">• Name: Duluth Township• Department: General Township• Phone: 218-525-5705 E-Mail: Townclerk@lakenet.com |

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BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: 6 – Pollution Prevention/Good Housekeeping

Unique BMP Identification Number: 6b-2

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|---|
| * BMP Title: Annual Inspection of all Structural Pollution Control Devices |
| *BMP Description: <ul style="list-style-type: none">• Duluth Township does not own or operate any structural pollution control devices. If any are installed during the term of this permit, inspections will be completed at least annually and inspection record will be utilized to document each inspection's findings. Work orders will be prepared for any maintenance needs identified during inspections. Completion of work orders will be tracked. |
| *Measurable Goals <ul style="list-style-type: none">• Only after structural pollution control devices are installed:<ul style="list-style-type: none">○ Written inspection procedures, with inspection criteria and inspection record○ Staff trained in the inspection of the devices○ Number of inspection records○ Number of work orders○ Completed maintenance |
| *Timeline/Implementation Schedule: <ul style="list-style-type: none">• If structural pollution control devices are installed , this BMP will be ongoing throughout the term of the permit |
| *Specific Components and Notes: <ul style="list-style-type: none">• None |
| *Responsible Party for this BMP: <ul style="list-style-type: none">• Name: Duluth Township• Department: General Township• Phone: 218-525-5705 E-Mail: Townclerk@lakenet.com |

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BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: 6 – Pollution Prevention/Good Housekeeping

Unique BMP Identification Number: 6b-3

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| * BMP Title: Inspection of a Minimum of 20 percent of the MS4 Outfalls, Sediment Basins and Ponds each year on a Rotating Basis |
| *BMP Description: <ul style="list-style-type: none">• All MS4 outfalls (e.g., where Township ditches intersect streams or Lake Superior) will be inspected annually during annual Town road inspection.• Duluth Township does not own or operate any sediment basins or ponds.• If sediment basins or ponds are constructed for the Township, Duluth Township will develop procedures and inspection records for those owned and maintained by the Township.• The Township will complete inspections using the appropriate inspection record to document each inspection's findings. Work orders will be prepared for any maintenance needs identified during inspections. Completion of work orders will be tracked. |
| *Measurable Goals <ul style="list-style-type: none">• The annual road, ditch, and culvert inspection will make specific note of the condition of all Township ditch-stream intersections (outfalls) and their condition.• Any problems noted at outfalls are addressed by the Town road contractor, or by separate contract, under the oversight of the Town Road Supervisor.• Minutes of monthly Town Board meetings will document problems encountered and addressed. |
| *Timeline/Implementation Schedule: <ul style="list-style-type: none">• Ongoing throughout the term of the permit |
| *Specific Components and Notes: <ul style="list-style-type: none">• None |
| *Responsible Party for this BMP: <ul style="list-style-type: none">• Name: Duluth Township• Department: General Township• Phone: 218-525-5705 E-Mail: Townclerk@lakenet.com |

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BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: 6 – Pollution Prevention/Good Housekeeping

Unique BMP Identification Number: 6b-4

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|---|
| * BMP Title: Annual Inspection of All Exposed Stockpile, Storage, and Material Handling Areas |
| *BMP Description: <ul style="list-style-type: none">Duluth Township does not own any of the above areas. |
| *Measurable Goals <ul style="list-style-type: none">At such time as the above storage or handling activities are undertaken by the Township, the Township will maintain the sites so that stormwater is properly managed. |
| *Timeline/Implementation Schedule: <ul style="list-style-type: none">To be implemented at such time as these activities are undertaken by the Township. |
| *Specific Components and Notes: <ul style="list-style-type: none">None |
| *Responsible Party for this BMP: <ul style="list-style-type: none">Name: Duluth TownshipDepartment: General TownshipPhone: 218-525-5705 E-Mail: Townclerk@lakenet.com |

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BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: 6 – Pollution Prevention/Good Housekeeping

Unique BMP Identification Number: 6b-5

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| <p>* BMP Title: Inspection Follow-up Including the Determination of Whether Repair, Replacement, or Maintenance Measures are Necessary, and the Implementation of the Corrective Measures.</p> |
| <p>*BMP Description:</p> <ul style="list-style-type: none">• During periods of thawed soils, monthly communication between the Town Road Supervisor and the Town road contractor to report corrective measures needed on Township roads• Annual road inspection by Town Board.• Annual inspection of Township-owned properties to ensure that there are no stormwater runoff issues.• Reports from Town Road Supervisor to Town Board during monthly meetings.• Town Board authorization for implementation of corrective measures, as necessary. |
| <p>*Measurable Goals</p> <ul style="list-style-type: none">• Corrective actions are implemented and completed, and recorded in Town Board meeting minutes. |
| <p>*Timeline/Implementation Schedule:</p> <ul style="list-style-type: none">• Ongoing throughout the term of the permit. |
| <p>*Specific Components and Notes:</p> <ul style="list-style-type: none">• None |
| <p>*Responsible Party for this BMP:</p> <ul style="list-style-type: none">• Name: Duluth Township• Department: General Township• Phone: 218-525-5705 <p>E-Mail: Townclerk@lakenet.com</p> |

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BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: 6 – Pollution Prevention/Good Housekeeping

Unique BMP Identification Number: 6b-6

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|---|
| * BMP Title: Record Reporting and Retention of All Inspections and Responses to the Inspections. |
| *BMP Description: <ul style="list-style-type: none">• Keep monthly Town Board minutes and road maintenance records, including records of all corrective measures taken. |
| *Measurable Goals <ul style="list-style-type: none">• Keep a maintenance history of road right-of-way and infrastructure on an annual basis. |
| *Timeline/Implementation Schedule: <ul style="list-style-type: none">• In place and ongoing throughout the term of the permit. |
| *Specific Components and Notes: <ul style="list-style-type: none">• None |
| *Responsible Party for this BMP: <ul style="list-style-type: none">• Name: Duluth Township• Department: General Township• Phone: 218-525-5705 E-Mail: Townclerk@lakenet.com |

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BMP Summary Sheet

MS4 Name: Duluth Township

Minimum Control Measure: 6 – Pollution Prevention/Good Housekeeping

Unique BMP Identification Number: 6b-7

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|---|
| * BMP Title: Evaluation of Inspection Frequency |
| *BMP Description: <ul style="list-style-type: none">• Inspection frequency should be sufficient to maintain road right-of-way and infrastructure in good working condition.• Annual road inspection by Town Board.• Spot inspection by Town Road Supervisor following any unusually heavy storm events with potential to damage Town infrastructure. |
| *Measurable Goals <ul style="list-style-type: none">• Based on inspection notes, determine if inspection frequency needs to be adjusted. |
| *Timeline/Implementation Schedule: <ul style="list-style-type: none">• Ongoing throughout the term of the permit. |
| *Specific Components and Notes: <ul style="list-style-type: none">• None |
| *Responsible Party for this BMP: <ul style="list-style-type: none">• Name: Duluth Township• Department: General Township• Phone: 218-525-5705 E-Mail: Townclerk@lakenet.com |

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BMP Summary Sheet

MS4 Name: DULUTH TOWNSHIP

Minimum Control Measure: ----

Unique BMP Identification Number: 7a

***BMP Title:** **IMPAIRED WATERS**

[Note: Impaired waters are waters that are included on the EPA/MPCA 303(d) Impaired Waters list. The MPCA MS4 Stormwater Permit requires a review of the stormwater discharge(s) to list impaired waters to determine if there are SWPPP BMP's that may improve Minnesota waters that exceed the USEPA-approved Total Maximum Daily Load (TMDL) allocation for individual pollution parameters. Partial lists of TMDL pollutants that have been identified in impaired waters that a SWPPP may address include the following: ammonia, pesticides, chloride, fecal coliform, dissolved oxygen, pH, turbidity, and temperature. {see MPCA 2006 Final List of Impaired Waters <http://www.pca.state.mn.us/publications/wq-iw1-03.xls> and the MPCA Impaired Waters Search Tool at <http://www.pca.state.mn.us/water/stormwater/stormwater-c.html> - then Go to "Special and Impaired Waters" and Click on "Special Waters Search Tool" - dated 5-07}.]

Duluth Township has four impaired waters that are included on the MPCA's 303(d) Impaired Waters list. The impaired waters are:

- Big Sucker Creek: turbidity and aquatic life
- French River: turbidity and aquatic life
- Little Knife River: turbidity, dissolved oxygen, and aquatic life
- Talmadge River: turbidity, dissolved oxygen, and aquatic life

Part IV.D of the MS4 Permit requires the Township to conduct a review of the stormwater discharge(s) from the Township that may impact impaired waters. For impaired waters that do not currently have a USEPA-approved TMDL, the permit requires the Township to determine whether changes are warranted in the Township SWPPP to reduce the impact of discharges. Any reviews carried out will be in collaboration with the City of Duluth and researchers associated with the Lake Superior Streams group. Water quality and ecological goals and objectives regarding the Township's streams will be addressed in the County's Surface Water Management Plan. Once developed, this plan will include specific objectives that address collaboration with the City of Duluth and Lake Superior Streams researchers in the development of management plans for impaired waters within the Township. The plan will indicate a biannual review of the following five impaired waters tasks that will be conducted during the current permit cycle:

- (1) Review the USEPA approved 303(d) impaired waters list (updated biannually by EPA) to determine whether any listed impaired waters receive a stormwater discharge from Duluth Township and are likely to be impacted by stormwater discharge from the Township,
- (2) Use a combination of road and ditch maps and field surveys to identify all potential stormwater discharges impacting impaired waters,
- (3) Map the watershed area(s) which contribute to the above discharge point(s),
- (4) Utilize Town Board and staff to evaluate / consider the need for changes to the Township SWPPP to reduce the impact of discharges from the Township to the impaired waters by generally considering the following issues: hydrology and land characteristics such as total area, slope, type of vegetation, soil types, percentage of impervious surfaces, runoff volumes and rates, land use, and other characteristics of the watershed area(s) of the receiving impaired water that may cause a stormwater impact,
- (5) Document for Township records a written overview of the discussion of Township officials'

assumptions and decisions relating to the need for changes to the twp SWPPP to reduce identified pollutant levels.

Location(s) in SWPPP of detailed information relating to this BMP:

***Measurable Goals:**

- Collaborate with the City of Duluth and Lake Superior Streams researchers to carry out a review of the impaired waters issue, including a schedule of steps to be taken by using existing Township and County staff or other experts to make recommendations on incorporating improvements to the SWPPP.
- Complete reviews involving Township collaboration with area scientists and technical staff to accomplish the five listed review tasks. This includes developing an outline of the schedule and steps to be taken to make changes to the SWPPP.
- Complete a written overview of the discussion of the staff assumptions and decisions that change to the Township SWPPP is needed to address TMDL improvements.
- Prepare a written inventory of all impaired waters within the Township as well as those outside Township boundaries likely to have an impact as a result of receiving stormwater discharge from the Township; compile as much detail about the stormwater discharges the Township receives from other MS4's as is available.
- Revise the Township SWPPP to include:
 - (1) A map showing the location(s) of the impaired water(s), MS4 discharge points and identified watershed areas, and the TMDL pollutants the SWPPP BMPs can address.
 - (2) Incorporating updated or new BMP summary sheets that implement the conclusions of the impaired waters review, and initiate the measures or actions that are warranted resulting in reduced impact from Township discharge to the impaired water(s).

***Timeline/Implementation Schedule:**

- Every two years starting in 2010 review the EPA impaired waters list and complete above tasks.

Specific Components and Notes:

None.

***Responsible Party for this BMP:**

Name: DULUTH TOWN BOARD
Department: General Township
Phone: 218-525-5705
E-mail: Townclerk@lakenet.com

BMP Summary Sheet

MS4 Name: DULUTH TOWNSHIP

Minimum Control Measure:

Unique BMP Identification Number: 7-b – TROUT WATERS -- General Permit Appendix C –

***BMP Title:** Trout Waters – Requirements for Stormwater Discharges to Trout Waters

***BMP Description:**

This BMP is designed to assist Duluth Township in the proper control and management of new or expanded stormwater discharges to the Township’s eight trout waters from the baseline set at 1988 levels. Under Part C of Appendix C of the MPCA General MS4 Stormwater Permit, **Discharges Adversely Impacting Trout Waters** (*Minn. R. 6264.0050 subp. 2 and 4*), the following requirements apply to Trout Waters listed in Minn. R. 6264.0050, subp. 2 and 4:

1. The MPCA MS4 General Permit for storm sewer systems does not authorize **New or Expanded Discharges** adversely impacting trout waters unless, at minimum, **the MS4** establishes administrative procedures or other measures to ensure that **the MS4** makes the following determinations and documents the basis for the MS4’s decision:
 - a. That there is no feasible and prudent alternative to the proposed discharge; and
 - b. All prudent and feasible measures needed to avoid or **reduce** impacts to trout waters, and to preserve the existing high quality of the water will be implemented.
2. If the discharge cannot be avoided, the MS4 must consider measures to protect water quality and prevent temperature increases. Acceptable measures include reducing the impervious surfaces, retaining riparian area trees, diversion of runoff away from the stream, and use of filter strips, infiltration, biofiltration, or enhanced grass swales to treat runoff before discharge to the trout water. Innovative alternatives to ponds are specifically encouraged for trout water discharges if they provide equivalent treatment

[NOTE: Building Contractors (operators) and individuals (owners) commencing construction activity are already required to prepare a construction site SWPPP (*part of a required stormwater construction permit application – a SWPPP template is available*) containing BMPs that will be used on the construction site and to comply with the construction site SWPPP. The SWPPP must be in compliance with the provisions of the MPCA’s general construction stormwater permit for construction activity and the Clean Water Act, as amended, (33 U.S.C. 1251 et seq.), 40 CFR 122, 123, and 124, as amended, et seq.; Minn. Stat. chs. 115 and 116, as amended, and Minn. R. ch. 7001. Attached below are excerpts of the MPCA’s general construction stormwater permit relating to trout streams. A MPCA stormwater permit is required for all construction sites that disturb one or more acres of land.]

The Township has taken the following actions to enact Township BMP measures that address required protections for discharges adversely impacting trout waters :

- The Township has approved a Comprehensive Plan that seeks to protect, among other things, sensitive areas from erosion, to limit the effects of stormwater and non-point pollution from impervious surfaces on rivers, streams, wetlands, and Lake Superior, and to prevent development along Lake Superior that will cause erosion or reduce water quality.
- The Township has enacted a Zoning Ordinance requiring, as part of the land use permit application or land development process, that each application for

Township construction approval include:

- A map showing where water from the parcel will drain and the location of any nearby trout waters which may be impacted from project development activity;
- BMPs that applicants will employ to prevent the following in trout waters:
 - habitat degradation (*addressed in the Ordinance and Township practices*),
 - water warming (*not directly addressed in an ordinance or with a Township BMP on the issue, but indirectly is addressed with limits on new impervious surfaces*),
 - sediment entry (*addressed in the Township Zoning Ordinance and Township practices*),
 - chloride toxicity (*not addressed in an ordinance or Township BMP on the issue*).

***Measurable Goals:**

- Number of land use permits received per year
- Number of land use permits reviewed for trout water impacts per year
- Number of violations of trout stream requirements on the initial land use permit requests, and records of the ultimate resolution of these issues.

***Timeline/Implementation Schedule:**

- Prepare, by the end of 2009, a BMP for land use permit applications that addresses the following for trout streams:
 - A best management practice listing of steps/explanations /content information that land use permit applicants should use to address that there
 - is no feasible and prudent alternative to the proposed discharge; and
 - that all prudent and feasible measures needed to avoid or **reduce** impacts to trout waters, and to preserve the existing high quality of the water will be implemented.
- Prepare, by the end of 2009, a BMP for addressing the issue of reducing the potential for chloride toxicity in rivers and streams in the Township.

Specific Components and Notes: NONE

***Responsible Party for this BMP:**

| | |
|-------------|--|
| Name: | DULUTH TOWN BOARD |
| Department: | Department: General Township |
| Phone: | 218-525-5705 http://www.duluthtownship.org/index.htm |
| E-mail: | Townclerk@lakenet.com |

Information Excerpts from the Draft General Construction Stormwater Permit relating to discharges to trout streams, impaired waters and Lake Superior

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

ISSUANCE DATE: August 1, 2008
EXPIRATION DATE: August 1, 2013

In compliance with the provisions of the Clean Water Act, as amended, (33 U.S.C. 1251 et seq.), 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 stormwater to the waters of the state of Minnesota associated with construction activity. This permit covers the stormwater 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 National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) construction stormwater 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 complete and accurate application (including permit fee) in accordance with the requirements of this permit are authorized to discharge stormwater from construction sites under the terms and conditions of this permit as described in Part II.B.

.....

B. REQUIREMENTS FOR DISCHARGES TO SPECIAL WATERS AND IMPAIRED WATERS

8. **Trout Streams:** Listed in Minn. R. 6264.0050, subp. 4. Discharges to these waters must incorporate the **BMPs** outlined in C.1, C.2, C.3, and C.5 of this Appendix.

APPENDIX C. ADDITIONAL BMPs FOR SPECIAL WATERS AND IMPAIRED 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 **stormwater** 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 linear projects where the lack of right of way precludes the installation of any of the permanent **stormwater** 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 must be **stabilized** as soon as possible to limit soil erosion but in no case later than seven (7) days after the **construction activity** in that portion of the site has temporarily or permanently ceased.
- 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 **stormwater** management system described in Part III.C. shall be one (1) inch of runoff from the new **impervious surfaces** created by the project. Where site conditions allow, at least ½ inch of the **water quality volume** must be infiltrated. See Part III.C.2 for more information on infiltration design and appropriate site conditions. If it is determined that site conditions are not appropriate for infiltration (e.g. lack of 3 ft. of separation to seasonally saturated ground water, proximity to bedrock, contaminated soils) the reasons should be documented in the **SWPPP** for the project. Infiltration is not required in Hydrologic Soil Group D soils.

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, limited water access and restoration of the buffer are allowed if the **Permittee** fully documents in the **SWPPP** the circumstances and reasons that the buffer encroachment is necessary. Replacement of existing impervious surface within the buffer is allowed under this

permit. All potential water quality, scenic and other environmental impacts of these exceptions must be minimized by the use of additional **BMPs** and documented in the **SWPPP** for the project.

4. Temperature Controls.

The Permanent **Stormwater** 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.

INFORMATION ON APPLICABLE BMP's for TROUT WATERS PROTECTIONS FOR PARTIES INITIATING CONSTRUCTION ACTIVITY IN THE TOWNSHIP

-- *Excerpt from the "MPCA 2005 Stormwater Manual" – Chapter 10*

Persons initiating construction activity must consider and indicate the BMP measures to be taken to infiltrate rainwater runoff, reduce the velocity of discharges, and prevent an increase in trout stream temperature due to the raised temperature of stormwater runoff into trout streams.

Some examples of **Best Management Practices** that accomplish these goals are as follows:

- Using forested wetland design
- Maximize use of better site design techniques
- Use infiltration and bioretention to the maximum extent possible (seek infiltration whenever possible and discourage discharge to trout streams from ponds with standing water.)
- Construct BMPs "off-line"
- Shade pilot and outflow channels and micropools by planting trees and shrubs
- Plant trees to the maximum extent possible in the stormwater practices and buffers
- Manage buffers to maximize forest cover and shading in riparian areas
- Pre-treat roadway runoff to reduce sediment and road sand discharges to streams
- Develop and test roadway spill management plans
- Implement BMP actions to reduce construction runoff and channel erosion

In addition, applicants should ensure that each project and its BMPs do not have:

- Create a large, unshaded permanent pool or shallow wetland
- Extensive and unshaded pilot and outflow channels within the BMP
- An open water extended detention time longer than 24 hours
- Extensive exposed riprap or concrete channel
- An on-line or in-stream location
- A building location within the forested buffer
- Infiltration practices that are undersized or lack pre-treatment.

BMP Summary Sheet

MS4 Name: Duluth Township

Permit Condition: IX.Appendix C. Part A and/or Part B.

Unique BMP Identification Number: 7-c Outstanding Resource Value Waters

***BMP Title:** Discharges to ORVW Waters with Restricted Discharges Assessment

***BMP Description:**

As an MS4 located within a watershed that discharges to Lake Superior, an Outstanding Resource Value Waster (ORVW) water, Duluth Township will submit an assessment of the stormwater conveyance system and other documentation required in Appendix C of permit MNR040000 of which the following are major components:

1. Identify all Township stormwater discharges to the restricted water.
 - The Township owns and maintains 12 miles of Township roads
 - None of the Township roads border Lake Superior; however, the Township will evaluate the ditch system to determine if there are discharges into streams that have a direct discharge to the lake.
 - The majority of roads have ditches and numerous culverts that convey stormwater to areas where it is infiltrated into the ground or flows to the various trout streams in the Township.
 - There has been no change, other than maintenance and repair, to the Township stormwater conveyance system since 1984
 - There is no direct Township stormwater conveyance system connection to Lake Superior
 - The Township is entering Township-owned road and stormwater conveyance system grid coordinates into the Township's geographical information system (GIS)
2. Map the flow directions at an appropriate sub-watershed level from the identified discharge points and routes to the ORVW waters.
 - The GIS mapping system contains the following zoning information that can be presented
 - land zoning areas
 - stream watersheds
 - elevation contours
 - soil types
 - buildings and homes
 - hard surface values
 - vegetative cover
 - Attached is a map showing the watersheds for the various streams in the Township
3. Evaluate past and future changes in each sub-watershed, projected out at least through the year 2020. This evaluation should include changes in land use, hydrology, modifications to the MS4 system, or other changes. Determine if a new or expanded discharge has or would occur, and the magnitude of the potential changes.
 - The Township has a population of 1747, with an anticipate growth in the next 10 years of 1.2% or 218 people.
 - 42% of the population lives adjacent to Lake Superior, between the shore and State Highway 61
 - There is very little area remaining for development along the shore, and significant zoning ordinance provisions are in place to limit development and stormwater flow directly to the lake.

- Currently in the Township there are very few commercial establishments and there are also no food / convenience stores.
 - The Township has an approved comprehensive development plan and associated zoning ordinances that support the continuation of the existing character of the community, and that limit or redirect development that puts at risk the carrying capacity of land or wetlands.
 - The likely development in the next 10 years of approximately 70 residential homes and limited commercial establishment will result in an essentially insignificant increase in stormwater flow volume to Township streams (New development next to the lake has a very limited potential).
 - No significant new or expanded stormwater runoff volumes will be permitted to flow into the Township or county stormwater system and then into streams from an anticipated 70 single family residential homes spread throughout the 47 square miles of the Township in the next 10 years. The anticipated homes are likely to be located primarily outside of the shore area east of Highway 61 in essentially rural areas, and any stormwater runoff increase is anticipated to be insignificant.
4. Evaluate alternatives to the discharge. Before local approval of new development, each project will be required to propose a plan that complies with the rule. They will determine if there are feasible and prudent alternatives to the discharge, such as diversion from the ORVW watershed, low impact design, infiltration, or other alternatives. MPCA will be consulted, if necessary, to make the final determination.
- The Township has an extensive and comprehensive zoning ordinance adopted in 2005 that addresses stormwater runoff related to new construction, a land use permit process that is linked to a Geographical Information System incorporating watershed, topography, zoning restrictions, stream setback requirements, etc., that essentially requires applicants to investigate alternatives to stormwater runoff.
5. If Duluth Township concludes that they can not eliminate the new or expanded discharge entirely, Duluth Township will propose BMPs as part of the assessment and plan that allow the existing high quality of the ORVW water to be maintained, which will preserve the wilderness, scientific, recreational, or other special use characteristics that make the listed waters an ORVW.

***Measurable Goals:**

- Complete the current GIS mapping of the Township stormwater conveyance system by 2010
- Carry out an analysis of new stormwater flow if a large commercial establishment is proposed for development and cannot infiltrate all stormwater on-site.

***Timeline/Implementation Schedule:**

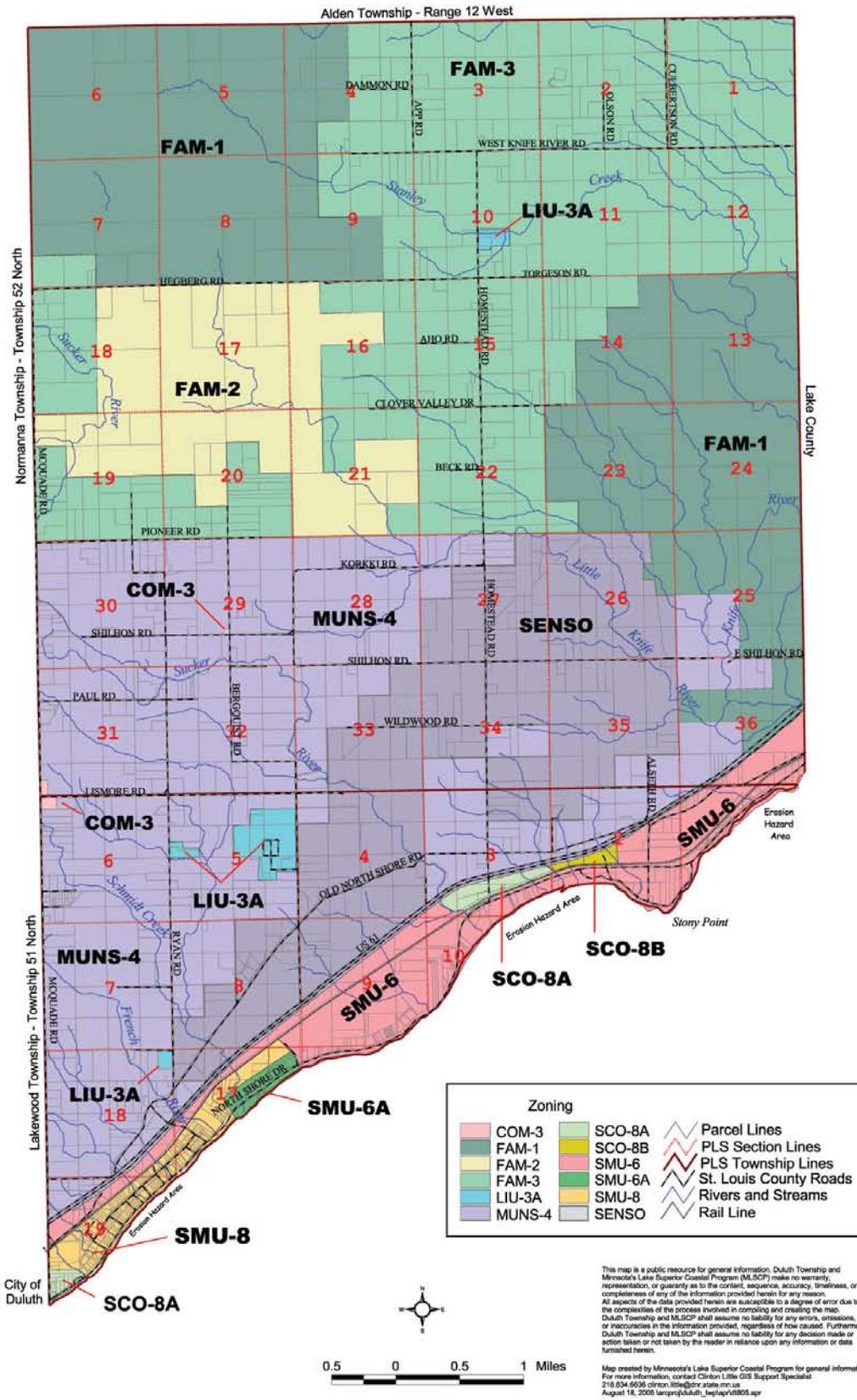
- Carry out an analysis of new stormwater flow if a large commercial establishment is proposed for development and cannot infiltrate all stormwater on-site.

Specific Components and Notes:

***Responsible Party for this BMP:**

Name: Duluth Town Board Officers
 Department: General Township
 Phone: 218-525-5705 <http://www.duluthtownship.org/index.htm>
 E-mail: Townclerk@lakenet.com --

Zoning Map - Duluth Township St. Louis County, MN



Land Use/ Stormwater Planning Tools for Duluth Township Landowners

This pilot project features [two options](#) for landowners to gain access to working maps of their property in Duluth Township.



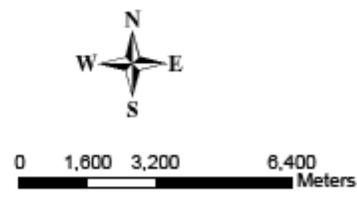
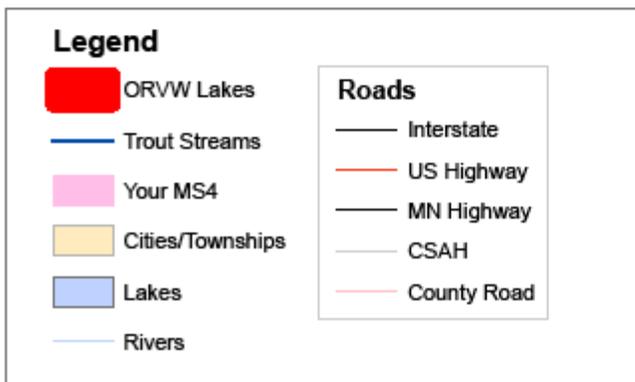
- The first option automatically generates a personalized copy of the [Duluth Township Land Use Permit Application](#) complete with supplemental data and aerial photos specific to your property.
- The second option launches an Internet Map Server that allows you to zoom into your property and view a variety of Duluth Township maps including watersheds, soils, wetlands, topography, and aerial photos.
- [More about this project](#)

[Start Here](#)

This project was funded in part by the Coastal Zone Management Act, by NOAA's Office of Ocean and Coastal Resource Management, in cooperation with Minnesota's Lake Superior Coastal Program and the University of Minnesota Duluth Center for Community and Regional Research - University of Minnesota Duluth.



DuluthTownship MS4 Waters of Interest 7/31/2006

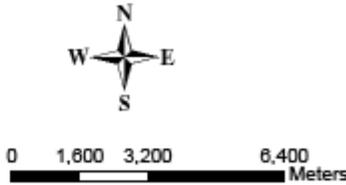


Duluth Township MS4 Impaired Waters 7/31/2006



Legend

| | |
|--|---|
|  Impaired Lakes | Roads |
|  Impaired Streams |  Interstate |
|  Your MS4 |  US Highway |
|  Cities/Townships |  MN Highway |
|  Lakes |  CSAH |
|  Rivers |  County Road |



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