

University of Minnesota Duluth Storm Water Pollution Prevention Program Annual Meeting 4/18/2006 - Summary of Activities for 2006

The mission of the University of Minnesota Duluth storm water pollution prevention program is to reduce, to the maximum extent practicable, the possible negative impacts of the campus on the surrounding watersheds and ultimately the Lake Superior ecosystem.

While UMD has had a Storm Water Pollution Prevention Program (SWPPP) in place since 2003, we were required to submit an updated SWPPP to the Minnesota Pollution Control Agency (MPCA) for approval in 2006. Our SWPPP went out for public comment last fall and was approved by the MPCA. The "new" Storm Water Pollution Prevention Program is at http://www.d.umn.edu/outreach/stormwater/pdfs/UMD_SWPPP_2006.pdf.

UMD's storm water pollution prevention program in 2006 included the following activities and Best Management Practices:

Minimum Control Measure 1: Public Education and Outreach

- Direct contact with students was made through classroom presentations, UMD Rain Garden tours, and by engaging participation in Beautiful U Day litter cleanup events.
- Materials distributed included 450 Rain Garden self-guided tour brochures, 600 RSPT stormwater brochures and 200 UMD Stormwater bookmarks.
- UMD stormwater efforts were acknowledged in numerous reports, articles and presentations, and media. Research opportunities were also provided by the UMD Rain Garden and other campus stormwater features.
- Affected UMD employees and contractors received on-going training specific to stormwater BMP's.
- UMD also supported additional public education and outreach as an active participant in the 25 member Regional Stormwater Protection Team (RSPT).
- RSPT cooperative educational activities included: UMD's Minnesota Sea Grant and Wisconsin Sea Grant *Trips on the Lake*; the Lakes and Rivers Conference stormwater BMP bus tour; a snow and ice control workshop for snow plow operators, TV & Radio spots, Home Show booth, www.lakesuperiorstreams.org and others.
- Storm Water Pollution Prevention Program website - www.d.umn.edu/outreach/stormwater.

Minimum Control Measure 2: Public Involvement and Participation

- For the purpose of the SWPPP, the UMD "public" is defined as employees, students, and contractors that make up the campus community. An annual review meeting is held to invite public comments on our program which will be documented and responded to as appropriate.
- UMD is represented on the Regional Stormwater Protection Team (RSPT), a coalition of 25 local communities and interested agencies jointly promoting stormwater education and addressing shared storm water issues.
- The UMD SWPPP Steering Committee meets quarterly and is made up of members appointed by the Vice Chancellor of Finance and Operations. Members of the UMD community interested in serving should contact that office.
- The 2006 Storm Water Steering Committee included two students, three faculty, two MN Sea Grant educators, six staff, and there were three students hired as storm water interns in 2006.
- Over 260 students participated in Beautiful U Day litter cleanup events.

Minimum Control Measure 3: Illicit Discharge Detection and Elimination

- BARR Engineering completed a wetland study of the UMD Properties in and around Duluth. The study can be found at <http://www.d.umn.edu/fm/Amain/wetlands>
- The storm sewer system for the Natural Resources Research Institute was reviewed and maps were updated.
- Four elevator sump pit drains were disconnected from the storm sewer system. All elevator pit drains have now been disconnected from the storm sewer system.
- We started a review of building sumps and drain tile systems. We should complete the review in 2007.
- We had one report of a possible illicit discharge by Field 5. After water sampling and discussion with a City of Duluth Water Quality Specialist, it was determined that the bright orange color was iron flocculating out of the ground water when it was exposed to the oxygen in the air. The Illicit Discharge Detection and Elimination Guidance Manual published by the Center for Watershed Protection / US EPA, says that Iron Flocc is a reddish orange color often associated with natural sources. It also talks about the reddish cottage cheese looking stuff on the bottom being a bacterial growth indicating high iron concentrations and states that it is not considered an illicit discharge. There are several similar discharge points around Field 5 and in Bagley Nature Area.
- The Department of Environmental Health and Safety (DEHS) has drafted for comment an Administrative Policy on Environmental Management and an associated Administrative Procedure on Storm Water Compliance. Illicit

discharges, spills and dumping are included as part of the Administrative Procedure on Storm Water Compliance. When finalized, the Policy and Procedure will be submitted to the University's Administrative Policy review process for incorporation into the Administrative Policies of the University of Minnesota. If you would a copy of the DRAFT Policy / Procedure to review, contact Andrew Phelan at andyph@umn.edu

Minimum Control Measure 4: Construction Storm Water Runoff Control

- The draft Administrative Policy on Environmental Management and an associated Administrative Procedure on Storm Water Compliance contain information on construction site requirements and controls.
- All Capital Planning Project Managers were trained in construction site and sediment controls by John Chapman from the University's Erosion and Sediment Control certification program in 2006.
- The DEHS continues to review each project for inclusion of proper storm water controls, relating to erosion and soil runoff from construction sites.

Minimum Control Measure 5: Post Construction Storm Water Management

- The draft Administrative Policy on Environmental Management and an associated Administrative Procedure on Storm Water Compliance contain information on post construction run off requirements and controls.
- We inspected the West Branch Tischer Creek to identify areas of erosion problems and areas needing improvement in shade and buffer zone plants. 300 seedlings were planted in the spring of 2006 and more than 500 are planned for the spring of 2007.
- BARR Engineering was hired to investigate and design possible storm water improvements to Eric Clarke and Fire Hall Ponds. Items looked at include storage capacity, temperature control, sediment control, and outlet structure function. The designs should be completed summer 2007.
- BARR Engineering was hired to investigate possible design and sizing requirements for the Oregon Creek watershed portion of campus. The investigation's main goal is looking into volume control for post 1988 construction and Campus Master Plan build out scenarios. The investigation should be completed summer 2007.
- The rain garden's sedimentation trap was cleaned out 4 times this year, yielding 25 cubic feet of material. The grassy swales at Glensheen were repaired due to sedimentation and erosion. There were other areas of minor erosion or sedimentation; these areas will be inspected again in 2007 to determine if repair work is needed.

Minimum Control Measure 6: Pollution Prevention and Good Housekeeping

- 19 loading docks, loading areas, exterior storage areas, and exposed stock piles were inspected. In general, none of those areas pose a significant environmental risk, however, areas should be kept cleaner, unnecessary items properly disposed off, and procedures for handling liquids should be developed.
- All of our structural storm water management features were inspected in 2006 (4 stormcepters, 1 rain garden, 4 sand filters, 1 bio-retention pond, 2 underground storage tanks, 1 attenuation pond).
- Six outfalls, sedimentation basins and ponds were inspected. One outfall was in need of repair and it was repaired.
- We did not look into street sweeping in 2006 as anticipated. Street sweeping requirements will be developed in 2007.
- 26 campus dumpsters were inspected and photographed. RLB dumpster was in poor condition and replaced. 11 new trash receptacles were placed near parking lot entrances.
- Salt mixing and storage procedures were reviewed with grounds staff.
- Eric Clarke, Fire Hall and Rock Ponds were inspected for trash, debris and erosion, trash was removed.
- Landscape management practices were reviewed and campus areas were classified into priority zones.
- General snow storage sites were photographed and large storage sites (areas that snow is trucked to) were identified. They are at St Marie Street / Maplewood Court and north of the Lund Building. Recommended that the area behind Chester Park school area be used for trucked snow storage.

Awards

- Minnesota Pollution Control Agency's Governor's MN GREAT Award (Minnesota Government Reaching Environmental Achievements Together) – Glensheen Storm Water Projects (<http://www.d.umn.edu/outreach/stormwater/glensheen>)
- St. Louis River Citizens Action Committee Environmental Stewardship Award – Storm Water Pollution Prevention Program
- University Of Minnesota Outstanding Service Award – Project Award – Storm Water Pollution Prevention Program

Comments on our program are always welcome at <http://www.d.umn.edu/outreach/stormwater/hotline.html>