

**THE UNIVERSITY OF MICHIGAN  
MUNICIPAL STORM WATER NPDES PERMIT MI0053902  
FISCAL YEAR 2002-2003 ANNUAL REPORT**

In accordance with Part I, Section C.1.e. of NPDES Permit MI0053902, the University of Michigan (University) is required to submit an annual report of activities associated with the storm water management program. This program is a requirement of the NPDES permit reissued by the Michigan Department of Environmental Quality (MDEQ) Surface Water Quality Division on October 1, 2001. This report covers the period July 1, 2002 through June 30, 2003 and follows the format identified in the permit.

**1. Compliance Assessment –**

*. Describe the status of compliance with permit conditions.*

The University of Michigan is in compliance with the permit conditions. In accordance with Part I, Section B, the University is continuing to implement the storm water management plan (SWMP) approved on December 15, 1999, until the revised SWMP is approved.

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

Dry Weather screening is performed in 4 distinct areas based on geographical separation - South Campus, Central Campus, Medical Campus, and North Campus. This summer the Medical Campus area was selected for dry weather screening to determine the existence, location, and extent of possible illicit discharges into the UM storm water drainage system. Non-storm water flow was backtracked to the eight areas identified below during the 2003 Medical Campus dry weather field-screening follow-up. An additional flow was backtracked out of the University's coverage area. The City of Ann Arbor will be notified of this potential illicit connection for further investigation. The remaining flows will be investigated to identify the source of the discharge and to determine if it is an authorized flow as described in Part I.A.1 of the permit. In the event that the flow is not authorized, repairs will be made to redirect the flow to the sanitary sewer.

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

- Natural History Museum
- Central Campus Recreation Building
- Mary Markley Hall
- Simpson Memorial Institute buildings
- Kresge Medical Research III Building area
- Couzens Hall area
- ULAM
- Medical Science Research Building I/II

The following illicit connections are under further investigation.

- Tappan Hall: Dry weather screening identified a manhole with flow coming from Angell Hall. The University identified the source as water from the cooling tower flowing to the roof drains on Angell Hall. Illicit discharges from cooling towers that are connected to storm are being rerouted to the sanitary sewer system as building systems are renovated.

If a particular system is problematic and overflows frequently, it will receive priority for repair and rerouting.

- Randall: The source of water is a condensate receiver connected to an ejector tank that is connected to the storm water drainage system. Work to disconnect the steam condensate from the ejector tank is expected to be completed in Fall 2003.
- Chemistry: Dry weather screening identified a manhole with flow coming from the cooling tower, which was broken and discharging into the roof drains. The cooling tower system was repaired. Flow was still evident in the manhole on N. University. The results of additional dye testing were inconclusive. The plumbing shop will continue to investigate the source.
- School of Education: Dry weather screening traced flow upstream to a manhole with flow coming from both East and West Hall buildings. This discharge was identified as water from the cooling tower systems. Illicit discharges from cooling towers that are connected to storm are being rerouted to the sanitary sewer system as building systems are renovated. If a particular system is problematic and overflows frequently, it will receive priority for repair and rerouting.
- Fisher Field / S. Campus: Dry weather screening identified flow in this area. Flow appears to be drainage from the field itself. Further investigation will be performed to confirm the source of the flow when weather permits.
- N. Ingalls Building: A floor drain was identified that discharges non-contact cooling water into the storm water system. Illicit discharges from cooling towers that are connected to storm are being rerouted to the sanitary sewer system as building systems are renovated. If a particular system is problematic and overflows frequently, it will receive priority for repair and rerouting.
- South Quad: Three floor drains in kitchen were identified that connect to the storm water system. Redirection of these drains to the sanitary sewer is expected to be completed in Fall 2003.

The following illicit connections have been addressed in 2002-2003

- Mosher-Jordan: Dye testing revealed two potential cross connections at Mosher Jordan. One was from a floor drain in the laundry room and the second was from a kitchen drain. Both drains have been redirected to the sanitary sewer.
- Law Quad: Dry weather screening identified a manhole with flow coming from this building. One source of flow is storm inlets in the lawn area that allow groundwater infiltration to drain to the storm water drainage system. An additional source of water was potentially identified and later confirmed as a steam condensate source. No further action is required. Dye testing operations identified three storm sewers were tied into the sanitary sewer system. These have been redirected to the storm water system.

- Ruthven Museum: Dry weather screening identified a manhole with flow coming from two sources, the Ruthven Museum and Central Campus Recreational Building (CCRB). Investigation of the museum source was conducted. The source was identified as runoff from the roof where birdcages were stored. These cages are no longer in use. The other source of flow was identified as coming from the CCRB. The University is permitted to discharge dechlorinated water from the CCRB pool to the storm water drainage system.
- Media Union: A cross connection from the building was identified. The piping was block plugged in the manhole that contained the discharge and a pump was installed to carry the flow to an adjacent sanitary sewer. The area was excavated and the pipe was properly re-routed to the sanitary sewer.
- 2002 Dry Weather Screening: Annual dry weather screening follow-up included investigation of flows from the following locations: Administrative Services Building; Crisler Arena; Football Stadium; Revelli Hall and Yost Ice Arena/Schembechler Hall. The investigations identified source of flow in these areas was from irrigation runoff. An additional source was determined to originate from the City of Ann Arbor's storm drain system, and was referred to the Ann Arbor Water Utilities Department for further investigation.

The Department of Occupational Safety and Environmental Health (OSEH) is working with Facility Maintenance to improve the system of tracking cross-connections and their repair.

During this reporting period OSEH personnel responded to approximately 34 incidents, involving spills and leaks of materials that could have potentially impacted storm water. The majority of the spills were small, ranging from a few milliliters to a few gallons. The materials were contained with spill kits; cleaned up using absorbent materials, and removed for appropriate disposal by OSEH's on-call emergency response team. Response activities involved leaks and spills of diesel, gasoline, hydraulic oil, paint, blood, sodium sulfite, sodium hydroxide, magnesium chloride de-icing solution, and ethylene glycol based anti-freeze in parking areas, driveways, and other outdoor places. A few examples of such releases and the corresponding response actions are given below.

- Approximately 1 pint of ethylene glycol anti-freeze leaked from a parked car at the UMH emergency/valet parking lot. UM OSEH personnel responded with oil dry. The oil was cleaned up and sent out for proper disposal. No glycol impacted the storm water system in the area.
- Approximately 10 gallons of gasoline leaked from the tank of a mail service truck that ran into a low concrete wall, rupturing the gas tank. A sheen was found in a storm drain and flowed to a storm outfall into the Huron River. The affected storm drain and two down-gradient storm drains were vacuumed out and the lines jet washed. Absorbent booms were placed on the river at the outfall to absorb any excess gasoline. All waste materials were collected for proper disposal.
- Approximately 5 gallons of oil was released on the roadway from a broken hydraulic line on a contractor's cement truck, during a rain event. An oil sheen was detected in one storm drain catch basin. No hydraulic oil was apparent at the associated outfall to the

Huron River. The spill was cleaned up using 110 forty-pound bags of oil dry absorbent. All waste materials were collected for proper disposal.

. *Assess BMP appropriateness and progress toward goals identified in the SWMP.*

Education and Outreach on Storm Water Impacts – Public Education Program

Goals:

- 1) Educate the public of hazards associated with illicit discharges and improper discharges. Encourage public reporting of the presence of illicit discharges or improper disposal of materials into the UM drainage system.
- 2) Educate the public regarding acceptable application and disposal of pesticides, herbicides and fertilizers.
- 3) Educate the public concerning the ultimate discharge point and potential impacts of pollutants from the drainage system serving their places of residence.
- 4) Educate the public about their responsibilities and stewardship of their watershed
- 5) Educate commercial and institutional entities likely to have significant storm water impacts

Measures taken to achieve goals:

- OSEH produced revised storm water pollution prevention brochures specifically for Students; Faculty and Staff; and Contractors, to provide each group with appropriate information on user responsibilities, best management practices and procedures for reporting spills and illicit discharges to the storm water system.
- Presentations are provided to students and staff by OSEH personnel 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.
- Drain markers saying “Dump No Waste – Drains to River, Keep our Michigan Waters BLUE” continue to be installed over storm drains throughout campus. These markers have raised the awareness of employees, students and visitors to the University that storm drains are directly connected to the river. Additional markers are installed, as needed, to repair or replace existing marker locations. New storm drain catch basins are permanently cast with a fish and the words “Dump No Waste”.
- 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 and pollution prevention brochures, to report illicit discharges and spills to OSEH and the Department of Public Safety so appropriate measures can be taken to correct issues which may impact storm water quality.
- Education programs previously reported are continuing.
- The OSEH department and the School of Natural Resources (SNRE) storm water educational video has been televised on UM cable TV.
- Storm water educational announcements will be made at the University of Michigan home football games this season.

- OSEH provided training on storm water pollution prevention and means of proper storm water management. Information was provided to Construction Management and the Safety Coordinator's Conference which included topics on creating, improving and writing BMPs.
- University of Michigan personnel, including construction inspectors, managers, plant and OSEH personnel attended a construction site storm water operators training class given by the Tom Torongo of the Michigan Department of Environmental Quality and became certified as construction site storm water operators.
- Soil Erosion and Sedimentation Control Operator certification was obtained by seven University personnel, after attending the MDEQ's two-day training workshops.
- OSEH continues to work with Building Services to improve their cleaning procedures to include specific instructions for handling waste generated from each different operation.
- The OSEH Web page at [www.oseh.umich.edu/](http://www.oseh.umich.edu/) provides a wealth of storm water information which can be accessed by the general public, as well as the campus community. This site is continually updated and contains links to a variety of articles on storm water quality management and pollution prevention, improving storm water quality and wetlands protection, as well as copies of past years NPDES storm water reports. There is also a link to the OSEH/SNRE storm water education site. Many questions are received by OSEH staff regarding specific application of storm water principles identified on the web site. The following information may be obtained through the OSEH web sites:
  - Hazards associated with illicit discharges and with improper waste disposal
  - Construction site storm water protection
  - Information pertaining to the proper application and disposal of pesticides, herbicides, and fertilizers
  - Potential impacts of pollutants from both home and institutional related practices
  - Environmental stewardship
  - Information regarding the disposal of wastes associated with food preparation

Examples of website content are provided as attachments to this report.

#### Public Involvement/Participation

##### Goals:

- 1) Provide information to the public on the Storm Water Management Plan and related information.
- 2) Provide public access to make themselves aware of activities the University carries out under its storm water management program by viewing Annual Reports.
- 3) Encourage local stream and watershed protection organizations to review and comment on new storm water management program plans.

##### Measures taken to achieve goals:

- In addition to storm water information provided in brochures and on the website, the University of Michigan actively participates in meetings with the city, county and Huron River Watershed Council addressing concerns such as the *E. coli* TMDL, the phosphorus TMDL, and Millers Creek.

- The University posts its annual and semi-annual NPDES reports on the UM-OSEH website to heighten community awareness of the storm water management activities on campus.
- Local stream and river protection organizations are encouraged to provide feedback on the University's Storm Water Management Program and associated activities. Copies of the SWMP have been sent to the Huron River Watershed Council and the Millers Creek Action Team.
- The OSEH web page contains information for use by students, faculty, and staff as well as the surrounding community. The site contains contact information for community input.
- The University of Michigan continues to work with the City of Ann Arbor on improving storm water quality. This is accomplished through sharing information and resources.
- OSEH staff members and Plant Operations managers participated in a series of meetings on creating, improving, and writing Best Management Practices (BMPs).

#### Illicit Discharge Elimination Program

##### Goals:

- 1) Identification and removal of Illicit Discharges on campus.
- 2) Encourage reporting of water quality problems and possible illicit connections and discharges.

##### Measures taken to achieve goals:

- The University of Michigan has an ongoing program to identify illicit discharges on campus. Dry Weather screening is performed in 4 distinct areas based on geographical separation - South Campus, Central Campus, Medical Campus, and North Campus. One campus area is selected each year to conduct the dry weather-screening program to determine the existence, location, and extent of possible illicit discharges into the UM storm water drainage system. As illicit discharges are identified, they are discontinued or otherwise corrected. IDEP activities on campus are detailed in item 1.b of this report.
- The campus community is encouraged to report illicit discharges and spills to OSEH and the Department of Public Safety so appropriate measures can be taken by the 24-hour Emergency Response Team to correct issues that may impact storm water quality.
- OSEH sanitarians continue to work with kitchen and food vendors on campus to ensure proper waste management and disposal methods are used.
- 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.
- The Department of Occupational Safety and Environmental Health (OSEH) is conducting an on-going survey of University owned/managed 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.

Post Construction Storm Water Management Program for New & Re-Development Projects

Goal:

- 1) Provide and implement controls to minimize or prevent impacts on water quality from new development and redevelopment projects.

Measures taken to achieve goal:

- Construction sites are stabilized with the addition of permanent controls and vegetation to reduce the amount of sedimentation that could impact receiving waters.
- The MDEQ Construction Site Storm Water Certified Operator Training manual and the Guidebook of Best Management Practices for Michigan Watersheds are referenced as the basis for design, plan review and installation and maintenance of appropriate soil erosion and sedimentation control measures on campus sites.
- A storm water management basin in the north campus area is in the design phase and is scheduled to begin construction in Fall 2003.
- Flood control and soil erosion and sedimentation control projects continue to be researched and implemented. Low impact development options have been reviewed for viability in future construction projects.

Construction Storm Water Runoff Control

Goal:

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

Measures taken to achieve goal:

- Soil erosion and sedimentation control measures are required for construction activities on campus which have the potential to impact storm water quality.
- The MDEQ Construction Site Storm Water Certified Operator Training manual and the Guidebook of Best Management Practices for Michigan Watersheds are referenced as the basis for design, plan review, installation and maintenance of appropriate soil erosion and sedimentation control measures on campus sites.
- The SESC Program for the University was revised and submitted to MDEQ in June. Once approved, this program will be distributed throughout the University to institute programs for review, planning and execution of soil erosion and sedimentation control measures for projects that could potentially impact storm water quality.
- Staff in various departments have received, or are in training to receive certification from MDEQ in Part 91 – Soil Erosion & Sedimentation Control; Part 31 – Water Resources Protection, Storm Water Management – Construction Site or Storm Water Management – Industrial Site.
- A street sweeper is in operation six days per week at construction sites to reduce the amount of sediment that could potentially reach receiving waters.
- Storm sewers are vacuumed semi-annually to remove sediment buildup within the system and to lessen potential sediment impacts to receiving waters.

- Members of OSEH review site plans and make recommendations to improve runoff water quality in and around construction projects.
- Other practices implemented at construction projects include the use of filter fence, filter fabric, and plastic sheeting to cover soil piles. These efforts help reduce the quantity of sediment that may reach the Huron River.

#### Pollution Prevention/Good Housekeeping for University Operation

##### Goal:

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

##### Measures taken to achieve goal:

- Structural controls including retention basins, ponds and detention basins are used throughout campus to reduce potential impacts from runoff into the storm water system. Periodic maintenance is performed on these structures to optimize performance.
- Pesticide and fertilizer applicators on campus are trained and certified in appropriate application amounts and techniques.
- Best management practices continue to be developed and successfully implemented. For example, Grounds & Waste Management has an established salt reduction program in place which encourages appropriate salt application and the use of alternative de-icing agents. In 2002 salt reduction of 40% was achieved – meeting the targeted goal for the year.
- Storm sewer cleaning activities occur on a semi-annual basis. Catch basins across the campus are cleaned and the sewer lines rodded out. The liquid waste is drained to approved sanitary locations and the remaining non-hazardous sediment and debris is transported for disposal off-site. To more effectively handle the storm and sanitary cleaning solids, the University of Michigan constructed a storage pad for drying the solids. The solids are then loaded onto a dump truck or a roll-off container and transported to a sanitary landfill for proper disposal as non-hazardous, non-regulated waste.
- The University Parking Services and Grounds and Waste Management Department (G&WM) conduct street and parking lot-cleaning programs to collect sediment and litter send it off site for proper disposal. This is done to improve customer service, decrease the damage to structures from use of salt, prevent clogging of drains due to sand, litter and debris, and to improve the environment.

## 2. *Environmental Impacts –*

*Provide an assessment of the pollution reduction and probable receiving water quality impacts associated with program implementation. Include any negative water quality impacts that may have occurred as a result of any illicit discharges or accidental spills during the past year.*

Storm water management is recognized as a significant issue for the campus and control options are given careful consideration. A major goal of the many BMPs identified and implemented at the University is to reduce the discharge of sediment and associated pollutants to the receiving waters. The control program begins in the project design phase, by providing guidelines for storm

water management and soil erosion and sedimentation control on campus and continues through the construction phase of the many projects on campus. The BMPs below have been implemented at the University. Probable impacts to water quality from these BMPs are taken from the MDEQ's *Index of BMPs/Individual BMPs*.

- Storm Water Management Basins – 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 fine sediment and the pollutants (e.g., phosphorus) associated with them. Detention basins can be effective at removing sediment, nonsoluble metals, organic matter and nutrients through settling. Up to 90% of particulates may be removed if the storm water is held for 24 hours or more. Sediment basins can be very effective in preventing sedimentation of downstream areas. Coarse and medium size particles and associated pollutants will settle out in the basin. Suspended solids, attached nutrients, and absorbed non-persistent pesticides may break down before proceeding downstream. Because sediment basins also retain water, they may increase recharge to ground water.
- Catch Basins / Cleanout Procedures – reasonably effective in protecting sewers from receiving loads of coarse solids.
- Oil/Grit Separators – remove coarse sediment and oils from storm water prior to delivery to a storm drain network, the ground, or other treatment.
- Street Sweeping – can remove 50-90% of street pollutants that potentially can enter surface water through storm sewers. Street sweepers will also make road surfaces less slippery in light rains, improve aesthetics by removing litter, and control pollutants which can be captured by the equipment.
- Salt Reduction – reduced application rates of salt may result in an improvement of surface water quality by reducing chloride and sodium concentrations. Reductions in salt application will also help protect ground water supplies used for drinking water. Other benefits that may occur by reducing salt application rates and encouraging proper salt storage include reducing density stratification in ponds and lakes; reducing corrosion of vehicles and bridges; reducing damage to roadside vegetation; and reducing the deterioration of soil structure.

Illicit Discharges – minimal adverse impacts to water quality are anticipated from the currently identified illicit discharges. No sanitary cross-connections have been identified at this time. Priority is given to correction of illicit discharges containing constituents of concern to the Huron River. Water quality is improved as illicit discharges continue to be identified and corrected as a result of the dry weather screening program.

Spills – minimal adverse impacts to water quality are anticipated, as spills were contained and removed from the storm water system using OSEH's 24-hour emergency response team.

**3. *Water Quality Assessment* –  
*Provide an assessment of the water quality conditions within the jurisdiction.***

The Huron River Watershed Council provided the following information:

The Huron River is considered the cleanest urban river in Michigan. The river is used for recreation, drinking water and power generation by roughly ½ million residents of the watershed, and the watershed contains two-thirds of southeast Michigan's public recreational lands. More than 37 miles of the river and three tributaries have been designated Country Scenic River by the Department of Natural Resources under the State's Natural Rivers Act, the only such designation for a river in southeast Michigan.

However, the stretch of the Huron River known as the Middle Huron River does not meet state and federal water quality standards due to excess nitrification, E. coli pathogen levels, and fish consumption advisory for polychlorinated biphenyls that exceed state levels. Tributaries to the Huron River within the City of Ann Arbor also exhibit poor macro invertebrate and fish communities.

Communities in the Huron River Watershed are concerned with a number of water quality and water quantity issues including high levels of sediment entering the river system, destruction of aquatic and terrestrial habitat, river flow fluctuations, and pollutant loads of metals and other toxins, bacteria, and excess nutrients. Nutrient enrichment of the River system is of particular concern, driving annual algal blooms in the River's impoundments, which in turn limit recreation uses protected by the federal Clean Water Act. These blooms are associated with high phosphorus levels in the river and lake waters which originate from both "point sources", (i.e. discharges out the end of a pipe from industry and municipal wastewater treatment) and from "non-point sources", polluted runoff from our lawns, streets, agricultural fields and from the banks of the River itself. It is thought that to reduce the problems associated with nuisance algal blooms in the impoundments it is necessary to reduce summer concentrations of phosphorus in the River at Ford Lake to 50 micrograms per liter. This concentration would ensure a reduction of the phosphorus concentration in Belleville Lake to 30 micrograms per liter, the goal set by the Michigan Water Resources Commission in 1987. To reach this goal, requires reducing current phosphorus loads by approximately 50%. These goals have been set forth by the Michigan Department of Environmental Quality (MDEQ) in Total Maximum Daily Load allocation (TMDL) for the Middle Huron.

The U. S. EPA approved the TMDL for E. coli in the Huron River submitted by the Michigan Department of Environmental Quality. Stakeholders, including the University of Michigan and the MDEQ will have completed the implementation plan with the assistance of a third-party facilitator by Fall 2003. This plan will serve as an example for E. coli TMDLs across the country since few, if any, have been completed in other areas.

Ecological conditions of the Huron River have been compiled for up to 10 years by Adopt-A-Stream groups. Ecological Condition is determined by the biological and physical conditions of the site. The biological conditions include the diversity of insect families, EPT families and sensitive families. The physical conditions are determined by conductivity results and "measuring and mapping" assessments of habitat. These assessments involve examining characteristics such as the stream banks, stream widths and depths, and the types of material (such as sand and gravel) on the stream bottom. When interpreting the biological and physical conditions, more diversity is expected at a larger site or one with cooler summer stream temperatures. Adopt-A-Stream data for the Huron River reveal the following:

- 1 site has Exceptional conditions

- 5 sites have Good conditions
- 8 sites have Acceptable conditions
- 13 sites have Poor conditions

“Acceptable” indicates that the quality of the site is just below what is expected for a healthy site of its characteristics (such as drainage area and stream temperature). “Good” sites are at or slightly above expectations, while “Poor” sites are well below what is expected. A few sites qualify as “Exceptional” due to a great diversity of insects and good physical quality.

**4. Data & Results –**

***Provide a summary of all information collected and analyzed, including monitoring data, if any, during the annual reporting cycle.***

A copy of the May 2003 Dry Weather screening and follow up for the Medical Campus is attached. Twenty points were selected for dry weather screening. See item 1.b for a summary of the findings.

**5. Upcoming Activities –**

***Provide a summary of the storm water activities to be implemented during the next annual reporting cycle. Include schedules for elimination of any illicit connections identified but not disconnected prior to annual report submittal.***

The University of Michigan shall continue its on-going programs including:

Public Education and Outreach

- Continue to update OSEH web page.
- Hand out storm water brochures to members of the campus community and new employees.
- Deploy additional storm water curb markers, with the dump no waste, flows to river slogan.
- Create and distribute information on household hazardous waste disposal options in the area.

Public Involvement/Participation

- Continue to work with the Millers Creek Action Team.
- Continue to participate in the *E.coli* TMDL implementation plan.

Illicit Discharge Elimination Program

- Continue annual dry weather field screening to locate potential illicit discharges.
- Follow-up on potential illicit discharges to the storm water system and make repairs as required.
- Items for further investigation will be researched, as weather permits. Identified illicit discharges will be prioritized for correction according to their potential impacts to water quality. Cross connections will take priority; cooling tower discharges will be

prioritized based on the frequency of discharge and will be redirected to the sanitary sewer as building improvements and upgrades are undertaken.

Post Construction Storm Water Management

- Review storm water management plans for new construction.
- Continue to perform post construction site closure, per the DEQ construction site storm water operator guide.

Construction Storm Water Runoff Control

- Continue construction site storm water protection BMPs.
- Training of additional personnel to be certified as construction site storm water operators.
- Training of additional personnel to be certified as soil erosion and sedimentation control operators.

Pollution Prevention/Good Housekeeping for University Operations

- Continued cleaning of storm water inlets, lines, and detention basins.
- Continue salt use reduction and alternative product usage to improve storm water runoff quality.
- Continue to implement BMPs to improve storm water discharge quality.

6. ***BMP Changes – Describe any planned changes in identified BMPs or measurable goals for any of the minimum measures.***

No revisions are proposed at this time.

7. ***Notice of Changes in Reliance on Permitted Drainage System Operators – Describe any changes in the need to rely on other permitted drainage system operators to satisfy the terms and conditions of this permit, as defined in Part I.C.1.d.***

No revisions are proposed at this time.

8. ***Drainage System Changes – Provide an update on areas added to the drainage system due to annexation or other statutory processes (if applicable).***

No revisions are proposed at this time.

9. ***Revised Fiscal Analysis – Provide a summary of revisions, if necessary, to the fiscal analysis reported during the previous permit, pursuant to permit application requirements at 40 CFR 122.26(d)(2)(vi).***

No revisions are proposed at this time.

**10. Annual Budget –**  
*Provide the previous fiscal year's annual expenditures and proposed budget for the fiscal year following the report.*

The expenditures and budget are shown in the following table.

ACTIVITY	02-03 UNIVERSITY LABOR AND MATERIALS <sup>1</sup>	02-03 CONTRACTOR COST OR DIRECT PAYMENTS	03-04 BUDGET ESTIMATE
Permit administration	\$20,000		\$20,000
Storm and sanitary repair	\$338,000		\$405,000
Construction site soil erosion control	\$128,000		\$183,000
Storm water management basin construction & maintenance			\$2,925,000
Storm water education program	\$10,000		\$10,000
Catch basin maintenance and cleaning program	\$145,000		\$135,000
Street sweeping program	\$26,000		
Waste Management Department Litter collection & disposal	\$579,000		
Parking structure and lot cleaning program	\$374,000	\$110,000	\$500,000
Storm water utility charges paid to Ann Arbor		\$267,000	\$300,000
OSEH spill response activity		Footnote 2	
Plant Extension Division		Footnote 2	
<b>TOTALS</b>	<b>\$1,620,000</b>	<b>\$377,000</b>	<b>\$4,478,000</b>

Footnotes: 1 - University labor costs include estimated base salary, 28% for benefits, and 52% for indirect cost recovery charges.  
 2 - These departments and divisions have moderate storm water costs and are not tracked separately by the University budget system.

## ATTACHMENTS