

SECTION V ENVIRONMENT

ENVIRONMENT

The City of Bloomington is approximately 38 square miles in size located in the southeast corner of Hennepin County with a population of approximately 85,172 residents. The City is bounded by interstate 494 to the north, the Minnesota River to the east and south, and T.H.169 to the west. The City is fully developed but will continue to grow through redevelopment. The land use of Bloomington is a well balanced mix of residential, commercial, and industrial uses, with almost one-third of the city reserved for conservation and recreation uses.

The City of Bloomington is the owner of a municipal separate storm sewer system (MS4) within an urbanized area as defined by Bureau of the Census. There are approximately 250 miles of storm sewer mainline pipe, 4400 storm sewer manholes, 7700 storm sewer surface water inlets, and over 300 ponds/wetland/lakes. In addition, there are numerous structural storm water pollution prevention devices.

The Department of Public Works is the responsible department of the City of Bloomington in charge of managing the NPDES Phase II Permit application process. Coverage was originally obtained on March 10, 2003 and the new application was submitted by the June 1, 2006 deadline incorporating this Storm Water Pollution Prevention Program (SWPPP).

GUIDE PLAN PROCESS

In 2002, the League of Minnesota Cities developed the NPDES Phase II MS4 Guide Plan intended to be utilized by participating municipalities in development of their MS4 permit and SWPPP. The City of Bloomington followed the procedures and methods outlined in the Guide Plan to develop the Permit Application and SWPPP. Representatives from the Public Works Department attended a workshop sponsored by the LMC explaining the Permit structure and guidance material.

Step 1: Self-Assessment

The City of Bloomington has already undertaken many water quality related projects and public education efforts. Based on the success of these past efforts, Public Works felt that the City staff, administration, and public would support and understand the unique organizational and watershed characteristics to meet the requirements of the permit to the Maximum Extent Practicable (MEP) standard as defined.

Initially the Public Works Department distributed a questionnaire and self-assessment survey to all the departments and divisions whose operations fall under one or more component of the Permit. The self-assessment was designed to evaluate the City's conditions, needs, practices, and attitudes regarding storm water. The goal of the survey was to provide a knowledge base upon which to structure the SWPPP to meet the Permit's standard of MEP.

The self-assessment process was guided by materials included in the LMC Phase II MS4 Guide Plan. This self-assessment procedure had two major components:

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1. A workshop session organized as part of the LMC Guide Plan project which included a self-assessment component with a discussion of physical and socio-political watershed and organizational conditions, review of example cities to demonstrate how local conditions should shape BMP and measurable goal selection, and exercises in which City staff considered local conditions for the City of Bloomington.
2. City staff worked with the LMC Guide Plan and Program Assessment Questionnaire to guide staff through the self-assessment activity, including consideration of a wide range of storm water approaches.

These items identified the components of Bloomington's storm water system and the conditions that affect it. The results of the self-assessment process guided the selection of BMPs and measurable goals that make up the SWPPP and Permit Application.

The questionnaires and self-assessment surveys distributed can be found in the City's Water Resources Library located at Public Works.

Step 2: Develop a List of Existing BMPs

Step 2 involved the creation of the list of existing storm water BMPs currently utilized by the City of Bloomington. Using the self-assessment survey results and knowledge of existing programs, a list of existing storm water BMPs was developed.

Step 3: Review Existing Ordinances

The City currently has ordinances and/or regulatory mechanisms in place to address the three essential ordinance/regulatory mechanism requirements outlined in the Permit. After initial review, it was determined that these ordinances satisfy the Permit requirements, however will be reviewed in depth to understand the level of potential modification necessary to ensure performance. A schedule of this review is located within the BMP section of this SWPPP.

Step 4: Select Appropriate BMPs

Section 8 of the LMC Guideplan along with the results of the City's self-assessment were utilized to develop a list of appropriate BMPs needed for the SWPPP. The list included existing and proposed BMPs and organized them onto

Step 5: Assemble SWPPP

The lists of existing and proposed BMPs were used to complete the BMP Summary Sheets. This summary organizes existing and proposed BMPs and arranges them by minimum control measure. Many BMPs address multiple minimum control measures and are therefore may be referenced more than once.

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Step 6: Determine Appropriate Measurable Goals

In order to be in compliance with the General Permit, each BMP is to have one or more identified measurable goals. The EPA and MPCA both consider measurable goals a critical element of the General Permit. In the annual report, success of the SWPPP and individual BMPs implemented will be determined by reporting on the measurable goals listed for each BMP. Measurable goals for each BMP are outlined in the individual BMP pages and referenced in the BMP Summary Sheets. Many of the measurable goals are numeric in nature in the form of counting practices representing the number of times a BMP is performed, constructed, or installed. Some measurable goals represent an incremental completion of a large scope task such as inspecting 20% of outfalls annually. Still other measurable goals are simply the act of performing the BMP.

Step 7: Consider how to Fill Remaining Gaps

Once BMPs and measurable goals were determined for each minimum control measure, Section 8 of the guide plan and the General Permit were reviewed to fill in any remaining gaps to meet the permit requirements. These requirements are addressed either in the body of the SWPPP or as additional BMPs.

Step 8: Finalize Permit Application Form and SWPPP

A formal application was provided by the MPCA and was completed in conjunction with this SWPPP by June 1, 2006. The application and a summary of the SWPPP serves as the notice of intent for the City of Bloomington to obtain coverage under General Permit MN R 040000.

Based on the above process, Public Works has considered the following factors in order to meet the Maximum Extent Practicable standard as defined:

- Sources of pollutants
- Potentially polluting activities occurring in the watershed
- Sensitivity of receiving waters
- Uses of receiving waters
- Local concerns
- Size of community
- Climate
- Implementation schedules
- Budget
- Hydrology
- Geology
- Operation and maintenance resources
- Land uses
- Development and redevelopment
- Characteristics of the watershed
- Organization characteristics of the City of Bloomington

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In concurrence with the self-assessment process, staff also considered the following non-storm water discharges to determine whether they should be identified as significant contributors of pollutants to the storm water system:

- Water line flushing
- Landscape irrigation
- Diverted stream flows
- Rising ground water
- Uncontaminated ground water infiltration
- Uncontaminated pumped ground water
- Discharges from potable water sources
- Foundation drains
- Air conditioning condensation
- Irrigation water
- Springs
- Water from crawl space/basement pumps
- Footing drains
- Lawn watering
- Individual residential car washing
- Flows from riparian habitats and wetlands
- Dechlorinated swimming pool discharges
- Street wash water
- Discharge or flows from fire fighting activities

During this process, the City of Bloomington did not find any of the additional referenced non-storm water discharges listed above to be significant contributors of pollutants to the storm water system.

FIGURE V-1

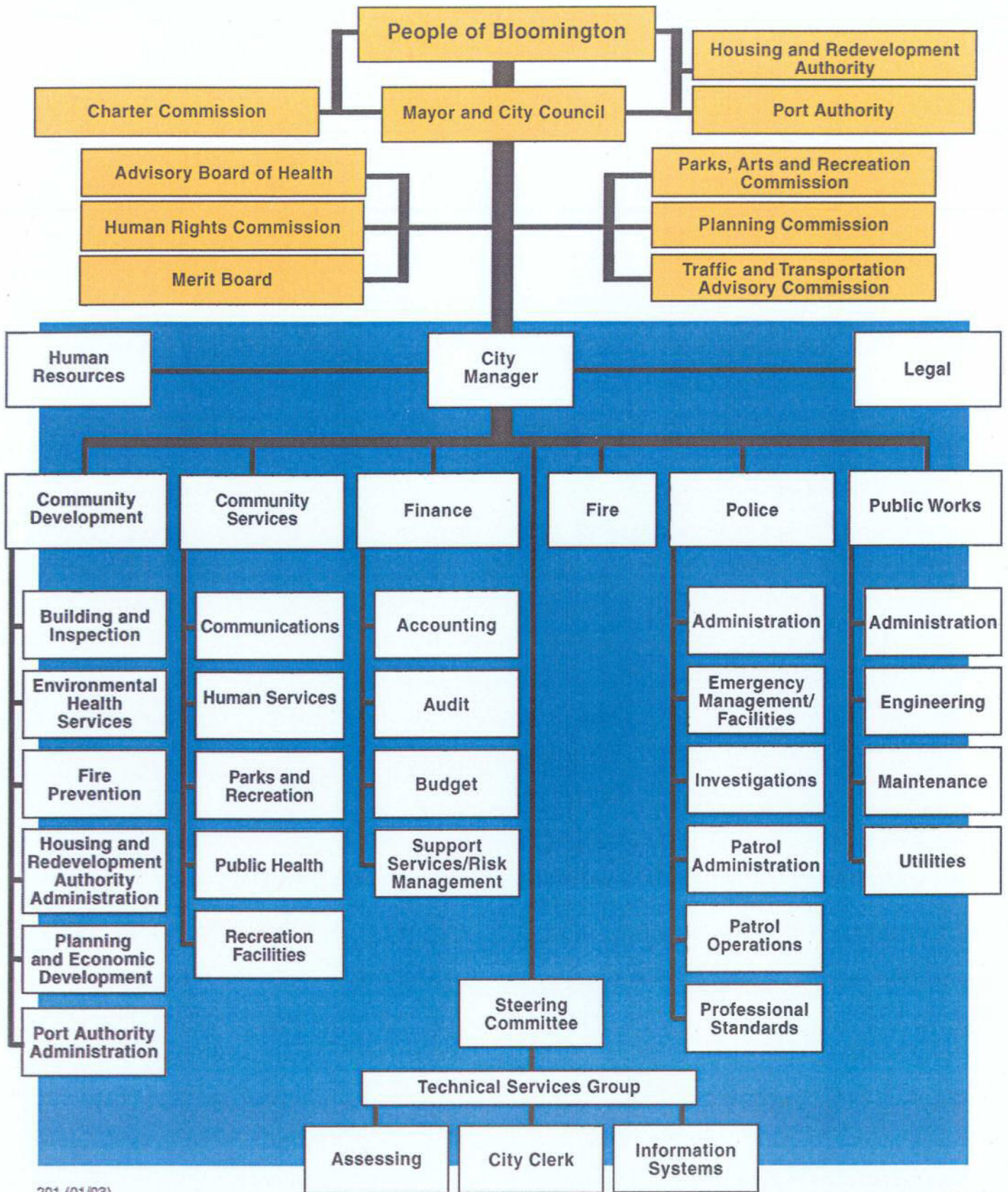
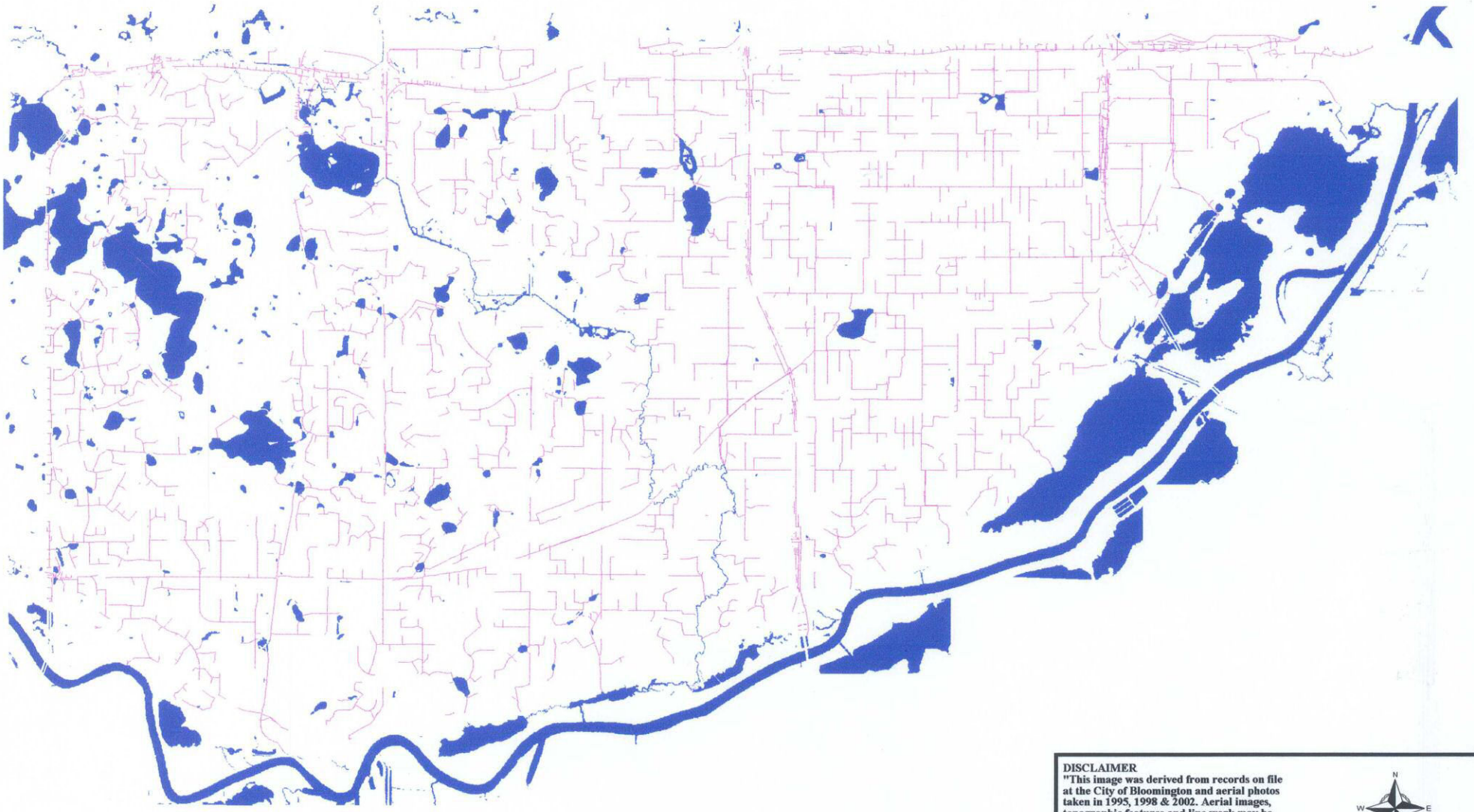


FIGURE V-2

CITY OF BLOOMINGTON MS4



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1" = 5333'

0' 1000' 2000' 3000' 4000' 5000/6000'

