In accordance with Part I, Section C.1.c of NPDES Permit MI0053902, the University of Michigan (University) is required to submit a mid-year report describing the status of compliance with permit conditions associated with the storm water management program. This program is a requirement of the National Pollutant Discharge Elimination System (NPDES) permit issued by the Michigan Department of Environmental Quality (MDEQ) Surface Water Quality Division on October 1, 2001. This report covers the period July 1, 2011 through December 31, 2011 and follows the format identified in the permit.

1. Describe the status of compliance with the permit conditions

The University of Michigan is in compliance with the Storm Water Management Program Plan (SWMPP) for the Ann Arbor, Dearborn (UMD), and Flint (UMF) campuses, as revised in May 2010 and approved by MDEQ on June 2, 2010. The University is also continuing to implement the approved post-construction storm water management requirements outlined in the Storm Water Management – Post-Construction Requirements Guideline (EP3-001). UM submitted a permit renewal request to MDEQ in accordance with the permit, prior to April 1, 2006 and is awaiting reissuance of a NPDES permit.

2. Provide a report of illicit discharges and illicit connections removed.

The following potential illicit discharges were identified during this reporting period:

- **UM-Dearborn** performed dry weather screening on a total of 186 structures (130 catch basins, 54 manholes, and 2 garden drains) out of a total of 304 structures. There were no illicit discharges observed during this evaluation. The remaining 118 structures are scheduled to be dry weather screened before June 30th, 2012, weather permitting.
- **Dye testing** was completed by UM at the following buildings during this reporting period: Cook Law Library (MH-1); East Quad (MH-3); and East Hall (MH-7). All discharges were confirmed to the sanitary sewer. Dye testing was also completed by UM projects and/or the UM Plumbing Shop at Couzens, Pierpont Commons, Taubman, Tennis Center, Track & Tennis, Hutchins Hall, GG Brown, Lay Auto Lab, Cook Legal Research, Crisler, N. Campus Diag area, Law School, School of Education, Thompson Parking Structure, and the N. Campus Services Building during this reporting period. No cross-connections were identified during these testing events.
- **Northwood – 1613 Beal** - Dye testing prior to renovation work planning identified boiler room drains flow into a sump which discharges into the storm water system. This item has been referred to AEC & the Plumbing Shop to determine the necessary correction. If possible this repair will be incorporated into the upcoming boiler replacement project.

The following illicit connections are under further investigation.

- **Naval Architecture & Marine Engineering** – A potential issue was identified by AEC. Floor drains in a 1960 drawing of the building appear to be routed to the storm system. No discharge is occurring to these floor drains.
- **School of Public Health 2** – Plumbing Shop manager reported that chiller machine discharge routed to floor drains in the basement may tie into the storm sump for the building.
The following illicit connections have been addressed:

- **Alice Lloyd** – During investigation of a cross connection reported by the City, UM identified flow coming from this building’s mechanical room floor drains. The correction of this condition has been referred to Architecture, Engineering & Construction (AEC) for inclusion in the upcoming building renovation estimated for 2011/12.
- **Yost Arena** – Several floor drains were identified as connected to the storm water system during dye testing. The correction of these floor drains to discharge to the sanitary sewer system has been referred to the design team for inclusion in the upcoming building renovation estimated for 2012/13.

3. **Assess BMP appropriateness and progress toward goals identified in the SWMP.**
   
   Note: (Excerpts from the SWMPP are shown in italics.)

   a. **Total Maximum Daily Loads (TMDL)**

   The UM participates in TMDL reduction efforts throughout the permit cycle for Total Phosphorus – Ford & Belleville Lakes; E.coli – Geddes Pond; Biota – Malletts Creek; E.coli – Rouge River; and Biota – Rouge River.

   **TMDL -1. Major Discharge Points**

   Measurable Goal: Review existing outfalls to identify major discharge points discharging directly to surface waters of the state within the portion of the TMDL. Major discharge points are pipes or open conveyances measuring 36 inches or more at its widest cross section.
Actions during the reporting period:
UM-Ann Arbor has identified three major discharge points within TMDL reaches. O-41, O-47R and O-127 discharge directly into Millers Creek. UM-Dearborn has identified 2 major discharge points which discharge directly into the Rouge River. UM-Flint is not currently in the TMDL program.

TMDL -2. Sampling Major Discharge Points
Measurable Goal: By April 15, 2012, UM will take samples of at least 50% of the major discharge points within the portion of the TMDL watershed in the urbanized area. At a minimum, these samples will be analyzed for the applicable TMDL parameter (E. coli or total phosphorus). The sampling results will be retained and reported in the second progress report.

Actions during the reporting period:
UM-Dearborn sampled 50% of the major discharges on November 22, 2011. There were no high readings of E. coli. See attached report.

TMDL -3. Action Plan to Reduce TMDL Discharges
Measurable Goal: By October 1, 2013, sampling results and other available information will be reviewed. A plan will be developed to reduce the discharge of the applicable TMDL parameter (E. coli or total phosphorus). These prioritized actions will be reported in the second progress report with implementation targeted during the 5-year permit cycle that begins 2013.

Actions during the reporting period:
No activity during this reporting period.

b. Public Education Program (PEP) – Education and Outreach on Storm Water Impacts
Recognizing the need for public involvement in the effort to reduce storm water pollutants, the UM has developed a broad and aggressive storm water education and outreach program. This multi-faceted program is closely connected to the UM’s pollution prevention (P2) program and its many initiatives. Specifically, the storm water education curriculum is designed to promote, publicize, and facilitate watershed education while encouraging the P2 practices developed under the UM’s environmental stewardship agenda. The intended audience for the program is all persons associated with the University who could potentially affect the quality of storm water discharges, including, but not limited to: campus residents; University faculty, staff, and students; visitors to the campus; contractors and vendors working on the campus; and commercial and industrial operations on campus. UM’s overall goal for the PEP is to bring awareness of storm water issues to 70% of the University community by the end of 2013. Levels of storm water awareness are anticipated to vary widely among the different community groups, with more emphasis given to key staff having greater potential to impact storm water quality during their day-to-day work activities. The remainder of the University community is targeted through other means, such as brochures, posters, websites, storm drain markers, PSAs, etc.

The following is a description of each of the public education topics identified in the permit, to be included as appropriate, based on the potential impact on the receiving waters:

- Educate the public of hazards associated with illicit discharges and improper disposal of waste. Part of this education is to encourage public reporting of the presence of illicit discharges or improper disposal of materials into the UM drainage system.
- Educate the public concerning the water body that would be potentially impacted by improper actions at or near a person’s home.
Educate the public on the availability, location and requirements for household hazardous waste disposal, travel trailer sanitary wastes, chemicals, grass clippings, leaf litter, animal wastes and motor vehicle fluids.

Educate the public regarding acceptable application and disposal of pesticides, herbicides, and fertilizers, including the use of phosphorus-free fertilizer alternatives, as appropriate.

Educate the public on preferred car cleaning agents and procedures for noncommercial car washing.

Educate property owners with a septic system on proper maintenance and how to recognize system failure.

Educate riparian land owners of management of lands to protect water quality.

Educate the public about their responsibilities and stewardship of their watershed.

Educate the public on the benefits of using native vegetation instead of non-native vegetation.

Educate commercial and institutional entities likely to have significant storm water impacts. (At a minimum, commercial food services shall be educated to prevent grease and litter discharges to the MS4).

The following BMPs are used to meet the requirements of Part I, Section A.5 of the University of Michigan’s NPDES Permit for the Public Education Program (PEP):

**PEP -1. Storm Water Education Brochures**

In cooperation with the UM School of Natural Resources and Environment (SNRE), the UM Department of Occupational Safety and Environmental Health (OSEH) developed a series of brochures to assist various members of the University community in preventing storm water pollution on campus. The brochures have been designed to meet the overall program objectives for specific audiences.

**Measurable Goal:** Review existing brochures and update as needed. Create additional brochures, tip cards, posters, etc. as new needs are identified. The number of new or revised brochures, flyers or other educational media created will be tracked for inclusion in the progress reports. Copies of brochures (and other handouts/postings) will be kept on file.

**Actions during the reporting period:**

UM-A2 revised the Ann Arbor Football Stadium vendors posters for the 2011-12 season. Updates to 4 storm water brochures were also completed for: Students, Faculty & Staff, Vendors and Film Projects.

“Protect the Flint River – Only Rain in the Drain” flyers, October 2010. This is a UM-Flint Campus specific flyers that provide information to Faculty, Staff, Students and visitors posted throughout the campus classroom and office buildings that identify our watershed, drains flow to Flint River, tips for preventing pollution, management of chemicals, responding to spills, who to call spills, the UM OSEH web site and related resources and encourage volunteering on river clean ups. 75-100 were distributed in August – November 2011.

“Protect the Flint River – Only Rain in the Drain” bookmarks, October 2010. This is a UM-Flint Campus specific bookmark that provide information to Faculty, Staff, Students and visitors posted throughout the campus classroom and office buildings that identify our watershed, drains flow to Flint River, tips for preventing pollution, management of chemicals, responding to spills, who to call spills, the UM OSEH web site and related resources and encourage volunteering on river clean ups. 800 were distributed in September – December
2011 to the bookstore, admissions, financial aid the library and other administrative offices servicing the campus community.

In September 2011, UM-Dearborn revised 5 brochures titled “Pesticide Tips”, “Dog Owner Tips”, “Fertilizing Tips”, “Household Waste Tips” and “Painting Tips”. Each brochure not only gives information on their respective topics but also includes information on how to report an illicit discharge on campus; provides a link to the EHSEM storm water webpage for more information. [www.umd.umich.edu/stormwater/](http://www.umd.umich.edu/stormwater/); and provides a link to the [http://www.michigan.gov/deq/0,4561,7-135-3585_4130-115394--,00.html](http://www.michigan.gov/deq/0,4561,7-135-3585_4130-115394--,00.html) for recycling information.

**Measurable Goal:** A minimum of 1,800 brochures will be distributed annually during presentations, training courses and new employee orientation sessions. The quantity of brochures distributed throughout the year will be tracked for subsequent inclusion in the progress reports.

**Actions during the reporting period:**
This information will be provided in the annual report.

**Measurable Goal:** In 2010-2011, develop/add additional brochures to fill any gaps in the topics needed to meet the permit requirements. Keep a copy of newly developed/added brochures with dates finalized.

**Actions during the reporting period:**
EHSEM worked with the UM-Dearborn marketing department and created two storm water poster designs. One poster is located in the University Center which is a common gathering for faculty, staff, students, and visitors. The second poster is located in the main entrance of the UM-Dearborn Fairlane Center.

EHSEM also created “Do Not Dump” signs and installed one at the UM-Dearborn Fairlane Center loading dock.

EHSEM published an article, on November 21, 2011, pertaining to the storm water markers and the newly installed pet waste stations in the “Record” (UM-Dearborn newspaper) which was distributed electronically to all faculty and staff. The following is a link to the article: [www.umdearbornreporter.com/2011/11/protecting-the-rouge-river-storm-drain-badge-pet-waste-stations-are-reminders-to-be-proactive/](http://www.umdearbornreporter.com/2011/11/protecting-the-rouge-river-storm-drain-badge-pet-waste-stations-are-reminders-to-be-proactive/)

EHSEM in partnership with the UM-Dearborn Honor Transfer Innovator students are in the process of further developing a storm water communications and marketing plan on campus to reach out to students.

An additional brochure was created to address storm water BMPs for film/movie projects on the Ann Arbor campus.

**Measurable Goal:** In 2011-2012, create a dissemination strategy to reach the target audiences and any new audiences identified by UM. Identify educational information available/developed for each target audience applicable at UM and keep this information on file.

**Actions during the reporting period:**
This information will be provided in a future report.
Measurable Goal: In 2012-2013, implement the new dissemination strategy/plan for educational brochures. Tally the number of brochures distributed and provide in the annual reports.

Actions during the reporting period:
This information will be provided in a future report.

PEP-2. OSEH/SNRE Storm Water Education Web Sites
Developed in cooperation with the UM SNRE and maintained by OSEH, the Storm Water Education Web site builds upon the information contained in the brochures and disseminates it to the general University community and the public at large. This web site is intended to help students, employees, and visitors in the UM community understand how the University’s storm water system operates, various legal requirements, and what individuals can do to reduce contamination in the storm water system from surface runoff. As viewers move through the site they learn about storm water, what they can do to help protect it, how regulations impact the University’s operation, and various safe practices. The UM-Dearborn and UM-Flint websites also provide topical information for practices potentially impacting storm water.

The storm water website content is updated on a regular basis to include pertinent information related to storm water management and pollution prevention. Current material on the web site can be viewed by visiting Ann Arbor’s website at www.oseh.umich.edu/environment/storm.shtml, Dearborn’s website at www.umd.umich.edu/691923/, and Flint’s website at http://www.umflint.edu/ehs/.

Measurable Goal: The number of visitors to the websites will be tracked annually for subsequent reporting. The goal is to have 2,000 website hits annually. This website is intended to help students, employees, and visitors in the UM community understand how the University’s storm water system operates, various legal requirements, and what individuals can do to reduce contamination in the storm water system from surface runoff. This website tally may also serve as an indication of the community seeking additional storm water information from the link provided in the brochures, as detailed above.

Actions during the reporting period:
As of this report, 21,288 website hits were registered on the Ann Arbor Stormwater website. This is an increase of 228 hits over the total reported in October 2011.

UM-Flint is working on expanding the information available on their website and developing a counter to track website hits. UM-Flint publishes on our flyers, bookmarks, training materials, contract documents, etc. the UM OSEH Stormwater Management website and links to the SWM and SESC and other related programs.

The EHSEM storm water page at UM-Dearborn received 307 hits between July 1st and December 31st 2011. EHSEM passed out a total of 783 storm water brochures and 1,311 storm water bookmarks which promoted the EHSEM storm water webpage.

Measurable Goal: Review and update existing websites and perform periodic review. Print a copy of website changes made, noting the date of revision, etc. A copy of these changes will be kept on file.

Actions during the reporting period:
This information will be kept on file.

During this reporting period, in addition to the UM-Dearborn web link to Friends of the Rouge, EHSEM added a link to the Alliance of Rouge Communities (ARC) webpage.
Measurable Goal: In 2010-2011, create a website information dissemination and coordination strategy (all campuses) to reach the target audiences. Identify educational information available/developed for each target audience applicable at UM. This information will be kept on file.

Actions during the reporting period:
This information will be kept on file.

Measurable Goal: In 2011-2012, develop/add additional topics, weblinks, etc. to fill any gaps in the topics needed to meet the permit requirements. Print a copy of website changes made, noting the date of revision, etc. A copy of these changes will be kept on file.

Actions during the reporting period:
This information will be kept on file.

Measurable Goal: In 2012-2013, implement the new dissemination strategy/plan for the stormwater education website. The number of website hits will be tracked for reporting (above).

Actions during the reporting period:
This information will be provided in the annual report.

PEP -3. Storm Water Management at the University of Michigan - Video & Public Service Announcements

The video Storm Water Management at the University of Michigan provides viewers with an overview of storm water issues as they pertain to University operations and activities. The video begins with an overview of the UM-A2’s storm water drainage system and its receiving bodies followed by a synopsis of the legal requirements that mandate the NPDES permit and the development of a storm water management program. The remainder of the video focuses on how storm water can become polluted because of human activities. It proceeds to inform viewers of the University’s actions to protect storm water quality in the following areas: salt use and deicing activities, waste management and spill response, campus planning and expansion, cleaning outdoor equipment and vehicles, chemical disposal practices, and food vendor training.

This video or other storm water video content is offered for viewing on an as needed basis for inclusion in faculty and staff presentations, classes, workshops, etc.

Measurable Goal: The number of offerings of storm water videos will be tracked annually for subsequent reporting in the progress reports. A listing of available storm water videos will be kept on file.

Actions during the reporting period:
This information will be provided in the annual report.

Measurable Goal: Storm water, waste disposal, and recycling related Public Service Announcements will be distributed annually for use during the Football season home games. These short educational messages will provide storm water information to visitors, students, staff and contractors attending the UM football games. The total anticipated audience for these messages is over 107,000 per game. An example announcement follows:

Stop trash, food, and drink wastes from going down the storm drain and to the Huron River! Please recycle and properly dispose of your trash, food, and drink wastes. Help keep our Michigan waters BLUE!
Actions during the reporting period:
Public Service Announcements were made at the eight UM football home games during the 2011-12 season, potentially reaching an audience of 897,431 people.

In addition, UM-Flint provides PSA’s promoting community household hazardous waste collection days in October and May of each year through e-mails and printed materials/post cards, etc. These are typically sent to all faculty, staff and students (> 9000 individuals).

UM-Flint EHS also promotes SWM at the UMF Welcome Back Picnic by having a display table and educational handouts, and signing up volunteers for storm drain stenciling activities in the Fall. An estimated 2500-3000 students, staff and faculty attended with more than 20 individuals signing up to request more SW information.

The UM-Dearborn Fieldhouse/Wellness Center is not equipped with screens and/or announcers that would be able to promote storm water at this time. Instead, EHSEM has created signs and posters that are currently installed within the facility.

PEP -4. **Storm Water Education Presentations (includes Training Sessions, Workshops, etc.)**
Storm water education presentations . . . are provided to key staff having greater potential to impact storm water quality during their day-to-day work. The remainder of the University community is targeted through other means. The presentations discuss the storm water drainage system; the need for protecting the quality of storm water discharges; the NPDES permit, its legal requirements, and the storm water management program; and the most common storm water pollutants and ways to limit their effects on storm water. The presentations can also feature the storm water video.

Storm water education is provided during new employee orientation sessions (all employees at the UM), new laboratory employee training classes and at new Plant employee training classes. In addition, presentations including storm water topics are provided on an annual basis to UM-A2 Plant staff which includes the following sub-groups:

- Building Services,
- Construction Services (including the Cabinet, Sign, Glass, and Upholstery shop departments),
- Facilities Maintenance (including HVAC, Plumbing, Pumps, Steam Distribution & Insulation, Electrical, Fire Systems, Elevators, Roofing, Metal Crafts & Machine Repair shop departments),
- Grounds & Waste Management Services,
- Utilities & Plant Engineering (includes purchasing, generation, distribution, conservation, and accounting of utilities for the University), and the Work Control group (responsible for single point of contact for services, all estimates and preventive maintenance planning).

Measurable Goals: Storm water topics will be included in a minimum of 50 classes, workshops or presentations annually. The number of sessions including training on storm water issues will be tracked for subsequent reporting.

Actions during the reporting period:
This information will be provided in the annual report.

Measurable Goals: A minimum of 500 laboratories will be inspected annually. The inspections will include a review of issues impacting storm water quality, chemical storage, waste management and
disposal. These inspections may also serve as an indicator of the effectiveness of storm water education received, or the need for additional education. The number of inspections performed annually will be tracked for subsequent reporting.

**Actions during the reporting period:**
This information will be provided in the annual report.

**Measurable Goals:** All outdoor food vendors will receive training/education including related storm water issues annually. Food establishment inspections will include items to ensure storm water BMPs are being followed. These inspections may also serve as an indicator of the effectiveness of storm water education received, or the need for additional education. The number of inspections performed will be tracked annually for subsequent reporting.

**Actions during the reporting period:**
This information will be provided in the annual report.

**Additional measures taken to achieve goals:**
- OSEH continues to work with UM football stadium vendors/concession stands to prevent potential discharges into the storm water system. Concession stands were posted with signage detailing procedures for proper grease and wastewater management for these operations during the 2011-12 football season to reinforce proper waste management for these temporary operations.
- EHSEM had an informational table at the Sustainability Water Expo which was attended by hundreds of faculty, staff and students. EHSEM passed out 45 bookmarks and 54 storm water brochures. The following link provides details:
  http://eventcalendar.umd.umich.edu/calendar/index.php3?action=calendar&text_only=1&timestamp=1318737600&cal_view=week
- Presentations are provided to students and staff to inform, educate and increase awareness of storm water quality issues. Responses from attendees in the campus community include requests for brochures, consultations and additional presentations on related storm water pollution prevention issues.
- The University of Michigan has a 24-hour Emergency Response Team to quickly and efficiently respond to and mitigate releases of polluting materials on campus. The campus community is encouraged, through presentations, training, signage, and other educational materials, to report illicit discharges and spills to OSEH/EHSEM/EHS and the Department of Public Safety so appropriate measures can be taken to correct issues which may impact storm water quality. The response team is primarily comprised of UM staff as well as 24-hour emergency response vendors to efficiently respond and mitigate releases on campus.
- UM-Dearborn has been directly promoting or distributing educational information or indirectly by supporting local agencies that are involved in such activities. Examples include the following:
  - EHSEM has partnered with the faculty and staff at the Fieldhouse/Wellness Center to inform, educate, and increase awareness of storm water quality issues to faculty, staff, students and visitors that may attend any of the events within the Fieldhouse/Wellness Center. This will be accomplished by posting signs throughout the building as well as setting up tables at big events to talk about storm water and pass out brochures.
- UM-Dearborn promotes Wayne County’s Household Hazard Waste Day. We also provided links from our storm water website to the following counties (Wayne, Oakland, Macomb and Monroe) recycling website.

- All UM-Dearborn safety training classes include information on storm water importance and protection defines an illicit discharge, identifies how to report spills and who to call if they observe an illicit discharge or a spill that could potential threaten a drain, and how to protect drains.

- The UM-Dearborn SPCC/PIPP and Storm Water Management training is provided to all employees in Facilities Management.

- EHSEM provides storm water management training to contractors to ensure awareness of environmental and occupational safety requirements.

- EHSEM promotes local agencies by linking out to their various websites. These agencies include Friends of the Rouge, Alliance of Rouge Communities, Southeast Michigan Council of Governments, Michigan DEQ, MIEarth, and MDOT.

- The Flint campus has been engaged directly in promoting or distributing educational information or indirectly by supporting local agencies that are involved in such activities. Examples include the following:
  - Bulletin Board in Hubbard Building & on Harrison Parking Structure displays reminders and tips for employees and students in protecting storm drains and the Flint River
  - All Hazard Communication, Hazardous Waste, PPE, and other general safety training classes address the difference between sanitary and storm drains, illicit discharges, reporting spills, protection of drains, who to call if they observe an illicit discharge or a spill that could potential threaten a drain.
  - SPCC/PIP, Storm Water Management and environmental due care training is provided to select employees in Facilities Management & Operations. The training is offered at least every 2-3 years. Training covers best management practices, housekeeping, protection of storm drains, reporting spills, etc.
  - UM-Flint promotes the local Genesee County Household Hazardous Waste Collection in the spring and summer each year.
  - Annual Earth Day events and activities include participation of many local environmental organizations as well as the Flint River Coalition and Flint River Corridor Alliance (in which UMF is a member of both) providing educational materials about protecting the Flint River, handing out brochures, one on one discussions with university and community members about specific actions individuals can do to improve water quality, report problems, get involved, participate in river clean ups, etc. Presentations by organizations to general community.
  - UM-Flint Outreach has organized several (3-4) Flint River clean up volunteer days both in the spring and fall. The University partners with the City of Flint… the University coordinate the student and community volunteers while the City of Flint coordinates the transportation and disposal of the trash and debris that is picked up & pulled from the banks of the river by volunteers.
UMF EHS meets with contractors prior to starting jobs to go over environmental and occupational safety requirements; this includes discussion of soil management, University’s construction safety requirements, and protection of storm drains, etc. EHS staff also conducts random inspections of work sites to insure cautionary measures are in place prior to, and during contractor work. In some cases, SESC weekly inspections are conducted.

The web link for the UM construction safety requirements, SWM requirements, SESC requirements are all incorporated into contractor bid specifications and contract documents during the reporting year.

c. Public Involvement and Participation

The University encourages public input in all aspects of its storm water management program. In order to facilitate public participation, this plan and information related to the storm water management program are made available on the storm water web site. By viewing the Annual Reports that are placed on the web site, the general public and members of local stream and watershed protection organizations can make themselves aware of activities the University carries out under its storm water management program. In addition, when new storm water management program plans are developed and finalized, the City, County, and interested local stream and watershed protection organizations are allowed to review and comment on them. Website feedback link(s) will be provided to facilitate feedback on the SWMPP from the community.

One public awareness group that UM-A2 works with on a regular basis is the Huron River Watershed Council (HRWC). Many of the HRWC’s goals are consistent with the University’s ideals for the preservation and protection of the surrounding natural water bodies. As a result, the University has established an informal partnership with the HRWC and has provided input to the HRWC on issues concerning the Total Maximum Daily Load program for water bodies that lie within the Huron River Watershed.

The following BMPs are used to meet the requirements of Part I, Section A.6 of the University of Michigan’s NPDES Permit for Public Involvement and Participation (PIP):

**PIP -1. Storm Water Reports**

**Measurable Goal:** The SWMPP and NPDES reports will be made available on the UM storm water web site. The date of addition to the website will be tracked for subsequent reporting.

**Actions during the reporting period:**

The annual report for 2011 was added to the UM OSEH storm water website on November 28, 2011. Additionally, it was shared with key stakeholders and decision makers on the UM Flint Campus in the areas of Facilities and Operations, Business and Finance, and others. EHSEM added a link to their webpage to the 2011 annual storm water report.

**PIP -2. Community Meeting Participation**

**Measurable Goal:** The UM will attend a minimum of ten (10) meetings annually with local watershed/creekshed organizations like the Huron River Watershed Council (HRWC), Washtenaw County Drain Commission, City of Ann Arbor (A2), the Millers Creek Action Team (MCAT), Flint River Corridor Alliance, Flint River Watershed Coalition, Friends of the Rouge or other local stream protection organizations for collaboration on storm water issues in the community. UM’s participation in meetings, community events, etc. with these groups will be tracked for subsequent reporting.
Actions during the reporting period:
This information will be provided in the annual report.

PIP -3. Storm Water Management Program Plan - Community Feedback
Measurable Goal: The City, County and interested local stream and watershed protection organizations will be notified of the online availability of the UM SWMPP for review and comment on the same frequency the information is provided to the Department. The SWMPP will be accessible on the UM website for review by the public. Any comments received will be reviewed by UM OSEH/EHSEM/EHS and evaluated for inclusion in the SWMPP. Comments submitted and any actions taken in response to comments will be documented and kept on file.

Actions during the reporting period:
No community feedback on the SWMPP was received during this reporting period. The SWMPP is available for review on the UM stormwater website.

PIP -4. Middle Huron Initiative Participation / Phosphorus TMDL Participation
Measurable Goal: The UM will participate in meetings of the Middle Huron Initiative (typically semi-annual) to address the Ford & Belleville Lake TMDL on phosphorus reduction throughout the permit cycle. Attendance at these meetings will be tracked for subsequent reporting.

Actions during the reporting period:
This information will be provided in the annual report.

PIP -5. E. coli TMDL Participation
Measurable Goal: The UM will participate in Geddes Pond – E. coli TMDL efforts throughout the permit cycle. Management activities addressing E. coli include dry weather screening and illicit discharge elimination, semi-annual catch basin cleaning, pollution prevention, and public education. These efforts as well as attendance at meetings/events on this issue will be documented for subsequent reporting.

Actions during the reporting period:
No meetings were held during this reporting period.

PIP -6. Environmental Stewardship / Volunteer Opportunities
Measurable Goal: The UM will sponsor/offer a semi-annual volunteer opportunity for participants to get involved with storm water improvement and education programs. Examples of opportunities include storm drain stenciling/markign and invasive species removal projects. The number of volunteer events offered will be tracked annually for subsequent reporting. The number of participants in volunteer stewardship events will be tracked for subsequent reporting.

Actions during the reporting period:
A volunteer invasive species removal event was held in Ann Arbor on November 13, 2011. Semi-annual events are planned for 2012.

More than 20 individuals indicated that they would be interested in participating in UM Flint EHS’s Fall storm water stenciling activity. However, <5 showed up on the three days that stenciling was occurring.

Approximately 10-12 individuals showed up to participate in a UM-Flint student organized Flint River fall clean up. The student group partnered with the City of Flint as well as with the University’s Facilities & Operations department and EHS to clean up debris on both side of the river on campus near the Hamilton Dam.
EHSEM is working with the Student Environment Association on planting a rain garden on campus. EHSEM is also partnering with the Honor Transfer Innovator Students to help create a storm water communications and marketing plan.

**Measurable Goal:** In 2010-2011, meet with local watershed/creek groups to identify joint activities and opportunities to meet permit requirements. Identify local creek/ watershed groups, etc. timeframes, staffing and participation opportunities. This information will be kept on file.

**Actions during the reporting period:**
UM has been participating in local watershed groups/meetings to coordinate efforts, actions, etc., as appropriate. UM is also contributing to the Middle Huron Initiative activities.

**Measurable Goal:** In 2011-2012, develop a participation plan for all campuses. Keep records of meetings attended, possible opportunities for coordination with local groups, etc. This information will be kept on file.

**Actions during the reporting period:**
This information will be provided in a future report.

**Measurable Goal:** In 2012-2013, implement the participation plan. Tally the number of meetings attended for annual reporting (as detailed in goals above).

**Actions during the reporting period:**
This information will be provided in a future report.

**Additional measures taken to achieve goals:**
- OSEH/EHSEM/EHS staff members continue to create, improve, and revise project/contract specifications for inclusion of Best Management Practices (BMPs) during construction and renovation projects on campus.
- The University of Michigan continues to work with the local City governments and watershed organizations in improving storm water quality. This is accomplished through sharing information and resources.

**d. Illicit Discharge Elimination Program (IDEP)**
The removal of illicit discharges is an ongoing program being conducted by the UM. As illicit discharges are identified, they are discontinued or otherwise corrected. The program described in this section will be used to determine the existence, location, and extent of possible illicit connections and discharges to the storm water drainage system. At a minimum, it will address the elements presented in Part I, Section B.7 of the Permit.

The UM-A2 has been involved in an ongoing program for identifying and controlling non-point source pollution to the Huron River. The Huron River Pollution Abatement Project was developed from a grant from the federal Clean Water Act and used by the UM-A2 to identify illicit connections to the storm water system. The project was completed in 1990.

The UM will continue to encourage reporting of water quality problems and possible illicit connections and discharges to the storm water system. OSEH, Plant Operations, and/or Facilities Management will receive reports of water quality problems and possible illicit connections and perform follow-up investigations, leading to elimination where appropriate.
The following BMPs are used to meet the requirements of Part I, Section A.7 of the University of Michigan’s NPDES Permit for the Illicit Discharge Elimination Program (IDEP):

IDEP - 1. Storm Sewer Map

**Measurable Goal:** By February 1, 2011 the UM will create a storm sewer system map identifying the location of all of its discharge points and the names and locations of all the surface waters that the MS4 discharges into.

**Actions during the reporting period:**
- A GIS mapping system was completed for the Ann Arbor campus in 2010. Updates to the system will continue, as needed.
- Mapping was complete in December 2010, at the Dearborn campus.

At UMF, GIS mapping is underway for the storm drains utilizing expertise from University Outreach. GIS data was collected for more than half of the storm water outfalls on campus. It is anticipated that the remaining GIS data collection for storm water outfalls, and catch basins will be completed this spring. Additional student projects are being designed to conduct further GIS mapping using UM-Flint students with oversight of faculty and GIS technician.

**Measurable Goal:** The storm sewer system map will be updated periodically as discharge points are identified or added. The dates of modification of the system map will be tracked and kept on file.

**Actions during the reporting period:**
- UMF EHS met with the UMF Facilities Operations Manager and Architect to begin to establish a labeling plan to identify catch basins to specific outfalls. GIS mapping is underway for the storm drains utilizing expertise from University Outreach. GIS data was collected for more than half of the storm water outfalls on campus. It is anticipated that the remaining GIS data collection for storm water outfalls, and catch basins will be completed this spring. Additional student projects are being designed to conduct further GIS mapping using UM-Flint students with oversight of faculty and GIS technician. UM-Dearborn will begin additional investigative work to verify directional flow in Spring 2011.

Mapping was complete in December 2010, at the Dearborn campus – there is additional investigative work to verify directional flow; this work will begin Spring 2012.

UM-Ann Arbor continues to work with the Plant Utilities department to review and update the storm sewer maps as changes/updates are needed.

IDEP - 2. Survey of Facility Discharge Points

**Measurable Goal:** UM will create a prioritized listing for the performance of dry-weather screening considering the criteria in Part I.A.7.b.2 of the permit. The list will be developed in 2011 to ensure the use of the most up to date storm sewer system map/information will be utilized. The list will be kept on file.

**Actions during the reporting period:**
- This information will be kept on file.
IDEP -3.  Dry Weather Screening

**Measurable Goal:** The UM will perform dry weather screening on each MS4 discharge point at least once every 5 years beginning on February 1, 2010, (per Part I.A.7.b.3) to determine the existence, location, and extent of possible illicit discharges into the UM storm water drainage system on all three campuses. This is typically done during four to five rounds of screening. Any issues identified for further investigation or correction will be tracked for subsequent reporting. The number of illicit discharges and connections identified and subsequently corrected or removed will be tracked for subsequent reporting.

**Actions during the reporting period:**
186 structures on campus were dry weather screened. There was no evidence found of any illicit discharges. The remaining 118 structures are scheduled to be dry weather screened in spring of 2012 weather permitting.

IDEP -4.  Public Reporting of Illicit Discharges

**Measurable Goal:** The emergency response system on campus will be maintained by DPS (24/7) for use by the public to report illegal dumping, spills or suspicious discharges at the University throughout the permit term. The number of calls received by the DPS/OSEH emergency response call system on potential discharges to the storm water system will be tracked for subsequent reporting. The number of incidents remedied as a result of these calls will also be tracked and reported annually.

**Actions during the reporting period:**
This information will be provided in the annual report.

**Additional measures taken to achieve goals:**
- OSEH sanitarians continue to work with kitchen and food vendors on campus to ensure proper waste management and disposal methods are used. In addition, OSEH continues to work with UM football stadium vendors/concession stands to prevent potential discharges into the storm water system. Concession stands were posted with signage detailing procedures for proper grease and wastewater management for these operations during the 2011-2012 football season to reinforce proper waste management for these temporary operations.
- The University continues to review owned facilities in an effort to identify discharges into the storm and sanitary systems. As part of this survey, any areas that contain suspect flows are noted for potential dye testing.
- Additional campus programs which assist in maintaining or improving the quality of storm water discharges include: recycling, training and education of staff and students, designing to minimize seepage and erosion control. In 2011 UM completed its sixth year participating in RecycleMania, a nationwide collegiate recycling and waste reduction competition. The competition is comprised of four categories: recycling rate, per capita recycling, per capita total waste, and total pounds of recycling. UM competed against 630 schools in this 10 week competition running from January 23rd through April 2nd. U-M finished in sixth place in total lbs of recycling with 810,747 lbs! UM-Dearborn recycled 44.6 tons of paper products; 37,834 pounds of electronic equipment; 3,249 cubic yards of cardboard; and over 8,500 light tubes.
- Erosion Control – Part 91 of the NREPA provides for a statewide soil erosion and sedimentation control program. This program outlines the proper provisions for water disposal and the protection of soil surfaces during and after construction and is adhered to by the UM.
Employee Training and Education – UM personnel involved in the application of herbicides, pesticides, and fertilizers have been trained and are licensed applicators. All applicators in the following departments are trained and licensed: G&WM, Facilities Management Grounds Department, Matthaei Botanical Gardens, Nichols Arboretum, Radrick Farms, and Athletics. In addition to the courses taken through the Michigan Department of Agriculture, G&WM also employs a foreman to train all of its employees. Training programs will also be conducted to address the purpose and operation of BMP activities under this SWMPP. In addition, staff in various departments have received, or are in training to receive certification from MDEQ in Storm Water Management – Construction Site, Storm Water Management – Industrial Site or Soil Erosion & Sedimentation Control. Six UM-Dearborn personnel involved in applications of herbicides, pesticides, and fertilizers have been certified by the Michigan Department of Agriculture.

Hazardous Materials Response – OSEH, EHS & EHSEM are instrumental in maintaining a safe and healthy environment for faculty, staff, students, and visitors. Routine training is provided to new faculty, staff, and students regarding hazardous materials and conditions at UM facilities. The University also maintains spill response teams (UM staff and contracted vendors) for each campus that can quickly and efficiently respond to and mitigate releases of hazardous materials.

Hazardous Waste Disposal – OSEH and UMF EHS is responsible for the appropriate collection and disposal of hazardous waste and hazardous materials used and generated by the UM units. The program ensures tracking of the materials from point of generation through collection and ultimate disposal. Personnel are properly trained and appropriately licensed to handle the material and transport the waste on campus. Qualified contractors are used for ultimate transport and disposal off site. The UM-Dearborn EHSEM oversees the disposal of hazardous waste. EHSEM personnel are properly trained in RCRA and the University utilizes qualified contractors for transport and disposal off site.

UMF EHS is responsible for coordinating the collection and disposal of hazardous and regulated waste materials generated on campus. EHS HazWaste program ensures frequently scheduled HazWaste pick up, tracking of the waste from point of generation through collection and ultimate disposal, and provide administration and assistance with identifying, storing, preparing and ultimately transportation of site of regulated waste. Employee hazardous waste training is coordinated through EHS. Only qualified contractors are used to manage, handle, and ultimately transport and disposal off site.

Plan Review – OSEH, EHSEM & EHS review all plans for the renovation of existing structures and the construction of new facilities. The plans are reviewed to identify potential environmental concerns and the protection of storm water quality and the storm water drainage system.

Storm Water Basins – Storm water management basins are used to reduce the impact of storm water discharges from campus locations. Although the primary function of these basins is to provide first-flush holding capacity for storm water, the design also provides for sediment deposition within the basin structure which can significantly reduce pollutant loads in receiving waters.

UMF – EHS routinely walks the campus and inspects loading dock areas, dumpsters, facilities operations and vehicle maintenance/storage areas, refueling operations, etc. to ensure that materials continue to be stored properly, secondary containment is functioning, and any outdoor storage containers remain in good condition.
e. **Post-Construction Storm Water Control for New Development and Redevelopment Projects**

The UM has a program to address storm water runoff from new development and redevelopment projects. As part of this program, the UM manages, reviews, and continually updates campus-wide planning to address storm water runoff from each new regulated development and redevelopment project. This program helps to ensure that controls are in place that will minimize and in some cases prevent impacts on water quality from new development and redevelopment projects that disturb areas greater than one acre or disturb areas less than one acre but which are part of a larger common plan of development.

**PCSW -1. Post-Construction Storm Water Runoff**

**Measurable Goal:** By August 1, 2009 UM issued the Post-Construction Storm Water Requirements guideline which details the minimum treatment volume standard and the channel protection criteria. The guideline is provided in Appendix G of the SWMPP.

**Actions during the reporting period:**

The Post-Construction Storm Water Requirements Guideline was submitted to MDEQ on July 28, 2009.

**PCSW -2. SESC Plan Review for Structural & Non-Structural BMPs**

**Measurable Goal:** OSEH/EHS/EHSEM and/or the University Planner’s Office will review all construction and renovation plans for use of structural and non-structural BMPs to prevent receiving water quality from the impacts of development and limit the rate at which surface water runoff discharges from any specific site to not exceed the pre-development hydrologic regime. The number of sites implementing various non-structural and structural BMPs will be tracked annually for subsequent reporting.

**Actions during the reporting period:**

This information will be provided in the annual report.

**PCSW -3. Operation & Maintenance of BMPs**

**Measurable Goal:** Storm water management basins on campus will be inspected annually, at a minimum. The number and frequency of inspection of storm water basins will be tracked for subsequent reporting. Maintenance issues identified during these inspections will be tracked until corrected.

**Actions during the reporting period:**

Annual inspections of the storm water management basins on campus were completed in 2011 by UM personnel.

**PCSW -4. SESC Plan Review for PCSW Controls**

**Measurable Goal:** OSEH/EHSEM/EHS and/or the University Planner’s Office review all plans to ensure projects have adequate post construction storm water management controls. The number of plan reviews will be tracked annually for subsequent reporting.

**Actions during the reporting period:**

This information will be provided in the annual report.

**Additional measures taken to achieve goals:**

- Construction sites are stabilized with the addition of permanent controls and vegetation to reduce the amount of sedimentation that could impact receiving waters.
OSEH is working with Construction Management to implement standard protocols to dye test the internal piping in new building construction to confirm proper connection to the sanitary sewer system. A program for confirmation of taps to exterior pipes is already in place.

Bioretention traffic islands, porous pavement and a parking lot storm water treatment system to remove sediments, oil, grease and trash have been installed at various locations on campus and are being evaluated for viability in future construction projects. Additional low impact development options such as green roofs have been constructed at the Ross School of Business (completed) and are being considered for other construction/renovation locations on campus like North Quad, Children & Women’s Hospital, etc. Examples of additional storm water controls installed include a rain garden and porous pavement parking lot on Fuller Road at NC-78 (across from Mitchell Field), and a hydrodynamic separator at the Museum of Art loading dock.

f. Construction Storm Water Runoff Control

In 1982, the UM received approval from the Michigan Department of Natural Resources to operate as an Authorized Public Agency (APA) under the authority of Part 91, Soil Erosion and Sedimentation Control (SESC) of the Natural Resource & Environmental Protection Act, 1994 PA 451, as amended (Part 91). Reauthorization of UM’s APA status was received in 2004 from the Michigan Department of Environmental Quality. APA status allows the UM to establish and manage the Soil Erosion and Sedimentation Control procedures on its properties. Construction activity at UM may involve contractor or in-house construction activities performed by Plant Operations.

The overall CSW program accomplishes the following goal:

- Provide and implement controls to minimize or prevent impacts on water quality from construction activity.

The following BMPs are used to meet the requirements of Part I, Section A.9 of the University of Michigan’s NPDES Permit for Construction Storm Water (CSW):

CSW -1. Site Plan Reviews

Measurable Goal: Formal SESC plans are required for sites with earth disturbance (greater than 24 hours) of 1 acre or greater and projects (of any size) within 500 feet of “Waters of the State.” The number of SESC site plan reviews will be tracked annually for subsequent reporting. This review process allows OSEH/EHS/EHSEM to require projects to insert storm water management controls into the front end of all projects.

Actions during the reporting period:
This information will be provided in the annual report.

CSW -2. Best Management Practices (for SESC on Construction Sites)

Measurable Goal: The use of BMPs is required on all projects under the approved SESC Procedures for the University. The number of projects using the Best Management Practices identified above for SESC will be tracked annually for subsequent reporting. BMPs will be selected as appropriate for site conditions.

Actions during the reporting period:
This information will be provided in the annual report.
CSW -3.  SESC Inspections
Measurable Goal: Sites will be inspected weekly and after rain events until final stabilization of the project site. The number of SESC inspections performed annually on UM sites will be tracked for subsequent reporting.

Actions during the reporting period:
This information will be provided in the annual report.

CSW -4.  SESC Training by MDEQ
Measurable Goal: Select staff from OSEH, EHSEM, EHS and the University Planner’s Office will be SESC trained by MDEQ. The number of UM staff who have received MDEQ SESC training will be tracked annually for subsequent reporting.

Actions during the reporting period:
This information will be provided in the annual report.

CSW -5.  Storm Water Operator Certification for Construction Sites
Measurable Goal: Select UM staff from OSEH University Planner’s Office and Construction Management/AEC will be certified in Storm Water Management for Construction Sites. The number of UM staff who have received MDEQ certification will be tracked annually for subsequent reporting.

Actions during the reporting period:
This information will be provided in the annual report.

CSW -6.  Sedimentation Control During Maintenance Activities
Measurable Goal: The use of SESC controls is required for all maintenance projects involving earthwork. The number of SESC inspections performed annually on UM sites will be tracked for subsequent reporting.

Actions during the reporting period:
This information will be provided in the annual report.

Additional measures taken to achieve goals:
- A street sweeper is recommended by UM for contractor usage at construction sites to reduce the amount of sediment that could potentially reach receiving waters.
- The storm water drainage system is vacuumed periodically to remove sediment buildup within the system and to lessen potential sediment impacts to receiving waters.
- The post construction storm water guidelines and soil erosion and sedimentation control requirements for construction projects are incorporated into the project specifications and bid documents.
- Other unofficial SESC/SWM related inspections are conducted by EHS staff as we tour the campus, walk through project sites, and report potential problems to responsible parties for correction i.e. covering a dumpster, debris/litter, inappropriate outdoor storage by contractors, etc.

Pollution Prevention/Good Housekeeping for Municipal Operations
The University’s storm water pollution prevention and good housekeeping initiatives include, but are not limited to the following six areas:

- Structural Controls
Each area has operation and maintenance BMPs with the ultimate goal of reducing and in some cases preventing pollutant runoff from University operations to the maximum extent practicable. The overall P2/GH program accomplishes the following goal:

- Develop and implement a program of operational and maintenance Best Management Practices to prevent or reduce pollutant runoff from University operations.

The following BMPs are used to meet the requirements of Part I, Section A.10 of the University of Michigan’s NPDES Permit for Pollution Prevention & Good Housekeeping (P2/GH):

**P2/GH -1. Storm Water Management Basin Inspections**
**Measurable Goal:** Storm water management basins will be inspected annually during the permit term. The number and frequency of inspections on the UM retention basins and detention basins will be tracked for subsequent reporting.

**Actions during the reporting period:**
- Annual inspections of the storm water management basins on campus were completed in 2011 by UM personnel.

**P2/GH -2. Storm Water Catch Basin Maintenance**
**Measurable Goal:** Maintenance cleaning of the catch basins and storm sewer system piping will be performed periodically, with higher traffic areas and those identified via service requests receiving more attention. The goal will be to clean all catch basins in the system at least once per 5-year cycle.

**Actions during the reporting period:**
- The UM-Ann Arbor has moved to a GIS-based system for catch basin cleanout which has improved tracking for reporting. During the period 07/01/10-12/31/11, 4,132 catch basins were cleaned at UM at a cost of $495,000.
- Data for fiscal year 2012 will be provided in the annual report.

**P2/GH -3. Municipal Properties with Storm Water Controls**
**Measurable Goal:** By October 1, 2011 a list of municipal properties and structural storm water controls owned or operated by UM will be created, which includes the type and number of properties and structural controls. This listing will be kept on file.

**Actions during the reporting period:**
- This information will be kept on file.

**P2/GH -4. Street Sweeping, Leaf, and Litter Collection**
**Measurable Goal:** Street sweeping, leaf and litter collection will be performed periodically throughout the permit term. The cost for disposal and estimated quantity of debris, trash, dirt, etc. disposed from the maintenance and cleaning/sweeping of numerous parking structures, surface lots and roadways throughout the University will be tracked for subsequent reporting.
Actions during the reporting period:
This information will be provided in the annual report.

P2/GH -5. TSS Runoff Reduction from Paved Surfaces
Measurable Goal: A strategy to reduce the runoff of TSS from paved surfaces to the maximum extent practicable, with a goal of reducing the annual TSS loading by 25% as compared to annual loading with no suspended solids controls will be developed (2010-2012) and implemented (2013) at the University. An estimate of the TSS loading reduction achieved through this strategy will be provided in the progress reports.

Actions during the reporting period:
This information will be provided in a future report.

P2/GH -6. Unpaved Road and Parking Lot BMPs
Measurable Goal: Develop BMPs to control dust and suspended solids in runoff from unpaved roads and parking lots. A list of unpaved roads and parking lots will be created (2010-2011).

Actions during the reporting period:
This information will be kept on file for the Ann Arbor campus.
The UM-Dearborn campus does not utilize any unpaved roads.
There are no unpaved roads or parking lots on the Flint campus.

P2/GH -7. Prohibition of Coal Tar use as Asphalt Sealant
Measurable Goal: The use of coal tar emulsions to seal asphalt surfaces will be prohibited, as required in the permit. Plan reviews for construction and renovation projects involving asphalt will include comments from OSEH/EHSEM/EHS prohibiting the use of coal tar emulsions for UM projects. Comments on construction and renovation projects are kept on file at the OSEH/EHSEM/EHS offices.

Actions during the reporting period:
The number of plan reviews performed will be tracked and provided in the annual report.

P2/GH -8. Snow and Ice Removal – Reduction in Salt Use
Measurable Goal: Incremental annual reduction in the use of salt for de-icing to reach 50% reduction based on an average annual use of 2600 tons per year from 1989 to 1999. The quantity of salt used for deicing will be tracked on an annual basis.

Actions during the reporting period:
This information will be provided in the annual report.

Measurable Goal: Increase the use of alternative de-icers annually to replace/supplement salt use. The quantity of alternative de-icers will be tracked on an annual basis.

Actions during the reporting period:
This information will be provided in the annual report.

P2/GH -10. Pesticide and Fertilizer Technician Training
Measurable Goal: All applicators (technicians) will be trained in pesticide and fertilizer use. The number of pesticide and fertilizer technicians will be tracked on an annual basis.

Actions during the reporting period:
This information will be provided in the annual report.
P2/GH -11. Roadside Vegetative Replacement
Measurable Goal: Eliminate the need for vegetative replacement due to salt damage to the maximum extent practicable. The need for replacement vegetation will be tracked for subsequent reporting.

Actions during the reporting period:
This information will be provided in the annual report.

P2/GH -12. Storm Sewer Labeling
Measurable Goal: All UM storm drains will be marked with the message "Dump No Waste - Drains to Waterways", "Keep our Michigan Waters Blue: Dump No Waste - Flows to River" (or similar message) during the permit cycle. The number of storm drains marked will be tracked annually for subsequent reporting.

Actions during the reporting period:
This information will be provided in the annual report.

Measurable Goal: In 2010-2011, Develop an education program for UM staff involved in fertilization of turfgrass at UM. Also include a strategy to disseminate the requirements to contractors at UM.

Actions during the reporting period:
This information will be kept on file. UMF EHS and Facilities & Operations worked together to implement a revised safe application distance from the Flint River during the summer of 2010. Facilities agreed to pilot doubling the safety distance from 20 feet to 40 feet from the river and only spot treat in the 20’-40’ area as needed.

Measurable Goal: In 2011-2012, implement a turfgrass fertilization education program for appropriate UM staff and contractors. Identify educational information available/developed for each target audience applicable at UM.

Actions during the reporting period:
This information will be kept on file.

Information about the Michigan restrictions on the use of phosphorus-containing fertilizer on turf grass was provided to Facilities & Operations staff responsible for managing grounds/landscape. Additionally, select Facilities employees attended SWM employee training where this information would have be covered. Lastly, our employees certified in IPM attend workshops/seminars routinely to maintain their certification and stay up on new information/technologies as it relates to turf and landscape management.

P2/GH -14. Storm Water Pollution Prevention Plans for Fleet Maintenance & Storage Yards
Measurable Goal: In 2010-2012, Develop SWPPP for all fleet maintenance and storage yards/facilities at UM.

Actions during the reporting period:
This information will be provided in a future report. Once completed, this information will be kept on file.

Measurable Goal: In 2013, implement all SWPPP for fleet maintenance & storage yards at UM.

Actions during the reporting period:
This information will be provided in a future report. This completed (signed) SWPPP(s) will be kept at each facility.

Note: EHSEM – Environmental Health & Safety and Emergency Management at UMD.