

# General Stormwater Permit (MN R 040000) Application for Small Municipal Separate Storm Sewer Systems (MS4s)

# RETURN THIS APPLICATION TO: Minnesota Pollution Control Agency

520 Lafayette Road North St. Paul, MN 55155-4194

**NO FEE** 

Application deadline: June 1, 2006

**PLEASE READ:** As you complete this form, read the instructions carefully. Use your keyboard's "Tab" key to move through the fields of this form. Select check-boxes and enter text as indicated. Save, and print.

| I. MS4 Information                 |                            |                        |                           |                 |
|------------------------------------|----------------------------|------------------------|---------------------------|-----------------|
| A. Application Type                |                            |                        |                           |                 |
| ☐ New applicant (this MS-          | 4 has no previous appl     | ication for MS4 c      | overage on file at MPCA)  |                 |
| Application for re-issuar          | nce of coverage (this M    | MS4 applied in 20      | 03)                       |                 |
| B. MS4 Owner General Conta         | act (the community, 1      | nunicipality, age      | ncy or other party having | g ownership or  |
| operation control of the M         | S4)                        |                        |                           | •               |
| CITY OF DULUTH                     | ,                          |                        |                           |                 |
| Community, municipality, agency of | or other party having owne | rship or operational c | ontrol of the MS4         |                 |
| 411 W 1 <sup>st</sup> STREET       |                            |                        |                           |                 |
| Mailing Address                    |                            |                        |                           |                 |
| DULUTH                             |                            | MN                     | 55802                     |                 |
| City                               |                            | State                  | Zip Code                  |                 |
| ST. LOUIS                          |                            |                        |                           |                 |
| County                             |                            |                        |                           |                 |
| 41-6005105                         | 8021696                    |                        |                           |                 |
| Federal Tax ID                     | State Tax ID               |                        |                           |                 |
| C. General Contact (official, s    |                            | ,                      | all general corresponden  | ce about Permit |
| compliance issues between          | the MPCA and your          | MS4                    |                           |                 |
| LONSDALE                           | MARNIE                     | PROJECT                |                           |                 |
|                                    |                            | COORDINATO             | OR                        |                 |
| Last Name                          | First Name                 | Title                  |                           |                 |
| 520 GARFIELD AVE                   |                            |                        |                           |                 |
| Mailing Address                    |                            |                        |                           |                 |
| DULUTH                             |                            | MN                     | 55802                     |                 |
| City                               |                            | State                  | Zip Code                  |                 |
| (218) 730-4130                     |                            | mlonsdale@ci.          | duluth.mn.us              |                 |
| Telephone (include area code)      |                            | E-mail Address         |                           |                 |

#### II. Certification of the Storm Water Pollution Prevention Program (SWPPP)

#### A. Have you developed a Storm Water Pollution Prevention Program for your MS4?

**Yes** 

Municipalities must demonstrate how their Storm Water Pollution Prevention Program will be implemented and enforced over the term of the five-year Permit. SWPPPs must incorporate appropriate educational components, all required BMPs and the measurable goals associated with each. Storm Water Pollution Prevention Programs must address the specific requirements contained in Part V. G. of the Permit. SWPPPs must outline how the six minimum control measures will be addressed, the contact person, department in charge, timeline and measures that will be implemented to meet the schedules required by the Permit. Attach a BMP Summary Sheet to this application for *each* BMP in your SWPPP.

**B.** Does your SWPPP address all of the six Minimum Control Measures as outlined in the Permit? The General Permit requires that you incorporate all six of the defined Minimum Control Measures in your Stormwater Pollution Prevention Program. You are required to implement mandatory BMPs which

**Yes** 

C. Have you attached the included BMP Summary Sheets, one for each of the Best Management Practices required by the Permit?

**Yes** 

There are 34 required BMPs all of which require that the provided BMP Summary Sheet be filled out completely and included with your Storm Water Pollution Prevention Program. If any of these required sheets are missing, your application will not be considered complete and will be returned to you.

#### III. Reporting and Recordkeeping

A. I have read and understand Part VI *Evaluating, Recordkeeping, and Reporting* of the MS4 General Permit and certify that we intend to comply with the applicable requirements of those sections as well as the Permit as a whole.

⊠Yes

#### B. Where will your SWPPP be available to the public for review?

are directly associated to each of the Six Minimum Control Measures.

| Garfield Service Center |                      | www.lakesuperiorstreams.org (Spetember 2006)                 |
|-------------------------|----------------------|--|
| Name of Location        |                      | If your SWPPP is available electronically, indicate location |
| 520 Garfield Ave        |                      |  |
| Street Address          |                      |  |
| Duluth                  | MN                   | 55802  |
| City                    | State                | ZIP Code   |
| Marnie Lonsdale         | (218) 730-4          | 130  |
| Contact Name            | Contact Phone Number |  |
| 8:30 AM to 4:00 PM      |                      |  |

Hours of Availability

#### IV. Limitations of Coverage

#### A. Part II Limitations on Coverage and Appendix C

I have read and understand Part II *Coverage Under This Permit* and Appendix C *Limitations on Coverage* of the MS4 General Permit and certify that we intend to comply with the applicable requirements of those sections as well as the Permit as a whole.

**Yes** 

#### **B. Outstanding Resource Value Waters (ORVWs)**

Please refer to the *Guidance Manual for Small Municipal Separate Storm Sewer Systems (MS4s)* to complete this section. An interactive map is available on the MPCA Web site that identifies Special Waters: <a href="http://pca-gis04.pca.state.mn.us">http://pca-gis04.pca.state.mn.us</a>

| 1. Prohibited Waters  Does the MS4 discharge into Prohibited Waters as defined in Minn. R. 705 and 5? See Attachment Four of the <i>Guidance Manual for Small Municipal Se Systems (MS4s)</i> for further information.  |   | □Yes ⊠No  |
|---|---|-----------|
| 2. Restricted Discharge Does the MS4 discharge into waters with a Restricted Discharge as defined 7050.0180, subp. 6, 6a, and 6b? If yes, please list below and comply with Par Item B. See Attachment Four of the <i>Guidance Manual for Small Municipal S Sewer Systems (MS4s)</i> for further information.   | rt IX, Appendix C,                            | ⊠Yes □No  |
| 3. Prohibited or Restricted Waters  If you answered "yes" to either Question 1 or 2, have you included a map tha minimum, the DNR minor sub-watersheds in your jurisdiction with ANY dis Prohibited or Restricted Waters? You are required by the Permit to provide the your application. [IX.B.2.b]  | charges to<br>nis map along with              | ⊠Yes □No  |
| Identify all discharges to Outstanding Resource Value Waters (ORVW Name of Water Body   | s) from your MS4:  Type (lake, stream         | river)    |
| Lake Superior   | lake  | , 11, 61, |
|   |   | _         |
|   |   |           |
|   |   |           |
| compliance with this Permit condition?  Name: Richard Larson Position: Director, Public Work  C. Special Waters  1. Trout Waters  | <u>Phone: (218)</u>                           | 730-5115  |
| Does the MS4 discharge into <b>Trout Waters</b> as defined in Minn. R. 6264.00 yes, please list below and comply with Part IX, Appendix C, Item C. See At and Three of the <i>Guidance Manual for Small Municipal Separate Storm Sev</i> (MS4s) for further information. <b>2. Wetlands</b>   | ttachments Two                                | ⊠Yes □No  |
| Does the MS4 discharge into <b>Wetlands</b> as defined in Minn. R. 7050.0130, s<br>Attachment Four of the <i>Guidance Manual for Small Municipal Separate Sto</i><br>(MS4s) for further information.  |   | ⊠Yes □No  |
| 3. Environmental Review  Does the MS4 have a process to assure coordination with appropriate Agence evaluate discharges that require applicable Environmental Review as required federal laws? See Part IX of the Guidance Manual for Small Municipal Sept Systems (MS4s) for further information.  Who is the person responsible for ensuring compliance with the                                    | ired by State or arate Storm Sewer            | ⊠Yes □No  |
| Name: Rober Bruce Position: Director, Planning  |   |           |
| 4. Endangered or Threatened Species  Does the MS4 have a process to assure coordination with appropriate Agend evaluate discharges whose direct, indirect, interrelated, interconnected, or in impacts may jeopardize a listed Endangered or Threatened Species or addesignated critical habitat? See Part IX of the Guidance Manual for Small Na Storm Sewer Systems (MS4s) for further information. | cies and to<br>adependent<br>versely modify a | ⊠Yes □No  |

#### Who is the person responsible for ensuring compliance with this Permit condition? Name: Robert Bruce Position: Director Planning Phone: (218) 730-5322 5. Historic Places and Archeological Sites Does the MS4 have a process to assure coordination with appropriate Agencies and to ⊠Yes □No evaluate discharges which may adversely affect properties listed or eligible for listing in the National Register of **Historic Places** or affecting known or discovered **archeological sites**? See Part IX of the Guidance Manual for Small Municipal Separate Storm Sewer Systems (MS4s) for further information. Who is the person responsible for ensuring compliance with this Permit condition? Name: Robert Bruce Position: Director, Planning Phone: (218) 730 -5322 6. Drinking Water Sources Does the MS4 have any discharges that may affect Source Water Protection as defined in part ⊠Yes □No **IX.H** of the General Permit? If "yes," does the MS4 have BMPs incorporated into the SWPPP to protect drinking water ⊠Yes □No sources that the MS4 discharge may affect?

#### V. Owner or Operator Certification

The person with overall, MS4 legal responsibility must sign the application. This person shall be duly authorized to sign the application and may be either a principal executive officer or ranking elected official. (see Minn. R. 7001.0060).

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 gathered and evaluated the information submitted. Based on my inquiry of the person or persons, who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete (Minn. R. 7001.0070).

I also certify under penalty of law that I have read, understood, and accepted all terms and conditions of the National Pollutant Discharge Elimination System (NPDES) General Storm Water Permit for MS4s that authorizes storm water discharges identified in this application form.

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 General Storm Water Permit for MS4s.

I also understand that MPCA enforcement actions (pursuant to Minn. Stat. §115.07, 116.072, and Section 309 of the Clean Water Act) may be taken against me or the MS4 if the terms and conditions of the NPDES General Storm Water Permit for MS4s are not met.

# C. General Contact (official, staff member, consultant or other) for all general correspondence about Permit compliance issues between the MPCA and your MS4

| V |  |
|---|--|
| Л |  |

| Authorized Signature          |            | Date                     |          |  |
|-------------------------------|------------|--------------------------|----------|--|
|                               |            |                          |          |  |
| Almanza                       | Julia      | City Administrat         | tor      |  |
| Last Name                     | First Name | Title                    |          |  |
| 411 W 1 <sup>st</sup> St      |            |                          |          |  |
| Mailing Address               |            |                          |          |  |
| Duluth                        |            | MN                       | 55802    |  |
| City                          |            | State                    | ZIP Code |  |
| (218) 730-5370                |            | jalmanza@ci.duluth.mn.us |          |  |
| Telephone (include area code) |            | E-mail Address           |          |  |

# CITY OF DULUTH BEST MANAGEMENT PRACTICES SUMMARY SHEETS



Submitted In Compliance With the Requirements Of The Minnesota Pollution Control Agency As Part Of The Application For Participation In The General NPDES Stormwater Permit (Mnr040000) for Small Municipal Separate Storm Sewer Systems (MS4)

# **BMP SUMMARY SHEETS**

# **Minimum Control Measure 1:** PUBLIC EDUCATION AND OUTREACH

| Key to<br>Unique BMP<br>ID Numbers | Required BMP Title  | Permit<br>Reference |
|------------------------------------|---|---------------------|
| 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<br>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             |
|                                    |   |                     |

7 6/16/2006

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 1-PUBLIC EDUCATION AND OUTREACH

**Unique BMP Identification Number:** 1a-1

\*BMP Title: Distribute Educational Materials

#### \*BMP Description:

The City of Duluth is committed to providing information to residents, visitors, businesses and City employees on stormwater and nonpoint source pollution issues. The City will uses a variety of means of distributing information to these groups including distributing information at events, producing bill flyers, financing the production of information, developing PowerPoint presentations and expanding and strenghtening the website <code>www.lakesuperiorstreams.org/www.duluthstreams.org</code>. The City is part of the Regional Stormwater Protection Team (RSPT) and provides funding for the production of brochures, television Public Service Announcements (PSA) and other materials for distribution.

Periodically, the City will design specialized programs to get desired message across, such as the "Sand Sweep up program" tested in 2005 and the "Adopt a storm drain demonstration program."

**TARGET AUDIENCE**: General Public, businesses, school children, contractors, developers, Municipal employees, tourists

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

Support BMPS - 1F City BMP 101, 102, 103, 104, 4G- City BMP 403, 4G- 407

#### \*Measurable Goals:

- Distribute stream cards to students throughout the region with accompanying presentations on nonpoint source pollution prevention.
- Distribute brochures at events.
- Include bill insets at least once yearly on relevant areas.
- Participate in the cost of airing PSAs on television and radio. 3 RSPT PSAs,
- Continue development of new information mediums.
- PowerPoint presentation to groups.
- For each measurable goal, if possible, the City will track events, numbers in attendence, PSA airing and number of materials distributed.

#### \*Timeline/Implementation Schedule:

- Most activities have been initiated and will be on-going 3-10 times yearly.
- Pending funding the City anticipates participating in PSA airing at least once yearly and where funding is available both fall and spring. RSPT ads
- The City will continue to participate in **two or more available education events yearly** including the Arrowhead Home Show and Harvest Festival.
- The City will distribute at least **one bill flyer yearly** on a related subject. The City has created and distributed flyers on erosion and general stromwater education.

8 6/16/2006

#### **Specific Components and Notes:**

See specific support BMPs, City of Duluth Stormwater Education Program, Tracking information available in Utility Operations, Utility Operations grant projects

#### \*Responsible Party for this BMP:

Name: Marnie Lonsdale, Project Coordinator

Department: Public Works and Utilities/Utility Operations

Phone: (218)730-4063

E-mail: mlonsdale@ci.duluth.mn.us

City of Duluth Summary BMP 1a-1 p 2

9 6/16/2006

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

MS4 Name: CITY OF DULUTH

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

**Unique BMP Identification Number:** 1b-1

\*BMP Title: Implement an Education Program

#### \*BMP Description:

The City of Duluth has an on-going education program with a targeted approach of ncreasing awarenss of residents, businesses, visitors and City staff of their role in protecting the high quality waters of the region. The City recognizes that the high quality of he resources of the region provide an additional challenge in the effort to sensitize esidents to their part protecting the regions waters. In recognition of this challenge the City has developed an education program in partnership with other regional groups that has both an awareness and an involvement layer. At the awareness level, a regional program has developed that includes Public Service radio and television spots, brochures, press releases and events. Using this Regional effort as the core, Duluth has expanded he program to include work with school, presentations to community groups, production of collectables and active support of the <a href="https://www.duluthstreams.org">www.duluthstreams.org</a> web site. The city is applying the social marketing principles for the more directed projects: examples include construction site storm drain stamps and the "sand sweep up" project.

**TARGET AUDIENCE**: General Public, businesses, school children, contractors, developers, Municipal employees, tourists

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

Support BMPS 1F City BMPs 101-110, 2D City BMPs 201-204

#### \*Measurable Goals:

- Measurable goals and timelines are outlined in City BMP 1F- 105 and include, participating in outreach events, distributing educational materials, maintaining a website, partnering with other organizations, preparing and presenting presentations for school children and adult groups, press releases, public service announcements, and advertisements.
- The City will continue to seek out grant funding to devleop social marketing programs.
- The efforts will be tracked in terms of the events, where appropriate, numbers in attendence, materials distributed, number of times PSAs are aired, grant applications and specific project reports.
- Presentations to City Council and City commissions will emphasize the importance of developing and maintaining the program.

#### \*Timeline/Implementation Schedule:

**All educational activities are on-going**. Throughout the permit new materials will be developed and new initiatives implemented as opportunities and funding sources become available. The general distribution of materials and presentations occurs year round. City staff will continue to seek new methods as an on-going process. More specific timelines are provided in the BMPS listed.

#### **Specific Components and Notes:**

- 1F City BMPs101 110
- City Education Program
- Minnesota's Lake Superior Coastal Program Grants
- www.lakesuperiorstream.org / www.duluthstreams.org
- Tracking of progress in Utility Operations

#### \*Responsible Party for this BMP:

Name: Marnie Lonsdale, Project Coordinator

Department: Public Works and Utilities/Utility Operations

Phone: (218)730-4063

E-mail: mlonsdale@ci.duluth.mn.us

City of Duluth Summmary BMP 1b-1 page 2

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

MS4 Name: CITY OF DULUTH

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

**Unique BMP Identification Number:** 1c-1

**\*BMP Title:** Education Program: Public Education and Outreach

#### \*Audience(s) Involved:

Residents, Businesses, Tourists, School children

#### \*Educational Goals for Each Audience:

- The generalized goal of the education program is to provide information by varied methods intended to increase individual awareness of his/her role in non-point source pollution and to link individual activity to Lake Superior. Because of the high quality resources of the region the regional message is protection with links to the concept "it all comes down to your water" and "your curb, gutter or ditch is the edge of Lake Superior." Specific identified targeted issues are cleaning up after pets, avoiding dumping in the street, control of sediment, keeping water cool and slowing the velocity of flows.
- School Children: provide general awareness, watershed concept and responsible behavior
- **Business:** provide information for awareness, good housekeeping and impervious suface activities
- **Tourist:** provide information for awareness, litter, individual responsibility, high quality of local waters.
- Residents: what each individual can do, the link between the home and the lake.

#### \*Activities Used to Reach Educational Goals:

- PSAs
- Brochure distribution
- Participation in regional activities: Arrowhead Home Show, Harvest Festival, Watershed Festival, Earth Tracks at the Zoo etc.
- Press releases
- Projects with school groups
- · Storm drain stenciling
- Duluth stream cards
- www.duluthstreams.org/www.lakesuperiorstreams.org
- Social marketing projects (Spring sand sweep)

#### \*Activity Implementation Plan:

- The City has budgeted funding and identified staff (Project Coordinator and Water Quality Specialists) to oversee the program.
- Duluth's graphic artist supplies support for brochure development.
- Duluth has established a working partnership with the University of Minnesota Duluth to review and evaluate the accuracy of materials.
- As invitations to participate in events are received, staff meet and schedule activities. The City inserts educational piece in at least one bill mailer each year.
- The City has sent information to the school district offering services, however this effort has had limited response and other methods are being developed.
- The City continues to review and update information.

- The City will seek out grants to continue to expand educational programming.
- Trained employees have made presentations on the program to City staff, regional and national groups.
- The City attends meetings on education to better understand the scope and methodology for these programs.

Most activities are on-going with new social marketing programs initiated as funding becomes available and target projects are identified. To support the ongoing program and initiate new innovative projects, Duluth has applied for grants through Minnesota's Lake Superior Coastal Program, the Great Lakes Commission Soil and Erosion Control program, the Great Lakes National Program Office and other sources yearly. The City continues to assist in maintaining and supporting the web site <a href="https://www.duluthstreams.org">www.duluthstreams.org</a> / <a href="https://www.lakesuperiorstreasm.org">www.lakesuperiorstreasm.org</a>.

#### \*Performance Measures:

Quantifying the effectiveness of education is a difficult task. In general, effectiveness is measure in community support for projects that protect water quality and changes in habits.

- The performance effectiveness will be track by anecdotal comment through telephone feedback, increased problem reporting, attendence at events, material distribution numbers, events attended, numbers of school children reached, brochures distributed, press releases, or specific items as defined in grants.
- The effectiveness of the education program will also be measured through employee participation and feedback. See support BMPs and City of Duluth Education Program.

#### \*Responsible Party for this BMP:

Name: Marnie Lonsdale, Stormwater Project Coordinator

Department: Public Works and Utilities/Utility Operations

Phone: (218)730-4063

E-mail: mlonsdale@ci.duluth.mn.us

City of Duluth Summary BMP 1c-1 p 2

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

MS4 Name: CITY OF DULUTH

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

**Unique BMP Identification Number:** 1c-2

\*BMP Title: Education Program: Public Participation

#### \*Audience(s) Involved:

General public, Businesses, Contractors and Developers

#### \*Educational Goals for Each Audience:

#### General public:

- Provide opportunities to involve the public in the the protection of the water, through meetings and activities, provide information and elicit feedback.
- Support citizen involvement.
- o Respond to citizens, ideas, concerns and requests for information
- Consider public suggestions and review appropriateness for inclusion in the City SWPPP.

#### Businesses:

 Provide information to Increase awareness of how they can participate in pollution prevention, and take feedback on their concerns and ideas for better teamwork for pollution prevention.

#### Contractors:

- Provide information to Involve contractors in the process of improving BMPs for construction and post construction.
- Solicit feedback and encourage participation, increase contractor, developer awareness of their role and ability to initiate change.

#### \*Activities Used to Reach Educational Goals:

- The public will be invited to participate through an annual general meeting, use of the City hotline for feedback, through discussion at meetings throughout the year, response forms on the website, through specific activities develop to involve the public and encourage discussion.
- The City will provide support for regional efforts such as stream monitoring and provide equipment and staff assistance.
- The City will also support appropriate community activities such as trout stocking, buckthorn removal, rain barrel assembly classes and other events that encourage local involvement.
- The City will work with contractors and developers through the Development Review Board that provides a sounding panel for developers on prior to permit processes.
- As appropriate the City will document citizen feedback and review suggestions for changing and improving the City SWPPP prior to submitting the annual report.

#### \*Activity Implementation Plan:

- Hold an annual meeting to gather public feedback, public notice the meeting 30 days ahead (April or May)
- Consider and respond to feedback, implement changes if appropriate. (respond to all feedback submitted at least **20 days prior to annual report submittal**)
- Provide panelists for informational meetings on related topics from rain gardens to sanitary sewer overflows.(on-going)

- Document all public feedback (on-going)
- Support community activities (on-going).
- Work with developers and contractors at the Development Review Board (monthly meetings).
- Seek grant funding to support and expand effort. (on-going)
- As education is an on-going process these activities have already been implemented in the City Education Plan and will be on-going with additional activities added as funding becomes available.

#### \*Performance Measures:

- Number of meetings
- Minutes of Meetings where appropriate
- Work orders and follow up information (in Utility Operations data base)
- Public participation (numbers where appropriate)
- Tracking of review and response to public suggestions
- Activities with public such as stream clean up, drain stenciling, stream bank stabilization, etc.

#### \*Responsible Party for this BMP:

Name: Marnie Lonsdale

Department: Public Works and Utilities/Utility Operations

Phone: 218-730-4063

E-mail: mlonsdale@ci.duluth.mn.us

City of Duluth Summary BMP 1c-2 p 2

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

MS4 Name: CITY OF DULUTH

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

**Unique BMP Identification Number:** 1c-3

**\*BMP Title:** Education Program: Illicit Discharge Detection and Elimination

#### \*Audience(s) Involved:

City Employees, General public, Businesses

#### \*Educational Goals for Each Audience:

- City employees will be trained in use of the City GIS mapping system, the use GPS for tracking and marking sites and in basic illicit connection identification, tracking and elimination.
- The General public will be provided with information on the need to report suspicious discharges to catch basins, creeks, or the Lake, their responsibility in preventing illicit discharges, and the link between their activities and the quality of or water.
- Business activities will be identified that might have potential for problematic pollution problems.
- Utility staff will work with businesses on a one-to one or group basis to address identified problems or reduce potential problems.

#### \*Activities Used to Reach Educational Goals:

- General field training of employees on use of GPS units
- Illicit connection training, sampling kit usage training,
- Installation of Arc Reader on field lap tops and training of staff in use of the GIS layers for field work.
- Publishing of City hot line on all materials distributed and web sites
- Provide public information on reporting problems as part of all education activities.
- Implementation of the Duluth Stormwater Education Program

#### \*Activity Implementation Plan:

- Adopt and follow the Global Position System Equipment training procedure.
- Maintain an updated ARC reader system on all field lap tops. **Continually** train staff on utilizing the system.
- **On-going field** training of employees as reports and problems are detected using the Illicit Discharge and Elimination Program.
- Update and improve electronic techniques for tracking information as technology and funding become available. All training to be tracked either through meeting sign-in sheets or on work orders.
- Provide public with information on hot line and items to report, encourage reporting through responsive action and demonstrated problem solving using presentations and brochures – yearly through brochures, press releases and information at public events.
- Most activities have already been implemented and are on-going.

#### \*Performance Measures:

- Activity tracking of staff through the work order and payroll system.
- Work order reports, GPS map updates, calls recorded through the work order system, Public presentations.
- The success of the program is measured in increased public participation in the detection process and in staff ability to design investigative programs and address problems.

#### \*Responsible Party for this BMP:

Name: Dan Berg, Utility Operations Supervisor

Department: Public Works and Utilities/Utility Operations

Phone: (218)-730-4049

E-mail: <u>dberg@ci.duluth.mn.us</u>

City of Duluth Summary BMP 1c-3 p 2

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

MS4 Name: CITY OF DULUTH

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

**Unique BMP Identification Number:** 1c-4

\*BMP Title: Education Program: Construction Site Run-off Control

#### \*Audience(s) Involved:

Contractors, Developers, City Employees, General Public

#### \*Educational Goals for Each Audience:

- Provide contractors and developers with a general requirements for construction site and development, stormwater management and their responsibilities
- Provide City employees with information about the expectations that must be conveyed to contractors and developers and the public and how these activities can be implemented.
- Provide the general public with general information on the City's role in addressing construction site issues. Offer opportunities (hotlines, information meetings, etc.) for public reporting of concerns and good practices on private property.

#### \*Activities Used to Reach Educational Goals:

- Development Review Board monthly meeting between City staff and contractors to discuss issues prior to initiating development.
- Construction workshops sponsored through the South St. Louis SWCD.
- Informational and permit documentation (development packet) prepared and distributed by City Engineering Department.
- One-on-one meetings with Contractors and Developers to discussion concerns and convey educational information.
- Brochures and presentations to the general public.
- Construction Workshops on a regional basis.
- Published hot line for calling with concerns
- Erosion brochure/bill mailer

#### \*Activity Implementation Plan:

- The City will encourage all developers and contractors considering project to attend the Development Review Board as an initial step in project planning. At the meeting, City staff will endeavor to provide developers with information on stormwater issues.
- As part of City permitting process, the City Stormwater Engineer will work with developers and contractors to ensure their understanding of City expectations and reach consensus on the beset environmental approaches.
- Construction workshops through the South St. Louis SWCD and the Regional Stormwater Protection Team reinforce the educational message and provide forums for discussion of the feasibility of activities.
- A bill mailer/brochure has been developed to address residential problems. Mailed in 2005 and second mailing 2007

#### All activities have been implemented and are on-going

#### • \*Performance Measures:

 All Development review Board meetings are tracked – attendance and minutes are recorded. Engineering and planning track inquiries and distribution of permit related information. Meeting attendance and topics are tracked. Program success is measure through increased numbers of correctly developed permits and fewer problems on development sites. However, general pubic education also increases the number of reports. Opportunities to distribute information are reported.

#### \*Responsible Party for this BMP:

Name: Gary Minck, Stormwater Engineer/Marnie Lonsdale Project Coordinator

Department: Public Works and Utilities/ Engineering/Utility Operations

Phone: 218-730-5074 – (218) 730-4063

E-mail: <a href="mailto:gminck@ci.duluth.mn.us">gminck@ci.duluth.mn.us</a> - <a href="mailto:mloss-mloss-globale-mailto:mloss-globale-m

City of Duluth Summary BMP 1ca-4 p 2

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

MS4 Name: City of Duluth

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

**Unique BMP Identification Number:** 1c-5

\*BMP Title: Education Program: Post-Construction Stormwater Management in New

Development and Redevelopment

#### \*Audience(s) Involved:

Contractors and Developers, Property owners, General Public, City Staff

#### \*Educational Goals for Each Audience:

Contractors and developers are informed of their responsibility for maintaining the developed Stormwater Best Management Practices after development is complete. The contractors and developers produce plans that are feasible and maintainable at the time of plan review.

Property owners and Businesses understand requirements for maintaining and operating the Best Management Practices – ponds, rain gardens swales, sediment traps The General Public understands the role of Best Management practices for stormwater control.

#### \*Activities Used to Reach Educational Goals:

- Development Review Board monthly meeting between City staff and contractors to discuss issues prior to initiating development.
- Construction workshops sponsored through the South St. Louis SWCD and the Regional Stormwater Protection Team.
- Informational and permit documentation prepared and distributed by City Engineering Department.
- One-on-one meetings with Contractors and Developers to discussion concerns and convey educational information.
- Brochures and presentations to the general public.
- Meetings of City staff to review requirements
- Meetings with the Planning Commission, the Environmental Advisory Committee, the City Council

#### \*Activity Implementation Plan:

- The City Development Review Board will meet with contractors and developers
  during the initial phase of planning at monthly meetings. The City Engineering
  Department provides materials, resources and one-on-one meeting to discuss
  requirements and increase understanding of the purpose and review activities.
  The City works with the developers to insure that post development contracts
  provide the educational information necessary to insure that BMPs are
  maintained.
- City of Duluth Utility Operations, Engineering and Planning Staff will use brochures and public presentations to increase the general public understanding of the function and effectiveness of BMPs in treating stormwater on an on-going basis.
- Construction workshops through the South St. Louis SWCD and the Regional Stormwater Protection Team reinforce the educational message and provide forums for discussion of the feasibility of activities - yearly.
- City staff will review permit requirements and appropriate options with City

- Commissions, committees and the City Council.
- PowerPoint presentations to the public on Best Management Practices for Water Quality protection, post construction – annual contractor and developer meeting.

#### \*Performance Measures:

- Developers and contractors provide well thought out plans for post construction maintenance of Best Management Practices. Plans are implemented. observed results and less enforcement action.
- Public Report concerns re BMP effectiveness.
- Flows and water quality from new development remain controlled as planned.
- The Best Management Practices work or alternatives are developed.
- Attendance at meetings

#### \*Responsible Party for this BMP:

Name: Gary Minck, Stormwater Engineer Marnie Lonsdale, Project Coordinator

Department: Public Works and Utilities/ Engineering – Utility Operations

Phone: 218-730-5074 – (218) 730-4063

E-mail: <a href="mailto:gminck@ci.duluth.mn.us">gminck@ci.duluth.mn.us</a> - <a href="mailto:mlosdale@ci.duluth.mn.us">mlonsdale@ci.duluth.mn.us</a>

City of Duluth Summary BMP 1c-5 p 2

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

MS4 Name: CITY OF DULUTH

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

**Unique BMP Identification Number:** 1c-6

\*BMP Title: Education Program: Pollution Prevention/Good Housekeeping for

**Municipal Operations** 

#### \*Audience(s) Involved:

City Employees

#### \*Educational Goals for Each Audience:

- City Employees are provided with information on their responsibilities for protecting Water Quality
- City Employees are given instruction on appropriate ways to perform tasks to reduce pollution to the environment.
- City employees implement appropriate activities specific areas including, vehicle maintenance, landscaping, street maintenance, maintenance of infrastructure etc.

#### \*Activities Used to Reach Educational Goals:

- All employees engaged in field operations will receive basic stormwater pollution prevention training.
- All City employees will be provided with information and tools to protect water quality that can include newsletter information, brochures, presentations
- Employees involved in specific activities, will receive documented training for the tasks.

#### \*Activity Implementation Plan:

- The City will use the the Excal Vision Municipal Storm Water Pollution Prevention Employee training for basic training of employees. Topics discussed include Good housekeeping and Spill Prevention, Vehicle and Equipment Washing, Vehicle and Equipment maintenance, Spill Reporting and Response, Street Maintenance, Outdoor Storage of materials and Waste, Landscaping and Lawn Care.
- Appropriate departments will provide training on specified topics as outline in City BMPs.
- The City will use a power point presentation for providing supervisors and other employee groups with information.

#### \*Performance Measures:

- Training will be tracked through sign in sheets and testing.
- Anecdotal information and work order activities will be tracked.

#### \*Responsible Party for this BMP:

Name: Marnie Lonsdale

Department: Public Works and Utilities, Utility Operations

Phone: (218)730-4063

E-mail: mlonsdale@ci.duluth.mn.us

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

MS4 Name: CITY OF DULUTH

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

**Unique BMP Identification Number:** 1d-1

\*BMP Title: Coordination of Education Program

#### \*BMP Description:

The City of Duluth participates in the Regional Stormwater Protection Team (RSPT). RSPT is a regional group of 22 cities, agencies, educational institutions and non-profits. Organized in 2003, the RSPT provides a coordinated effort to present to the public education on water pollution prevention. The umbrella organization produces public services advertisements for television and radio, sponsors a watershed festival and supports the <a href="www.lakesuperiorstreams.org">www.lakesuperiorstreams.org</a> web site. The organization has sponsored construction workshops and other activities. The organization writes grants and seeks funding to expand regional efforts. Through the organization a strong network is being built that maximizes communication between regional communities.

The City of Duluth also supports the activities of a number of regional organizations, both non-profits and state agencies and sits on boards and committees of these groups. The City provides staff match time to University and regional grant activities.

Target Audience: Municipal Employees, Agencies, General Public

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

City of Duluth BMP 1F City BMP 101, BMP 2D. City BMP 204

#### \*Measurable Goals:

- Participate in RSPT activities and attend meetings
- Support RSPT activities (watershed festival, advertising campaign etc.)
- Assist in developing funding sources for the organization.
- Expand RSPT participation to include partnering with local businesses
- Support regional stakeholders groups

#### \*Timeline/Implementation Schedule:

- RSPT activities are on-going including by-monthly meetings
- Second Watershed Festival June 2007
- Business outreach 2006/2007
- Partner with RSPT members on grants and presentations –on-going.
- Support for regional organizations: active participation in two or more yearly.
- PSA airings once yearly

#### **Specific Components and Notes:**

- BMPs 1F 101 and BMP 2 D 204
- Regional Stormwater Protection Team MOU and By-laws, RSPT minutes
- City of Duluth Stormwater Education Program

#### \*Responsible Party for this BMP:

Name: Marnie Lonsdale

Department: Public Works and Utilities/Utility Operations

Phone: (218)730-4063

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

MS4 Name: City of Duluth

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

**Unique BMP Identification Number:** 1e-1

\*BMP Title: Annual Public Meeting

#### \*BMP Description:

Each year the City will hold an annual Public Meeting to present information on the progress of the City of Duluth in meeting goals set as part of the Storm Water Pollution Prevention Program. At this meeting information from the public will be requested. All discussion and comments will be recorded.

The City will publish a public notice of the meeting 30 days prior to the meeting and provide a press release about the meeting the week prior to the meeting. The City will inform the agencies and others requesting information about the agenda, site and locations of the meeting and the posting of a public notice.

As appropriate, the City will hold additional meetings to discuss stormwater concerns and present on a yearly basis information to the City Council and other commissions.

Target Audience: General Public, Municipal officials, Interested parties

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

BMPs 1F City BMP 105 & 107, 2D City BMP 201

#### \*Measurable Goals:

- Hold annual public meeting, record attendance and take minutes
- Public notice of the meeting in the Duluth News Tribune
- Review and discuss public comments from meetings summary of conclusions, changes as a result of public comments

#### \*Timeline/Implementation Schedule:

- Annual meeting once yearly in May
- Public notice 30 days prior to meeting
- Press release one week prior to meeting
- Discussion of comments **20 days prior to permit annual report submission** and as receive during the year.

#### **Specific Components and Notes:**

City BMPs 1F BMP 105 & 107, 2D 201

Public notices, Press Releases

#### \*Responsible Party for this BMP:

Name: Marnie Lonsdale

Department: Public Works and Utilities/Utility Operations

Phone: (218)730-4063

E-mail: mlonsdale@ci.duluth.mn.us

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

# Minimum Control Measure 2: PUBLIC PARTICIPATION/INVOLVEMENT

| Key to<br>Unique<br>BMP ID<br>Numbers | Required BMP Title  | Permit<br>Reference |
|---------------------------------------|---|---------------------|
| 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             |
|                                       |   |                     |

MS4 Name: City of Duluth

Minimum Control Measure: 2-PUBLIC PARTICIPATION/INVOLVEMENT

**Unique BMP Identification Number:** 2a-1

\*BMP Title: Comply with Public Notice Requirements

#### \*BMP Description:

Each year the City will hold an annual Public Meeting to present information on the progress of the City of Duluth in meeting goals set as part of the Storm Water Pollution Prevention Program. At this meeting information from the public will be requested. All discussion and comments will be recorded.

The City will publish a public notice of the meeting 30 days prior to the meeting and provide a press release about the meeting the week prior to the meeting. The City will inform the agencies and others requesting information about the agenda, site and locations of the meeting and the posting of a public notice. The public meeting will be noticed in the Duluth News Tribune – the regional paper.

The notice will provide information on the time date and location of the meeting, the meeting agenda and the location (website and office) where the City of Duluth SWPPP is available for public viewing.

Past history has shown minimal response to this meeting despite the public notice and press releases. The City and partner communities will attempt to encourage attendance through press releases and special topics at the meetings.

Because attendance at these meetings remains minimal, the City will continue to seek other opportunities to present to public groups and present to the City Council (PACT TV) and Commissions to broaden outreach.

A copy of the public notice will be provided to the agency and to interested parties. The City will maintain a record of the notice.

Target Audience: Municipal Employees, Agencies, General Public

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

1f City BMP. 107, 2d. City BMP 201

#### \*Measurable Goals:

- Identify date and time for public meeting
- Set agenda
- Public notice the meeting with all required information (date, time, location, agenda, where copies of the SWPPP can be obtained and where to make written or oral comments)
- Provide copy of the notice to the MPCA and other parties requesting the information

#### \*Timeline/Implementation Schedule:

- Identify time date and location, yearly in April or May
- Review results of previous year's stormwater activities and set agenda yearly April
- Post public Notice in Duluth News Tribune yearly, 30 days prior to meeting
- Provide copy of notice to agency immediately after appearance in paper.
   Provide mechanism for accepting public comments on going
- Develop a stormwater public meeting procedure January 2007

Develop a public comment procedure. – January 2007

#### **Specific Components and Notes:**

City Public Notice Contract 1F. City BMPs 107 and 2d. City BMPs 201 Procedures under development

#### \*Responsible Party for this BMP:

Name: Marnie Lonsdale, Project Coordinator

Department: Public Works and Utilities/Utility Operations

Phone: (218)730-4063

E-mail: mlonsdale@ci.duluth.mn.us

City of Duluth Summary BMP 2a-1 p 2

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

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 2-PUBLIC PARTICIPATION/INVOLVEMENT

**Unique BMP Identification Number:** 2b-1

\*BMP Title: Solicit Public Input and Opinion on the Adequacy of the SWPPP

#### \*BMP Description:

Each year the City will hold an annual Public Meeting to present information on the progress of the City of Duluth in meeting goals set as part of the Storm Water Pollution Prevention Program. At this meeting information from the public will be requested. All discussion and comments will be recorded.

The City of Duluth will encourage the public to provide feedback on the Stormwater Pollution plan through comments at the annual meeting, written and oral comments submitted as the result of the meeting public notice, comments at other meetings throughout the year, feedback to the <a href="www.duluthstreams.org">www.duluthstreams.org</a> web site and through response to letters and phone calls and in one-on-one encounters at fairs and other activities. Comments will be documented and responses and suggestions for change will be reviewed by the responsible person for related BMPs each year.

Public meetings will be format to allow adequate time for comment, and a clear process for making comments.

In order to respond more effectively to public comments, the City will endeavor to obtain appropriate contact information for the concerned individual including name, phone number, address.

Target Audience: Municipal Employees, Agencies, General Public

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

1F City BMP 107 and 2d City BMPs 201, 202, 204

#### \*Measurable Goals:

- All Public meetings will have time provided for comments and questions.
- Information will be provided for the submittal of written comments or questions.
- A comment and feedback file will be maintained with SWPPP records
- Minutes will be taken at all meetings where public comments and feedback is gathered or discussed.
- Appropriate changes in SWPPP based on public comment and the reason for changes documented.
- Develop a procedure for receiving and tracking public comments.

#### \*Timeline/Implementation Schedule:

- All activities re the public feedback are on-going.
- Each year one public meeting will be held specifically to discuss the SWPPP.
   Through a public notice and a press release residents will be encouraged to provide feedback on the SWPPP. Both written and oral comment will be accepted. April or May each year.
- On an on-going basis, comments will be taken over the Utility Hot Line and through feed back to the <u>www.duluthstreams.org</u> web site.
- Comments received by 20 days prior to submittal of the annual report will be considered in the annual report. City Employees will meet to review comments at least 15 prior to annual report submission and throughout the year in response to specific public feedback in order to address public concerns in a timely manner.

(Comments beyond this date will be referenced for consideration in the next year)

• A written procedure for public comments will be put in place in January 2007.

#### **Specific Components and Notes:**

- 1F City BMP 107 and 2d City BMPs 201, 202, 204
- www.duluthstreams.org website feedback.
- Procedure under development

#### \*Responsible Party for this BMP:

Name: Marnie Lonsdale, Project Coordinator

Department: Department of Public Works and Utilities/Utility Operations

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City of Duluth Summary BMP 2b-1 p 2

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

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 2-PUBLIC PARTICIPATION/INVOLVEMENT

**Unique BMP Identification Number:** 2c-1

\*BMP Consider Public Input

Title:

#### \*BMP Description:

The City of Duluth, as part of its education program, makes presentations to the public on an on-going basis. Each year the City has one meeting specifically directed to obtaining feedback on the SWPPP. In addition to this meeting the City makes presentations to groups throughout the community. One component of these meetings is the SWPPP including both the requirements and the City approach. All presentations are followed with a question and answer period. Municipal employees track public comments. Each year the City will hold a staff meeting to review these public comments and determine if changes in the SWPPP are necessary.

In addition the City will seek out ways to enhance public participation in activities to protect water quality including supporting stream monitoring, storm drain stencil and other identified community opportunities. As part of supporting these activities the City will take feedback and incorporate the materials to improve the SWPPP.

Target Audience: General public, municipal officials

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

2d City of Duluth BMPs 201-204, 1F City BMPs 107, 104, 105,106

#### \*Measurable Goals:

- Request information and feedback from the public and document comments in meeting notes or on work orders.
- Review public comments annual and determine if there is a need for SWPPP changes
- Track responses to public inquiries through work orders or filed responses
- Promote regional activities that increase public involvement
- Seek grant funding for public activities
- Develop a procedure for receiving and tracking and responding to public comments

#### \*Timeline/Implementation Schedule:

- All activities are on-going.
- Public calls are documented at time of receipt and written responses are tracked as they occur.
- There will be at least one public meeting specifically to address the SWPPP annually. Minutes will be taken at the meeting and a public comment period will be included.
- On a yearly basis, the City of Duluth will apply for a minimum of one grant to develop projects that enhance public involvement.
- The City will participate in local environmental organizations that support SWPPP goals and objectives and take feedback and work with these organizations to increase public involvement as appropriate.
- The procedure for tracking comments will be in place in January 2007

#### **Specific Components and Notes:**

City of Duluth BMPs 2d 201-204, BMP 1F 107, 104, 105,106 City of Duluth Education Program Work order system

Hotline telephone number

### \*Responsible Party for this BMP:

Name: Marnie Lonsdale

Department: Public Works and Utilities/Utility Operations

Phone: (218)730-4063

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City of Duluth Summary BMP 2c-1 p 2

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

# Minimum Control Measure 3: ILLICIT DISCHARGE DETECTION AND ELIMINATION

| Key to<br>Unique<br>BMP ID<br>Numbers | Required BMP Title  | Permit<br>Reference |
|---------------------------------------|---|---------------------|
| 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             |
|                                       |   |                     |

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 3-ILLICIT DISCHARGE DETECTION AND

**ELIMINATION** 

**Unique BMP Identification Number:** 3a-1

\*BMP Title: Storm Sewer System Map

#### \*BMP Description:

The City of Duluth has mapped all City stormwater infrastructure in GIS format. The city has 348 miles of storm sewer. The City has 427 outfalls discharging from the system. New outfalls are added to the map when identified. Hard copy maps are available for reference. City engineering and a consulting firm are currently updating maps. As new infrastructure is added, information of the infrastructure is placed on City maps. As part of the City outfall inspection program, all outfalls inspection are complete using a Trimble GPS unit. By using the unit, data on the outfalls can be downloaded directly to the GIS maps of the City. City Stormwater information includes pipe types and lengths. Outfalls, culverts, a stream layer with all trout streams and larger intermittent streams, and a wetland layer. All sediment traps are on the map and ponds will be added in 2006/07. The City uses the ESRI GIS system. Data for the GIS layers was developed from the hard copy maps maintained by the City in the engineering vault. In 2004, the City contracted with a consulting firm to review all records and update the maps. This process is 90% complete as of May 2006. The City employees two GIS specialist to maintain the mapping system.

To enhance the ability of staff. The City has provided all Water Quality Specialists and Lead Construction Workers with laptop computers with ARC Reader that allows them to pull up maps and utilize data in the field.

Target audience: City staff, stakeholders, contractors, agencies.

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

3F. City BMP 301, 305, 6c. City BMP 612

#### \*Measurable Goals:

- Update City GIS maps as information becomes available
- Develop a ditch layer for infrastructure map
- Update information on smaller intermittent streams

#### \*Timeline/Implementation Schedule:

- Updating the maps is an on-going process review of in house information will be completed in December 2006
- Ditch and intermittent stream layer development is dependent on staff availability and will be completed by 2009/10

#### **Specific Components and Notes:**

- GIS maps available through GIS office , 2<sup>nd</sup> floor City Hall
- Arc Reader on staff computers
- Trimble GPS unit
- Historical documentation in Engineering Vault.

# \*Responsible Party for this BMP:

Name: Richard Bunten

Department: MIS/GIS

Phone: (218)730-5137

E-mail: rbunten@ci.duluth.mn.us

City of Duluth Summary BMP 3a-1 p 2

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

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 3-ILLICIT DISCHARGE DETECTION AND

**ELIMINATION** 

**Unique BMP Identification Number:** 3b-1

\*BMP Title: Regulatory Control Program

#### \*BMP Description:

The City of Duluth has passed ordinances to prohibit discharges to the stormwater system. The prohibition are listed in Chapter 43 of the City Code. Section 43-14, sections 43-40 and 43-41.

City Water Quality Specialists and Utility Operations Crews will track, identify and eliminate these discharges through the City Illicit discharge detection and elimination program. Once discharges are identified the City has a process to remove the discharges and address any clean up required. As appropriate the City will review and update the ordinance and process.

Target Audience: City staff, businesses, general public

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

City of Duluth BMPS 3f city BMP.302, 303, 304, 306, 307, 308 1F. BMP 108,

#### \*Measurable Goals:

- Maintain and apply ordinance. Ordinance activities are tracked through the Work Order System, and files maintained on larger projects.
- Review ordinance requirements with appropriate municipal employees
- Inform public about ordinance Through meetings, presentation, brochures
- Hotline for citizen comments, calls are answered and track through work order system.
- Document process for addressing private illicit discharge corrections

#### \*Timeline/Implementation Schedule:

Maintain and apply ordinance - on-going

Review ordinance requirements – **yearly** through training and printed materials Inform public – **on-going** 

Hotline - on-going

Documentation of process - fall 2007

#### **Specific Components and Notes:**

City BMPS 302,303, 304,306, 308, 108

Work order system

Procedures in development

City code Chapter 43

#### \*Responsible Party for this BMP:

Name: Steve Lipinski, Utility Operations Manager
Department: Public Works and Utilities/Utility Operations

Phone: (218)730-4068

E-mail: slipinski@ci.duluth.mn.us

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

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 3-ILLICIT DISCHARGE DETECTION AND

**ELIMINATION** 

**Unique BMP Identification Number:** 3c-1

\*BMP Title: Illicit Discharge Detection and Elimination Plan

\*BMP Description:

**Target Audience:** City staff, General public, Commercial enterprises

**Description:** The City of Duluth has established an illicit discharge program. Training was initiated in 2002 and updated training will take place each year. The program utilizes information from the public, from maintenance and outfall inspections. Duluth has a practical field tested approach to illicit discharge detection and elimination and a written plan and procedure for carrying out field work. Utility Operations employees including Water Quality Specialists and Utility Operators may be involved in illicit discharge detection and elimination. Where appropriate, the Utility partners with the Western Lake Superior Sanitary District or other MS4 to address specific problems. Problems are tracked through the work order system and through files for more complicated projects. The City Code chapter 43 is the regulatory basis for the program. Location(s) in SWPPP of detailed information relating to this BMP:

2D City of Duluth BMPs 202 3F City BMPs 302, 303, 304, 306, 308 6C City BMPs 612

#### \*Measurable Goals:

- Illicit discharge training field training and updates with experienced staff and training on equipment (pH meters, conductivity meters, sampling techniques)
- Work Order tracking of reports of detection and elimination, including actions taken
- Public information outreach, use of the hotline
- Outfall inspection reports

#### \*Timeline/Implementation Schedule:

- Training initial training in 2002, **annual updates**, equipment training when new techniques are introduced.
- Annual program activity work order reports **on-going** and files on major problems.
- Public outreach on-going
- Outfall inspection reports 20% yearly

#### **Specific Components and Notes:**

City Code Chapter 43

2D City BMPS 202, 3F City BMPs 302, 303, 304, 306,308, 6C City BMP 612

City Stormwater Education Program

Fire Department – Hazardous spill response

#### \*Responsible Party for this BMP:

Name: Dan Berg, Utility Operations Supervisor

Department: Public Works and Utilities/Utility Operations

Phone: (218) 730-4049

E-mail: dberg@ci.duluth.mn.us

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

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 3-ILLICIT DISCHARGE DETECTION AND

**ELIMINATION** 

**Unique BMP Identification Number:** 3d-1

\*BMP Title: Public and Employee Illicit Discharge Information Program

### \*BMP Description:

The City of Duluth has a strong education program designed to inform the public, city employees, businesses and contractors of problems associated with illegal discharges and to develop an understanding of the link between individual activities and water pollution. The program is described in detail in Summary BMPs 1a-1, 1b-1, 1c-1,1 d-3. The program includes brochures, presentations, public service advertising and one-on-one contact.

Target Audience: General public, municipal employees, contractors, developers, businesses

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

1F City BMPS 101, 103, 105, 108, 110, 3d. City BMPS 303, 6c. City BMPS 608, 612, 613,

### \*Measurable Goals:

- Implement and continue the City of Duluth Stormwater Education Program
- Maintain the "hotline" approach for reporting
- Track and respond to citizen, staff complaints through the work order system

### \*Timeline/Implementation Schedule:

All activities for this BMP summary are **on-going** and are described in detail in related Education Program BMPs.

### **Specific Components and Notes:**

- 1F City BMPS 101, 103, 105, 108, 110, 3d. City BMPS 303, 6c. City BMPS 608, 612, 613
- City of Duluth Stormwater Education Program
- City of Duluth Illicit Discharge Detection and Elimination Program
- Work order system
- Hotline for reporting problems

### \*Responsible Party for this BMP:

Name: Marnie Lonsdale. Project Coordinator

Department: Public Works and Utilities/Utility Operations

Phone: (218)730-4063

E-mail: mlonsdale@ci.duluth.mn.us

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

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 3-ILLICIT DISCHARGE DETECTION AND

**ELIMINATION** 

**Unique BMP Identification Number:** 3e-1

\*BMP Title: Identification of Non Stormwater Discharges and Flows

### \*BMP Description:

The City of Duluth as part of its illicit discharge detection and elimination program will continue to review other categories of stormwater discharges as listed in 3e-1 of the NPDES/SDS MS4 stormwater permit to determine, if such discharges are significant contributors of pollutants. To date the City has not identified any of the listed components as a significant contributor of pollutants.

Target Audience: City of Duluth officials involved in pollution programs.

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

3F City BMP 309

#### \*Measurable Goals:

- Track water discharges for potential pollutants
- Review existing requirements to determine if any of the items listed in 3e-1 is a significant pollutant
- Adjust SWPPP if necessary

### \*Timeline/Implementation Schedule:

- Tracking discharges is on-going
- Reviewing requirements -yearly
- Adjusting SWPPP as required

### **Specific Components and Notes:**

Illicit discharge program Sampling records/ stream sampling City BMP 309

### \*Responsible Party for this BMP:

Name: Dan Berg, Maintenance Supervisor

Department: Public Works and Utilities/Utility Operations

Phone: (218)730-4049

E-mail: <u>dberg@ci.duluth.mn.us</u>

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

## Minimum Control Measure 4: CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

| Key to<br>Unique<br>BMP ID<br>Numbers | Required BMP Title   | Permit<br>Reference |
|---------------------------------------|--|---------------------|
| 4a-1                                  | Ordinance or other Regulatory Mechanism  | V.G.4.a             |
| 4b-1                                  | Construction Site Implementation of Erosion and Sediment Control BMPs                                | 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             |
|                                       |  |                     |

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 4-CONSTRUCTION SITE STORMWATER RUNOFF

CONTROL

**Unique BMP Identification Number:** 4a-1

\*BMP Title: Ordinance or other Regulatory Mechanism

### \*BMP Description:

The City of Duluth has in place an erosion Ordinance, Chapter 18 "Erosion and Sediment Control" The ordinance is coordinated by the Stormwater Engineer and applies to disturbing activity on any contiguous parcels of land of 10,000 square feet in area. The ordinance requires the submission of a site plan and outlines the components that must be addressed in the plan including erosion considerations and stormwater management on site. The ordinance provides for permitting on smaller parcels if deemed appropriate. The City will review and update the policy as appropriate to ensure enforcement measures and appropriate procedures are in place.

TARGET AUDIENCE: Contractors, Developers, Engineering companies, Municipal staff, Inspectors

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

4 G City of Duluth BMP 401, 402, 403, 404, 405, 406

#### \*Measurable Goals:

- Review and revise ordinance, when appropriate, including waste management requirements
- Review and update ordinance following completion of City Comprehensive plan and "Non-degradation of all waters" plan
- Provide notice to contractors of updates
- Review and update supporting procedures for inspections, enforcement

### \*Timeline/Implementation Schedule:

Review and update ordinance if appropriate by **December 2008** 

Notice to appropriate individuals about each update on-going.

Review and update ordinance to reflect Comprehensive plan—Comprehensive Plan Completion

Review and update supporting procedures - March 2009

Meeting with Contractors - yearly

### **Specific Components and Notes:**

- City Ordinance: Chapter 18 "Erosion and Sediment Control"
- Chapter 51; Water Resource Management
- Surface Water Management Goals and Policies
- City of Duluth BMPs 401-406

### \*Responsible Party for this BMP:

Name: Gary Minck, P. E.

Department: Public Works and Utilities/Engineering

Phone: (218) 730-5074

E-mail: gminck@ci.duluth.mn.us

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

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 4-CONSTRUCTION SITE STORMWATER RUNOFF

CONTROL

**Unique BMP Identification Number:** 4b-1

\*BMP Title: Construction Site Implementation of Erosion and Sediment Control BMPs

### \*BMP Description:

The City of Duluth Stormwater Engineer oversees the implementation of Erosion and Sediment Control BMPs on construction sites in conjunction with the Minnesota Pollution Control Agency that Permits sites of one acre. The City provides developers and contractors with City requirements for Construction sites and reviews Storm Water Pollution Prevention Plans for new Construction within City limits. Engineering will request adjustments in the plan where design for the site is inappropriate and does not meet City requirements. Engineering distributes to Contractors a packets with City requirements for appropriate erosion and sediment control. Engineering and City Water Quality Specialists visit sites.

TARGET AUDIENCE Contractors, Developers, Engineering companies, Municipal staff, Inspectors:

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

City of Duluth BMPS 401 -406

### \*Measurable Goals:

- Review Erosion and sediment control ordinance
- Develop written procedures for site inspections
- Review construction packet to strengthen implementation and enforcement components
- Continue to work with the MPCA and the South St. Louis SWCD on enforcement of site measures.
- Train staff on field inspection.

### \*Timeline/Implementation Schedule:

- Review ordinance and strengthen implementation requirements, if appropriate, by
   December 2008
- Review and update ordinance to reflect Comprehensive plan on Comprehensive Plan Completion (estimate 2007-2008)
- Review and update supporting procedures to strengthen implementation March 2009
- Meeting with Contractors Spring Yearly
- Staff training Yearly field training
- Staff training procedure Spring 2009

### **Specific Components and Notes:**

City Ordinance: Chapter 18 "Erosion and Sediment Control"

Chapter 51; Water Resource Management

Surface Water Management Goals and Policies

City of Duluth BMPs 401-406

### \*Responsible Party for this BMP:

Name: Gary Minck, P.E.

Department: Public Works and Utilities, Engineering

Phone: (218) 730-5074

E-mail: gminck@ci.duluth.mn.us

City of Duluth Summary BMP 4b-1 p 2

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

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 4-CONSTRUCTION SITE STORMWATER RUNOFF

CONTROL

**Unique BMP Identification Number:** 4c-1

\*BMP Title: Waste Controls for Construction Site Operators

### \*BMP Description:

The City has developed a Best Management Practice directed at Waste Control on Construction Sites. Information on City expectation will be included in the Construction Packet provided by City Engineering to all developers and contractors. The City will require that Contractors have plans in place for control of waste including but not limited to materials such as discarded building materials, concrete truck wash out, chemicals, litter, and sanitary waste at the construction site that might cause adverse impacts on water quality.

TARGET AUDIENCE: Inspectors, City Staff, Contractors, Developers, Engineering Firms Location(s) in SWPPP of detailed information relating to this BMP:

BMP 308, BMP 401-406

### \*Measurable Goals:

- Requirement for waste control plans to be included in the development packet
- Procedures for inspection of sites
- Enforcement measures in ordinances (review and develop as appropriate)
- Hotline for reporting problems
- Staff training on inspection of sites.

### \*Timeline/Implementation Schedule:

- Written Procedures for developers Spring 2008
- Written inspection procedures Summer 2009
- Staff training Spring 2008
- Hotline year round **on-going** already available
- Ordinance update December 2008

### **Specific Components and Notes:**

### REFERENCES

- Development Review Board
- BMP 202 Hotline
- Ordinance Chapter 18
- Ordinance Chapter 24
- BMP 308

### \*Responsible Party for this BMP:

Name: Sara Benning, Solid Waste Officer

Department: Building Safety
Phone: (218)730-5151

E-mail: sbenning@ci.duluth.mn.us

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

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 4-CONSTRUCTION SITE STORMWATER RUNOFF

CONTROL

**Unique BMP Identification Number:** 4d-1

\*BMP Title: Procedure for Site Plan Review

### \*BMP Description:

The City of Duluth Engineering Department reviews projects for stormwater concerns prior to permitting the project. The Engineering Department has created a packet that outlines the expected information for all projects. In Duluth all projects on property over 10,000 square feet must have erosion and sediment control permits and projects on smaller sites must be permitted if the engineer determines the site or nature of the project may negatively impact water quality. On larger projects, Engineering reviews the state required Storm Water Pollution Prevention Plan. Engineering staff present the information to the construction industry at public meeting each year

TARGET AUDIENCE: Inspectors, City Staff, Contractors, Developers, Engineering Firms Location(s) in SWPPP of detailed information relating to this BMP:

City of Duluth BMPs 401-406

### \*Measurable Goals:

- Review all permit submissions on land over 10,000 square feet. (track numbers)
- Distribute packets to contractors and developers with requirements for review (track numbers)
- Meet with contractors and developers individually or through the Development Review Board. In minutes
- Develop and update written procedures outlined in review process

### \*Timeline/Implementation Schedule:

- Review of submissions on going
- Distributing packets on going
- Meeting with contractors monthly development review committee, spring contractor meeting
- Developing procedures review materials 2007Update procedures fall 2008

### **Specific Components and Notes:**

- City of Duluth BMPs, 401-406
- Surface Water Management Plan Goals and Policies
- Developers Package

### \*Responsible Party for this BMP:

Name: Gary Minck, P.E.

Department: Public Works and Utilities, Engineering

Phone: (218) 730-5074

E-mail: gminck@ci.duluth.mn.us

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

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 4-CONSTRUCTION SITE STORMWATER RUNOFF

**CONTROL** 

**Unique BMP Identification Number:** 4e-1

\*BMP Establishment of Procedures for the Receipt and Consideration of Reports Title: of Stormwater Noncompliance

### \*BMP Description:

The City of Duluth tracks all complaints and public concerns that may affect water quality. The City has in place a hot line number for notifying the Utility Operations of observed problems. All notifications trigger a work order and a follow up inspection. Utility Operations and Engineering work closely on tracking and evaluating complaints. For projects disturbing over one acre of land the City will follow up with the Minnesota Pollution Control Agency.

TARGET AUDIENCE: Contractors, Developers, Engineering companies, Municipal staff, Inspectors, General Public

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

BMP 202, 401-406

#### \*Measurable Goals:

- Implement draft written procedure for responding to public complaints.
- Track complaints through work order system track numbers, set up a query data base

### \*Timeline/Implementation Schedule:

- Implement written procedure following review summer 2006
- Track complaints in place and on-going through the Utility Operations Work Order System
- Train Water Quality Specialists in responding to complaints on-going

### **Specific Components and Notes:**

BMPs 202, 401-406 City Ordinances, Chapter 18, Chapter 24

### \*Responsible Party for this BMP:

Name: Steve Lipinski, Utility Operations Manager
Department: Public Works and Utilities/Utility Operations

Phone: (218) 730-4068

E-mail: slipinski@ci.duluth.mn.us

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

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 4-CONSTRUCTION SITE STORMWATER RUNOFF

CONTROL

**Unique BMP Identification Number:** 4f-1

\*BMP Title: Establishment of Procedures for Site Inspections and Enforcement

### \*BMP Description:

The City of Duluth has in place ordinances and practices to ensure that construction sites comply with requirements through inspections and enforcement. Practices will be reviewed, updated and documented as appropriate including:

- The City will review compliance with City Ordinance 9365. Chapter 18, City Code
- The City will also review City erosion control practices including methods for addressing complaints and developing a list of standard inspection expectation such as posting of permits on site and control of waste and litter.
- The City will put in place specific recommendation for waste and litter control

TARGET AUDIENCE: : Contractors, Developers, Engineering companies, Municipal staff, Inspectors

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

BMP 202, BMPs 401-406

### \*Measurable Goals:

- Review and document inspection procedure
- Review and document practices expected at construction site
- Document the citizen complaint response procedure
- Document inspection and actions tracking (interdepartmental data base)
- Train staff in inspection procedures
- Produce and distribute information worksheet for contractors (developmental review package)
- Develop an information sheet for waste and litter control on construction sites.

### \*Timeline/Implementation Schedule:

- Staff training is on-going
- Inspections and actions are documented as they occur since 2004 through engineering reports and utility operation work orders consolidate database 0ngoing
- Citizen complaint procedures is documented and tracked since 2004 on-going
- The information worksheet for contractors was developed in 2004 and updating is ongoing.
- Waste and litter control worksheet Summer 2007
- Procedure documentation to be in place by summer 2007

### **Specific Components and Notes:**

### **REFERENCES:**

- Inspection database
- Construction Inspection Procedure
- Review meetings of Engineering, Building Safety, Planning, Utility Operations
- Hotline BMP 202
- Construction packet

### \*Responsible Party for this BMP:

Name: Gary Minck, P.E., Building Sara Benning-Solid Waste Officer

Department: Public Works and Utilities, Engineering, Building safety

Phone: (218)730-5074 (218) 730-5151

E-mail: <a href="mailto:gminck@ci.duluth.mn.us">gminck@ci.duluth.mn.us</a> / sbenning@ci.duluth.mn.us

City of Duluth Summary BMP 4f-1 p 2

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

### Minimum Control Measure 5: POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

| Key to<br>Unique<br>BMP ID<br>Numbers | Required BMP Title  | Permit<br>Reference |
|---------------------------------------|---|---------------------|
| 5a-1                                  | Development and Implementation of Structural and/or Non-<br>structural BMPs                     | 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 of BMPs   | V.G.5.c             |
|                                       |   |                     |

MS4 Name: CITY OF DULUTH

**Minimum Control Measure:** 5-POST-CONSTRUCTION STORMWATER

MANAGEMENT IN NEW DEVELOPMENT AND

REDEVELOPMENT

**Unique BMP Identification Number:** 5a-1

\*BMP Title: Development and Implementation of Structural and/or Non-

structural BMPs

### \*BMP Description:

The City of Duluth has in place practices for working with developers and contractors to determine appropriate Best Management Practices (BMP) such as detention ponds and other structural and non-structural methods of post construction runoff control for development and redevelopment. Appropriate practices take into consideration the significant slopes, clay soils and the outstanding resource value waters and trout streams of the region. The Stormwater Engineer meets with developer on a project by project basis to review practices. These practices are being reviewed documented and updated. The City of Duluth will continue to review these practices in line with the Non-degradation of All Waters Plan, the Surface Water Management Goals and Policies and the new Comprehensive plan for the City.

### **Target Audience**

Developers/Builders, Planning, Municipal Employees, City Council and Commissions Location(s) in SWPPP of detailed information relating to this BMP:

5d City BMPs BMP 501, 502, 503

### \*Measurable Goals:

- Maintain a library of BMPs suitable for the cold climate conditions of Duluth
- Meet with developers and contractors to discuss appropriate BMPs for project (track meetings)
- Track project development, installation and implementation of BMPs (document visits)
- Develop written procedures for process
- Review and determine if post construction BMP maintenance ordinance is appropriate.
- Update practices as the Non-Degradation of All Waters Plan and the Comprehensive Plan are completed.

### \*Timeline/Implementation Schedule:

- Maintenance the library of BMPS is on-going and updated as new materials become available such as the State of Minnesota Stormwater Manual
- The Stormwater Engineer meets with, and provides information to contractors/developers/engineering firms for all projects on over 10,000 square feet. – on-going
- Engineering and Water Quality Specialist track condition of City owned yearly and more frequently if deemed necessary for a specific site and private projects where problems are identified —on going.
- Procedures will be documented Winter 2006/07
- Review of need for ordinance Winter 2006/07
- New ordinance or current ordinance updates **2007**.

**Specific Components and Notes:** 

- City BMPS 501, 502, 503
- Surface Water Management Policies and Goals
- Water Resource Ordinance
- Erosion and Sediment Control Ordinance

### \*Responsible Party for this BMP:

Name: Gary Minck, P. E.

Department: Public Works and Utilities/Engineering

Phone: (218)730-5074

E-mail: <a href="mailto:gminck@ci.duluth.mn.us">gminck@ci.duluth.mn.us</a>

City of Duluth Summary BMP 5a-1 p 2

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

MS4 Name: CITY OF DULUTH

**Minimum Control Measure:** 5-POST-CONSTRUCTION STORMWATER

MANAGEMENT IN NEW DEVELOPMENT AND

REDEVELOPMENT

**Unique BMP Identification Number:** 5b-1

\*BMP Title: Regulatory Mechanism to Address Post Construction Runoff from New

Development and Redevelopment

### \*BMP Description:

The City of Duluth has in place a Water Resources Ordinance, an Erosion and Sediment Control Ordinance, Surface Water Management Goals and Policies and is up dating its Comprehensive Plan. The Planning, Engineering and Utility Operations Divisions of the City of Duluth will review and update procedures, City ordinances and zoning requirements as appropriate to reflect new requirements for design, installation and maintenance of runoff control devices in compliance with Phase II requirements and City comprehensive plans in order to protect surface water quality. In updating the relevant procedures and ordinances, the City will take in to consideration, the relevant TMDLs and the Nondegradation of All Waters Plan.

Target Audience: Developers, Contractors, Municipal Employees and Officials,

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

5D City BMPs BMPS 501, 502, 503

#### \*Measurable Goals:

- Develop and update procedures for design, installation and maintenance of runoff control devices.
- Train staff on inspection of post construction controls
- Update procedures for inspection and maintenance of City operated post construction controls.
- Review and determine if post construction BMP maintenance ordinance is appropriate.
- Update practices as the Non-Degradation of All Waters Plan and the Comprehensive Plan are completed

### \*Timeline/Implementation Schedule:

- Procedures will be updated and documented Winter 2007
- Review of need for ordinance Winter 2007
- New ordinance or current ordinance updates 2007.
- Staff training in inspection, monitoring and enforcement of procedures and ordinance
  - Document program Fall 2007
  - Train Spring 2008

### **Specific Components and Notes:**

- City BMPS 501, 502, 503
- Surface Water Management Policies and Goals
- Water Resource Ordinance
- Erosion and Sediment Control Ordinance

Draft Post construction Maintenance Ordinance

### \*Responsible Party for this BMP:

Name: Gary Minck, P. E.

Department: Public Works and Utilities/Engineering

Phone (218) 730-5074

E-mail: gminck@ci.duluth.mn.us

City of Duluth Summary BMP 5b-1 p 2

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

MS4 Name: CITY OF DULUTH

**Minimum Control Measure:** 5-POST-CONSTRUCTION STORMWATER

MANAGEMENT IN NEW DEVELOPMENT AND

REDEVELOPMENT

**Unique BMP Identification Number:** 5c-1

\*BMP Title: Long-term Operation and Maintenance of BMPs

### \*BMP Description:

The Utility Operations Division of the Public Works and Utilities Department is responsible for maintaining all City owned or operated Best Management Practices installed as part of the stormwater system. Utility Operations maintains appropriate cleaning equipment including hydraulic rod trucks and backhoes to do required cleaning and has in place procedures for disposal of materials. Structural and Nonstructural Best Management Practices owned and operated by private organizations and developed in response to permit requirements, must submit a plan for maintenance during the initial development phase. City Engineering and Utility Operations will track progress on maintaining these structural and nonstructural BMPs. City has practices for tracking the operations and will determine if additional procedures and enforcement measure must be required.

Target Audience: Public, Utility Operations, Engineering

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

5d City of Duluth. BMPS 501, 502, 503

### \*Measurable Goals:

- City owned or operated non-structural BMPs will be inspected and maintained as appropriate.
- All inspections and cleanings will be documented.
- Procedures will be documented and updated as appropriate.
- Procedures and requirements for tracking of non-City BMPs will be reviewed and updated.
- Additional enforcement procedures will be developed as deemed appropriate.

### \*Timeline/Implementation Schedule:

- All City Owned and operated BMPs will be inspected annually initially
- Inspections will be documented with time, date, responsible party at time of activity through the City work order system – **0n-going**
- All practices will be reviewed in the Fall of 2007
- City Engineering and utility Operations will review procedures for Non-City BMPS during the fall of 2007
- Additional ordinance updates Spring 2008

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### **Specific Components and Notes:**

- City BMPS 501, 502, 503
- Surface Water Management Policies and Goals
- Water Resource Ordinance
- Erosion and Sediment Control Ordinance
- Draft Post Construction Maintenance Ordinance

### \*Responsible Party for this BMP:

Name: Gary Minck, P. E.

Department: Public Works and Utilities/Engineering

Phone: (218) 730-5074

E-mail: <a href="mailto:gminck@ci.duluth.mn.us">gminck@ci.duluth.mn.us</a>

City of Duluth Summary BMP 5c-1 p 2

 $<sup>*</sup> Indicates \ a \ REQUIRED \ field. \ Failure \ to \ complete \ any \ required \ field \ will \ result \ in \ rejection \ of \ the \ application \ due \ to \ incompleteness.$ 

# Minimum Control Measure 6: POLLUTION PREVENTION/GOOD HOUSEKEEPING

| Key to<br>Unique<br>BMP ID<br>Numbers | Required BMP Title   | Permit<br>Reference |
|---------------------------------------|--|---------------------|
| 6a-1                                  | Municipal Operations and Maintenance Program   | V.G.6.a             |
| 6a-2                                  | Street Sweeping**  |                     |
| 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,<br>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<br>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           |

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING

**Unique BMP Identification Number: 6a-1** 

\*BMP Title: Municipal Operations and Maintenance Program

### \*BMP Description:

The City of Duluth Public Works and Utilities, Utility Operations Division is responsible for maintaining and operation of the Stormwater System of the City of Duluth. Utility Operations are funded by a Stormwater Utility fee that is charged to customers monthly. The fee is intended to cover maintenance and operations cost for reducing flooding and protecting water quality in the City.

In order to maintain operations the Utility has written a Comprehensive Storm Sewer Plan that outlines the activities of the Utility. The Utility has equipment for cleaning (hydraulic and mechanical rod trucks), closed circuit televising, a maintenance crew, and available backhoes and a walking excavator for creek work. The Utility employees cleaning and construction crews to maintain the system. Other specialized staff included two water quality specialist, a project coordinator, and a stormwater engineer. All activities are tracked through the Utility work order system. The infrastructure is mapped and work can be tracked.

Utility operations works with municipal employees in all field divisions to ensure that all divisions have best Management practices in place to support the Program and staff are trained in order to implement these activities.

Target Audience: Utility Operations Personnel

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

City of Duluth BMPs 601-622, BMP 110

### \*Measurable Goals:

- Review and update Comprehensive Storm Sewer Plan
- Meet requirements and timelines of BMPS 601-623
- Stormwater activities tracked on the Utility Work Order System
  - Feet of cleaning
  - Manhole repairs
  - Stream cleaning
  - Pipe repairs
- Good housekeeping training (BMP 110)

### \*Timeline/Implementation Schedule:

- Review of Plan annually in January
- o Timelines for BMPS as specified in the BMPS 601-623
- Footage tracked on work order system summarized annually
- o Good housekeeping training yearly specific tasks as defined in BMPs

### **Specific Components and Notes:**

Comprehensive Sewer Plan

BMPS 601-623

Work order system

Departmental training and activities files

Departmental procedures (Park maintenance, golf Courses, fleet, fire department, Utility Operations, street maintenance, facilities Management)

### \*Responsible Party for this BMP:

Name: Dick Larson, Director Public Works and Utilities

Department: Public Works and Utilities,

Phone: (218)730-5115

E-mail: dlarson@ci.duluth.mn.us

City of Duluth Summary BMP 6a-1 p 2

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

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING

**Unique BMP Identification Number:** 6a-2

\*BMP Title: Street Sweeping\*\*

### \*BMP Description:

The Street Maintenance Division of Public Works and Utilities Department is responsible for street sweeping. The City of Duluth currently operates 6 brush street sweepers starting in spring as soon as snow melt allows and continuing operation until the first snows of the fall. All streets in the City are swept once in the spring and once in the fall. Streets in the heavy usage area and downtown are swept more frequently – with downtown areas every two to three weeks. To achieve this schedule, street maintenance operates two shifts during summer months when adequate natural light is available.

In support of the street sweeping program the City of Duluth is in the first year of a pilot City wide project to elicit citizen involvement in cleaning boulevards and curbs in front of their homes.

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

**BMP 618** 

#### \*Measurable Goals:

- Yearly street sweeping entire City twice yearly miles tracked
- Track amounts of material collected
- Track effectiveness of citizen involvement project –
- o Initiate on-going project if citizen project is successful.
- Review and evaluate and determine need to update equipment

### \*Timeline/Implementation Schedule:

- Street sweeping –twice yearly, more in heavy usage areas.
- Evaluate pilot project, summer 2006
- Equipment review on-going

### **Specific Components and Notes:**

**BMP 618** 

Street maintenance records

### \*Responsible Party for this BMP:

Name: Robert Troolin

Department: Public Works and Utilities/Street Maintenance

Phone: (218) 723-

E-mail: btroolin@ci.duluth.mn.us

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

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING

**Unique BMP Identification Number:** 6b-2

\*BMP Title: Annual Inspection of All Structural Pollution Control Devices

### \*BMP Description:

The City of Duluth has is in place a process inspect all structural Pollution Control Devices. Because of the slopes and volumes of both rainwater and surfacing ground water handled by the stomrwater system, the City does not utilize very small pollution control devices. In general the City employs larger devices at the bottom of the hill. Each year the City inspects all these devices and determines the need for cleaning and maintenance. The dates, and observations are recorded. In addition the City responds immediately to any identified problems with pollution control devices. The City has just recently installed a sediment control device in a large line. This will be inspected and cleaned as appropriate on a schedule determined through on-going inspections.

TARGET AUDIENCE: Municipal employees, Utility Operations

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

**BMP 613** 

#### \*Measurable Goals:

- Inspect all pollution control devices annually.
- Record results of inspections
- Clean devices as appropriate,
- Dispose of materials at designated locations

### \*Timeline/Implementation Schedule:

- Annual Inspection
- Cleaning annual if deemed necessary.
- Repairs and maintenance immediately if problems are detected.

### **Specific Components and Notes:**

**BMP 613** 

Sewer Comprehensive Plan

Hydraulic Rod trucks,

### \*Responsible Party for this BMP:

Name: Dan Berg, Maintenance Supervisor

Department: Public Works and Utilities/ Utility Operations

Phone: (218) 730-4049

E-mail: dberg@ci.duluth.mn.us

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

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING

**Unique BMP Identification Number:** 6b-3

\*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:

The City of Duluth has identified 427 (2004 validated count) outfalls that discharge from the Stormwater System. Each year the City inspects approximately 20% of these outfalls. Inspection is rotated. The City has a very limited number of ponds and is putting together a list of City owned ponds and abandoned ponds for future inspections. All sediment basins are inspected as part of the structural control inspection described in 6b-2.

All outfall inspections are done using a Trimble GPS unit with an electronic inspection form. Following inspection information is downloaded in to the GPS system. At the time of inspection, photographs of outfalls may be taken if appropriate.

Target Audience: Utility Operation, GIS staff

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

BMP 612

#### \*Measurable Goals:

- Inspection 20% of outfalls annually on a rotating basis
- Record information in the GIS system annually
- Review information and schedule repairs as appropriate annually
- Report any illicit discharges and initiate illicit discharge program immediately

### \*Timeline/Implementation Schedule:

**All components are performed yearly**. With the illicit connection program initiated immediately if any discharge problems are detected.

### **Specific Components and Notes:**

BMP 612, BMP 303, 307, BMP 108 Illicit Discharge Detection and Elimination Program GPS maps

### \*Responsible Party for this BMP:

Name: Dan Berg, Maintenance Supervisor

Department: Public Works and Utilities/ Utility Operations

Phone: (218) 730-4049

E-mail: <u>dberg@ci.duluth.mn.us</u>

<sup>\*</sup>Indicates a REOUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING

**Unique BMP Identification** 6b-4

Number:

\*BMP Title: Annual Inspection of All Exposed Stockpile, Storage and Material Handling Areas

### \*BMP Description:

The City of Duluth will compile a comprehensive list of all stock piles maintained by City departments and divisions. Following development of the list, the relevant departmental individuals will meet and establish City wide procedures for maintaining and inspecting stock piles.

A computerized record will be maintained of all inspections and any required corrective actions.

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

City of Duluth BMP (621, 622)

### \*Measurable Goals:

- Establish comprehensive list of all stockpiles
- Establish City wide procedures for maintaining stock piles to minimize environmental risk
- Perform annual inspections
- · Report results of inspection

### \*Timeline/Implementation Schedule:

- Establish list of stock piles Fall 2006
- Initial inspection of stockpiles, Fall 2006
- Development of stock pile procedure, summer 2007
- Report of results annually in May.

### **Specific Components and Notes:**

BMP 621, BMP 622

### \*Responsible Party for this BMP:

Name: Dick Larson, Director

Department: Department of Public Works and Utilities

Phone: (218)730-5115

E-mail: dlarson@ci.duluth.mn.us

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

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING

**Unique BMP Identification** 6b-5

Number:

\*BMP Inspection Follow-up Including the Determination of Whether Repair, Replacement, or Title: Maintenance Measures are Necessary and the Implementation of the Corrective Measures

### \*BMP Description:

Following inspections, the inspector and the maintenance supervisor will review all inspection results. Where immediate action is required a work order will be prepared and steps taken to address the problem in a timely fashion. Repair of problems detected in winter months may be delayed until the following spring. For each activity the procedures are outlined in the appropriate BMP.

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

BMPS 609, 610, 611, 612, 613

### \*Measurable Goals:

- Determine if repair or upgrades are required for Stormwater Utility Infrastructure based on inspections
- Schedule repairs
- Record activities in the work order system.

### \*Timeline/Implementation Schedule:

- Determine repairs **annually** following infrastructure inspections
- Schedule repairs prioritize and schedule by nature of repair, emergency, high priority, maintenance, low priority – on going each year
- Record activities on-going.

### **Specific Components and Notes:**

BMPS 609, 610, 611, 612, 613 Comprehensive Sewer Plan Maintenance schedule Work Order system

### \*Responsible Party for this BMP:

Name: Dan Berg, Maintenance Supervisor

Department: Public Works and Utilities/Utility Operations

Phone: (218) 730-4040

E-mail: dberg@ci.duluth.mn.us

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

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING

**Unique BMP Identification Number:** 6b-6

\*BMP Title: Record Reporting and Retention of All Inspections and Responses to the

Inspections

### \*BMP Description:

Records of inspections and repairs completed as the result of inspections will be maintained through the City electronic system as part of the GIS system, work order system or separate interdepartmental data bases. Each year all data will be collected and summarized in the annual report. The designate individual for each BMP will be responsible for assembling the data, determining if the existing BMP provides an adequate frame work and recommending changes as appropriate. The designated individual will provide a summary of the data for the previous year to the individual responsible for the annual report in March of the following year.

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

BMPS 609, 610, 611, 612, 613 BMP 701

### \*Measurable Goals:

- Provide annual reports on all inspections,
- Summarize activities resulting from inspection

### \*Timeline/Implementation Schedule:

Reports and summaries will be provided in **March/April** of each year for the previous calendar year.

### **Specific Components and Notes:**

BMPS 609, 610, 611, 612, 613 Utility Operations Work Order system Comprehensive Storm Sewer Plan

### \*Responsible Party for this BMP:

Name: Marnie Lonsdale, Project Coordinator

Department: Public Works and Utilities/Utility Operations

Phone: (218)730-4063

E-mail: mlonsdale@ci.duluth.mn.us

<sup>\*</sup>Indicates a REOUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING

**Unique BMP Identification Number:** 6b-7

**\*BMP Title:** Evaluation of Inspection Frequency

### \*BMP Description:

Records of inspections, including results, frequency, responses and, as appropriate, the weather conditions, sediment storage and capacity remaining will be kept by the specific division or department responsible for the activity. The Division Managers will review with the responsible party in the division if changes need to be made in any procedures related to the activities. The review will also consider whether inspection need to be more frequent – if so determined the inspection schedule will be increased. The frequency of inspection can only be decreased if at least two years of inspection indicate a pattern of less need for maintenance or cleaning. All records will be maintained until 2014

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

BMPS 609, 610, 611, 612, 613 BMP 701

### \*Measurable Goals:

- Review all records of inspections annually
- Evaluate the effectiveness of the inspection and determine if changes need to be made in program
- Update program, change procedures

### \*Timeline/Implementation Schedule:

- Record review annually in fall
- Evaluation of effectiveness of procedures annually in fall
- Change procedures as necessary Winter annually

### **Specific Components and Notes:**

BMPS 609, 610, 611, 612, 613 BMP 701 Work order system

### \*Responsible Party for this BMP:

Name: Dick Larson, Director

Department: Public Works and Utilities

Phone: (218) 730-5115

E-mail: Dlarson@ci.duluth.mn.us

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

# CITY OF DULUTH 2006 STORM WATER POLLUTION PREVENTION PROGRAM

May 22, 2006



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### Introduction:

### **Duluth's Commitment**

The City of Duluth is committed to protecting the high quality waters of the region. With 43 named streams within City limits including 12 trout streams and discharges to the Lake Superior, an Outstanding Resource Value Water, and the St. Louis River, a designated Great Lakes Area of Concern due to degradation from past practices (mainly contaminated sediments), Duluth is highly sensitive to the need to take a proactive role in surface water protection.

In 2006, the Duluth City Council adopted Surface Water Management Policies and Goals to provide guidance in future planning for managing local waters. The Goals and Policies will provide guidance in the Comprehensive plan and other up coming planning and zoning decisions and address issue of both water quality and flooding.

Duluth recognizes the challenges of involving municipal employees, the general public and the construction and development industries in protecting water quality in an environment where water degradation is not yet visible. Duluth is also sensitive to the challenges of addressing health and safety needs in the cold climate with steep hillsides. Duluth will continue to seek out methods to address stormwater and surface issue while protecting the environment, the quality of life and the economy of the region.

### **Duluth's Storm Water Pollution Prevention Program**

The City of Duluth has developed a Storm Water Pollution Prevention Program (SWPPP) as part of their submission to be part of the State of Minnesota's General Permit MNR04000 Authorization to discharge storm water associated with municipal separate storm sewer systems (MS4) under the National Pollution Discharge Elimination System (NPDES)/State Disposal System (SDS) Permit for Small Municipal Separate Storm Sewer Systems.

Duluth's SWPPP contains 61 Best Management Practices (BMPs) that address the six minimum control measures (MCMs) as specified in the permit . As outlined in the SWPPP, table of contents many BMPs have elements related to several MCMs.

The Stormwater permit is a City wide permit and City personnel in various departments are participating in managing specific BMPS. To reduce duplication and paperwork, data is compiled by the responsible party and maintained at the appropriate departmental location. Responsible parties will provide summaries as appropriate and locations of data as part of their SWPPP review for the annual report. Each year prior to the annual report a staff meeting will be held with all responsible parties to insure data is collected. Where appropriate procedures and programs will be filed with permit data. However all master copies will be maintained in the responsible department in order to keep information readily available for review and keep data files current.

# BMPs for Minimum Control Measure 1: Public Education and Outreach IF:

# City of Duluth BMP 101

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 1-PUBLIC EDUCATION AND OUTREACH Unique BMP Identification Number: 1F- BMP 101 adapted from 2003 permit

\*BMP Title: Development of a Regional Surface Water Education

Program

#### **BMP Description**

# Target Audience: General Public -Regional

Participate in a program of regional educational effort with other government groups. Provide education outreach and information that addresses specific regional issues through local media as a cooperative effort. Incorporate existing regional environmental education programming. Extent of actual program depends on grant funding success. Program to address watershed issues – link streams to lake.

The identified coordinating regional body is the Regional Stormwater Protection Team founded in 2003. The RSPT sponsors advertising, brochures and events and provides a net work for coordination

#### \*Measurable Goals:

- Sit on Board of Regional Stormwater Protection Team
- Form partnerships with Regional groups including the University, neighboring communities and agencies
- Participate in regional fairs, watershed festivals
- Seek and apply for funding and act as fiscal agent for the organization as required.
- Produce and distribute public Services Advertisements
- Participate in construction workshops

#### \*Timeline/Implementation Schedule:

- RSPT **on-going** (6 to ten meetings yearly)
- Airing of PSAs at least once yearly depending on funding (spring or fall)
- Watershed Festival every other year next 2007
- Apply for funding annually
- Partnerships with other groups on-going as projects are identified.
- Workshops as scheduled (funding dependent)

#### **Specific Components and Notes:**

- Minutes of meetings of the RSPT including but not limited to,
  - City of Duluth, Hermantown, Proctor, Cloquet, City of Superior, Duluth Township,
  - St. Louis County, Rice Lake Township, Midway Township University of Minnesota
  - Duluth, MN Department of Transportation, ST. Louis County, Fond du Lac Reservation,
- Grants written to MN's Lake Superior Coastal Program and other identified funding sources.
- Design of educational campaign
- Public information spot design and airing (track times aired)

- Logo design
- www.lakessuperiorstreams.org/www.duluthstreams.org
- Regional workshops

# \*Responsible Party for this BMP:

Name: Marnie Lonsdale

Department: Utility Operations, Public Works and Utilities

Phone: 218-730-4063

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

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 1-PUBLIC EDUCATION AND OUTREACH
Unique BMP Identification Number: 1F – BMP 102 adapted from 2003 SWPPP

\*BMP Title: Collectable Cards for Duluth Streams

\*BMP Description:

Target Audience: General Public, School Children

Informational cards about the streams in the City of Duluth designed to sensitize the public about the sub-watersheds and through sensitizing increase vigilance to protect these watersheds. Funded through MN's Lake Superior Coastal Program Grant or City of Duluth Education Program. Cards feature local streams, stream features, maps and pictures.

#### \*Measurable Goals:

- Production of Cards
- · Press release about cards
- Distribution of cards to students, interested groups
- Production of additional series
- (dependent on funding)

#### \*Timeline/Implementation Schedule:

First series 2003, 2<sup>nd</sup> series 2004. third series 2005

Continue to distribute cards - on going

Fourth series 2006/7

#### **Specific Components and Notes:**

Cards describing features of City creeks and local characteristics, such as plants and insects.

Trout Stream Series, Insect Series, Plant Series

#### \*Responsible Party for this BMP:

Marnie Lonsdale

Public Works and Utilities, Utility Operations

218-730-4063

mlonsdale@ci.duluth.mn.us

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

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 1-PUBLIC EDUCATION AND OUTREACH
Unique BMP Identification Number: 1F- BMP 103 adapted from 2003 SWPPP

\*BMP Title: Care and Feeding of Sewers

# \*BMP Description:

Target Audience: General Public, Commercial Business

**Description:** The City of Duluth has developed an education program specifically addressing public maintenance of sanitary sewers and prevention of backs ups and overflows of sanitary sewers that would pollute surface waters. The educational material includes explanation of the effect of illicit connections on surface waters and request public assistance. The program is being expanded to address restaurant fats, oils and grease and restaurant yard maintenance. Ordinances will be reviewed to determine effectiveness of enforcement

#### \*Measurable Goals:

Distribution of Care and Feeding Brochure to public (5000 available)

Preparation and distribution of a brochure for commercial business

Press releases (one yearly)

Brochure update (as needed)

Public Presentations to general public and restaurants (PowerPoint development) 1-2 yearly

Preparation of restaurant materials, all charts, signs etc.

Model of sewer system

Visits to Restaurants

Review of ordinances for more effective controls

Sanitary Sewer sampling program

#### \*Timeline/Implementation Schedule:

Ordinance review 2006-2007

Brochure distribution – **on-going** at fairs, talks etc.

Press releases – on-going

Restaurant information - design 2006

Model of system - on display in lobby, Customer Service - on-going

Restaurant visits - on going from 2006

Sampling program **on-going** – at least five restaurants yearly (5 day samples)

#### **Specific Components and Notes:**

Care and Feeding brochure

Library of fats, oils and grease information

PowerPoint presentation

Minutes of fats oils and grease meetings

WLSSD Model Ordinances as developed

# \*Responsible Party for this BMP:

Name: Marnie Lonsdale

Department: Department of Public Works and Utilities, Utility Operations

Phone: 218-730-4063

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

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 1-PUBLIC EDUCATION AND OUTREACH Unique BMP Identification Number: 1F – BMP 104 adapted from 2003 SWPPP

#### www.duluthstream.org/www.lakesuperiorstreams.org - Informational Web Site

#### \*BMP Description:

Target Audience: General Public, Children, Internal Staff

Public Educators, Environmental groups

# **Description:**

Development and maintenance of a web site that targets streams in Duluth. Information includes data from monitoring of local streams, information about local streams, Information on City activities, public involvement, illicit discharges. The web site is being expanded to include a construction tool kit and information of business and individual best management practices and information on regional water quality.

#### \*Measurable Goals:

- Contract with the University of Minnesota, Natural Resources Research Institute to maintain site
- Contribute information for site.
- Distribute information on the site to public, school children
- Maintain monitoring station within City of Duluth
- Expand outreach of site
- Seek funding to support the site

#### \*Timeline/Implementation Schedule:

- Duluth will sign a yearly contract with the NRRI to maintain the site and budget funding for the site – yearly
- Monitoring will be operational **for 8-10 months per year** depending on stream condition; Utility staff will maintain monitors as needed.
- Site information will be included in all materials distributed and on all prepared: brochures and press releases. **on-going**.
- Grant writing will be an **on-going partnership** effort with the University.
- Site hits will be tracked (in 2005 hits were over 200,000 monthly during school year.) –on-going

#### **Specific Components and Notes:**

Web site www.lakesuperiorstreams.org/www.duluthstreams.org

Data posted on site

Contract with the University of Minnesota Duluth, NRRI for maintenance.

#### \*Responsible Party for this BMP:

Marnie Lonsdale

Public Works and Utilities, Utility Operations

218-730-4063

mlonsdale@ci.duluth.mn.us

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 1-PUBLIC EDUCATION AND OUTREACH
Unique BMP Identification Number: 1F- BMP 105 adapted from 2003 SWPPP

\*BMP Title: City of Duluth Educational Outreach Program

#### \*BMP Description:

#### **Target Audience:**

General Public, Public Educators, Internal Staff, Children, Environmental Groups **Description:** 

The City of Duluth has an on-going education program that is enhanced by additional special outreaches. As part of this ongoing program, City staff participate in festivals and other activities, provide brochure and handouts, perform demonstrations and work with the public to disseminate information about protecting surface waters. The City makes available to the public a pre-K to grade 5 curriculum developed with Stowe Elementary School and the University of Minnesota Duluth Outdoor Education Program. The City program is outlined in detail in the City Education plan.

#### \*Measurable Goals:

- Participate in at least one fair or pubic outreach event such as the April Home Show, Harvest festival, Earth Day
- Distribute pamphlets and leaflets
- Address water quality practices using locally developed and relevant materials from other sources (track numbers)
- Place reminders on www.duluthstreams.org, also on City web sites
- Work with other city departments to include water quality information in activities (track meetings)
- Prepare press releases (at least two yearly)
- Participate in at least two school activities yearly
- (such River Quest, Stowe Environmental Day)
- Hold at least one public information meeting complying with public notice requirements, take minutes and document response to public comments.
- Offer Watershed pre-K through grade 5 curriculum to schools by posting the curriculum and other links on the www.duluthstreams.org website.
- Distribute development information to developers and construction industry
- Identify appropriate Social marketing activities and seek funding to implement these activities.
- Participate in the Regional Stormwater Protection Team.
- Educational presentations to City staff, City Council, City Commissions.

#### \*Timeline/Implementation Schedule:

All education activities are **on-going** and will be done yearly. Target number of events are described in goals.

#### **Specific Components and Notes:**

City Stormwater Education Plan

www.duluthstreams.org/ www.lakesuperiorstreams.org web site

Enviroscape

Duluth Streams collectible cards

Fiberglass sewer model

Storm drain marking program

Stream monitoring with schools if requested

**Brochures** 

Regional Stormwater Protection Team Activities

PowerPoint Education library.

#### \*Responsible Party for this BMP:

Name: Marnie Lonsdale

Department: Public Works and Utilities/ Utility Operations

Phone: 218-730-4063

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

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 1-PUBLIC EDUCATION AND OUTREACH
Unique BMP Identification Number: 1F- BMP 106 adapted from 2003 SWPPP

# **Storm Drain Marking**

#### \*BMP Description:

# **Target Audience**

General Public Children Developers/Contractors

Internal Staff Public Educators

#### **Description**

The City of Duluth has introduced a program to mark storm catch basins with reminders to avoid dumping because the drain goes to the lake, river or streams. The program has two components a cement stamping during road construction and a program of applying decals as part of youth activities. The program is offered to schools and other groups as an activity. The activity is performed under supervision using appropriate safety gear.

#### \*Measurable Goals:

- Local contractors with City concrete stencils as part of all SIP projects. (10 stencils are available for applications)
- Decals placed on catch basins with youth groups (1 or more projects yearly)

#### \*Timeline/Implementation Schedule:

The activity is **on-going** and will be done **yearly**.

#### **Specific Components and Notes:**

Drains to creek, River or Lake decals.

Concrete stencils

Photographic documentation

Safety vests for student activities

Decal press for student activities.

Education PowerPoint presentation

#### \*Responsible Party for this BMP:

Todd Carlson, Water Quality Specialist

Utility Operations, Public Works and Utilities

218-730-4051

tcarlson@ci.duluth.mn.us

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

# City of Duluth BMP 107

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 1-PUBLIC EDUCATION AND OUTREACH
Unique BMP Identification 1F BMP 107 adapted from 2003 SWPPP BMP 107

Number:

\*BMP Title: Public Meetings

#### \*BMP Description:

**Target Audience: G**eneral Public, Commercial Business, Environmental Groups **Description:** On an annual basis the City of Duluth will hold a public meeting to increase public awareness of storm water pollution prevention issue. The meeting to be held one month prior to submission of annual report and will review progress of the City SWPPP. This meeting will be placed on public notice one month prior to the meeting. The public notice will include the site, time, date, agenda and information on where the SWPPP can be reviewed and comments submitted. Notes will be taken of the meeting and feedback provided to those with concerns. Suggestions will be considered for changes in the program.

Staff will participate in other public meetings and City Council presentations and offer to make presentations to groups where appropriate.

#### \*Measurable Goals:

- Presentation to City Council, Environmental Advisory Committee, Planning Commission
- Posting of public notice of Meeting
- Public meeting prior to annual report minutes will be taken.
- Press release on results of meeting if appropriate
- Review of comments and plan update
- Notice to community groups of available speakers
- Yearly record of meetings attended (audience size)

#### \*Timeline/Implementation Schedule:

- All activities will be completed **yearly** the public meeting will be at least one month prior to submission of the annual report.
- Stormwater presentations will be made to the City Council (Pact TV) at least once yearly.

#### **Specific Components and Notes:**

- Public announcement (includes, date of meeting, location, , site where SWPPP is available for review and request for comments from those that cannot attend)
- Meeting held at central location.
- Written report of meeting comments
- Post meeting press release

#### \*Responsible Party for this BMP:

Name: Marnie Lonsdale

Department: Utility Operations, Public Works and Utilities

Phone: 218-730-4063

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 1-PUBLIC EDUCATION AND OUTREACH

**Unique BMP Identification Number:** 1F – BMP 108 – adapted from 2003 SWPPP BMP 108

\*BMP Title: Illicit Discharge Training

\*BMP Description:

Target Audience: City Staff

**Description** 

A training program for City staff on how to recognize illicit discharges and how to identify the source. Initial training completed in 2002 – yearly review and field training will be done. Staff will be trained on new equipment such as test kits, meters and GPS equipment when these items become available.

#### \*Measurable Goals:

- Initial training meeting with new staff as needed (8 hours)
- Yearly refresher meeting with staff on detection techniques
- Monitoring and updating program and equipment annual review
- Record of staff training

#### \*Timeline/Implementation Schedule:

- Training updates will take place yearly
- Program will be reviewed yearly by supervisors

#### **Specific Components and Notes:**

- Illicit Discharge detection and elimination plan and procedure
- Water Quality test kit, detergent test kit, Conductivity meter, transparency tubes

#### \*Responsible Party for this BMP:

Name: Dan Berg, Cleaning Supervisor

Department: Public Works and Utilities, Utility Operations

Phone: 218-730-4049

E-mail: <u>dberg@ci.duluth.mn.us</u>

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

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 1-PUBLIC EDUCATION AND OUTREACH Unique BMP Identification Number: 1F – 109 adapted from 2003 SWPPP BMP 109

\*BMP Title: Construction and Post Construction Stormwater Education

# \*BMP Description:

**Target Audience:** Contractors, Staff, planning officials, developers

**Description:** A program of outreach to those involved with developments to insure that contractors, developers and stakeholders are aware of the requirements for construction and post construction erosion and stormwater control and option available to meet requirements and prevent stormwater pollution.

#### \*Measurable Goals:

- Developers package with information on the requirements related to developments distributed to developers
- Participate in regional development workshop (subject to funding).
- Train City inspection staff in construction site and post construction BMPs
- Provide public with information on construction requirements
- Hot line for public response (record comments)
- Construction toolkit on www.duluthstreams.org web site

## \*Timeline/Implementation Schedule:

- The developers package was written in 2004 and is updated **yearly**.
- Workshops are offered yearly through the South St. Louis SWCD as funding is available.
- Engineering and Utility Operations telephone numbers are posted as yearly
- Water Quality Specialists receive yearly erosion training through in-house and local workshops.

#### **Specific Components and Notes:**

- Construction toolkit on www.duluthstreams.org website
- Grant Funding for regional activities
- Developers package
- Regional workshop for developers and construction
- Staff training plan

#### \*Responsible Party for this BMP:

Name: Gary Minck, Stormwater Engineer

Department: Public Works and Utilities, Engineering

Phone: 218-730-5074

E-mail: gminck@ci.duluth.mn.us

# City of Duluth BMP 110

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 1-PUBLIC EDUCATION AND OUTREACH
Unique BMP Identification Number: 1F BMP 110 adapted from 2003 SWPPP BMP 110

\*BMP Title: General Surface Water Protection Education for City Staff

#### \*BMP Description:

# **Target Audience**

City Staff

# **Description**

The City of Duluth recognizes that it is important that all City staff have an awareness of the importance of protecting the Cities natural water bodies from pollutants.

Educational material and information will be provided to staff on a regular basis so that all City employees serve as outreach for the City's water protection program.

#### \*Measurable Goals:

- Provide information brochure for staff Stormwater –it is not just rain
- · Prepare internal press release in Garfield Gazette for staff
- (4 times a year)
- Prepare information for City meetings

#### \*Timeline/Implementation Schedule:

- Brochure provided yearly
- E-mail information **on-going**
- Write up in Garfield Gazette six per year
- Use of Stormwater DVD for staff training with field staff yearly.

#### **Specific Components and Notes:**

- Stormwater Pollution prevention DVD
- Stormwater- it is not just rain
- Information PowerPoint presentation
- City Education Program.

#### \*Responsible Party for this BMP:

Name: Marnie Lonsdale

Department: Public Works and Utilities

Phone: 218-730-4063

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

# BMPS for Minimum Control Measure 2: Public Participation/Involvement 2D.:

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 2-PUBLIC PARTICIPATION/INVOLVEMENT
Unique BMP Identification Number: 2d. BMP 201 Adapted for 2003 SWPPP BMP 201

\*BMP Title: Yearly Public Informational Meeting

#### \*BMP Description:

**Target Audience:** General Public Environmental Stakeholders

Commercial Business Media Developers/Contractors

#### **Description**

Every year at least one month prior to June 30 file date for the annual report, the City of Duluth will hold an annual meeting to review the effectiveness of the Storm Water Pollution Prevention Plan with all stakeholders. Duluth as a partner in the Regional Stormwater Protection team may partner with regional communities to expand public participation and increase interest in the meeting.

The meeting will receive proper public notice 30 days prior to the event in the Duluth News Tribune. The public notice will contain information on the time, date, location of the annual meeting. The notice will also provide information on the agenda. The notice will also provide information on where the SWPPP can be viewed and an address for additional oral or written comments.

Copies of the notification will be provided to the MPCA and other interested bodies. At the meeting, Duluth will provide the public with information on the progress of the SWPPP. At the conclusion of the meeting, questions and comments will be taken from those in attendance. Those asking questions will be asked to sign in. Minutes will be taken to accurately record all questions.

Through the public notice process, the public will be provided with information on other methods of reviewing the SWPPP and where to provide written or oral comments about the SWPPP. All comments and responses will be recorded.

Prior to submission of the SWPPP annual report, City staff will meet to review the comments from the meeting and written comments and determine if changes need to be made in City BMPs in the SWPPP based on public suggestions.

#### \*Measurable Goals:

- Identify date and time for public meeting
- Set agenda
- Public notice the meeting with all required information (date, time, location, agenda, site to review SWPPP and where to submit written and oral comments)
- Provide copy of the notice to the MPCA and other parties requesting the information
- Public meeting held and minutes taken.
- Additional public feedback through letters or phone calls will be collected and

#### recorded.

Develop a Procedure for SWPPP public meetings.

#### \*Timeline/Implementation Schedule:

- The public meeting will be held annually at least one month prior to submission of the annual report.
- The public notice will be published at least one month prior to the annual meeting and appropriate copies will be provided to the agencies.
- Public feedback through telephone calls, letters or on-on-one discussions will be on-going.
- Once yearly after the annual meeting and more often if citizen concerns are identified a City staff meeting of personnel responsible for BMPs will be held to discuss feedback from the public and determine if changes need to be made in BMPs.
- Response information will be tracked on an on-going basis.

#### **Specific Components and Notes:**

- Public meeting procedure
- www.duluthstreams.org web site
- press releases
- public meeting minutes
- work order system

#### \*Responsible Party for this BMP:

Name: Marnie Lonsdale, Project Coordinator

Department: Public Works and Utilities/Utility Operations

Phone: (218)730-4063

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 2-PUBLIC PARTICIPATION/INVOLVEMENT
Unique BMP Identification Number: 2d. BMP 202 adapted from 2003SWPPP BMP 202

\*BMP Title: Informational Hotline For The Public

\*BMP Description:

Target Audience: All Stakeholders

**Description:** The City of Duluth will publish a hotline number for Citizen concerns and questions. The City will encourage the public to act as watchdogs for pollution and will respond promptly to public concerns. The City will use the Utility Operations telephone number for calls. The telephone number (218) 730-4130 is manned by City staff eight hours a day. During off hours, the calls are referred to the 24 hour dispatch line (218) 730-4050. The City also maintains a voice box for questions received as the result of the RSPT brochures (218) 529-3281. This line is checked regularly for concerns that are forwarded to the appropriate agency or community. Calls with specific problems including standing water, illicit discharges, questions regarding streams, infrastructure problems will initiate a work order. The resulting information will be forwarded to appropriate personnel for action – follow up will be tracked through the work order system. Calls with comments or suggestion will be tracked and information made available for the SWPPP review process. A procedure is being developed for validating correct recording of information and improving tracking.

#### \*Measurable Goals:

- Promote calls to hotline/information number
- Respond to citizen complaints (number & action)
- Staff training in how to respond
- Written procedure -hot line
- Written procedure –comment tracking

#### \*Timeline/Implementation Schedule:

- Calls will be encouraged on an **on-going** basis though information provided in bill inserts, brochures, press releases and presentations.
- The hot-line procedure was **developed in 2004** and will be revised as appropriate.
- Response to complaints is **on-going** and tracked through the work order system.
- Staff will be trained **yearly** on response procedure.
- A procedure for tracking comments will be developed by March 2007.

#### **Specific Components and Notes:**

- Hot line procedure
- Education program
- Work order system
- Response to comment files

# \*Responsible Party for this BMP:

Name: Steve Lipinski, Utility Operations Manager
Department: Public Works and Utilities/Utility Operations

Phone: (218) 730-4068

E-mail: slipinski@ci.duluth.mn.us

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

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 2-PUBLIC PARTICIPATION/INVOLVEMENT

Unique BMP Identification Number: 2d. City BMP 203 adapted from 2003 SWPPP 203

# \*BMP Public Monitoring of Local Streams

Title:

# \*BMP Description:

# **Target Audience**

Stakeholders, School groups, Educators

# **Description**

The City of Duluth supports the efforts of individuals and groups interested in monitoring the quality of streams. The City will actively assist these groups by seeking grant

funding providing staff assistance, maintaining equipment and publishing data on the <a href="https://www.duluthstreams.org">www.duluthstreams.org</a> Web Site.

#### \*Measurable Goals:

- Identification of monitoring groups
- Posting data on web site
- Partner on grants seeking funding for monitoring
- Provide and maintain equipment to support activities

#### \*Timeline/Implementation Schedule:

- All activities are on-going.
- The City currently maintains a supply of transparency tubes and test kits and works with schools, and youth groups on sampling.
- At present data from several youth organizations is available on the web site.
   www.duluthstreams.org website and contacts are being made with other groups to encourage participation.
- The City is a partner is several grant applications including one for a region wide citizen monitoring program.

#### **Specific Components and Notes:**

Water monitoring kits

On-going grant writing

Web site www.duluthstreams.org

Partnerships with University of Minnesota Duluth, Natural Resources Research Institute

#### \*Responsible Party for this BMP:

Name: Marnie Lonsdale

Department: Public Works and utilities/Utility Operations

Phone: (218)730-4063

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 2-PUBLIC PARTICIPATION/INVOLVEMENT

Unique BMP Identification Number: 2d. City BMP 204 Adapted from 2003 SWPPP 204

\*BMP Title: Promote Stakeholder Groups

\*BMP Description:

Target Audience: Stakeholder groups

**Description:** The City of Duluth recognizes the importance of stakeholders becoming involved in maintaining the high quality of local waters. The City will provide support and information to groups interested in adopting, cleaning, monitoring or sponsoring a creek or promoting water protection activities. The City will work with neighboring communities to encourage a watershed approach. The City will partner with regional groups that develop activities that parallel our SWPPP objectives. In the past the City has sat on the board of the now inactive Miller Creek Task Force and has taken responsibility for the sediment trap built by the group. The City sits on the executive committee of the St. Louis River Citizens Action Committee and the board of the St. Louis River TMDL. The City also actively participates with local scouts and school groups and regional outreach organizations. The City provides resources including maps, library materials, staff time, equipment and models to organizational activities.

The City also provides equipment for storm drain marking and regional clean ups.

#### \*Measurable Goals:

- Membership and participation in two to four local environmental groups
- Grant writing for or partnership for water protection activities
- Staff presentation or assistance in activities
- Providing resource information to groups.
- Participation in regional water quality activities.
- Storm drain marking with groups

#### \*Timeline/Implementation Schedule:

- Membership in activities is on-going
- Grant writing and partnerships are on-going: two to four activities yearly
- Staff presentations are on-going and scheduled as requested at least 5 yearly
- Participation in water quality activities with groups on-going
- Storm drain marking at least 2 groups yearly.

#### **Specific Components and Notes:**

- Procedures for storm drain marking
- Grants documentation
- Minutes of regional meetings

#### \*Responsible Party for this BMP:

Name: Marnie Lonsdale

Department: Public Works and Utilities/Utility Operations

Phone: (218) 730-4063

# BMPS for Minimum Control Measure 3: Illicit Discharge Detection and Elimination 3F.:

MS4 Name: CITY OF DULUTH

**Minimum Control Measure:** 3-ILLICIT DISCHARGE DETECTION AND

**ELIMINATION** 

**Unique BMP Identification Number:** 3 F City BMP 301 Adapted from 2003 SWPPP 301

\*BMP Title: Stormwater mapping system

#### \*BMP Description:

Target Audience: City Staff, Stakeholders, Contractors

**Description:** The City of Duluth maintains a map of the stormwater system. Ultimately the map will display, ponds, streams, wetlands, creeks, ditches and all infrastructure related to the stormwater system. The City GIS staff are involved in an ongoing process of updating and improving the map using ortho-rectified photographs. Field GPS work is being done to more accurately determine locations of outfalls etc. The City is currently developing a parcel map that will support the process. Since 2004, the City has used a consulting firm to update mapping using construction documents stored in the engineering vault. Current the system has layers. For wetlands, stormwater infrastructure, streams, sediment traps. Ponds and ditching will be added to the system as GPS data becomes available.

Through ArcReader, mapping information is available on field laptops.

#### \*Measurable Goals:

- On-going updating of the infrastructure map (time spent)
- Development of a ditch layer
- Updating of the accuracy of the stream layer
- Training staff in the use of GPS documented
- Updating of information on all aspects of system
- Annual 20% evaluation of outfalls and map update
- Training staff in utilizing ArcReader on laptops

#### \*Timeline/Implementation Schedule:

- Updating of GIS information is on-going
- Ditch layer and updated streams are targeted for addition in 2009 pending available staff
- Staff are field trained on GPS on-going
- 20% evaluation of outfalls –yearly
- ArcReader training lead workers, cleaning crews equipped and trained (2011)

#### **Specific Components and Notes:**

- GIS maps available through GIS office, 2<sup>nd</sup> floor City Hall
- Arc Reader on staff computers, Trimble GPS unit
- Historical documentation in Engineering Vault.
- Outfall evaluation

#### \*Responsible Party for this BMP:

Name: Richard Bunten, GIS Specialist

Department: MIS

Phone: (218)730-5137

E-mail: rbunten@ci.duluth.mn.us

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 3-ILLICIT DISCHARGE DETECTION AND

**ELIMINATION** 

**Unique BMP Identification Number:** 3F. BMP 302 adapted from 2003 SWPPP BMP 302

\*BMP Title: Illicit Discharge Detection and Enforcement Ordinance

#### \*BMP Description:

Target Audience: City Staff, Businesses, General Public

**Description:** The City of Duluth has a ordinance in place that prohibits discharge to the storm drain of non-stormwater discharges (Chapter 43). The City will review and up date the ordinance to more effectively define and control illicit discharges, as appropriate. The City will train staff in the correct implementation of this ordinance. The program will be implemented through the Illicit discharge detection and elimination program.

The City has a progressive process for addressing illicit discharges from private sources. The City will document this process.

**Education component:** As part of the Education Outreach Program, information on what can enter the storm system will be provided and citizens will be encouraged to report incidents using the hotline.

#### \*Measurable Goals:

- Review and update City ordinance as appropriate in response to citizen comments and feedback from field staff
- Review implementation of ordinance with staff
- Inform public about ordinance
- Hotline (no. of citizen reports)

#### \*Timeline/Implementation Schedule:

- Ordinance review will be done yearly
- Review of implementation of the ordinance –yearly in illicit connection program training
- Public information on-going
- Hotline reporting and tracking on-going

#### **Specific Components and Notes:**

- Public Information BMP 105
- Water Quality Specialist
- Hotline BMP 202

Illicit Connection, Detection and Elimination Program

#### \*Responsible Party for this BMP:

Name: Steve Lipinski, utility Operations Manager
Department: Public Works and Utilities/Utility Operations

Phone: (218)730-4068

E-mail: slipinski@ci.duluth.mn.us

MS4 Name: CITY OF DULUTH

**Minimum Control Measure:** 3-ILLICIT DISCHARGE DETECTION AND

**ELIMINATION** 

**Unique BMP Identification Number:** 3F. BMP 303 adapted from 2003 SWPPP BMP 303

\*BMP Title: Illicit Discharge Detection Program

#### \*BMP Description:

**Target Audience:** City staff General public Commercial enterprises

**Description:** The City of Duluth has established an illicit discharge program. Training was initiated in 2002 and updated training will take place each year. The program utilizes information from the public and information from maintenance and outfall inspections. The program has been documented both in a plan and a procedure. As part of the program,

test kits are available for use. Other components used in the program include the City Closed Circuit television system, and dye testing.

The program can be activated through public complaints, agency notifications, observations by field staff or through the outfall inspection program. Activities are tracked through the Utility Operations Work Order System.

**Education Component:** Press release on detected illicit discharges and reminders to the public about where to call and what to report to protect water quality and their personal role – see education program.

#### \*Measurable Goals:

- Illicit discharge training and/or updating
- Annual illicit discharge program activity tracked and reviewed
- Work order tracking of reports
- Public information outreach
- Outfall inspection reports
- Educational information and press releases

#### \*Timeline/Implementation Schedule:

- Training or training updates occur yearly
- Activity tracking is **on-going** through the work order system
- Public Information is **on-going** one press release minimum yearly
- Outfall inspections yearly

#### **Specific Components and Notes:**

Illicit discharge training BMP 108

Illicit discharge program

Work order records

Public outreach program BMP 105

Stormwater Education Program

Illicit discharge procedure

#### \*Responsible Party for this BMP:

Name: Dan Berg. Maintenance Supervisor

Department: Public Works and utilities/Utility Operations

Phone: (218)730-4049

E-mail: dberg@ci.duluth.mn.us

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 3-ILLICIT DISCHARGE DETECTION AND ELIMINATION

Unique BMP Identification Number: 3F BMP 304 Adapted from 2003 SWPPP BMP 304

\*BMP Title: Stream Cleaning Program

#### \*BMP Description:

Target Audience: City Staff General Public

**Description:** The City of Duluth has established a stream maintenance program. The program is on-going and when available utilizes the services of the Youth Employment Services. When funding or staff or not available the City cleans creeks in response to public notification of problems as part of the work order system. The crew performs general pick up of trash in City streams and identifies potential problems. The crew responds to public complaints and general maintenance needs. The crew works with the DNR to prevent adverse environmental effects from debris removal.

City staff assists with programs to reduce erosion in creeks as appropriate and support DNR efforts to remove beaver dams and other obstacles that may damage trout stream habitat.

**Education component:** Raise public awareness of the fact that debris from the street goes to the streams. Where to call when they need to report problems

#### \*Measurable Goals:

- · Volume of dumped material picked up
- Time in field (hours)
- Work order tracking of reports
- Public information outreach
- Updating and documenting existing procedure written 2004
- Hotline Number of calls

#### \*Timeline/Implementation Schedule:

- All creek activities are on-going during summer months.
- Public information and outreach is on-going
- Procedure review yearly in September
- Hotline -on-going

#### **Specific Components and Notes:**

Stream cleaning -Youth Employment Service Crew (as available)

Illicit discharge program

**BMP 303** 

Work order records

Public outreach program BMP 105

Hotline BMP 202

# \*Responsible Party for this BMP:

Name: Dan Berg, Maintenance Supervisor

Department: Public Works and Utilities/Utility Operations

Phone: (218)730-4049

E-mail: dberg@ci.duluth.mn.us

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 3-ILLICIT DISCHARGE DETECTION AND

ELIMINATION

**Unique BMP Identification Number:** 3F. BMP 305 adapted from 2003 SWPPP BMP 305

#### \*BMP GPS of Streams

Title:

#### \*BMP Description:

TARGET Audience: City Employees, Public, Agencies

The City of Duluth has completed GPS work on all trout streams and the larger intermittent streams of the City. Over the five years of the permit the City will continue to GPS intermittent streams and place the data on a layer in the GIS map of the City. The City has identified over 50 streams within municipal borders, many of which are in pipes and no longer functional. The City will continue to identify these drainages and utilize the information in planning.

During 2004 and 2005 outfalls in the City to the St. Louis River and Lake Superior were mapped following physical examination using GPS coordinates. Information in maps has been provided to planning and will be used in the development of the Non-degradation of all Waters Plan.

#### \*Measurable Goals:

- Review and update existing map
- Provide information to planning
- Record of problems addressed through work order system and reports to maintenance supervisor
- Additional intermittent surface water mappings

#### \*Timeline/Implementation Schedule:

- Reviews of existing maps yearly
- Information to planning on-going
- Record of problems addressed on-going
- Addition mapping on-going 90% complete by 2011

#### **Specific Components and Notes:**

**BMP 301** 

**GPS Training** 

#### \*Responsible Party for this BMP:

Name: Richard Bunten/GIS specialist

Department: MIS

Phone: (218)730-5137

E-mail: rbunten@ci.duluth.mn.us

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 3-ILLICIT DISCHARGE DETECTION AND

ELIMINATION

**Unique BMP Identification Number:** 3F. BMP 306 adapted from 2003 SWPPP BMP 306

\*BMP Title: Identification and Elimination of Sanitary Sewer Overflows

#### \*BMP Description:

# **Target Audience**

Homeowners, Municipal staff, Agencies, Businesses

# **Description**

The City of Duluth has a program to eliminate by-passes and overflows within the City limits. Part of this program is an Inflow/Infiltration Reduction Program to help eliminate overflows in targeted areas. In addition the City is re-evaluating the sewer system. Three storage facilities have been built in the City and a fourth begins construction in the fall of 2006.

As part of the Inflow/infiltration Program the City is disconnect footing drains from the sanitary system, lining lateral lines from private homes to the City system and installing storage. The City has contracted to review the entire City for problem sources and has put in place an extensive televising and flow monitoring program to determine source of clean water in the sanitary system, The City also has a maintenance program in place that cleans 20% of the system each year.

**Education component**: Information to the public about problems with footing drains and the relationship to SSOs.

#### \*Measurable Goals:

- 500 footing drain disconnections yearly
- Annual reports on Collection System permit
- Meetings with stakeholders
- Press releases
- By-pass reports
- Letters to residents (number)
- Program review meeting
- Monthly progress reports to Western Lake Superior Sanitary District (WLSSD)

#### Installation of storage

#### \*Timeline/Implementation Schedule:

- 500 disconnection –yearly
- Annual report April
- Meeting with stakeholders and letters at the start of work in a specified area
- Press releases minimum of one yearly
- By-pass reports at time of by pass
- Program review meeting twice yearly
- WLSSD report monthly

Storage installation – 2007, and on going

# **Specific Components and Notes:**

Sanitary Sewer I/I Reduction Program Collection Systems Permit I/I work tracking system

# \*Responsible Party for this BMP:

Name: Sandra Mass Project Coordinator

Department: Public Works and Utilities/Utility Operations

Phone: (218)730-4064

E-mail: smass@ci.duluth.mn.us

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

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 3-ILLICIT DISCHARGE DETECTION AND

**ELIMINATION** 

**Unique BMP Identification Number:** 3F. BMP 307 adapted from 2003 SWPPP BMP 307

\*BMP Title: Training in the use of GPS Equipment

#### \*BMP Description:

# **Target Audience**

City Staff

# **Description**

The City of Duluth uses GPS equipment to identify locations of outfalls and structural components of the storm sewer system. Utility operations staff are trained in the use of the equipment and procedures for using equipment to record data on system condition. The staff are also trained on using the GIS mapping and appropriate equipment including laptop computers equipped with Arc Reader maps of the City are provided.

#### \*Measurable Goals:

- Staff training and review
- Documentation of locations by GPS coordinates
- Documentation of training procedure
- Updating of equipment
- Training staff in using GIS maps

#### \*Timeline/Implementation Schedule:

- Training and review is on-going with specific training targeted to Utility Operations Apprentices
- Documentation of locations is on-going
- GIS procedure was written in 2005 and will be reviewed annually in the spring
- New equipment is budget for 2006
- Staff training in GIS is **on-going** (2-3 new laptops provided yearly)

#### **Specific Components and Notes:**

Training procedure Staff training records Updated maps

#### \*Responsible Party for this BMP:

Name: Dan Berg, Maintenance Supervisor

Department: Public Works and Utilities/Utility Operations

Phone: (218) 730-4049

E-mail: dberg@ci.duluth.mn.us

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 3-ILLICIT DISCHARGE DETECTION AND

**ELIMINATION** 

**Unique BMP Identification Number:** 3F. BMP 308 adapted from 2003 SWPPP BMP 308

\*BMP Title: Illegal Dumping

#### \*BMP Description:

**Target Audience:** Municipal staff, General Public, Commercial Business **Description** 

The City of Duluth has a program for addressing illegal dumping on public and private property. The program includes identifying dump sites and arranging for clean up. A designated solid waste officer has legal authority to address dumping problems. The Stormwater Utility addresses dumping in streams throughout the City. As part of the illegal dumping activity, the City will monitor and address the control of litter, and materials at construction sites to prevent run off to the City system

#### \*Measurable Goals:

- Stream cleaning reports (numbers)
- Public Garbage/Solid Waste response form (numbers)
- Signage on Repeat Dump sites (mapping)
- Procedure documentation
- Hotline calls (number)
- Monitoring of litter at construction sites during inspections

#### \*Timeline/Implementation Schedule:

- All activities related to illegal dumping will be completed yearly
- Procedures and processes for stream cleaning and solid waste activities will be reviewed and updated in 2007
- Building safety officials will track and report construction site problems **vearly**

#### **Specific Components and Notes:**

Solid waste Compliance Officer Hotline BMP No.202

Stream Cleaning BMP No 304

Ordinance Chapter 24

Construction developers packet

#### \*Responsible Party for this BMP:

Name: Sara Benning, Solid Waste Officer

Department: Building Safety
Phone: 218-730-5151

E-mail: sbenning@ci.duluth.mn.us

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 3-ILLICIT DISCHARGE DETECTION AND

**ELIMINATION** 

**Unique BMP Identification Number:** 3F BMP 309 - NEW

\*BMP Title: Review of contribution of non-stormwater discharges

#### \*BMP Description:

Each year the City of Duluth will review spills, and City wide activities to determine if significant contributions of pollutants are occurring from discharges to the City stormwater system as specified in the NPDES /SDS General MS4 stormwater Permit Part V. G. 3.e. The City will develop a process for the review and follow up activity if such discharges are determined to be a problem.

To date, these discharges have not been determined to be a problem; however, review will continue based upon reports from municipal employees, the general public, agencies and businesses.

#### \*Measurable Goals:

- Yearly Spring review of reports of spills etc.
- Development of a procedure for tracking review and action following review 2007

#### \*Timeline/Implementation Schedule:

- Yearly spring review of previous year information
  - o Immediate review when significant problems are detected
- Procedure development fall 2007

#### **Specific Components and Notes:**

Permit specification

Work order records

Agency and public reports.

#### \*Responsible Party for this BMP:

Name: Steve Lipinski, Utility Operations Manager

Department: Public Works and Utilities/Utility Operations

Phone: (218) 730-4068

E-mail: slipinski@ci.duluth.mn.us

# BMPS for Minimum Control Measure 4: Construction Site Stormwater Runoff Control 4G:

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 4-CONSTRUCTION SITE STORMWATER RUNOFF

CONTROL

**Unique BMP Identification Number:** 4G- City BMP 401 adapted from 2003 SWPPP BMP 401

\*BMP Title: Construction Erosion and Sediment Control Ordinances

#### \*BMP Description:

**Target Audience:** Contractors, Developers, Engineering Companies, Municipal staff, Inspectors

# **Description**

The City of Duluth has an erosion (Land Disturbance) ordinance, Water Resource Management Ordinance (WRMO) and other regulations concerning water quality. The City reviews and updates the ordinances on an on-going basis to reflect NPDES goals and the effectiveness of the ordinances content regarding appropriate erosion and sediment control. Ordinance review will also consider ongoing regional concerns and activities and contractors input.

#### \*Measurable Goals:

- Compare ordinance to neighboring communities through construction workshops and RSPT
- Review ordinance in relation to Surface Water Management plan goals, objectives and flood requirements, City Comprehensive Plan
- Update ordinances/regulations to comply with emerging NPDES & Non Degradation requirements

#### \*Timeline/Implementation Schedule:

- Review meetings are on-going
- Comparison with neighboring communities through construction meetings ongoing (initiated 2004-05)
- Review ordinance to be completed in 2008 following the development of the Nondegradation requirements and completion of the City Comprehensive Plan.

#### **Specific Components and Notes:**

- City Erosion Control Ordinance
- Water Resource Management Ordinance (WRMO)
- Sewer ordinance
- Zoning ordinances
- Surface Water Management Plan Policies and Goals
- City Comprehensive Plan
- Non-Degradation requirements

\*Responsible Party for this BMP:

Name: Gary Minck, Engineer

Department: Public Works and Utilities, Engineering, Planning

Phone: 218-730-5074

E-mail: <a href="mailto:gminck@ci.duluth.mn.us">gminck@ci.duluth.mn.us</a>

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 4-CONSTRUCTION SITE STORMWATER RUNOFF

CONTROL

**Unique BMP Identification Number:** 4G – City BMP 402 adapted from 2003 SWPPP

402,405,406

\*BMP Title: Inspection, Compliance & Enforcement

#### \*BMP Description:

**Target Audience:** Builders, contractors, homebuilders/applicants

**Description:** The City has an existing Land Disturbance (Erosion Control) Ordinance that requires a narrative & plan submittal and city review and approval before land is disturbed. When problems are noted by inspection by Utility Operations Water Quality Specialists, Building Inspectors, Engineering or call-in complaint the City initially issues warnings for non-compliance and stop work orders for continuing violations. City Charter also allows for prosecution for serious violations of the ordinance.

Annually the City reviews past permits, problems & violations and revises the permit package, handouts, example sheets, and instructions to builders for better understanding and compliance and to avoid serious violations. Meetings with recalcitrant contractors are done to prevent recurring violations.

#### \*Measurable Goals:

- Document permit reviews and permit package modifications
- Annually review procedures & violations to ensure compliance
- Review permit package for better contractor understanding
- Site inspections by Water Quality Specialist, building Inspectors, engineers or in response to complaints

#### \*Timeline/Implementation Schedule:

- Document permit package review & changes (annually)
- Review procedures to ensure compliance (annually)
- Review permit package for understanding / clarity and problem areas and revise (annually)
- Meet with homebuilders to review permit (as needed on individual basis)
- Site inspections (on-going)

#### **Specific Components and Notes:**

- Engineering permit handouts & example plans
- Current ordinance
- City web site reference
- Work orders

#### \*Responsible Party for this BMP:

Name: Gary Minck, Engineer

Department: Public Works and Utilities, Engineering

Phone: (218)730-5074

E-mail: gminck@ci.duluth.mn.us

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 4-CONSTRUCTION SITE STORMWATER RUNOFF

CONTROL

**Unique BMP Identification Number:** 4G – City BMP 403 adapted from 2003 SWPPP 403, 404

\*BMP Title: Construction Site BMPs

## \*BMP Description:

**Target Audience:** City Staff, Developers, Contractors, Engineering Firms, Homeowners **Description:** The current City ordinance requires applicants to describe/show erosion protection specific to the proposed construction. Permit submittals are reviewed for effective BMPs and new BMPs as they are developed for better protection during construction. City Engineering currently reviews all site plans for appropriate BMPs prior to building permit issuance.

#### \*Measurable Goals:

- Review guidelines and specifications for BMPs revise city permit handouts and include waste control
- Prepare a reference list of available BMPs/websites for public
- Continue to review all site plans for site specific BMPs
- Update construction site waste control provisions
- Annual meeting with consulting engineers & contractors requirements

#### \*Timeline/Implementation Schedule:

- Review guidelines and specifications for BMPs revise city permit handouts& include waste control (review annually)
- Prepare a reference list of available BMPs/websites for public (update annually)
- Continue to review all site plans for site specific BMPs (continuous)
- Update construction site waste control provisions ( winter, 2007)
- Annual meeting with consulting engineers & contractors requirements

## **Specific Components and Notes:**

## REFERENCES AND EDUCATIONAL COMPONENT:

- MPCA Stormwater Website [www.pca.state.mn.us/water/stormwater/stormwater-c.html]
- Minnesota Stormwater Manual Website [www.pca.state.mn.us/water/stormwater-manual.html]
- City of Duluth Permit website [www.ci.duluth.mn.us/city/xxx](currently under revision)
- Center for Watershed Protection Website [www.cwp.org]

#### \*Responsible Party for this BMP:

Name: Gary Minck, P.E.

Department: Public Works and Utilities, Engineering

Phone: (218) 730-5074

E-mail: gminck@ci.duluth.mn.us

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 4-CONSTRUCTION SITE STORMWATER RUNOFF

CONTROL

**Unique BMP Identification Number:** 4G – BMP 404 adapted from 2003 SWPPP BMP 407

\*BMP Title: Erosion Control Insert for Utility Bills

## \*BMP Description:

# Target Audience

General Public, Developers, Contractors

# **Description**

The City of Duluth has prepared a utility bill insert to increase awareness of good construction practices both on home sites and larger projects. The site talks about soil and erosion problems and provides information on a hot line number to call with concerns and information of where to obtain further information. The brochure entitled "Keep your soil at Home" was produced in 2004

#### \*Measurable Goals:

- Review meetings to update insert
- Distribution of insert in Utility Bills
- Distribution of insert at events

## \*Timeline/Implementation Schedule:

- Review and reprint of insert in 2007 (last inserted 2005)
- Distribute brochure on-going

## **Specific Components and Notes:**

## **REFERENCES:**

- Utility Bill insert
- Hotline BMP 202
- Meeting of Engineering, Utility Operations, Building Safety, Graphics, Planning

## \*Responsible Party for this BMP:

Name: Marnie Lonsdale, Project Coordinator

Department: Public Works and Utilities/Utility Operations

Phone: (218) 730-4063

E-mail: mlonsdale@ci.duluth.mn.us

**MS4 Name:** CITY OF DULUTH

Minimum Control Measure: 4-CONSTRUCTION SITE STORMWATER RUNOFF

CONTROL

**Unique BMP Identification Number:** 4G – City BMP 405 – adapted from 2003 SWPPP 408

\*BMP Title: Site Plan Review Process

## \*BMP Description:

# Target Audience

Developers, Consulting Engineers, City Staff

# **Description**

The City reviews all site plans prior to construction. Subdivisions require extensive review beginning with Development Review Committee and proceeding through planning commission reviews and approvals, detailed engineering review and requirements. Written procedures/requirements are given to developers for the subdivision process regarding stormwater /water quality.

#### \*Measurable Goals:

- Review & Modify requirements for Subdivision Water Quality/drainage submittals
- Review each subdivision stormwater management/water quality plan(document in staff reports, planning commission minutes, council proceedings)
   Review ordinances/permit process for improvement

## \*Timeline/Implementation Schedule:

- Review & Modify requirements for Subdivision Water Quality/drainage submittals (annually)
- **Review each subdivision** stormwater management/water quality plan(document in staff reports, planning commission minutes, council proceedings)
- Review ordinances/permit process for improvement (annually)

## **Specific Components and Notes:**

#### **REFERENCES**

Minutes, staff reports, council proceedings

#### \*Responsible Party for this BMP:

Name: Gary Minck, P. E.

Department: Public Works and Utilities/Engineering/Planning

Phone: (218) 730-5074

E-mail: gminck@ci.duluth.mn.us

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 4-CONSTRUCTION SITE STORMWATER RUNOFF

CONTROL

**Unique BMP Identification Number:** 4G – City BMP 406 - NEW

\*BMP Title: Construction Site Waste Control

## \*BMP Description:

# Target Audience

Contractors, General Public, City Staff

# **Description**

In order to reduce the risk of pollution from run off from construction sites, the City will require contractors to have plans and implement procedures on construction sites to control waste including but not limited to discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste.

#### \*Measurable Goals:

Requirements for site waste control is included In the development packet Hotline for reporting problems

Staff training on inspection of sites.

Compliance with City Solid Waste requirements

## \*Timeline/Implementation Schedule:

- Written requirements in development packet for developers on-going
- Staff training on-going
- Hotline year round on-going already available
- Site inspections on-going

## **Specific Components and Notes:**

## **REFERENCES**

- Development Review Board
- BMP 202 Hotline
- Ordinance Chapter 18
- Ordinance Chapter 24
- BMP 308

## \*Responsible Party for this BMP:

Name: Sara Benning, Solid Waste Officer/ Gary Minck, P.E.

Department: Building Safety/ Public Works and Utilities-Engineering

Phone: (218)730-5151 / (218)730-5074

E-mail: sbenning@ci.duluth.mn.us /gminck@ci.duluth.mn.us

# BMPS for Minimum Control Measure 5: Post Construction Stormwater Management in New Development and Redevelopment. 5D:

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 5-POST-CONSTRUCTION STORMWATER

MANAGEMENT IN NEW DEVELOPMENT AND

REDEVELOPMENT

Unique BMP Identification Number: 5D City BMP 501 adapted from 2003 SWPPP 501

\*BMP Title: Post Construction Runoff BMPs for New and Redevelopment

## \*BMP Description:

**Target Audience**: Municipal Operations Employees and Supervisors, City Engineering, City Planning, Property Owners, Developers, Contractors

**Description** The City of Duluth has in place practices for working with developers and contractors to determine appropriate Best management Practices (BMP) such as detention ponds and other structural methods of runoff control for development and redevelopment.

These practices are being reviewed and updated regularly.

#### \*Measurable Goals:

- Maintain a library of reference BMPs suitable for the cold climate conditions of Duluth
- Meet with developers and contractors to discuss appropriate BMPs for project
- City review of detention/structural designs
- Track project development, installation and implementation of BMPs
- Update practices as the Non-Degradation of All Waters Plan and the Comprehensive Plan are completed.
- Document Review Practice

#### \*Timeline/Implementation Schedule:

- library maintenance **on going** updated as necessary
- developer meetings on-going as projects are developed
- review of practices winter 2006/07
- Update documentation of practices Winter2007/08

#### **Specific Components and Notes:**

- Engineering continues to actively review designs and drainage reports for projects for appropriate controls and modify designs for effectiveness
- Surface Water Management Goals and Policies
- Water Resource, Erosion and Sediment Control Ordinances
- BMP 501, 502, 503

**Education Component:** Continue to update/revise permit handouts and educational materials and have available in engineering. In form developers of water protection practices. Site Design Toolkit – <a href="https://www.lakesuperiorstreams.org">www.lakesuperiorstreams.org</a>

#### \*Responsible Party for this BMP:

Name: Gary Minck, P.E.

Department: Public Works and Utilities/Engineering

Phone: (218)730-5074

E-mail: gminck@ci.duluth.mn.us

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 5-POST-CONSTRUCTION STORMWATER

MANAGEMENT IN NEW DEVELOPMENT AND

REDEVELOPMENT

**Unique BMP Identification Number:** 5D City BMP 502 adapted from 2003 SWPPP BMP 502

\*BMP Title: Ordinances for Post Construction and New Development Runoff

Control

\*BMP Description:

**Target Audience:** Developers, Consulting Engineers

**Description:** 

The Planning, Engineering and Operations Divisions of the City will review and update ordinances such at the Erosion Control Ordinance & the Water Resource Management Ordinance (WRMO) regularly to comply with Phase II requirements and good stormwater practice. This includes the emerging requirements for Non-Degradation and prospective TMDLs.

#### \*Measurable Goals:

- Review & Modify requirements for Subdivision Water Quality/drainage submittals
- Review each subdivision stormwater management/water quality plan(document in staff reports, planning commission minutes, council proceedings)
- Review ordinances/permit process for improvement

#### \*Timeline/Implementation Schedule:

- Review & Modify requirements for Subdivision Water Quality/drainage submittals (annually)
- Review each subdivision stormwater management/water quality plan(document in staff reports, planning commission minutes, council proceedings) —on-going
- Review ordinances/permit process for improvement (annually)

#### **Specific Components and Notes:**

- Current planning & engineering design review process involves detailed storm water review
- City currently actively reviews individual designs for erosion control and will continue process.
- Engineering currently evaluates and revises erosion permit package annually.

#### \*Responsible Party for this BMP:

Name: Gary Minck P. E./City Planning

Department: Public Works and Utilities/Engineering/Planning

Phone: (218) 730-5074 / (218) 730-5580

E-mail: gminck@ci.duluth.mn.us

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 5-POST-CONSTRUCTION STORMWATER

MANAGEMENT IN NEW DEVELOPMENT AND

REDEVELOPMENT

**Unique BMP Identification Number:** 5D BMP 503 adapted from 2003 SWPPP BMP 503

\*BMP Title: Post Construction Runoff Control BMP Operation and Maintenance

#### \*BMP Description:

**Target Audience:** Municipal Employees, Supervisors, City Engineering, City Planning, Developers, Consulting Engineers,

## **Description**

City owned or controlled sediment traps, water quality (WQ) ponds, structures will be inspected & maintained. As subdivisions are completed record drawings are submitted and kept on file by City Engineering showing as-built plans of Water Quality devices. The City requires that developer agreements include regular inspection, maintenance by developer and the Home Owners association to continue when handover occurs.

#### \*Measurable Goals:

- Maintain inventory of traps, WQ ponds & devices
- Inspect traps, WQ ponds & devices
- Maintain and update cleanout records & files
- Update and file record WQ record drawings

## \*Timeline/Implementation Schedule:

- Maintain inventory of traps, WQ ponds & devices (annually)
- Inspect traps, WQ ponds & devices (annually)
- Maintain and update cleanout records & files (annually)
- Update and file record WQ record drawings (annually)

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#### **Specific Components and Notes:**

- Engineering records
- Work orders

#### \*Responsible Party for this BMP:

Name: Gary Minck, P. E./Dan Berg, Maintenance Supervisor

Department: Public Works and Utilities – Engineering/ Utility Operations

Phone: (218) 730-5074 (218) 730-4049

E-mail: gminck@ci.duluth.mn.us dberg@ci.duluth.mn.us

# BMPS for Minimum Control Measure 6: Pollution Prevention/Good Housekeeping. 6C:

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING

Unique BMP Identification Number: 6C –BMP 601 Adapted from 2003 SWPPP

**BMP601** 

\*BMP Departmental Vehicle Maintenance and Cleaning

Title:

#### \*BMP Description:

# **Target Audience**

City Departmental Staff

# **Description**

The City has in place practices to maintain City vehicles to prevent pollution entering the environment from leakage or other defects. Practices include daily inspections, regular scheduled maintenance and vehicle washing in contained areas. The City will document practices and record keeping.

#### \*Measurable Goals:

- Daily inspection sheets
- Written documentation of vehicle washing practices
- Written Documentation of inspection components
- Vehicle Maintenance Training (no. employees trained)

#### \*Timeline/Implementation Schedule:

- Daily inspection sheets on going see inspection sheets
- Documentation washing practices updated 2007
- Documentation inspection components updated 2007
- Vehicle maintenance training yearly updates documented 2007.

#### **Specific Components and Notes:**

Written procedures, inspection forms, maintenance logs and BMP 110, 607, 602

#### \*Responsible Party for this BMP:

Name: John Grandson
Department: Fleet Services
Phone: (218)723-3446

E-mail: jgrandson@ci.duluth.mn.us

**MS4 Name:** City of Duluth

Minimum Control Measure: 6 – POLLUTION PREVENTION AND GOOD

HOUSEKEEPING

**Unique BMP Identification Number:** 6c. City BMP 602 adapted from 2003 SWPPP BMP 602

\*BMP Title: Yearly Vehicle Inspection

## \*BMP Description:

# Target Audience

City Staff

# **Description**

The City has in place practices to inspect all City vehicles yearly and to make Appropriate repairs. Fleet services will review and update documentation and practices.

#### \*Measurable Goals:

- Yearly inspection records summary
- Maintenance record summary
- Documentation of inspection procedure

## \*Timeline/Implementation Schedule:

- Inspection summary **yearly** on file in vehicle maintenance
- Record summary on-going
- Documentation update in 2007

#### **Specific Components and Notes:**

Inspection Records Maintenance notes Inspection procedures BMP 601

#### \*Responsible Party for this BMP:

Name: John Grandson, Manager

Department: Fleet Services
Phone: (218) 723-3446

E-mail: jgrandson@ci.duluth.mn.us

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

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING

Unique BMP Identification Number: 6c City BMP 603 adapted from 2003 SWPPP 603

\*BMP Title: Hazardous Materials Management

#### \*BMP Description:

# **Target Audience**

City Staff

# **Description**

The City has in place Hazardous Materials Management practices designed to protect staff and the environment from pollution from materials used in the work place. The City will train staff on the appropriate use of materials and provide materials for spill prevention and cleanup.

#### \*Measurable Goals:

- Review and update of hazardous materials handling procedures
- Identification and training of staff (attendance documented)
- Review and Update material selection practices

#### \*Timeline/Implementation Schedule:

- Update of hazardous materials procedures 2007
- Training in storage and handling of materials on-going, update 2007
- Review and update material selection practices -2007

#### **Specific Components and Notes:**

Hazardous materials procedures Training records

BMP 604

Spill containment and cleanup materials

# \*Responsible Party for this BMP:

Name: Dick Larson, Director

Department: Public Works and Utilities

Phone: (218) 730-5115

E-mail: dlarson@ci.duluth.mn.us

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

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 1-PUBLIC EDUCATION AND OUTREACH

Unique BMP Identification Number: 6c. City BMP 604 adapted from 2003 SWPPP BMP 604

\*BMP Title: Hazardous Materials Training

#### \*BMP Description:

# **Target Audience**

City Staff

# **Description**

The City has in place hazardous materials training practices designed to provide staff with information on how to identify and use hazardous materials. One component of the training is the proper storage and handling of materials to prevent environmental pollution. The City also uses general good housekeeping pollution control measures as training. All training is documented through records maintained by the training office.

#### \*Measurable Goals:

- Review and update of hazardous materials training procedures
- Record of staff training

## \*Timeline/Implementation Schedule:

All activities are yearly

## **Specific Components and Notes:**

Right to Know training Hazardous material spill procedure Training office training records BMP 603, 110

## \*Responsible Party for this BMP:

Name: Dick Larson, Director

Department: Department of Public Works and Utilities,

Phone: (218)730-5115

E-mail: dlarson@ci.duluth.mn.us

**MS4 Name:** CITY OF DULUTH

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING
Unique BMP Identification Number: 6c. City BMP 605 adapted from 2003 SWPPP BMP 605

\*BMP Title: Construction Site Erosion Control

#### \*BMP Description:

# **Target Audience**

City Staff

# **Description**

The City of Duluth performs a variety construction projects while maintaining utility infrastructure. Long standing practices for preventing pollution are in place and are reviewed and up dated as more current information is collected. The City reviews practices on a regular basis and performs training with staff. The City will review and document procedures to ensure appropriate protection for the environment are in place.

#### \*Measurable Goals:

- Documentation and updating of construction site practices
- Site inspections records
- Staff Training
- Staff training procedure 2006

## \*Timeline/Implementation Schedule:

- Update and create written procedures for maintaining City construction sites -2007
- Site inspections by lead workers **on-going**
- Staff training yearly separate training 2006 on. Procedure developed 2007

#### **Specific Components and Notes:**

Staff training records

Work order records

Comprehensive storm sewer plan and comprehensive sewer plan

## \*Responsible Party for this BMP:

Name: Howard Jacobson, Supervisor, Construction
Department: Public Works and Utilities, Utility Operations

Phone: (218) 730-4061

E-mail: hjacobson@ci.duluth.mn.us

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING
Unique BMP Identification 6c. City BMP 606 adapted from 2003 SWPPP BMP 606

**Number:** 

\*BMP Title: Control of Dumping of Materials to Creeks and Streams

## \*BMP Description:

**Target Audience:** City Staff, General Public

**Description:** The City of Duluth has in place a program to identify and remove material that has been dumped illegally in creeks, streams and ditches. The program operates in conjunction with the Youth Employment Services Program when young individuals area available. The program responds to calls from the public, reports from maintenance staff and work order records of problematic areas. All reports are followed up with inspection and cleanup action is taken on a priority basis – emergency, high priority, maintenance priority and low priority. The City works with the DNR to insure that activities do not interfere with fisheries or stream quality. During summers where extra youth help is available, material removed is tracked. The City Solid Waste officer also reports and organizes the removal of trash and post signs as appropriate.

**Education Component:** Outreach to the public about dumping problems and potential effects on the environment. Encourage public participation in maintaining streams by reporting dumping and by changing personal habits.

#### \*Measurable Goals:

- Debris removed yearly
- Hotline established and promoted
- Public education
- Solid waste officer inspections
- Signage (no. locations identified and posted)

#### \*Timeline/Implementation Schedule:

- Debris removal is yearly
- Hotline is posted and promoted in literature and press releases on going
- Public education is on-going
- Solid waste officer inspection ongoing
- Signage as appropriate

## **Specific Components and Notes:**

Hot line BMP No. 202 Solid Waste Officer

Solid Waste Officer

Public Education BMP No. 105

Reporting forms and Work order system

#### \*Responsible Party for this BMP:

Name: Dan Berg, Maintenance Supervisor

Department: Public Works and Utilities/Utility Operations

Phone: (218)730-4049

E-mail: <u>dberg@ci.duluth.mn.us</u>

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING
Unique BMP Identification 6C. City BMP 607 adapted from 2003 SWPPP BMP 607

**Number:** 

\*BMP Title: Municipal Vehicle Washing

# \*BMP Description:

# **Target Audience**

City Staff

# **Description**

The City of Duluth has practices in place to insure that all vehicles washing is done in designated areas to prevent materials entering the stormwater system.

#### \*Measurable Goals:

- Review and document and update practices city wide
- Staff training and locations

# \*Timeline/Implementation Schedule:

- Review and update practices 2007
- Staff training annually 2006 on

## **Specific Components and Notes:**

Good housekeeping training Documented washing practices

#### \*Responsible Party for this BMP:

Name: John Grandson, Manager

Department: Fleet Maintenance Phone: (218) 723-3446

E-mail: jgrandson@ci.duluth.mn.us

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING
Unique BMP Identification Number: 6. City BMP 608 adapted from 2003 SWPPP BMP 608

\*BMP Title: Hazardous Spill Response Plan

#### \*BMP Description:

Target Audience: City Employees, Emergency workers

The City has in place a hazardous spill response plan that is coordinated by the fire department. A designated team is trained and prepared to respond in the event of a hazardous spill. Appropriate notification procedures are in place to insure compliance with state and federal regulations. The plan includes components to address immediate site problems and insure a safe and environmentally friendly clean up.

#### \*Measurable Goals:

- Continual update and review of plan
- Documentation of response to spills including reporting
- Haz-mat team training documentation

## \*Timeline/Implementation Schedule:

- Annual plan review and update
- Documentation of response to spills immediate
- Reports to duty officer at time of spills
- Haz-mat team training yearly.

## **Specific Components and Notes:**

Emergency Response Plan Haz-Mat training State and Federal reporting requirements

#### \*Responsible Party for this BMP:

Name: Richard Mattson, Asst Fire Chief

Department: Fire Department Phone: (2180 730-4391

E-mail: rmattson@ci.duluth.mn.us

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING
Unique BMP Identification 6.C. City BMP 609 adapted from 2003 SWPPP BMP 609

**Number:** 

\*BMP Title: Storm Sewer Cleaning

# **Target Audience**

Utility Operations Personnel, General Public

# **Description**

The Utility Operations Division of the City has in place a program to perform regular maintenance including cleaning and repair of storm lines, manholes and catch basins. The program includes evaluation of infrastructure condition using televising and dye testing and prioritizing repairs and mechanical and vacuum cleaning techniques. City employees demonstrate equipment and explain the work at local events. City employees are trained to identify any questionable discharges detected and initiate illicit discharge elimination procedures.

#### \*Measurable Goals:

- Tracking of annual cleaning activity
- Providing the public with information of annual cleaning and maintenance activity
- Training of staff cleaning techniques and water quality concerns

## \*Timeline/Implementation Schedule:

Storm televising No. of feet Yearly

Feet of cleaning Yearly

Number of manhole repairs Yearly

Number of catch basin repairs Yearly

Staff training Yearly and as part of apprenticeship program

Equipment demonstration Upon request. At least 2 yearly

Number of incidents of illicit discharge detections **yearly** 

Press release - report on yearly activities in January (State of the City)

#### **Specific Components and Notes:**

Maintenance Schedule

Storm Water Utility Comprehensive Plan

Hydraulic Rod Truck Training Procedure

Rod Truck Training Procedure

Work Order System

Public Education and Outreach Program BMP 105

#### \*Responsible Party for this BMP:

Name: Dan Berg, Maintenance Supervisor

Department: Public Works and Utilities/Utility Operations

Phone: (218) 730-4049

E-mail: dberg@ci.duluth.mn.us

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING
Unique BMP Identification Number: 6c. City BMP 610 adapted from 2003 SWPPP BMP 610

\*BMP Title: Procedure for Removal of Icing Problems

## \*BMP Description:

# Target Audience

**Utility Operations Personnel** 

# **Description**

Each winter, the City of Duluth is required to address icing problems that result in street icing, spring flooding and safety concerns. Practices are in place to address these problems while minimizing the effects on water quality. New equipment - high pressure washers are being used to more efficiently address problems and reduce the need for salting.

#### \*Measurable Goals:

- Number of icing problems addressed
- Update of icing procedure
- Annual review of procedures.
- Annual interdivisional meeting to discuss problems

#### \*Timeline/Implementation Schedule:

- Icing problems are tracked annually through the work order system.
- The icing procedure will be update in **2007** to review and develop consistent practices between street maintenance and utility operations
- Documentation will be update in 2007

## **Specific Components and Notes:**

Stormwater Comprehensive Sewer Plan

Work Order System

Street maintenance work records.

## \*Responsible Party for this BMP:

Name: Dan Berg, Maintenance Supervisor

Department: Public Works and Utilities. Utility Operations

Phone: (218) 730-4049

E-mail: dberg@ci.duluth.mn.us

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING
Unique BMP Identification Number: 6c. City BMP 611 adapted from 2003 SWPPP BMP 611

\*BMP Title: Sediment Disposal

#### \*BMP Description:

# **Target Audience**

**Utility Operations Personnel** 

# **Description**

The City of Duluth has in a place a practice for dewatering and disposing of sediment from cleaning and maintenance and construction processes in a manner to avoid contributing pollution to the environment. The City will track material when possible. The City will review and adjust plans for disposal of materials. In 2006, the City employed a consulting firm to review sediment trap locations and develop a plan for sediment disposal.

#### \*Measurable Goals:

- Yards of sediment collected from sediment traps
- Review and documentation of practice
- Staff training

# \*Timeline/Implementation Schedule:

- Track sediment amounts on-going reported yearly
- Review and document practice Spring 2008
- Staff training on-going yearly and in apprentice training procedure 2008

#### **Specific Components and Notes:**

Procedure for sediment treatment General Staff training procedures Consultant report on plan for sediment disposal - 2007

## \*Responsible Party for this BMP:

Dan Berg, Maintenance Supervisor Public Works and Utilities/Utility Operations (218)730-4049 dberg@ci.duluth.mn.us

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING
Unique BMP Identification 6c. City BMP 612 adapted from 2003 SWPPP BMP 612

**Number:** 

\*BMP Title: Outfall inspection

## \*BMP Description:

**Target Audience:** Utility Operations Personnel, GIS Personnel

**Description** 

The City of Duluth will inspect 20% of the Outfalls discharging to trout streams, Wetlands, Lake Superior, St. Louis River or other MS4 on a yearly basis. The inspections will rotate to complete inspection of all outfalls in five years. The City will provide training and a planned approach to the inspections. Inspection will evaluate physical condition of the outfalls and identify any suspect discharges. If suspicious discharges are detected the illicit discharge program will be initiated. In 2003 the City inspected discharges to trout streams, in 2004 discharges to Lake Superior, in 2005 discharges to ST. Louis River, in 2006 and 07, the City will inspect outfalls to remaining locations and continue 20% yearly.

Inspection will be performed utilizing Trimble GPS units. Units will be programmed to collect information on the location, description of outfall, outfall condition and other information as deemed necessary. Photographs will be taken of the site as appropriate. The City has in place an outfall inspection procedure.

#### \*Measurable Goals:

- Document and update outfall inspection procedure
- Inspect 20% of Outfalls
- Document any illicit discharges detected
- Staff training on GIS and GPS

#### \*Timeline/Implementation Schedule:

- Review procedure annually
- Inspect 20% of Outfalls yearly
- Document illicit discharges on-going
- Staff training field training **yearly** as appropriate.

# **Specific Components and Notes:**

Outfall inspection procedure

GPS field training

Summer Stream cleaning program

Illicit Discharge detection and eliminations program

#### \*Responsible Party for this BMP:

Name: Dan Berg, Maintenance Supervisor

Department: Public Works and Utilities/Utility Operations

Phone: (218)730-4049

E-mail: dberg@ci.duluth.mn.us

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING Unique BMP Identification 6c. BMP 613 adapted from 2003 SWPPP BMP 613

Number:

\*BMP Title: Inspection of Stormwater Pollution Control Devices

## \*BMP Description:

**Target Audience:** Utility Operations Personnel

**Description** 

The Utility Operations Division of the City of Duluth has in place a practice of cleaning and maintaining stormwater pollution control devices. The practice is currently being updated and documented to improve tracing of sediment loads.

Each year all sediment pollution control devices are inspected and cleaning is done for those requiring action. Appropriate maintenance is also completed. The operations are documented to the work order system.

#### \*Measurable Goals:

- Review and up date documentation of inspection of structural pollutant control devices including methods for new installations
- Train staff in the field and through apprenticeship program
- Maintain data base of inspections and actions
- Document cleaning loads (volume)

#### \*Timeline/Implementation Schedule:

- Update documentation Summer 2006 and on-going
- Train staff on going
- Data base update at time of inspection
- Cleaning loads recorded at time of inspection

#### **Specific Components and Notes:**

Storm Water Utility Comprehensive Plan Staff training Work Order System

#### \*Responsible Party for this BMP:

Name: Dan Berg, Maintenance Supervisor

Department: Public Works and Utilities/Utility Operations

Phone: (218)730-4049

E-mail: dberg@ci.duluth.mn.us

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING

**Unique BMP Identification** 6c. City BMP 614

Number:

\*BMP Title: Use of Fertilizer and Pesticides

# \*BMP Description:

# **Target Audience**

Park Maintenance / Park & Recreation personnel

# **Description**

The City of Duluth has practices in place to insure that that pesticides and fertilizers are applied in a manner to minimize safety and health risks and reduce risk of pollution to the waters of the City. The City follows training practices as specified by the USDA and uses soil testing to most effectively control application.

#### \*Measurable Goals:

- Documentation of procedures
- Tracking fertilizers application
- Tracking pesticide application
- Annual review of practices

## \*Timeline/Implementation Schedule:

Procedure documentation updated in 2007

Tracking application of fertilizer and pesticide – on-going

Review of practices – yearly in spring

#### **Specific Components and Notes:**

Fertilizer records

Training BMP 615

Pesticide records

#### \*Responsible Party for this BMP:

Name: Judson Crist, Golf Course Supervisor

Department: Parks and Recreation

Phone: (218)723-3453

E-mail: jcrist@ci.duluth.mn.us

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING
Unique BMP Identification Number: 6.c City BMP 615 adapted from 2003 SWPPP BMP 615

\*BMP Title: Training Program for the Use of Fertilizers and Pesticides

\*BMP Description:

# **Target Audience**

Park Maintenance / Park & Recreation Personnel

# **Description**

The City of Duluth has practices in place to ensure that all operators working with pesticides and/or fertilizers receive appropriate training to meet USDA standards to minimize health and safety risks and prevent pollution to the waters of the City.

#### \*Measurable Goals:

- Update Documentation of training program
- Track Fertilizer Application training (no. trained)
- Track Pesticide application training (no. trained)

#### \*Timeline/Implementation Schedule:

- Documentation update Spring 2007
- Track training for fertilizers yearly
- Track training for pesticides yearly

#### **Specific Components and Notes:**

Pesticide program

**BMP 614** 

Training program

Pesticide and fertilizer application records

# \*Responsible Party for this BMP:

Name: Judson Crist, Golf Course Supervisor

Department: Parks and Recreation

Phone: (218)723-3453

E-mail: jcrist@ci.duluth.mn.us

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING Unique BMP Identification Number: 6c. City BMP 616 adapted from 2003 SWPPP BMP 616

\*BMP Title: Landscape, Lawn and Open Space Maintenance

#### \*BMP Description:

# **Target Audience**

Park Maintenance / Park & Recreation Personnel / General Public

# **Description**

The City of Duluth maintains parks, golf courses, gardens and open spaces for public enjoyment. Practices are in place to insure that landscaping functions are performed in a manner to prevent environmental pollution and protect the waters of the City. The City is continually updating practices and identifying effective natural methods of landscaping.

**Education Components:** Press release on practices and demonstrations at public events. Public volunteer participation in providing compost materials and assisting with gardens.

#### \*Measurable Goals:

- Annual leaf collection (amount collected) used for composting and winter cover.
- Biological Control Agent Practices (documented and reviewed)
- Review of landscaping and planting procedures
- Document practices
- Soil testing documented

#### \*Timeline/Implementation Schedule:

- Leaf collection occurs every fall leaves are used as winter cover for the rose garden and in compost
- Biological control Practices will be reviewed in 2007
- Landscaping procedures will be reviews and documentation updated in 2007
- Soil testing is tracked on-going

#### **Specific Components and Notes:**

Landscaping procedures

Work records

Use of Mulching Mowers

#### \*Responsible Party for this BMP:

Name: Tom Kasper

Department: Public Works and Utilities/Park Maintenance

Phone: (218)723-3425

E-mail: tkasper@ci.duluth.mn.us

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING
Unique BMP Identification Number: 6c. City BMP 617 adapted from 2003 SWPPP BMP 617

\*BMP Title: Pet Waste Collection

## \*BMP Description:

# **Target Audience**

Park Maintenance / Park & Recreation Personnel / General Public

# **Description**

The City of Duluth has and ordinance in place controlling pet waste. In support of the ordinance, the City has established a program for assisting the public in cleaning up pet waste in public areas. On an annual basis 80,000 "mutt mitts" are distributed in City parks. The City also provides public education on the risks of environmental pollution from pet wastes both in public and private areas through the education program.

**Education Component:** Waste bags with sign posting, press release on pet waste. Information on contribution of animals to water pollution.

#### \*Measurable Goals:

- No. of pet waste bags distributed
- Annual site review for program effectiveness
- Documentation of procedure
- Tracking of spring pet waste collection on Lake Front

#### \*Timeline/Implementation Schedule:

- Bags are distributed annually
- Review of activities Fall, annually
- Updated documentation of procedures 2008
- Tracking of waste collection annual

#### **Specific Components and Notes:**

Public education program BMP 105 Waste bag site map Documented procedure

#### \*Responsible Party for this BMP:

Name: Tom Kasper

Department: Park Maintenance
Phone: (218) 723-3425

E-mail: tkasper@ci.duluth.mn.us

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING
Unique BMP Identification 6c. City BMP 618 adapted from 2003 SWPPP BMP 618

**Number:** 

\*BMP Title: Street Cleaning (Sweeping)

## \*BMP Description:

# **Target Audience**

Street Maintenance Personnel

# **Description**

The City of Duluth has practices in place to ensure that all public streets are swept annually, with water used for dust control only (not for flushing). Residual material is stockpiled in monitored locations where runoff is directed either to the municipal sanitary sewer system of filtered through grass swales. Aggregate material is screened and recycled ,while organic material is composted for screening and reuse in topsoil. Street sweeping begins at snow melt and continues until the snow fall and frost. The target is to sweep the entire City both spring and fall and sweep the main arteries more frequently.

#### \*Measurable Goals:

- Track and monitor street sweeping program
- Monitor stockpile sites for runoff control
- Provide Operator training with related documentation

## \*Timeline/Implementation Schedule:

- Tracking of street is on-going during active months
- Monitoring of stockpile sites in on-going
- Operator training is provided as needed

#### **Specific Components and Notes:**

Street Sweeping Records Stockpile Monitoring Records Operator Training Program

## \*Responsible Party for this BMP:

Name: Bob Troolin, Manager

Department: Public Works and Utilities/Street Maintenance

Phone: (218) 723-3875

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING Unique BMP Identification Number: 6c. City BMP 619 adapted from 2003 SWPPP BMP 619

\*BMP Title: Bituminous Street Patching / Repair

## \*BMP Description:

# **Target Audience**

Street Maintenance Personnel

# **Description**

The City of Duluth has an annual program to patch and/or repair bituminous-surfaced streets using "hot mix" bituminous or "cold mix" bituminous as appropriate. Practices are currently in place to minimize the amount of material placed, so as to minimize the amount of excess material that may enter the City's storm water system. The City will review current practices to insure the appropriate use and placement of bituminous patching / repair material, and establish a related operator-training program as necessary.

#### \*Measurable Goals:

- Review current street patching / repair program
- Review alternative street repair methods / materials
- Provide Operator training with related documentation

#### \*Timeline/Implementation Schedule:

- Program review fall 2006 and every other year
- Review of street methods fall 2007 and biannually
- Operator training as needed and with method updates

#### **Specific Components and Notes:**

Street Patching / Repair Program Industry-based Repair methods / materials Operator Training Program

## \*Responsible Party for this BMP:

Name: Bob Troolin, Manager

Department: Public Works and utilities/Street Maintenance

Phone: (218)723-3875

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING
Unique BMP Identification Number: 6c. City BMP 620 adapted from 2003 SWPPP BMP 620

\*BMP Title: Street Snow and Ice Control

## \*BMP Description:

# Target Audience

Street Maintenance Personnel

# **Description**

The City of Duluth has procedures and practices in place to insure that snow and ice control and related ice removal is completed in a manner that provides for a safe traveling environment for motorists, while at the same time minimizing possible negative impacts to the natural environment. The City will review and document the specific procedures and practices - including application equipment calibration and use, and will also review the current operator training program as necessary.

#### \*Measurable Goals:

- Review current snow / ice control program
- Establish equipment calibration monitoring program
- Provide Operator training with related documentation

# \*Timeline/Implementation Schedule:

- Program Review Spring 2007
- Equipment calibration program Update Spring 2008
- Operator training Annually in fall

## **Specific Components and Notes:**

Street Snow and Ice Control Program Industry-based snow and ice control methods / materials Operator Training Program

#### \*Responsible Party for this BMP:

Name: Bob Troolin, Manager

Department: Public Works and Utilities/Street Mintenance

Phone: (218) 723-3875

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING
Unique BMP Identification Number: 6c. City BMP 621 adapted from 2003 SWPPP BMP 621

\*BMP Title: Road Deicing Material (Salt/Sand) Storage

## \*BMP Description:

# **Target Audience**

Street Maintenance Personnel

# **Description**

The City of Duluth maintains limited stockpiles of road deicing material (sand/salt mixture) for roadway snow and ice control. The City will review current material storage facilities and practices, and will develop and/or modify policies and practices as appropriate to insure runoff from storage facilities does not contribute to storm water pollution. If necessary, additional storm water runoff controls will be constructed on a site-by-site basis if/as necessary.

#### \*Measurable Goals:

- Review current road deicing material storage facilities
- Develop or modify material storage policies / practices
- Construct additional storm water runoff controls if/as identified and/or necessary

## \*Timeline/Implementation Schedule:

- Storage review Spring 07
- Policies and practice review and modification Spring 07
- Construction of additional controls as necessary

#### **Specific Components and Notes:**

Deicing material (sand/salt) storage facility audit Deicing material (sand/salt) storage policies and practices

#### \*Responsible Party for this BMP:

Name: Bob Troolin, Manager

Department: Public Works and Utilities/Street Maintenance

Phone: (218)723-3875

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING

**Unique BMP Identification Number:** 6c. City BMP 622 - NEW

\*BMP Title: Annual Audit Of All City Stockpiles

#### \*BMP Description:

The City of Duluth will compile a comprehensive list of all stock piles maintained by City departments and divisions in 2006. Stock piles may be maintained by Public Works and Utilities, Parks and Recreation, golf courses, and Facilities Management. Following development of the list, the relevant departmental individuals will meet and establish City wide procedures for maintaining and inspecting stock piles. The first audit of stockpiles will take place in 2006 – In future years an annual audit will occur. However if problems are identified the audits will become more frequent.

A computerized record will be maintained of all inspections and any required corrective actions.

Target Audience: Municipal Employees

#### \*Measurable Goals:

- Complete comprehensive list of stock piles
- · Interdepartmental meeting to develop initial audit process
- Audit of stockpiles
- Review audit process
- · Document procedures

#### \*Timeline/Implementation Schedule:

- Comprehensive List of stockpiles August 2006
- Interdepartmental meeting –September 2006
- Initial audit September 2006
- Review audit procedures Summer 2007
- Document audit procedures Fall 2007

#### **Specific Components and Notes:**

List of stockpiles

Meeting notes

Process for auditing stockpiles.

**BMP 621** 

# \*Responsible Party for this BMP:

Name: Dick Larson, Director

Depart Public Works and Utilities

ment:

Phone: (218)730-5115

E-mail: dlarson@ci.duluth.mn.us



MS4 Name: CITY OF DULUTH

Minimum Control Measure: Additional Support BMPs

Unique BMP Identification Number: Other BMPs 701 Adapted from 2003 SWPPP BMP 701

\*BMP Title: NPDES Phase II Permit Evaluation. Record Keeping, Reporting

## \*BMP Description:

Target Audience: City Staff

**Description:** The City of Duluth has developed a practice for maintaining SWPPP records in order to comply with yearly reporting requirements of the NPDES phase II permit and to allow for efficient review and update of BMPs. The Stormwater Utility will maintain the SWPPP. However activities relating to specific departments will be maintained in the department with annual summaries as appropriate provided to the Stormwater Utility. Each department is responsible for evaluating and insuring compliance with designated BMPs. By April of each year those responsible for BMPs will provide an evaluation report for each BMP for use in developing the annual report. Records related to the permit will be maintained through 2014 (3 years after permit completion). Records will be available to members of the public upon documented request through the Stormwater Utility.

Each year in April-May, the responsible party for the permit will review data and prepare the annual report that will include the status of permit conditions and BMP activities based on information provided by the responsible parties for BMPs.

#### \*Measurable Goals:

- Update procedure for record tracking based on effectiveness
- Maintain BMP record keeping data base/file specific records in responsible department
- Annual summary of data
- Prepare annual stormwater permit report

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#### \*Timeline/Implementation Schedule:

- Update procedure October, 2007
- Maintaining of data base on-going
- Annual summary April yearly
- Evaluation of activities related to BMPs annually.
- Annual Report Yearly

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# **Specific Components and Notes:**

Documented procedure Database/file

Departmental records

**Annual Reports** 

# \*Responsible Party for this BMP:

Name: Marnie Lonsdale, Project Coordinator

Department: Public Works and Utilities/Utility Operations

Phone: (218)730-4063

E-mail: mlonsdale@ci.duluth.mn.us

MS4 Name: CITY OF DULUTH
Minimum Control Measure: Additional BMP

Unique BMP Identification Number: BMP 702 adapted from 2003 SWPPP BMP 702

\*BMP Title: Discharge to Restricted Waters

#### \*BMP Description:

# Target Audience

City Staff, Developers, General Public

# **Description**

The City of Duluth discharges to Lake Superior, a Restricted Discharge water. The City will develop a plan to address the issue of increased discharge to Lake Superior. The City will take into consideration the specific responsibilities outline in Part IX Appendix C Item B of the Minnesota General Permit for Phase II small MS4s. The City will apply these considerations to the development of a plan for Non Degradation of All Waters.

#### \*Measurable Goals:

- Update Map of Watersheds discharging to Lake Superior
- Monitor plan for reducing pollutants to Lake Superior
- Annual plan review with all departments
- Incorporate plan in to "Nondegradation of all Waters" plan.

## \*Timeline/Implementation Schedule:

- Update map -2006
- Review of plan 2007 April
- Review with all departments April 2007
- Incorporate in to Non- degradation of All Waters August 2007

#### **Specific Components and Notes:**

GIS maps

**Development Review Board** 

Review meetings with Planning, Engineering, Utility Operations

## \*Responsible Party for this BMP:

Name: Gary Minck, P.E./ Planning

Department: Public Works and Utilities/Engineering - Planning

Phone: (218) 730-5580 (218) 730-5074

E-mail: gminck@ci.duluth.mn.us kdeming@ci.duluth.mn.us

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

**MS4 Name:** City of Duluth

**Minimum Control Measure: ADDITIONAL BMPS** 

**Unique BMP Identification Number:** BMP 703 adapted from 2003 SWPPP BMP 703

\*BMP Title: Discharge to Trout Streams

## \*BMP Description:

# **Target Audience**

City Staff, Developers, General Public

# **Description**

The City of Duluth discharges to 12 identified cold water trout stream waters. The City has in place a water resources ordinance and surface water management policies and goals that set limitation on actions near trout streams. The City will continually review and update these policies. The City will take into consideration the specific responsibilities outline in Part IX Appendix C Item C of the Minnesota General Permit for Phase II small MS4s.

#### \*Measurable Goals:

- Update Maps of Watersheds
- Determine feasible and prudent measures to avoid impacts
- Review and up date ordinances
- Incorporate information in to planning and zoning

#### \*Timeline/Implementation Schedule:

- Updates of maps on-going
- Feasible and prudent measures City engineering on -going review
- Up date of ordinances following completion of Comprehensive Plan 2007/2008
- Incorporate in planning and zoning following completion of Comprehensive Plan 2007/2008

#### **Specific Components and Notes:**

Surface Water Management Policies and Goals

Water Resource Ordinance

**Development Review meetings** 

Developer package

Comprehensive plan

#### \*Responsible Party for this BMP:

Name: Gary Minck P.E -. Kyle Deming/Planner

Department: Public Works and Utilities/Engineering/ Planning /

Phone: (2180730-5074 (218)730-5580

E-mail: gminck@ci.duluth.mn.us kdeming@ci.duluth.mn.us

MS4 Name: CITY OF DULUTH
Minimum Control Measure: Additional BMPs

**Unique BMP Identification Number:** BMP 704 – adapted from 2003 SWPPP BMP 704

\*BMP Title: Review of Procedures to Address Planning Regulations Related to

**Storm Water** 

# \*BMP Description:

# **Target Audience**

City Staff, Developers, General Public

# **Description**

The City will regularly review procedures to ensure that those involved in planning and development activities are aware of the relevant regulations relating to Environmental review, Discharges affecting threatened or Endangered Species, Discharges affecting Historic or Archeological sites or Wetland Discharges. Review will verify that stormwater decisions do not inversely impact or conflict with the relevant regulations.

#### \*Measurable Goals:

Annual Review of Regulations with planners, engineers, planning Commission. Application of appropriate regualtions

# \*Timeline/Implementation Schedule:

Yearly review in **September** 

On-going application of appropriate regulations

#### **Specific Components and Notes:**

**Development Review Committee** 

Minn 7050.0186

Minn Stat, Ch 116D and 42 U.S.C. 4321-4370F

## \*Responsible Party for this BMP:

Name: Planner,
Department: Planning

Phone: (218) 730-5580

E-mail: kdeming@ci.duluth.mn.us

MS4 Name: CITY OF DULUTH
Minimum Control Measure: Additional BMPs

**Unique BMP Identification Number:** BMP 705 adapted from 2003 SWPPP BMP 705

\*BMP Title: Procedures to Address TMDLs

## \*BMP Description:

# **Target Audience**

City staff, Developers, Commercial Business, General Public

# **Description**

The 2002 303(d) list includes listings for several bodies of water in the City of Duluth. These include the St. Louis River, Amity Creek, Lester River, Miller Creek and Twin Ponds. The City of Duluth as a stakeholder will participate in TMDL development and will adjust the SWPPP to meet any requirements of the TMDLS.

#### \*Measurable Goals:

- Monitor TMDL Process
- Make appropriate plan changes

# \*Timeline/Implementation Schedule:

- Monitoring of TMDP Process on-going (Miller Creek TMDL for temperaturestudy currently underway)
- Adjustments to SWPPP as appropriate on -going

#### **Specific Components and Notes:**

TMDL activities
SWPPP changes
St. Louis River TMDL group

#### \*Responsible Party for this BMP:

Name: Marnie Lonsdale, Project Coordinator

Department: Public Works and Utilities, Utility Operations

Phone: (218) 730-4063

E-mail: mlonsdale@ci.duluth.mn.us

MS4 Name: CITY OF DULUTH

Minimum Control Measure: 1-PUBLIC EDUCATION AND OUTREACH

**Unique BMP Identification Number:** City BMP 706 - NEW

\*BMP Title: Discharges affecting Source Water Protection Areas

#### \*BMP Description:

The City of Duluth participated in the Minnesota Department of Health's Source Water Assessment. The Source Water Assessment is on file with the SWPPP and will be taken in to consideration in future planning. Because the local intake is ¼ mile out in Lake Superior "the large quantities of water in Lake Superior and the movement and mixing of the water in the lake help attenuate contaminant concentrations." The inner emergency response area for the source water does not include any of the City stormwater system. However the Outer resource area encompasses stormwater discharge from the eastern end of the City and consideration must be taken in the event of a discharge. The Source water assessment will be used in planning.

#### \*Measurable Goals:

Maintain and regularly review the source water assessment Adjust planning as appropriate

## \*Timeline/Implementation Schedule:

Maintain and regularly review the source water assessment - **yearly** Adjust planning as appropriate **– on going** 

#### **Specific Components and Notes:**

City of Duluth Source Water Assessment Hazardous Spill activities – Fire department

#### \*Responsible Party for this BMP:

Name: Marnie Lonsdale, Project Coordinator, Kyle Deming, Planner

Department: Public Works and Utilities, Utility operations /Planning,

Phone: (218) 730-4063 (218) 730-5580

E-mail: mlonsdale@ci.duluth.mn.us, kdeming@ci.duluth.mn.us

MS4 Name: CITY OF DULUTH
Minimum Control Measure: GENERAL BMPS
Unique BMP Identification Number: City BMP 707 - New

\*BMP Title: Development of a Nondegradation of all Waters Plan - Part X

Appendix D

#### \*BMP Description:

Target Audience: City Staff, Developers, General Public

**Description:** The City will participate as a selected MS4 in the 1. Loading assessment 2. Nondegradation Report 3. SWPPP modifications to address non-degradation 4, Public and local water authority comment with record of decision and 5. Application to modify permit as outlined in Part X Appendix D of the State of Minnesota General NPDES MS4 Stormwater Permit.

During the MPCA review, notice, and preliminary determination processes, the City will work with the MPCA, if appropriate, to respond to comments and/or revise the submittal materials to prepare them for final approval. After final determination by the MPCA, the City will modify the SWPPP as per the approved submittal materials and as needed to meet the nondegradation requirements.

#### \*Measurable Goals:

- 1. Hire consulting firm to develop model as specified in Part X section B
- 2. Perform loading assessment
- 3. Prepare Non-degradation report in part X section C
- 4. Develop modification of SWPPP to address identified loading and as possible reduce loadings to 1988 levels as discussed in Part X Section C
- Invite public participation Part X Section D
- 6. Submit report Part X section E
- 7. Modify the SWPPP as per the approved modifications and as needed to meet the nondegradation requirements

#### \*Timeline/Implementation Schedule:

- 1. by September 2006
- 2. by June 2007
- 3. by August 2007
- 4. by August 2007
- 5. August 2007
- 6. By September 2007
- **7.** After the submittal materials are approved by the MPCA, the City will modify the SWPPP, as per the approved modifications and as needed to meet the nondegradation requirements, **in a timely manner**.

# **Specific Components and Notes:**

Current SWPPP
Contractor model
City GIS
Development Review Committee
Duluth Comprehensive Plan

# \*Responsible Party for this BMP:

Name: Gary Minck, P.E.

Department: Public Works and Utilities, Engineering

Phone: (218) 730-5074

E-mail: <a href="mailto:gminck@ci.duluth.mn.us">gminck@ci.duluth.mn.us</a>