

University of Minnesota Duluth Storm Water Pollution Prevention Program (SWPPP) Annual Meeting 4/15/2009 - Summary of Activities for 2008

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. Our written SWPPP is available on-line at <http://www.d.umn.edu/fm/stormwater/downloads.htm>

UMD's 2008 Storm Water Pollution Prevention Program activities and Best Management Practice Update Summary:

Minimum Control Measure 1: Public Education and Outreach

- Environmental Studies and Environmental Education students investigated stormwater as Senior projects, with five remaining as summer interns in Facilities Management.
- Technology in Education class continues to devote a class period each semester to a storm water presentation and Rain Garden tour for future science teachers.
- Environmental Education graduate students were engaged in stormwater issues related to disk golf courses.
- Stormwater related Best Management Practice training materials for UMD employees were prepared for publication.
- UMD SWPPP was presented at a system wide gathering to overview stormwater work on U of M campuses.
- Storm Water Pollution Prevention Program website is being updated: <http://www.d.umn.edu/fm/stormwater>

Brochures / Presentations / Tours:

- The UMD Rain Gardens were enjoyed by many and formally toured by over 200 people in 2008.
- UMD's Landscape Supervisor presented a Rain Garden workshop to MN Extension's Spring Garden program and to two community groups.
- 425 UMD Rain Garden brochures, 250 storm water brochures were distributed.
- Minnesota and Wisconsin Sea Grant discussed stormwater effects on the 2008 Summer Trips on the Lake.

UMD also supported these Regional Stormwater Protection Team education and outreach activities:

- RSPT stormwater Videos had their YouTube debut in March 2008 <http://www.youtube.com/user/LakeSuperiorRSPT>
- UMD's Center for Freshwater Research and Policy published a story on LakeSuperiorStreams.org and R.S.P.T.
- Two Highway billboard displays raised awareness of the Superior Streams Partner Program in March and April 2008.
- WDIO Story on salt + urban runoff effects on Duluth streams - Aired 10PM Tuesday 2/26/08
- Presentations from the University of Minnesota Water Research Center Symposium helped to define Impaired Waters/TMDL research needs.
- UMD and RSPT were well represented at the 3/13/2008, Minnesota Landscape Arboretum conference: Adapting Community Infrastructure to Climate Change: Solutions for Stormwater Management and Community Forests.
- Twenty-Two people attended "From Sumps to Storms - Tips for Managing Excess Water on Your Property" Engwalls partnered with RSPT on May 18, 2008 as part of their Spring seminar series.
- Initial meetings and surveys were done in Spring 2008 for the Lakeside Stormwater Reduction Project near west branch of Amity Creek as part of a Paired Neighborhoods grant.
- Workshops on Erosion and Sediment Control for small sites and Correct Application of Salt/Sand were well attended.
- Duluth Home Show booth demonstrated stormwater features and literature in April 2008.
- Site design toolkit at www.lakesuperiorstreams.org website sponsored by Natural Resources Research Institute, Sea Grant College, University of Minnesota - Duluth and City of Duluth Stormwater Utility was updated.
- *LakeSuperiorStreams continues to grow and peak in May and October every year, presumably in part due to student/teacher usage cycles. Overall website activity in 2008 totaled 5.27 million requests (similar to "hits") and 1.21 million page requests (i.e. webpages downloaded) See more at: <http://www.lakesuperiorstreams.org>*

Minimum Control Measure 2: Public Involvement and Participation

- The SWPPP defines the UMD "public" as employees, students, and contractors that make up the campus community
- April 18, 2008 Annual Meeting invited public comments which were documented and responded to.
- UMD representatives were actively involved in the Regional Stormwater Protection Team (RSPT), a coalition of 26 local communities and interested agencies jointly addressing stormwater education and technical stormwater support.
- The UMD SWPPP Steering Committee met three times in 2008 and participated in multiple email discussions and document reviews.
- The 2008 to 2010 Storm Water Steering Committee was appointed by the Vice Chancellor of Finance and Operations and includes: one student, three faculty, two MN Sea Grant educators, six staff. Five students were also hired as storm water interns in 2008.
- Facilities Management provided supplies and disposal for Student Association Better Neighbors Spring clean-up.
- Over 200 students participated in Better Neighbors, Beautiful U Day and Earth Day litter cleanup events

Minimum Control Measure 3: Illicit Discharge Detection and Elimination

- We had one report of a tipped portable toilet and one report of discharged fire extinguishers, neither resulted in an illicit discharge. We did have some informal discussions with others about what is appropriate to put in a storm sewer.
- The Department of Environmental Health and Safety (DEHS) completed the Environmental Management Policy (http://policy.umn.edu/groups/ppd/documents/Policy/Environmental_pol.cfm) and Water Compliance Procedure (http://policy.umn.edu/groups/ppd/documents/procedure/environmental_proc01.cfm). Illicit discharges, spills and dumping are included as part of the Environmental Management Policy and Storm Water Compliance Procedure.
- We continued the review of building sumps, drain tile and sanitary systems to verify that we have no storm water discharges connected to the sanitary system. Storm sewer discharges to sanitary systems contribute to sanitary overflows during wet weather.
- We repaired several broken and cracked storm sewer and sanitary pipes. Broken and cracked sewer pipes allow infiltration and can contribute to sanitary overflows during wet weather. We will be lining over 2500 feet of sanitary pipe in 2009 to eliminate additional infiltration.

Minimum Control Measure 4: Construction Storm Water Runoff Control

- Requirements for construction site erosion and sediment controls and environmental compliance are included in the Environmental Management Policy (http://policy.umn.edu/groups/ppd/documents/Policy/Environmental_pol.cfm) and Water Compliance Procedure (http://policy.umn.edu/groups/ppd/documents/procedure/environmental_proc01.cfm).
- 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

- Requirements for post construction run off control and environmental compliance are included in the Environmental Management Policy (http://policy.umn.edu/groups/ppd/documents/Policy/Environmental_pol.cfm) and Water Compliance Procedure (http://policy.umn.edu/groups/ppd/documents/procedure/environmental_proc01.cfm).
- Storm water improvements for Eric Clarke and Fire Hall Ponds were funded by DEHS in 2008 and the project is currently under construction.
- Student intern reviewed tree cover on the main portion of campus. He found that about 90 of the 250 acres are covered by tree canopy. This is about 36% coverage.
- We developed a Tree Preservation, Protection and Planting BMP. The BMP address what replacement is necessary if a tree is removed, how to protect trees from construction equipment, and things to consider when planting a tree.
- Reconstruction of the walls along Oregon Creek at RLB has been put on hold due to high cost.

Minimum Control Measure 6: Pollution Prevention and Good Housekeeping

- All of our structural storm water management features were inspected in 2008 (19 - 6 sand filters, 5 rain gardens, 4 stormceptors , 2 underground storage tanks, 1 bio-retention pond, 1 attenuation pond). None of the inspections found issues that were a significant threat to the environment, however, five devices were outside of their original design parameters and nine had minor issues that may decrease their useful life or effectiveness. We are still determining which of these items will be repaired and which will be watched for another year.
- Sixteen outfalls were inspected at Glensheen. None of the inspections found issues that were a significant threat to the environment mainly because of the small size of the outfalls. Three outfalls showed some erosion and three more have erosion potential in the near future. We are still determining which of these items will be repaired.
- The rain garden's sedimentation trap was cleaned out 3 times this year, yielding .7 cubic yards of material.
- All campus dumpsters were inspected in 2008.
- Student intern requested information from 16 municipalities and universities on their street sweeping practices. There were no responses. We will continue to look into street sweeping practices in 2009.
- Student intern reviewed loading docks, loading areas, exterior storage areas, and exposed stock piles with responsible persons for each site. Student developed draft educational signage and BMP, work to continue in 2009.
- 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.
- Roof top weed control practices were reviewed. Currently no herbicides are used. Still working on formal BMP.
- Vehicle and equipment washing practices were reviewed. Still working on formal BMP.

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

UMD Stormwater Pollution Prevention Program Steering Committee:

Rich Axler, Tim Bates, Peggy Dahlberg, Mindy Granley, Cindy Hagley, Mahjoub Labyad, Erik Larson, Cheryl Love, Candice Richards, David Schimpf, Jesse Schomberg, Judith Trolander, Zandy Zweibel