SECTION VII STORM WATER POLLUTION PREVENTION PROGRAM BEST MANAGEMENT PRACTICES

BEST MANAGEMENT PRACITICE PAGES

The following pages provide detailed information on specific best management practices identified for each minimum control measure.

These BMPs constitute the main body of the Storm Water Pollution Prevention Program for the City of Bloomington. The BMPs are also summarized in Section VIII – BMP Summary Sheets as provided and required by the MPCA. The BMP Summary Sheets are intended to provide an easy mechanism for verifying ultimate compliance with Permit No. MN R 040000.

BEST MANAGEMENT PRACTICE MASTER LIST

		Min. Control Measures					
No.	Decscription	1	2	3	4	5	6
1	Education Coordinator	X	X	X	X	X)
2	Annual Public Meeting on Storm Water	X	X	X	X	X)
3	Environmental Fair	X	X	X			
4	Education Activity Implementation Plan	X					
5	Phosphorus Free Fertilizer Ordinance Information	X					
6	Illicit Discharge Information	X		X			
7	Fall Yard Care Information	X					
8	Water Resource Articles in Bloomington Briefing	X					
9	Curb Side Clean Up	X	X	Х			
10	Storm Sewer Inlet Markers	X	X	X			
11	City Water Resource Web Site	Х	Х		Х	X	
12	Adopt-a-Wetland	Х	Х				
13	Erosion Control Hotline		Х		Х		
14	Henn. Co. Haz. Household Waste Site	Х	Х	Х			
15	Public Notice of Annual Report	Х	Х	Х	Χ	Χ)
16	Illicit Discharge Complaint Line		Х	Х			
17	Private Pollution Control Device Maintenance Program		Х	Х			
18	Zero Phosphorus Fertilizer Ordinance		Х			Х)
19	Storm System Map				Х)
20	Septic System Map			Х			
21	Illicit Discharge Ordinance			X)
22	Industrial Storm Sewer Inspection Program			X			
<u></u> 23	Sanitary Sewer Inspections			X)
24	Sanitary Sewer Maintenance			X			
25	Private Storm Sewer Mapping			X			
26	Private Storm Sewer Construction Permitting			X			
<u>27</u>	Storm Sewer Mainline Inspections			X		Χ)
28	Storm Sewer Inspections Program			X		X)
<u>20 </u>	Storm Sewer Maintenance Projects			X		X	<i>'</i>
30	Road Salt/Sand Storage			X)
31	Municipal Operations Program			X)
32	Erosion Control Training			^	Х	Х	<i>'</i>
33	CSWMP			Х	X	X)
34	WPMP			^	X	X)
35	Drainage & Erosion Control Ordinance				X	X)
36	Development Plan Review				X	X	-
30 37	Certificate of Survey Reviews				X	X	
38	Construction Plan Turf Requirement				X	X)
30 39	Erosion Control Inspections				X	X	-
39 40						^	
	Storm Sewer Inlet Protection				Х	v)
41	Shore Area Ordinance					X	
42	Special Zoning Overlay Districts					X	
43	Storm Runoff Rate Control Ordinance					X	H
44	Waterfowl Feeding Policy					X	
45	Street Sweeping Program)
46	Metro Water Resource Group)
47	Record Retention)
48	Residential Street Policy					X)

Permit Sections: V.G.1,2,3,4,5,6

Minimum Control Measures: Public Education and Outreach

Public Participation/Involvement

Illicit Discharge Detection and Elimination

Construction Site Runoff Control Post Construction Runoff Control

Pollution Prevention/Good Housekeeping

Title: Education Coordinator

BMP Number: 1

Description: The City of Bloomington has an education coordinator to oversee and direct the Education Program and Education Activity Implementation Plan outlined in this Storm Water Pollution Prevention Program. The education coordinator will serve as a liaison with area water resources educators, schools, the general public, other local and state agencies and educational institutions. The education coordinator may implement additional resources to execute the BMPs listed in this program.

Measurable Goals: Public Works Coordinator, 952-563-8751

Implementation Schedule: March 10, 2003

Responsible Department: Public Works

Director of Public Works

Charles Honchell 952-563-8731

Budget: See BMP No. 4

Permit Sections: V.G.1,2,3,4,5,6

Minimum Control Measures: Public Education and Outreach

Public Participation/Involvement

Illicit Discharge Detection and Elimination

Construction Site Runoff Control Post Construction Runoff Control

Pollution Prevention/Good Housekeeping

Title: Annual Public Meeting on Storm Water Pollution Prevention Plan & Annual Report

BMP Number: 2

Description: The City of Bloomington holds one annual public meeting each year to inform the public and others on the status of the city's Storm Water Pollution Prevention Program and SWPPP annual report to the MPCA. In addition, the public meeting provides the public and interested persons the opportunity to comment and provide input on the program. The meeting is held prior to submittal of the annual report to the Commissioner and relevant comments and input as well as responses to comments are included in the annual report.

The annual public meeting is held within the city limits of Bloomington at a time generally convenient for persons expected to attend. Notice is published in the local newspaper and appears on the City's web site at least 30 days prior to the meeting. The notice contains reference to the Storm Water Pollution Prevention Program, meeting date, time, and location. It also contains a manner in which the meeting will be conducted and indicate where copies of the Storm Water Pollution Prevention Program are available for review.

Measurable Goals: Report of meeting results and summary of public comment taken

Implementation Schedule: Annual meeting completed prior to submission of each annual report – June 30 of each year.

Responsible Department: Public Works

Engineering Division

City Engineer Shelly Pederson 952-563-4866

Budget: \$1000.00 annually

Permit Sections: V.G.1,2,3,5

Minimum Control Measures: Public Education and Outreach

Public Participation/Involvement

Illicit Discharge Detection and Elimination

Post Construction Runoff Control

Title: Environmental Fair (formerly Clean Water Festival)

BMP Number: 3

Description: In 1998, the City of Bloomington began sponsoring a one-half day educational festival to promote clean water and surface water quality. The Environmental Fair is intended to be an annual event aimed at providing school age children as well as adults, educational opportunities and opportunities to interact with water resources displays, environmental representatives, and local government representatives.

The Environmental Fair is typically held in the spring of each year and calls on volunteers from local schools and the public works sector to ensure a successful program.

Measurable Goals: Env. Fair Date, attendance and number of volunteers

Implementation Schedule: This is an existing program that will continue annually, as budgets allow, through the duration of this NPDES Phase II permit.

Responsible Department: Public Works

Maintenance Division Education Coordinator

Jean Buckley 952-563-8751

Other Department Involvement: The Engineering Division assists the Public Works Education Coordinator in planning and implementing the event. Other Divisions that volunteer or lend assistance are Utilities and Maintenance. Other agencies such as the Nine Mile Creek Watershed District, Riley Purgatory Bluff Creek Watershed District, Lower Minnesota River Watershed District, MPCA, DNR, Watershed Partners, Center for Global Environmental Education, Metropolitan Council, and Minnesota Zoo may contribute resources as available.

Budget: \$5,000.00 annually

Permit Sections: V.G.1,2,3,4,5,6

Minimum Control Measures: Public Education and Outreach

Public Participation/Involvement

Illicit Discharge Detection and Elimination

Construction Site Runoff Control Post Construction Runoff Control

Pollution Prevention/Good Housekeeping

Title: Education Activity Implementation Plan

BMP Number: 4

Description: The City of Bloomington developed appropriate components of an Education Activity Implementation Plan beginning in 2004. The Education Activity Implementation Plan is made up of components previously implemented and also includes more recent programs and partnerships.

The Education Activity Implementation Plan has components to distribute educational materials to the community and conduct outreach activities about the impacts of storm water discharges and what the public can do to reduce pollutants in storm water runoff.

The Education Activity Implementation Plan addresses each minimum control measure of this permit as outlined in Part V.G.1. In addition, the Education Activity Implementation Plan makes use of other storm water education programs conducted in the area and when feasible, forms partnerships with watershed districts, local government units and agencies, and other education based organizations.

Measurable Goals: Education Activity Implementation Plan

Implementation Schedule: 2004-2010

Responsible Department: Public Works

Maintenance Division Education Coordinator

Jean Buckley 952-563-8751

Budget: \$15,000.00 annually

Permit Section: V.G.1

Minimum Control Measure: Public Education and Outreach

Title: Phosphorus Free Fertilizer Law and Ordinance Information

BMP Number: 5

Description: The City of Bloomington will make available information to the public regarding the City's phosphorus free fertilizer ordinance and State of Minnesota phosphorus fertilizer law.

Brochures may be sent directly to residential properties and businesses. Brochures and copies of the City ordinance have been supplied to retailers to be available to customers.

The ordinance is posted on the City's web site with a link to the State law.

Measurable Goals: Number of brochures distributed

Number of retail outlets supplied with brochures

City ordinance on web site

Implementation Schedule: Distributed brochures in the spring of 2003

Supply retail outlets with brochures in the spring of 2003 Establish web site for City ordinance and construct link to

State law in Fall 2003

Continued distribution of information as needed through

duration of permit

Responsible Department: Public Works

Maintenance Division Education Coordinator

Jean Buckley 952-563-8751

Other Department Involvement: The Public Works Education Coordinator may seek assistance from the Engineering Division to implement this BMP.

Budget: \$5,000.00 for distribution of information to residential properties in 2003

\$3,000.00 for distribution of brochures to retail outlets in 2003 \$1,000.00 annually for distribution or posting of information

Permit Sections: V.G.1,3

Minimum Control Measures: Public Education and Outreach

Illicit Discharge Detection and Elimination

Title: Illicit Discharge Detection/Elimination Information

BMP Number: 6

Description: The City of Bloomington will publish articles and make available brochures or post information on the City's web site to inform employees, businesses, and the general public of the hazards associated with illegal discharges and improper disposal of wastes.

Measurable Goals: Number of publications or web site postings concerning illicit discharge detection/elimination

Implementation Schedule: Development of information in 2006

Distribution by 2007

Responsible Department: Public Works

Maintenance Division Education Coordinator

Jean Buckley 952-563-8751

Other Department Involvement: The Engineering Division will assist the Education Coordinator to implement this BMP.

Budget: \$7,500.00 in 2006-2007

Permit Section: V.G.1

Minimum Control Measure: Public Education and Outreach

Title: Fall Yard Care Information

BMP Number: 7

Description: The City of Bloomington has made available information describing fall yard care techniques appropriate for minimizing pollutants in runoff. The Public Works Department has mailed brochures to residential households, posted information on the water resources web site, and published pertinent articles or information in the local newspaper or newsletter. Information updated and posted annually.

Measurable Goals: Number of brochures mailed

Date of article publication

Web site location

Implementation Schedule: On-going

Responsible Department: Public Works

Maintenance Division Education Coordinator

Jean Buckley 952-563-8751

Other Department Involvement: The Engineering Division will assist the Public Works Education Coordinator to implement this BMP.

Budget: \$1,000.00 annually

Permit Sections: V.G.1,3,5

Minimum Control Measures: Public Education and Outreach

Illicit Discharge Detection and Elimination

Post Construction Runoff Control

Title: Water Resources Articles in the Bloomington Briefing

BMP Number: 8

Description: The City of Bloomington will continue to publish water resources related articles in the local newsletter. Regular publications on topics such as yard care techniques, the Environmental Fair, and other water resources related subjects are currently published in the <u>Bloomington Briefing</u> approximately quarterly. This is an existing program that will continue for the duration of the NPDES Phase II Permit and is intended to provide the public with another means to water resources information.

Future articles may address illicit discharge detection, City-related water resources projects, the importance of establishing buffer zones and native vegetation, and other topics aimed at giving the public useful information on steps that can be taken to reduce pollutants in storm water runoff.

Measurable Goals: Number of articles published

Date of publication

Implementation Schedule: On-Going

Responsible Department: Public Works

Maintenance Division Education Coordinator

Jean Buckley 952-563-8751

Other Department Involvement: The Engineering Division will assist the Public Works Education Coordinator to implement this BMP.

Budget: \$2,000.00 annually

Permit Sections: V.G.1,2,3

Minimum Control Measures: Public Education and Outreach

Public Participation/Involvement

Illicit Discharge Detection and Elimination

Title: Curbside Cleanup Program

BMP Number: 9

Description: The City of Bloomington administers an annual curbside cleanup program that involves residents and households in cleaning up and properly disposing of wastes. The curbside cleanup program provides residents an opportunity to dispose of unwanted items as well as large and problem waste items. The City then organizes the collection of items across the entire city over the course of several weeks.

Extensive advertising and promotion takes place each year to ensure maximum participation by interested households.

Measurable Goals: Number of households participating

Amount of waste collected

Implementation Schedule: Annually contingent upon funding sources

Responsible Department: Public Works

Maintenance Division Education Coordinator

Jean Buckley 952-563-8751

Other Department Involvement: The Public Works Project Coordinator will seek assistance from other departments as needed to implement this BMP.

Budget: \$665,000.00 annually

Permit Sections: V.G.1,2,3

Minimum Control Measures: Public Education and Outreach

Public Participation/Involvement

Illicit Discharge Detection and Elimination

Title: Storm Sewer Inlet Markers

BMP Number: 10

Description: In 2002, the City of Bloomington cooperated with the Nine Mile Creek Watershed District on a storm sewer inlet marker project. The watershed district funded the project and coordinated volunteers to apply markers to storm sewer inlet/catchbasins identifying them as draining to Nine Mile Creek. In addition, the volunteers distributed flyers door-to-door in the areas that markers were applied describing the project and how the drainage system operates.

No further storm water inlet marker project is scheduled, but the Public Works Department may approach the Nine Mile Creek Watershed District in the future in conjunction with the education activity implementation plan to undertake another similar project. City staff will field inspect durability and review support of this project and similar projects.

New construction projects will include a standard catch basin casting that includes, "DUMP NO WASTE DRAINS TO RIVER", cast into the curb inlet.

Measurable Goals: Number of storm sewer inlets marked

Number of new catch basin castings installed

Implementation Schedule: Pilot project completed in 2002

Future project not yet planned

Annual applications of stamped catch basin castings

Responsible Department: Public Works

Engineering Division

City Engineer Shelly Pederson 952-563-4866

Other Department Involvement: The City Engineer may implement this BMP with the assistance of outside agencies such as the Nine Mile Creek Watershed District.

Budget: \$4,000.00 in 2002 for markers and supplies (Nine Mile Creek W.D.)

\$8,000.00 for possible future project

Permit Sections: V.G.1,2,4,5

Minimum Control Measures: Public Education and Outreach

Public Participation/Involvement Construction Site Runoff Control Post Construction Runoff Control

Title: Water Resources Web Site

BMP Number: 11

Description: The City of Bloomington has created a web site, and links to other existing web sites to provide citizens a resource to research water resources related topics. The City web site includes information provided by the City of Bloomington, and other agencies/resources, aimed at providing the tools to educate the public and reduce or minimize storm water impacts.

Measurable Goals: Web site address

Number of web site links

Implementation Schedule: January 2004 with annual updates as necessary

Responsible Department: Public Works

Maintenance Division Education Coordinator

Jean Buckley 952-563-8751

Budget: \$2,500.00 annually

Permit Sections: V.G.1,2

Minimum Control Measures: Public Education and Outreach

Public Participation/Involvement

Title: Adopt-A-Wetland Program

BMP Number: 12

Description: The City of Bloomington currently sponsors the Adopt-A-Wetland Program within the City of Bloomington. This program allows citizens the opportunity to undertake activities to improve the quality and appearance of local wetlands.

The Adopt-A-Wetland program targets volunteer groups to perform various duties outlined in a task agreement. Tasks may include litter pickup, purple loosestrife control, buckthorn control, and water quality data collection for various wetlands.

Measurable Goals: Number of adopted wetlands

Implementation Schedule: On-going

Responsible Department: Public Works

Maintenance Division Education Coordinator

Jean Buckley 952-563-8751

Other Department Involvement: The Engineering Division will assist the Public Works Education Coordinator to implement this BMP.

Budget: \$2,000.00 annually

Permit Sections: V.G.2,4

Minimum Control Measures: Public Participation/Involvement

Construction Site Runoff Control

Title: Erosion Control Hotline

BMP Number: 13

Description: Establish a phone number and person responsible for receiving erosion control related phone calls. The Engineering Division has developed a system to document phone calls, field inspections, corrective measures and follow-up activities.

Measurable Goals: Number of contacts

Number of inspections

Implementation Schedule: On-going

Responsible Department: Public Works

Engineering Division

City Engineer Shelly Pederson 952-563-4866

Budget: \$7,000.00 annually.

Permit Sections: V.G.1,2,3

Minimum Control Measures: Public Education and Outreach

Public Participation/Involvement

Illicit Discharge Detection and Elimination

Title: Hennepin County Hazardous Waste Disposal Center

BMP Number: 14

Description: The City of Bloomington is fortunate enough to have located within the City, a hazardous waste disposal and recycling center managed by Hennepin County. The City encourages use of this facility by residents.

The City does not manage or have influence over the operation of this facility, however as long as Hennepin County provides this service; the City will continue to promote its use.

Measurable Goals: Number of publications or web site postings promoting the hazardous waste disposal center

Implementation Schedule: On-going

Responsible Department: Public Works

Maintenance Division Education Coordinator

Jean Buckley 952-563-8751

Other Department Involvement: The Public Works Education Coordinator will promote the use of this facility throughout the duration of this permit as long as the facility is in operation by Hennepin County.

Budget: \$1,000.00 annually

Permit Sections: V.G.1,2,3,4,5,6

Minimum Control Measures: Public Education and Outreach

Public Participation/Involvement

Illicit Discharge Detection and Elimination

Construction Site Runoff Control Post Construction Runoff Control

Pollution Prevention/Good Housekeeping

Title: Public Notice of Annual Storm Water Meeting

BMP Number: 15

Description: The City of Bloomington publishes a Public Notice of the Bloomington Storm Water Pollution Prevention Program Annual Meeting. The Public Notice will be published in the local newspaper and appear on the City's web site at least 30 days prior to the Annual Meeting.

The notice will contain reference to the Storm Water Pollution Prevention Program, meeting date, time, and location. It will also contain a manner in which the meeting will be conducted and indicate where copies of the Storm Water Pollution Prevention Program are available for review. The meeting will be held prior to submittal of the annual report to the Commissioner and relevant comments and input as well as responses will be included in the annual report.

Measurable Goals: Confirmation of public notice from Bloomington Sun Newspaper, public notifications, annual meeting attendance, comments

received

Implementation Schedule: At least 30 days prior to the Public Meeting

Responsible Department: Public Works

Engineering Division

City Engineer Shelly Pederson 952-563-4866

Budget: \$500.00 annually

Permit Sections: V.G.2,3

Minimum Control Measures: Public Participation/Involvement

Illicit Discharge Detection and Elimination

Title: Illicit Discharge/Spill Complaint Line

BMP Number: 16

Description: The City of Bloomington, Environmental Health Division will establish a complaint mechanism for the general public to contact City officials to report suspected illicit discharges, spill, or illegal dumping.

The complaint mechanism will enable citizens to telephone directly to City officials or submit complaints/concerns on-line. Staff will review all complaints and act accordingly.

Measurable Goals: Complaint line

Web site address

Number of complaints registered

Implementation Schedule: Outline system 2006

Implement system 2007

Responsible Department: Community Development

Environmental Health Division Environmental Health Manager

Lynn Moore 952-563-8970

Other Department Involvement: Environmental Health may seek the assistance of the Information Systems Department to establish the complaint mechanism.

Budget: \$2,000.00 annually

Permit Sections: V.G.2,3

Minimum Control Measures: Public Participation/Involvement

Illicit Discharge Detection and Elimination

Title: Private Pollution Control Device Maintenance Plans

BMP Number: 17

Description: The City of Bloomington's Engineering Division requires a signed Maintenance Statement/Plan from private developers/property owners prior to installation of pollution control devices/water quality structures as a condition for project approval.

These structures typically need periodic inspection and maintenance to perform as designed and the Maintenance Plan increases the owner's awareness of water quality and their maintenance responsibilities. If the proper maintenance is not being performed, the city will review this policy and consider possible enforcement actions.

Measurable Goals: Number of Maintenance Statements/Plans

Implementation Schedule: January 2004

Responsible Department: Public Works

Engineering Division

City Engineer Shelly Pederson 952-563-4866

Budget: \$2,000.00 annually

Permit Sections: V.G.2,5,6

Minimum Control Measures: Public Participation/Involvement

Post Construction Runoff Control

Pollution Prevention/Good Housekeeping

Title: Zero Phosphorus Fertilizer Ordinance

BMP Number: 18

Description: Beginning July 31, 2002, City Bloomington Ordinance (Sect. 10.49) prohibits the use of fertilizers containing phosphorus on Bloomington lawns, in shoreland buffer areas, and on sidewalks and driveways. The ordinance was adopted in response to the Minnesota State Phosphorus Fertilizer Bill (S.F. No. 1555), passed in the spring of 2002.

Exceptions where phosphorous fertilizer can still be used include:

- Lawns that need phosphorus, as demonstrated by a valid soil test.
- Newly established turf during the first growing season.
- Golf courses.

The ordinance also requires Bloomington retail stores that carry fertilizer containing phosphorus also carry phosphorus-free fertilizer. In addition, stores must display information regarding these regulations. (See BMP No. 5)

Measurable Goals: Ordinance

Implementation Schedule: April 2003

Responsible Department: Public Works

Engineering Division

City Engineer Shelly Pederson 952-563-4866

Budget: \$500.00 annually

Permit Sections: V.G.3,6

Minimum Control Measures: Illicit Discharge Detection and Elimination

Pollution Prevention/Good Housekeeping

Title: Develop a Storm System Map

BMP Number: 19

Description: Develop a map within the City's existing GIS to map locations of storm sewer system components. The Engineering Division will phase data entry of various storm sewer attributes into GIS, and continually update using as-builts and private development plans.

Measurable Goals: System Mapping

Implementation Schedule: 2003 – Mainline System

2004 - Pond/Water Bodies

2005 - Structural Pollution Control Devices

2006 - MS4 Outfalls

Responsible Department: Public Works

Engineering Division

City Engineer Shelly Pederson 952-563-4866

Other Department Involvement: Information Systems

Budget: \$10,000.00 in 2003

\$5,000.00 in 2004 \$20,000.00 in 2005 \$15,000.00 in 2006

Permit Section: V.G.3

Minimum Control Measure: Illicit Discharge Detection and Elimination

Title: Septic System Mapping

BMP Number: 20

Description: Develop a map within the City's existing GIS to show locations of existing active septic systems. The Environmental Health Division has compiled a database and will enter the data into GIS to produce maps that could be used to detect failing systems and/or illegal discharges.

Measurable Goals: Completed System Mapping

Implementation Schedule: 2007

Responsible Department: Community Development

Environmental Health Division Environmental Health Manager

Lynn Moore 952-563-8970

Other Department Involvement: Environmental Health may seek the assistance of the Information Systems Department.

Budget: \$15,000.00 to develop database and mapping

Permit Sections: V.G.3,6

Minimum Control Measures: Illicit Discharge Detection and Elimination

Pollution Prevention/Good Housekeeping

Title: Illicit Discharge Elimination Ordinance or Other Regulatory Mechanism

BMP Number: 21

Description: The City of Bloomington will review existing ordinances and other regulatory mechanisms that address water, wastewater, storm water and recycling and their effectiveness in prohibiting non-storm water discharges. The ordinances or regulatory mechanisms may be revised, or new ordinances/mechanisms adopted to meet permit requirements.

Measurable Goals: Ordinance(s) or Regulatory Mechanism(s)

Implementation Schedule: 2006 – Review existing ordinance(s)/mechanism(s)

2007 – Write revisions, if needed 2008 – Adopt revisions, if needed

Responsible Department: Public Works

Engineering Division

City Engineer Shelly Pederson 952-563-4866

Budget: \$1,000.00 in 2006

\$10,000.00 in 2007 (as required) \$10,000.00 in 2008 (as required)

Permit Section: V.G.3

Minimum Control Measure: Illicit Discharge Detection and Elimination

Title: Industrial Storm Sewer Inspection Program

BMP Number: 22

Description: The City of Bloomington will develop an inspection program that establishes criteria and procedures to detect non-storm water discharges from certain industrial facilities.

Measurable Goals: Inspection Procedures

Inspection Records

Implementation Schedule: 2006 – Outline Program

2007 – Implement Program 2008 – Review Program

Responsible Department: Public Works

Engineering Division

City Engineer Shelly Pederson 952-563-4866

Budget: \$25,000 in 2006

\$25,000 in 2007 \$5,000 in 2008

Permit Section: V.G.3

Minimum Control Measure: Illicit Discharge Detection and Elimination

Title: Sanitary Sewer Inspections

BMP Number: 23

Description: The City of Bloomington has annually inspects approximately 150,000 linear feet of sanitary sewer via mainline closed-circuit video. This equates to roughly eight percent of the City's sanitary sewer being inspected every year. These inspections are used to identify issues such as infiltration/inflow and other problems in order to make effective repairs to the system.

It is anticipated that the entire sanitary mainline system will have been inspected by the end of 2005. After initial completion, the City will continue annual inspections.

New equipment was purchased in 2006 and it is planned that the entire system will continued to be inspected at a rate of 200,000 linear feet (or 10%) per year. Inspections will resume with the oldest infrastructure proceeding to areas with more recent construction.

Measurable Goals: Linear feet of sanitary sewer video inspected

Implementation Schedule: 2003 – 2005, Current Program

2006 – on-going, in-house program

Responsible Department: Public Works

Utilities Maintenance Division Utilities Superintendent

Bob Cockriel 952-563-8774

Budget: \$50,000.00 annually through 2005

\$130,000 in 2006

Budget to be determined for 2006 and beyond

Permit Section: V.G.3

Minimum Control Measure: Illicit Discharge Detection and Elimination

Title: Sanitary Sewer Maintenance

BMP Number: 24

Description: The City of Bloomington annually cleans (jetting and rodding) approximately 1,750,000 linear feet of sanitary sewer mainline each year. This maintenance cleans normal debris build up, preventing sewer stoppages, reducing the risk of sewage flowing into surface waters or the storm sewer system.

Measurable Goals: Linear feet of sanitary sewer cleaned

Implementation Schedule: On-going

Responsible Department: Public Works

Utilities Maintenance Division

Utilities Superintendent

Bob Cockriel 952-563-8774

Budget: \$350,000.00 annually

Permit Section: V.G.3

Minimum Control Measure: Illicit Discharge Detection and Elimination

Title: Private Storm Sewer System Map

BMP Number: 25

Description: Develop a map within the City's existing GIS of private storm sewer systems. Engineering has been actively entering data from current developments including connections to city storm sewer, ponds, and PCDs. Other data may be retrievable from site maps, as-builts and possibly field inspections. The Engineering Division will phase data entry of various storm sewer attributes into GIS, and continually update using as-builts and private development plans.

Due to the nature and age of the information, it may not be possible to map all existing private systems. In 2008 the system mapping will be reviewed for accuracy and adequacy.

Measurable Goals: System Mapping

Implementation Schedule: 2008

Responsible Department: Public Works

Engineering Division

City Engineer Shelly Pederson 952-563-4866

Other Department Involvement: Information Systems

Budget: \$30,000 estimated budget

Permit Section: V.G.3

Minimum Control Measure: Illicit Discharge Detection and Elimination

Title: Private Storm Sewer Construction Permitting

BMP Number: 26

Description: The City of Bloomington will continue the existing program of permitting

and inspecting all privately owned storm sewer connections to the city system.

Measurable Goals: Number of Permits issued

Implementation Schedule: March 10, 2003

Responsible Department: Public Works

Utilities Maintenance Division Utilities Superintendent

Bob Cockriel 952-563-8774

Budget: \$10,000.00 annually

Permit Sections: V.G.3,5,6

Minimum Control Measures: Illicit Discharge Detection and Elimination

Post Construction Runoff Control

Pollution Prevention/Good Housekeeping

Title: Storm Sewer Mainline Inspections

BMP Number: 27

Description: The City of Bloomington annually contracts to have mainline storm sewer inspected in conjunction with the annual Pavement Management Projects, allowing the City to make effective repairs to the system. Other areas are inspected as identified to determine infrastructure condition and potential repairs.

The proper operation and condition of the storm sewer system contributes toward preventing possible non-storm water discharges entering the system.

Measurable Goals: Linear feet of pipe inspected

Implementation Schedule: On-going

Responsible Department: Public Works

Engineering Division

City Engineer Shelly Pederson 952-563-4866

Budget: \$18,000.00 annually

Permit Sections: V.G.3,5,6

Minimum Control Measures: Illicit Discharge Detection and Elimination

Post Construction Runoff Control

Pollution Prevention/Good Housekeeping

Title: Storm Sewer Structure Inspection Program

BMP Number: 28

Description: Contracted crews video tape storm sewer mainlines and visually inspect manholes. Bloomington Public Works staff field inspect manholes, catch basins, waterbody inlets/outlets, special/treatment structures, and pipe regularly and in preparation for Pavement Management Projects as well as other areas of concern. Failing pipes and structures are repaired or replaced to reduce infiltration, soil intrusion and damage to the surrounding environment. Special/treatment structures are maintained to ensure proper operation. Inspections are routinely performed according to the schedule below:

- Annually All pollution control devices
- Annually Twenty percent of all MS4 outfalls, sediment basins and storm water ponds on a rotating basis
- Annually All exposed stockpiles under MS4 control

If patterns of maintenance become evident, the frequency of inspections may be adjusted.

Measurable Goals: Number of linear feet of pipe inspected and number of structures inspected.

Implementation Schedule: On-going

Responsible Department: Public Works

Engineering Division

City Engineer Shelly Pederson 952-563-4866

Other Department Involvement: Maintenance Division

Budget: \$35,000.00 annually

Permit Sections: V.G.3,5,6

Minimum Control Measures: Illicit Discharge Detection and Elimination

Post Construction Runoff Control

Pollution Prevention/Good Housekeeping

Title: Storm Sewer Maintenance Projects

BMP Number: 29

Description: The City of Bloomington repairs, updates and improves portions of the storm sewer infrastructure through means of an annual construction maintenance project. The improvements to the system may include replacing failed pipe, repairing a deteriorating structure, adding rip-rap at an outfall or even slip-lining mainline pipe, all of which reduce potential soil erosion and improve the existing infrastructure. City maintenance crews and outside contractors are responsible for performing the various maintenance activities.

Measurable Goals: Annual Construction Project

Implementation Schedule: On-going

Responsible Department: Public Works

Engineering Division

City Engineer Shelly Pederson 952-563-4866

Other Department Involvement: Maintenance Division

Budget: \$300,000.00 annually

Permit Sections: V.G.3,6

Minimum Control Measures: Illicit Discharge Detection and Elimination

Pollution Prevention/Good Housekeeping

Title: Road Salt/Sand Storage

BMP Number: 30

Description: The City of Bloomington constructed a salt/sand storage building at to cover the stockpiles and handling areas of salt/sand to reduce salt/sand contaminated runoff. The salt/sand storage facility site also provides treatment to surface runoff from a sedimentation pond and a pollution control structure.

Previous salt/sand storage was not under permanent cover.

Measurable Goals: Storage facility

Implementation Schedule: 2004

Responsible Department: Public Works

Maintenance Division

Maintenance Superintendent

Larry Tschida 952-563-8771

Budget: \$800,000.00 to construct new facility

Permit Sections: V.G.3,6

Minimum Control Measures: Illicit Discharge Detection and Elimination

Pollution Prevention/Good Housekeeping

Title: Operation and Maintenance Program for Municipal Operations

BMP Number: 31

Description: The City of Bloomington will re-develop an operations and maintenance program including a training component to reduce the pollutant loading from municipal operations. The Education Activity Implementation Plan details the components of this program including target audiences and educational goals.

Measurable Goals: Training opportunities

Implementation Schedule: On-going

Responsible Department: Public Works

Administration Division

Safety and Training Coordinator

Kris Johnson 952-563-8732

Budget: \$5,000.00 per year

Permit Sections: V.G.4,5,6

Minimum Control Measures: Construction Site Runoff Control

Post Construction Runoff Control

Pollution Prevention/Good Housekeeping

Title: Erosion Control Training

BMP Number: 32

Description: The City of Bloomington is requiring advanced training of Engineering personnel that are responsible for inspecting erosion control on City and private construction projects. The Minnesota Department of Transportation, Minnesota Erosion Control Association, University of Minnesota, and other professional or educational organizations offer suitable classes, seminars and conferences. This training is also available to the contractors and builders that are responsible for installing and maintaining the erosion control devices.

The Public Works Department is requiring Engineering Project Inspectors to acquire and maintain Erosion Control Certification from the Minnesota Department of Transportation/University of Minnesota. The training will provide knowledge to apply best management practices in designing and inspecting erosion control systems and turf establishment on City projects. This training will also keep Engineering Division personnel aware of current techniques, new products and special permit requirements.

Measurable Goals: Number of Certified Inspectors

Implementation Schedule: March 10, 2003/On-going

Responsible Department: Public Works

Engineering Division

City Engineer Shelly Pederson 952-563-4866

Other Department Involvement: Public Works Education Coordinator

Public Works Safety and Training Coordinator

Budget: \$5000.00 annually

Permit Sections: V.G.1,3,4,5,6

Minimum Control Measures: Illicit Discharge Detection and Elimination

Construction Site Runoff Control Post Construction Runoff Control

Pollution Prevention/Good Housekeeping

Title: Comprehensive Surface Water Management Plan (CSWMP)

BMP Number: 33

Description: The City of Bloomington, along with a Consulting Engineer, developed a Management Plan to provide direction concerning the administration and implementation of water resources and water resources-related activities within the City. The original plan was finished in 2000 outlining implementation priorities including a capital program through 2006. The water resource activities included in the plan address many of the Minimum Control Measures as required by SWPPP, including construction runoff prevention.

The CSWMP is currently under revision and the next generation plan is anticipated to be completed in early 2007.

Measurable Goals: Completed Capital Improvements

Implementation Schedule: On-going

Plan update to be completed in March of 2007

Responsible Department: Public Works

Engineering Division

City Engineer Shelly Pederson 952-563-4866

Budget: \$123,000* in 2003

\$119,000* in 2004 \$3,105,000* in 2005 \$119,000* in 2006

- * Some project carry over may occur from 2000-2002
- * Since Inception: \$5,072,000
- * Future year's budgets will be included in actual CSWMP

Permit Sections: V.G.1,2,4,5,6

Minimum Control Measures: Construction Site Runoff Control

Post Construction Runoff Control

Pollution Prevention/Good Housekeeping

Title: Wetland Protection and Management Plan (WPMP)

BMP Number: 34

Description: The City of Bloomington developed a guide plan to provide direction concerning the protection and management of wetland resources within the City. The original plan was finished in 1997 and will be scheduled to be revised in the Comprehensive Surface Water Management Plan update. The activities included in the plan address many of the Minimum Control Measures as required by SWPPP, including construction runoff prevention into wetlands and other sensitive water bodies and post-construction requirements for preservation of wetland functions.

The WPMP serves the City as a means to protect wetlands designated uses and future use classifications as inventoried. The plan was reviewed and approved by all appropriate state agencies and applicable Watershed Districts.

Measurable Goals: Completed Capital Improvements

Implementation Schedule: 2003-2008

Future update and capital plan to be determined/developed

Responsible Department: Public Works

Engineering Division

City Engineer Shelly Pederson 952-563-4866

Budget: \$113,800* in 2003

\$145,900* in 2004 \$60,000* in 2005 \$4,000* in 2006

- * Some project carry over may occur from 1997-2002
- * Since Inception: \$873,400
- * Future years budgets will be included in the updated WPMP or CSWMP

Permit Sections: V.G.4,5,6

Minimum Control Measures: Construction Site Runoff Control

Post Construction Runoff Control

Pollution Prevention/Good Housekeeping

Title: Drainage and Erosion Control Ordinance

BMP Number: 35

Description: The City of Bloomington has a current Drainage and Erosion Control Ordinance (Sec. 19.57), which establishes the legal regulations to prevent construction site and other erosion to the City's storm sewer system. The Engineering and the Building and Inspection Divisions both inspect and enforce the ordinance on private construction projects, Engineering also inspects and implements erosion control techniques in compliance with City Ordinance for public projects. The City's Engineering and Building and Inspections Divisions will continue to monitor the effectiveness of this ordinance through complaints, inspections and/or citations and query other cities to determine if revisions may be warranted.

The City of Bloomington also has a Steep Slope Ordinance (Sect 19.57.01), designed to protect areas with steep slopes from erosion caused by surface runoff due to development. Residential lots zoned for Single Family and Large Lot Single Family with an average slope greater than 12% shall have a limited impervious surface area to reduce the quantity of runoff and the potential for erosion and sediment transport.

Measurable Goals: Ordinance

Implementation Schedule: March 10, 2003

Responsible Department: Public Works

Engineering Division

City Engineer Shelly Pederson 952-563-4866

Other Department Involvement: Community Development

Building & Inspections Division

Legal Department

Budget: \$1000.00 annually

\$5000.00 in 2005-2007 for additional review & revisions if needed

Permit Section: V.G.5

Minimum Control Measure: Post Construction Runoff Control

Title: <u>Development Plan Review</u>

BMP Number: 36

Description: The City of Bloomington has an existing Development Review Committee that routes proposed development plans through various divisions of the City for comment and review. Public Works reviews the plans for compliance with City Code and standards. The Engineering Division reviews the street, parking lots, grading, traffic, storm sewer, erosion control (temporary and permanent) and other pertinent areas of design and requires City standards be met and compliance exists with existing management plans (CSWMP and WPMP) prior to the City approving the plans.

Special attention is given to address water quality of Developments through:

- An Erosion Control Bond Requirement
- Requiring an approved Watershed permit be submitted with the grading permit application
- Submitting an erosion control plan, including temporary and permanent erosion control and turf establishment
- Addressing water quality recommendations of the Bloomington CSWMP in implementing storm sewer BMPs (Detention Ponds, proprietary structured treatment systems, trap manholes, rain gardens, infiltration basins, etc.)

Measurable Goals: Number of plans reviewed

Implementation Schedule: On-going

Responsible Department: Public Works

Engineering Division

City Engineer Shelly Pederson 952-563-4866

Other Department Involvement: Community Development

Planning Division

Building & Inspections Division

Budget: \$15,000.00 annually

Permit Sections: V.G.4,5

Minimum Control Measures: Construction Site Runoff Control

Post Construction Runoff Control

Title: Certificate of Survey Reviews

BMP Number: 37

Description: The City of Bloomington requires the submission of the Certificate of Survey, for each building site proposed for development, prior to issuing building permits. This Certificate of Survey is reviewed and comments made by several Divisions within Public Works, prior to Building and Inspections issuing a building permit. Before the issuance of building and/or grading permits by Building and Inspections, the Engineering Division designates, on the Certificate, the required erosion control measures using standardized BMPs. During construction, the site is periodically inspected to monitor the performance and maintenance of the erosion control, and issue repair orders as required.

Measurable Goals: Number of Certificates of Survey reviewed

Implementation Schedule: On-going

Responsible Department: Public Works

Engineering Division

City Engineer Shelly Pederson 952-563-4866

Other Department Involvement: Community Development

Planning Division

Building and Inspections Division

Budget: \$4000.00 annually

Permit Sections: V.G.4,5,6

Minimum Control Measures: Construction Site Runoff Control

Post Construction Runoff Control

Pollution Prevention/Good Housekeeping

Title: Permanent Erosion Control Plans/Specifications

BMP Number: 38

Description: The City of Bloomington will continue to provide timely turf reestablishment (permanent erosion control) on City improvement and maintenance projects. This may include sod, seed and erosion control blanket, trees, rock mulch, rip rap, soil reinforcement and/or other landscaping BMPs in boulevard areas, parks, private property and other areas disturbed during city construction projects.

Measurable Goals: Number of Construction Projects

Implementation Schedule: On-going

Responsible Department: Public Works

Engineering Division

City Engineer Shelly Pederson 952-563-4866

Other Department Involvement: Maintenance Division

Budget: \$50,000.00 annually

Permit Sections: V.G.4,5

Minimum Control Measures: Construction Site Runoff Control

Post Construction Runoff Control

Title: Erosion Control Inspections

BMP Number: 39

Description: The City of Bloomington Engineering and Building & Inspections Divisions provides consistent inspections and enforcement of erosion control on building and grading construction projects. City staff will inspect the sites to determine if the contractor/builder/developer are following the grading plan, certificate of survey and/or construction plans and suggest repairs, maintenance or other BMPs as conditions change to prevent sediment from leaving the construction site.

Inspections also consist of ensuring City Code Sec. 10.16, 10.18, and 10.25 are followed to control site wastes that may cause adverse impacts to surface waters.

Measurable Goals: Number of inspections

Number of return inspections

Implementation Schedule: March 10, 2003

Responsible Department: Public Works

Engineering Division

City Engineer Shelly Pederson 952-563-4866

Other Department Involvement: Community Development

Building & Inspections Division

Budget: \$15,000.00 annually

Permit Sections: V.G.4,6

Minimum Control Measures: Construction Site Runoff Control

Pollution Prevention/Good Housekeeping

Title: Storm Sewer Inlet Protection

BMP Number: 40

Description: The City of Bloomington requires construction projects to use inlet protection on all storm sewer inlets in areas of construction or land disturbance. The use of basket style or sack style catch basin inlets or other sediment control BMPs are required on all City construction projects.

Measurable Goals: Number of inlet protection devices (BMPs) installed

Implementation Schedule: March 10, 2003

Responsible Department: Public Works

Engineering Division

City Engineer Shelly Pederson 952-563-4866

Budget: \$5,000 per year

Permit Section: V.G.5

Minimum Control Measure: Post Construction Runoff Control

Title: Shore Area Regulations

BMP Number: 41

Description: The City of Bloomington has an established Shore Area Regulations (Chapter 19, Article IX) section in the City Code. These were adopted in order to protect the natural characteristics of such shore areas and adjacent water areas, to prevent the pollution of surface and ground waters, to minimize flood damage, and to manage the effects of shore area development.

Measurable Goals: Number of Shore Area Permits issued

Implementation Schedule: March 10, 2003

Responsible Department: Community Development

Planning Division Senior Planner Bob Sharlin (952) 563-8925

Budget: \$1,500.00 annually

Permit Section: V.G.5

Minimum Control Measure: Post Construction Runoff Control

Title: Special Zoning Overlay Districts (Sect. 19.38)

BMP Number: 42

Descriptions: The City of Bloomington has adopted special Zoning Overlay Districts:

- Planned Development Overlay Zoning Policy to promote creative and efficient use
 of land by providing design flexibility in the application of the provisions of a primary
 zoning district by providing an overlay district within any of the primary zoning
 districts. The planned development provisions are intended to:
 - (1) Protect natural features in private, common or public open space,
 - (2) improve the efficiency of public streets and utilities,
 - (3) Provide transitions in land use in keeping with the character of adjacent land use, or
 - (4) Improve the arrangement of structures, facilities and amenities on a site for both private and public benefit.
- Flood Hazard Overlay District is established to protect the public health, safety, and general welfare; to minimize the extent of floods and flood losses; to assure the appropriate use of land; to regulate uses which are dangerous to health, safety and property in time of flooding or which cause excessive increases in flood heights and velocities; and to provide an overlay zoning district within any of the primary zoning districts.
- Bluff Protection Overlay District is established to create regulations, which will permit
 reasonable use of the existing, detached single home sites on the bluff and
 appropriate development of new detached single family homes while protecting the
 essential features of the bluff.

Measurable Goals: Acres of Overlay Districts

Implementation Schedule: March 10, 2003

Responsible Departments: Community Development

Planning Division Planning Manager Bob Hawbaker (952) 563-8922

Other Department Involvement: Building & Inspections Division

Budget: \$5000.00 annually

Permit Section: V.G.5

Minimum Control Measure: Post Construction Runoff Control

Title: Storm Runoff Rate Control Regulatory Mechanism

BMP Number: 43

Description: Proposed developments must control the post-construction runoff rate to level equal or below pre-construction rates. This can be accomplished by implementing BMPs, decreasing the impervious surface or other methods as approved by the City Engineer.

Currently this requirement exists in the Comprehensive Surface Water Management Plan and is implemented through Development Plan Review.

Measurable Goals: Regulatory Mechanism/CSWMP

Implementation Schedule: 2005

Responsible Department: Public Works

Engineering Division

City Engineer Shelly Pederson 952-563-4866

Other Department Involvement: Legal

Budget: \$1,000.00 annually

Permit Section: V.G.5

Minimum Control Measure: Post Construction Runoff Control

Title: Goose and waterfowl feeding Policy

BMP Number: 44

Description: The City of Bloomington will review and consider implementing a regulatory mechanism banning the feeding of geese and waterfowl near city park ponds. Reducing goose congestion near the water could reduce nutrient loading, shoreline erosion, and soil compaction that occur from attracting geese with feedings. The city will monitor the success of other city's feeding bans prior to adopting a regulatory mechanism.

Measurable Goals: Regulatory Mechanism

Implementation Schedule: 2006

Responsible Department: Public Works

Maintenance Division Education Coordinator

Jean Buckley 952-563-8751

Other Department Involvement: Community Development

Planning Division
Maintenance Division
Legal Department

Budget: \$5000.00 for review and implementation of regulatory mechanism

Permit Section: V.G.6

Minimum Control Measure: Pollution Prevention/Good Housekeeping

Title: Street Sweeping Program

BMP Number: 45

Description: The City of Bloomington will continue to sweep the city streets each spring, starting with areas that directly impact prioritized water bodies. The 2004 budget planned for an additional fall sweeping of the entire city street system.

Street sweeping is intended to remove sediment and debris that can enter the storm sewer system and local water bodies, thereby reducing the pollutant loading from street runoff.

Measurable Goals: Number of miles of street swept

Implementation Schedule: On-going

Responsible Department: Public Works

Maintenance Division

Maintenance Superintendent

Larry Tschida 952-563-8771

Budget: \$300,000.00 in 2003

\$500,000.00 in 2004 \$550,000.00 in 2005 \$570,000.00 in 2006

^{*} Future budgets to be determined by the Public Works Director

Permit Section: V.G.6

Minimum Control Measure: Pollution Prevention/Good Housekeeping

Title: Metro Area Water Resources Meetings

BMP Number: 46

Description: The City of Bloomington's Engineering Division routinely meets with other water resources staff from neighboring local governments and agencies to discuss storm water impact issues and accomplishments.

Currently the meetings are coordinated by the City of Eden Prairie on approximately a monthly basis. Topics are suggested and often guest speakers and/or presenters are invited.

The meetings have proven to be very valuable in learning about the types of successful water resources projects and public education activities.

Measurable Goals: Number of meetings attended by City Staff

Meeting notes

Implementation Schedule: 2003

Responsible Department: Public Works

Engineering Division

City Engineer Shelly Pederson 952-563-4866

Other Department Involvement: The Engineering Division will continue to meet with other water resource staff members of neighboring municipalities to share information and possibly resources.

Budget: \$500.00 annually

Permit Section: V.G.6

Minimum Control Measure: Pollution Prevention/Good Housekeeping

Title: Records Retention

BMP Number: 47

Description: The City of Bloomington will retain records of inspection activities and results, and other pertinent information as required in Part V.G.6.b.7 and Part VI.B of the permit. These records will be reported and summarized in the Annual Report.

Measurable Goals: Annual Report

Permanent Records Location

Implementation Schedule: March 10, 2004

Responsible Department: Public Works

Engineering Division

City Engineer Shelly Pederson 952-563-4866

Budget: \$5,000.00 annually

Permit Sections: V.G.5,6

Minimum Control Measures: Post Construction Runoff Control

Pollution Prevention/Good Housekeeping

Title: Residential Street Policy

BMP Number: 48

Description: The City of Bloomington has a Policy on Residential Street Construction. Policy S-B-1 addresses standard street widths, resulting in a reduction in impervious surface from past street width practices, which will reduce the amount of storm water runoff. The previous standard street width was 36 feet curb face to curb face, the new policy allows for varying widths from 28 feet to 32 feet depending on existing conditions and traffic considerations. Variances from this policy may occur to accommodate substantial existing infrastructure or by the direction of the City Council.

Measurable Goals: Miles of street constructed

Implementation Schedule: March 10, 2003

Responsible Department: Public Works

Engineering Division

City Engineer Shelly Pederson 952-563-4866

Budget: N/A