

Additional Comments to the 2004 Small Municipal Separate Storm Sewer Systems (MS4) Annual Report

1 – Public Education Program

1f) Thirty days before our annual meeting was at a point that classes were not in session. As a University, advertising in a local paper when students are gone would be ineffective. We chose to send the 30 day notice out by our intercampus business announce email system that goes to all staff and faculty. After the students returned we announced our meeting via the local papers and campus radio.

12/21/04 UMD.business.announce - notice of 1/26/05 mtg.

1/21/05 UMD.business.announce - notice of 1/26/05 mtg.

1/23/05 Budgeter News - notice of 1/26/05 mtg.

1/24/05 Duluth News Tribune - Story and notice of 1/26/05 mtg.

1/26/05 KUMD Radio and KDAL Radio - Story and notice of 1/26/05 mtg.

After the meeting news stories were carried on WDIO TV and KDLH TV.

1g) The University of Minnesota Duluth has extensive storm water educational impact through our connection with MN Sea Grant and NRRI's Center for Water and the Environment. Their contributions through the Duluth streams project can be seen on the Duluth Streams Project report (pages 27-30) at <http://duluthstreams.org/general/EPADuluthStreamsFinalTechReport12-30-04.pdf>

Educational contributions not associated with the Regional Stormwater Protection Team or duluthstreams.org are attached at the end of this report.

1h) Specific control measure education

- 1) See 1g for public education program specifics
- 2) We have encouraged public participation through our annual meeting and specifically in our Litter control campaign (UMD BMP's 104/609)
- 3) We have purchased several concrete stamps that read "No Dumping Leads to Lake". Starting spring 2005 we will be asking our contractors to stamp the fresh concrete adjacent to new curb catch basins.
- 4) Our project managers are to be trained yearly on storm water management. Staff is available to discuss requirements and problems as they are found in the field. Our website (http://www.d.umn.edu/outreach/stormwater/construction_runoff.html) also has helpful tips for construction storm water management and we review all construction SWPPPs prior to their submittal to the MPCA.
- 5) We teamed up with other members of the Regional Stormwater Protection Team to develop a contractor training seminar. All of our current large project (+1 acre) designers had a representative at this training. Our website also has helpful tips for post-construction storm water management and we review all construction SWPPPs prior to their submittal to the MPCA.
- 6) Through individual and group instruction and the use of our web page (<http://www.d.umn.edu/outreach/stormwater/>), we are training our employees to be more conscientious about storm water issues. We keep current copies of all BMP's on our website for employee reference.

2 – Annual Meeting / Public Participation

2d) We had 52 participants at our annual meeting, including two radio interviews and two television interviews. Of those who signed our attendance roster, there were 14 students, 20 university faculty/staff, and 5 neighbors of the campus. Most were interested in a large rain garden that we are designing for one of our large parking lots. There were 9 verbal questions/comments brought up at the end of the meeting and we have received no written questions or complaints. Most of the questions related to our pollution prevention / good housekeeping BMPs and have been or will be covered in our existing BMP's. Many dealt with walking the fine line between storm water protection and aesthetics / safety issues. There were no comments made during the Annual Meeting that necessitated a modification to the SWPPP. A summary of the questions asked and their responses are available by contacting UMD Facilities Management, 1049 University Drive - Room 241, Duluth, MN 55812. A copy of the power point presentation given at the meeting is available on our website (<http://www.d.umn.edu/outreach/stormwater/>).

3 – Illicit Discharge Detection and Elimination

3a) We have existing utility maps for all of our properties located within our MS4 boundaries. We update these maps as soon as possible after a project is completed and are systematically reviewing them for accuracy.

3b) The University of Minnesota Standards and Procedures for Construction and the UM Board of Regents Pollution Prevention and Waste Abatement policy are the University's mechanisms to prohibit non-storm water discharges from our storm sewer systems.

3c) This year we tested 23 elevator pit drains to see if they were connected to the sanitary or the storm sewer systems. We thought that these pit drains had the greatest potential for an illicit release into our system. Based on this testing we are making a multi-year plan to disconnect those that are still connected to the storm water system. Three corrections are currently under design and should be completed this spring.

3d) We have purchased several concrete stamps that read "No Dumping Leads to Lake". Starting spring 2005 we will be asking our contractors to stamp the fresh concrete adjacent to new curb catch basins. We are a charter member of the Regional Stormwater Protection Team which is airing TV and radio ads on what shouldn't go down a storm drain. (See <http://duluthstreams.org/stormwater/watershedMoments.html>).

3e) We do not believe that any of these discharges would be considered illicit. However, we are in the process of mapping all of our ground water sump pumps and if there is any reason to believe that there might be contaminants in the water we will be testing the discharge water.

4 – Construction Site Stormwater Runoff Control

4a) The University of Minnesota Standards and Procedures for Construction dictates construction requirements on all U of M properties. Instituting MS4 sanctions against the owner to ensure compliance is not appropriate as the University is both MS4 and owner.

- 4b) There are on-going talks within the University as to how to enact / enforce sanctions against one of our contractors if they are not following the project's SWPPP. This has not been determined at this time.
- 4c) Requirements for waste control on construction sites are covered in individual project SWPPP's.
- 4d) All project SWPPP's are prepared by the Engineer / Architect project design team (usually the Civil Engineering group) and are reviewed and approved by the U of M Department of Environmental Health and Safety prior to being sent to the MPCA.
- 4e) Reports of non-compliance are submitted to Facilities Management or the Department of Environmental Health and Safety per UMD 603 or on our Storm water web site (<http://www.d.umn.edu/outreach/stormwater/hotline.html>). We only had one public complaint last year (regarding mud tracking) and it was relayed through the City of Duluth's Storm Water Utility. The Project Manager was notified, who contacted the Contractor, who cleaned up the mud. There were additional problems found by our project management group that were dealt with by talking to the appropriate supervisor, project manager, or contractor. Typical problems addressed included; dumping mop water outside, washing plaster / concrete tools by catch basins, discharging construction water into catch basins or curbs, and mud tracking on streets from small (less than 1 acre) construction sites.
- 4f) Our contractors are required to inspect their site per MPCA requirements. We have developed an inspection form they can use, or they can develop their own. These inspections are reviewed at the project's progress meetings by the project managers and if a problem arises, the project manager can ask for assistance from UMD Facilities Management Engineering Support Services or the U of M Department of Environmental Health and Safety.

5 – Post-construction Stormwater Management in New Development and Redevelopment

The University of Minnesota Standards and Procedures for Construction dictates construction requirements on all U of M properties. As a non-traditional MS4, we end up being both MS4 and owner. All project SWPPP's are prepared by the project design team (usually the Civil Engineering group) and are approved by the University prior to them being sent to the MPCA. As the owner we are responsible for long term operation and maintenance. This year we created a draft flow chart to help determine when SWPPP's and when post-construction are required.

6 – Pollution Prevention / Good Housekeeping for Municipal Operations

- 6a) This year we worked on UMD BMP's:
 - 602 Pond Maintenance / Cleaning – Develop / implement maintenance plan
 - 603 Sewer Dyes – Develop reporting procedure for unusual materials in streams
 - 604 Fertilizer / Pesticide Handling and Application - Develop / implement procedure
 - 605 Integrated Turf Management – Review and make recommendations
 - 613 Particulate Storage – Develop guidelines for landscape particulate storage
 - 616 Street / Parking Lot Sweeping - Review and make recommendations
 - 618 Fueling System Spill Protection - Training
 Additional documentation regarding these BMP's can be found on our website (<http://www.d.umn.edu/outreach/stormwater/>).

- 6g) Stormceptor (ST5146) located off Lot M (Installed 2002) was inspected on October 10, 2004 and found to have more sediment than recommended by the manufacturer (8"). It was cleaned on January 12, 2005. A new stormceptor (ST1630) was installed on Lot P this spring, during its inspection on October 10, 2004 it was found that the City of Duluth storm sewer downstream of the stormceptor was blocked flooding the stormceptor. The City of Duluth was called to clean the line, but it is unknown if they completed the work prior to freeze up.
- 6h5) Last year we inspected 30 of our 60 outfalls / ponds. To date we have inspected 68% of our known outfalls so we are still well over the 40% inspected by year two goal of the permit.
- 6h6) There were no major problems associated with our outfalls inspected this year that are under our control. Stormceptor ST1630 is both a structural pollution control device and a university outfall. As mentioned in 6g the city was notified of a problem downstream of ST1630. Individual inspection reports are available by contacting UMD Facilities Management, 1049 University Drive - Room 241, Duluth, MN 55812.

7 – Additional SWPPP Issues

7b) UMD 301 – Mapping Storm Water System

The wetland map originally slated for completion in 2003 and then postponed in favor of the Glensheen map, was not completed again this year due to lack of funding. Instead the Limnology map slated for 2005 was completed. We have received funding to complete the wetland study in this upcoming financial year.

UMD 302 – Illicit Connection Detection

We mapped the known locations for MPCA reported sites on campus, but did not compare to the sump / drain tile locations. While we have mapped greater than 40% of our known drain tile lines, we have not mapped the sump locations. We plan to complete the drain tile and sump location mapping in the vicinity of the reported sites in 2005 and make comparisons at that time.

UMD 303 – Non-Storm Water Discharge Prohibition

- This BMP is being handled by the U of M Department of Environmental Health and Safety.
- They determined that modifications to the existing policies were not needed. See comments under 3b, 4a-f.

UMD 401 – Erosion and Sediment Control Policy

- This BMP is being handled by the U of M Department of Environmental Health and Safety.
- The University of Minnesota Standards and Procedures for Construction were not updated this year as originally anticipated.
- Training for managers of large projects (greater than 1 acre) was scheduled on the Twin Cities Campus, but then canceled several times this fall. It has been re-scheduled for March, 2005.

UMD 402 – Construction Standards Improvements

- This BMP is being handled by the U of M Department of Environmental Health and Safety.
- The University of Minnesota Standards and Procedures for Construction were not updated this year as originally anticipated.
- Training for managers of large projects (greater than 1 acre) was scheduled on the Twin Cities Campus, but then canceled several times this fall. It has been re-scheduled for March, 2005.

UMD 502 – Infiltration / Retention / Detention Centers

- The investigation and designs for the modifications in zone 2 and 5 were not completed this year since no bonding bill was passed in the state legislature. This delay will continue to ripple through BMP 502 for the next few years.
- A bio-retention area was constructed this spring to control runoff from the Glensheen parking area.
- The outlet from Rock Pond into the West Branch of Tischer Creek (a designated trout stream) was redesigned this spring as part of another project. The redesigned outlet structure will allow cooler water from the pond bottom to be discharged instead of the warmer surface water.
- A demonstration rain garden was designed to filter the water from a large parking lot in zone 1 and it will be constructed this summer.

UMD 604 – Fertilizer and Pesticide Handling and Application

UMD 605 – Integrated Turf Management

UMD 606 – Landscape Management

UMD 607 – Irrigation Practices

UMD 608 – Integrated Pest Management

As we worked on the implementation of these BMP's we found that they cannot be done separately. We have started developing a campus wide grounds standard that will cover all these areas. These BMPs will be completely redone in the new permit application this fall.

UMD 602 – Pond Maintenance and Cleaning

Training is scheduled for April 2005.

UMD 604 – Fertilizer and Pesticide Handling and Application

Training is scheduled for April 2005.

UMD 605 – Integrated Turf Management

Review complete. Recommendations are waiting the completion of campus wide grounds standards

UMD 609 – Litter Control

The litter control BMP was found to be a much larger project than we originally anticipated. Since litter is such a large nuisance on campus and it is not only limited to storm water problems, a more general approach was taken. A sub-committee of the steering committee was formed and a part-time student intern was hired through MN Sea Grant

to oversee this process. She has researched the problems, talked to several classes, organized earth week litter clean up, completed a student survey, and has focus groups planned for March 2005.

UMD 618 – Fueling System Spill Protection

Informational signs are on order and will be installed this spring.

7c) The University of Minnesota Duluth storm water pollution prevention plan relies on the expertise and oversight of the U of M Department of Environmental Health and Safety on the Twin Cities Campus. While we operate our own steering committee and perform most of our tasks independently, overall permit compliance, design and construction procedures, project SWPPP review, and university wide administrative functions are handled on the Twin Cities Campus of the University of Minnesota. UMD BMP's 303, 401, 402 require action by the central administration in the Twin Cities.

UMD BMP's 101, 103, and 203 rely on cooperation with the Regional Stormwater Protection Team (RSPT). Twenty organizations in both Minnesota and Wisconsin have signed a memorandum of understanding establishing the group. In late 2003, the RSPT received funding through Minnesota's Lake Superior Coastal Program to establish an outreach campaign. In February 2004 the group selected a logo to be used on all information. (UMD 101) The group has to date produced a stormwater brochure and a radio and TV media campaign. Members have jointly participated in events including the Arrowhead Home Show at the Convention Center in Duluth. RSPT also received a grant to prepare and present Best Management Practice Erosion Control Shops for local developers and contractors. The first workshop was held on January 14, 2005 and over 60 people attended. Two other workshops are scheduled. Ultimately the workshop materials will be placed on the www.duluthstreams.org workshop with a long term goal of establishing a course for the regional construction industry on line. (UMD 103) In 2004 the group received two additional grants. One grant to develop a Watershed Festival that is scheduled for June 4, 2005 (UMD 101) and a second grant to regionalize the www.duluthstreams.org web site. www.lakesuperiorstreams.org name has been acquired and new site information should be up shortly. Member organizations have shared their programs allowing the region to take advantage of items prepared by other groups.

7d) There was no change to our restricted waters discharge areas in 2004. For maps and narrative please see plan year 2003 Annual Report or our website at http://www.d.umn.edu/outreach/stormwater/pdfs/Restricted_Waters.pdf