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DRAFT 3/4/03



STORM WATER MANAGEMENT PROGRAM

Submitted March 4, 2003

Miami Conservancy District

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Janet M. Bly,
General Manager

Introduction

EXECUTIVE SUMMARY

Miami Conservancy District is required to submit a storm water management program (SWMP) in accordance with 40 CFR Part 122.32 and Ohio Law. This document contains that program which will be executed during the five years of coverage under Ohio's General Permit. Our program will reduce the discharge of pollutants to the maximum extent practicable, to protect water quality, and to satisfy the appropriate requirements of the Clean Water Act in accordance with the National Pollutant Discharge Elimination System and Ohio EPA's Phase II Storm Water program. The SWMP addresses the six minimum control measures as required by federal and state regulations. The Notice of Intent (NOI) and SWMP were submitted by March 10, 2003.

Miami Conservancy District, as a watershed-based organization whose mission includes the conservation of water resources, hereby accepts responsibility for implementing Best Management Practices under minimum control measures #1, #2, and #3 within the five year permit period on behalf of the following communities:

Bath Township (Greene County)
Bethel Township (Clark County)
Bethel Township (Miami County)
Butler County
Butler Township (Montgomery County)
Carlisle
Centerville
Clark County
Clayton
Concord Township (Miami County)
Englewood
Enon
Fairborn
Franklin
German Township (Clark County)
German Township (Montgomery County)
Germantown Village
Green Township (Clark County)
Greenville
Hamilton
Harrison Township (Montgomery County)
Huber Heights
Jefferson Township (Montgomery County)
Kettering
Lawrenceville

Miami Conservancy District NPDES Phase II Storm Water Management Program

Mad River Township (Clark County)
Miami County
Miami Township (Montgomery County)
Miamisburg
Monroe Township (Miami County)
Montgomery County
Moorefield Township (Clark County)
Moraine
Oakwood
Piqua
Riverside
Sidney
Springboro
Springfield
Springfield Township (Clark County)
Staunton Township
Tipp City
Trotwood
Troy
Union
Union Township (Miami County)
Vandalia
Washington Township (Montgomery County)
West Carrollton
West Milton
Wright State University

The practices these communities are assigning to Miami Conservancy District are so indicated by the symbol "*" within each table.

STATEMENT OF AUTHORITY

Within our organization, we have the legal authority to perform all of the activities for which we claim responsibility in this Storm Water Management Program. Where we do not have legal authority, we have assigned that responsibility to another body possessing the necessary authority to proceed in the manner described.

PERMIT COVERAGE AREA

The storm water management program applies to the non-traditional municipal separate storm sewer system (MS4) operated by the Miami Conservancy District within the Urbanized Area as identified by the US Census. This system begins typically where the local jurisdiction's MS4 meets a floodgate that we operate, and ends at the outfall into a receiving stream. See Figure 1.

REPORTING

Reports will be submitted annually during the first term of the permit cycle. The report will include the status of compliance with the permit conditions, an assessment of the appropriateness of the BMPs and progress towards achieving the measurable goals for each of the six minimum control measures. The report will be a summary of the activities to be undertaken during the next reporting cycle, including an implementation schedule. The report will also include any changes to BMPs or measurable goals and results of information collected and analyzed, if any, during the reporting period. The report will also contain proposed changes to our SWMP, including changes to any BMPs or any identified measurable goals that apply to the program elements. Details will include notice of where we are relying on another government entity to satisfy some of our permit obligations, if applicable.

Storm Water Management Program of Miami Conservancy District

The plan outlines the six minimum control measures that are expected to result in significant reductions in pollutants discharged by Miami Conservancy District

The six minimum controls are:

1. Public Education and Outreach on Storm Water Impacts
2. Public Involvement/Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Storm Water Runoff Control
5. Post Construction Storm Water Management in New Development and Redevelopment
6. Pollution Prevention/Good Housekeeping for Municipal Operations

In the following tables, we have planned to implement our Best Management Practices within a specific timeframe following the date that Ohio EPA grants us coverage under Ohio's General Permit. This significant date we are referring to as our Permit Coverage Date or "PCD." Since the PCD is the date that we are obligated to implement tasks under this program, we have utilized a "PCD +" date designation within tables where appropriate. For those Best Management Practices where we will be continuing current work or beginning some task immediately, we have indicated a start date of March 10, 2003.

Each minimum control measure will be addressed separately by a Program Overview Table and a Decision Process & Rationale Statement narrative. We will also utilize references to the numeric section designations of Ohio's General Permit for referencing purposes.

PUBLIC EDUCATION AND OUTREACH ON STORM WATER IMPACTS
Minimum Control Measure #1

PROGRAM OVERVIEW

Table 1:

Public Education and Outreach on Storm Water Impacts				
Implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities to the community, in accordance with 3.2.1.1 of Ohio's General Permit.				
BMP	Measurable Goal	Time	Responsible Party	Rationale
*Broadcast 30-second Public Service Announcement about human impacts to storm water on locally viewed television.	Facilitate the airing 10 times during the period designated	Start Date: PCD + 1 month End Date: PCD + 18 months	Miami Conservancy District - Watershed Team	To raise awareness of individual connection to streams & practical things everyone can do to protect streams
*Publish storm water awareness print ads in newspapers of general circulation.	Publish the ads in 10 editions during the period designated	Duration: PCD + 2 months through PCD + 18 months	Miami Conservancy District - Watershed Team	To raise awareness of individual connection to streams & practical things everyone can do to protect streams
*Hold training opportunities for technical audiences &/or facilitate the attendance of key professionals at regional training opportunities.	Hold two trainings annually for 10 people per training	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Watershed Team	To provide practical tools to protect storm water
*Coordinate a tour of storm water BMPs for practitioners	Make available an annual site visit for 10 individuals	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Watershed Team	To provide practical tools to protect storm water
Provide information about spill prevention and erosion control during the pre-construction meeting with MCD's contractors.	Have pamphlet ready to hand out at each meeting	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Chief Engineer	To reduce construction site runoff from entering streams

DECISION PROCESS

Through in-depth research and numerous watershed meetings, the Great Miami River Watershed community chose a multi-faceted approach. One of the strongest groups working on this issue has been a subcommittee on Public Education, Outreach and Involvement organized under Miami Valley Regional Planning Commission's watershed group: Lower Miami River Basin Council Watershed Enhancement Program. This group established a Phase II Storm Water Working Group, which then created subcommittees to make recommendations for compliance with specific measures of the storm water regulations. Research the group performed included examinations of products and programs available from the Huron River Watershed Council, the Center for Watershed Protection, and River Network. We also examined social behavior research conducted by the National Geographic Society and Ohio University. As a result, we have chosen the following strategy to effect change in the attitudes and behaviors of residents. Details about our plan's measurable goals, timeline, responsible party, and rationale for choosing those goals are contained within the program overview chart above.

RATIONALE STATEMENT

Informing individuals and groups about becoming involved in the storm water program 3.2.1.2.2

We believe that our outreach strategy will cause individuals to become more aware of storm water issues, leading to changed personal behaviors and renewed interest in public involvement with local community storm water-related programs.

Informing individuals about reducing storm water pollution 3.2.1.2.1

Our media campaign targets individuals and households regarding the connection between their personal habits and the health of local streams.

Target Audiences 3.2.1.2.3

This control measure will target homeowners, the general public, developers, and construction site designers. An informed and knowledgeable community is crucial to the success of the storm water management program. As the public becomes aware of the personal responsibilities expected of them and others in the community, including the individual actions they can take to protect or improve the quality of area waters, a greater compliance with the storm water program will result. The program includes watershed-based efforts to inform and motivate the public.

The public education program will use a variety of strategies in which to reach a diverse audience. The media campaign will use a mix of media, in English and Spanish, to reach more citizens than English alone. Training events target various professional, political and private audiences.

Target Pollutant Sources 3.2.1.2.4

Miami Conservancy District has chosen a mix of best management practices (BMPs) to address appropriate pollutants in the Great Miami River Watershed. In addition to raising awareness about watershed function, various programs will promote proper hazardous waste disposal, sediment and erosion control, and nutrient reduction.

Outreach Strategy 3.2.1.2.5

Media Campaign

Miami Conservancy District will partner with the national RiverSmart media campaign that targets homeowners and the general public. The basic message, delivered via TV PSAs and print ads will help citizens understand their connection to local streams and what they can do to protect them. In a recent national survey, 67% of Americans did not know how their everyday actions create water pollution, but most are willing to change simple behaviors once they are informed. Specific issues include but are not limited to: lawn care, household hazardous waste disposal, and vehicle maintenance. Through this campaign, we expect to reach 100,000 people annually or 500,000 people through the permit term.

Training Events

Miami Conservancy District will coordinate a series of training events for specific targeted audiences. These events will empower each audience to protect water resources and reduce storm water pollution. Audiences to be addressed are: construction site designers, developers, and public employees. The types of events will include but not be limited to: interactive technical workshops and tours of storm water Best Management Practices (BMPs). Technical workshops and storm water tours will promote sediment and erosion control as well as conservation development and the reduction of storm water quantity leaving construction sites during and following project completion. Through the training events and tours, we expect to reach 20 professionals annually, or 100 people throughout the permit term.

Responsible Party 3.2.1.2.6

Miami Conservancy District's Watershed Team is responsible for each of the BMPs within the Public Education and Outreach section on behalf of our organization and on behalf of all communities listed in the Executive Summary.

Evaluation Procedure 3.2.1.2.7

Miami Conservancy District has conducted baseline data via a phone survey prior to the beginning of the media campaign and they will conduct some similar research at the end of the five-year permit period to determine if public awareness and behaviors have changed during that time. For the training sessions and tours, success will be determined by the numbers of people attending and by qualitative data gathered via program feedback forms.

PUBLIC INVOLVEMENT/PARTICIPATION
Minimum Control Measure #2

PROGRAM OVERVIEW

Table 2:

Public Involvement/Participation				
Implement a public involvement and participation program which at a minimum complies with State and local public notice requirements, in accordance with 3.2.2.1 of Ohio's General Permit.				
BMP	Measurable Goal	Time	Responsible Party	Rationale
*Stream Team volunteer monitors collect data and report on stream health during field season.	Facilitate training of 20 new volunteers throughout Great Miami River Watershed each year	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Watershed Team	To raise awareness of stream health for those participating and those hearing reports
*Great Miami River Watershed Network meets to strategize and share resources.	Three meetings per year	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Watershed Team	To facilitate resource-sharing and limit duplication of effort
*Promote stakeholder participation in community-based watershed groups as a means to improve stream health.	Community-based Watershed Organization Inventory published	Start date: PCD + 1 day End date: PCD + 8 months	Miami Conservancy District - Watershed Team	To promote local work of individual watershed groups to their stakeholders
*Support existing water festivals for children and the general public.	Participate in two festivals throughout the Great Miami River Watershed annually	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Watershed Team	To encourage involvement of broad stakeholder groups in educating the public
Comply with public notice requirements.	As required, provide opportunity for public hearing and comment regarding new policies or regulatory mechanisms.	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District	To maintain flow of information during the development and implementation of the SWMP
Use local partnerships to analyze soil and make recommendations on best grass seed.	Identify best grass seed and recommend its use at two different locations.	Duration: PCD + 24 months through PCD + 36 months	Miami Conservancy District - Land Stewardship Team	To reduce need for potentially polluting maintenance practices.
Provide bags along trails for dog walkers to clean up after their pets	Provide bags at one new site per year.	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Field Operations Manager	To reduce amount of fecal coliform entering streams from trails along waterways.

DECISION PROCESS

Through in-depth research and numerous watershed meetings, the community chose a multi-faceted approach. One of the groups working on this issue has been a subcommittee on Public Education, Outreach and Involvement organized under Miami Valley Regional Planning Commission's watershed group: Lower Miami River Basin Council Watershed Enhancement Program. This group established a Phase II Storm Water Working Group, which then created sub-committees to make recommendations for compliance with specific measures of the storm water regulations. Research the group performed included examinations of products and programs available from the Huron River Watershed Council, the Center for Watershed Protection, and River Network. We also examined social behavior research conducted by the National Geographic Society and Ohio University. As a result, we have chosen the following strategy to effect change in the attitudes and behaviors of residents. Details about our plan's measurable goals, timeline, responsible party, and rationale for choosing those goals are contained within the program overview chart above.

RATIONALE STATEMENT

Involving the public in the Storm Water Management Plan development 3.2.2.2.1

We have involved the public in developing our Storm Water Management Plan by complying with State and local public notice requirements. Also, we have presented our plans for Public Education and for Public Involvement to the Great Miami River Watershed Network for consideration and comment.

Involving the public in program development and implementation 3.2.2.2.2

As our program is researched and developed during the permit period, we will involve a citizen committee in an advisory capacity.

Target audiences 3.2.2.2.3

Our Public Involvement and Participation program targets several audiences: children, the general public, and decision-makers. We will utilize methods and messengers that appeal to and reach the broadest possible spectrum of ethnic and economic audiences. Many of our programs will involve affected stakeholder groups such as private businesses, environmental groups, homeowners associations, and educational institutions.

Activities 3.2.2.2.4

The activities that we have chosen are listed in Table 2. They include citizen volunteer monitoring, support and participation in water festivals, and facilitation of a network of non-profits, agencies, businesses, and citizens who are interested in protecting the Great Miami River watershed.

Miami Conservancy District will also continue its tradition of partnership in presenting local water festivals. These existing events target children and create an atmosphere where learning about protecting water is fun, relevant, and effective. Through the water festivals, we expect to reach 3,500 children annually or 17,500 throughout the permit term.

Responsible Party 3.2.2.5

The Miami Conservancy District's Watershed Team is responsible for oversight and implementation of the Public Involvement and Participation program for our community.

Evaluation 3.2.2.6

Success will be measured by meeting the deadlines for completing the goals set for implementing the Public Involvement and Participation program.

ILLICIT DISCHARGE DETECTION AND ELIMINATION

Minimum Control Measure #3

PROGRAM OVERVIEW

Table 3:

Illicit Discharge Detection and Elimination				
Create a storm sewer system map, in accordance with 3.2.3.1.2 of Ohio's General Permit.				
BMP	Measurable Goal	Time	Responsible Party	Rationale
*Become familiar with storm sewer system	Identify location of 100% of required outfalls in the Great Miami River Watershed	Start Date: 3/10/2003 End Date: 3/10/2006	Miami Conservancy District - Rivers & Streams	To identify and stop illicit discharges
Become familiar with storm sewer system	Create a map showing all identified outfalls and potential receiving waters in the Great Miami River Watershed	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Water Resources	To identify and stop illicit discharges
Identify discharging septic systems on MCD-owned land.	Submittal of list of 100% of discharging septic systems to the Ohio EPA.	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Land Stewardship Committee	To be aware of location of home sewage treatment systems
Identify discharging septic systems on MCD-owned land.	Locate 100% of discharging septic systems on map of MS4 outfalls and submit to Ohio EPA.	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Water Resources Section	To be aware of location of home sewage treatment systems.

Miami Conservancy District NPDES Phase II Storm Water Management Program

Create an ordinance or other regulation to prohibit non storm-water discharges into the MS4, in accordance with 3.2.3.1.3 of Ohio's General Permit.				
BMP	Measurable Goal	Time	Responsible Party	Rationale
Ensure construction activities do not degrade water quality.	Require 100% of MCD contractors working on MCD-owned land to submit a copy of the necessary permit(s) regarding land disturbances.	Duration: PCD + 24 months through PCD + 36 months	Miami Conservancy District - Chief Engineer	To reduce potential of pollutants entering soil and/or streams from work sites.
Ensure construction activities do not degrade water quality.	Require 100% of MCD contractors working on MCD-owned land to post a copy of necessary permit(s) regarding land disturbances.	Duration: PCD + 24 months through PCD + 60 months	Miami Conservancy District - Chief Engineer	To reduce potential of pollutants entering soil and/or streams from work sites.
Ensure construction activities do not degrade water quality.	Require 100% of contractors working on MCD property to submit a copy of the necessary permit(s) regarding land disturbances.	Duration: PCD + 24 months through PCD + 60 months	Miami Conservancy District - Property Administrator	To reduce potential of pollutants entering soil and/or streams from work sites.
Ensure construction activities do not degrade water quality.	Require 100% of contractors working on MCD property to post a copy of necessary permit(s) regarding land disturbances.	Duration: PCD + 24 months through PCD + 60 months	Miami Conservancy District - Property Administrator	To reduce potential of pollutants from entering soil and/or streams from work sites.

Miami Conservancy District NPDES Phase II Storm Water Management Program

Identify and eliminate illicit discharges, in accordance with 3.2.3.1.4 of Ohio's General Permit.				
BMP	Measurable Goal	Time	Responsible Party	Rationale
Control illegal dumping on MCD property	Inspect 100% of MCD properties for incidents of illegal dumping two times per year.	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Field Operations Manager	To remain diligent in preventing/discouraging illegal dumping
Identify illicit connections to the MS4.	Review available existing maps and resources detailing illicit connections to the MS4.	Duration: PCD + 24 months through PCD + 36 months	Miami Conservancy District - Field Operations Manager	To identify potential priority areas where illicit connections are likely to occur
Eliminate illicit discharges and illegal dumping in the MS4.	Create a plan to eliminate illicit discharges and illegal dumping into our MS4.	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Property Administrator / Field Operations Manager	To incorporate the most sustainable and feasible elements into an effective system of reducing storm water pollution.
Eliminate illicit discharges and illegal dumping in the MS4.	Implement plan to identify and eliminate illicit discharges and illegal dumping into our MS4.	Duration: PCD + 24 months through PCD + 36 months	Miami Conservancy District - Field Operations Manager	To dramatically reduce illicit discharges and thereby improve the quality of stream health.
Educate various audiences about the hazards associated with illegal discharges and improper disposal of waste, in accordance with 3.2.3.1.5 of Ohio's General Permit.				
BMP	Measurable Goal	Time	Responsible Party	Rationale
Include information about illegal and improper waste disposal in mass media campaign described under MCM #1.	Print or broadcast two advertisements annually in media of general circulation.	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Watershed Initiatives Team	To enlist the assistance of users, contractors, and other audiences in the task of reducing illegal discharges.
Provide information about spill prevention and erosion control during the pre-construction meeting with MCD's contractors.	Have pamphlet ready to hand out at each meeting	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Chief Engineer	To reduce construction site runoff from entering streams

DECISION PROCESS

Working groups of staff met repeatedly over several months to determine the best possible plan for developing a program to detect and eliminate illicit discharges to MCD property. A cafeteria list of options from the US EPA Menu of BMP's has been presented and we have chosen the most logical and effective set of BMPs to suit our own needs. A comparison of the requirements and the capacity of most jurisdictions by Miami Conservancy District's staff prompted the organization to make a commitment to assist all collaborating communities by locating these communities' outfalls and identifying their receiving streams within the Great Miami River Watershed. Details about our plan's measurable goals, timeline, responsible party, and rationale for choosing those goals are contained within the program overview chart above.

RATIONALE STATEMENT

Storm Sewer Map Development Process 3.2.3.2.1

Each community will utilize all available records in developing their storm sewer maps. Miami Conservancy District will conduct field verification of outfalls by visiting every outfall within the given time period and identifying that outfall with Geographic Positioning System technology. We will relay this information to each cooperating community so they may utilize it to create a map. We will also make a map of our own outfall locations. After completion of MCD's storm sewer map we will maintain its accuracy by updating it as new outfalls are installed.

Regulatory Mechanism Development 3.2.3.2.2

We will enforce existing regulatory mechanisms and develop new ones as necessary to prohibit illicit discharges into the MS4. We will also seek to cooperate with jurisdictions where our MS4 is located to implement any new regulations they develop under this program.

Enforcement and Implementation 3.2.3.2.3

Our program will ensure appropriate enforcement procedures and actions so that implementation of the illicit discharge detection and elimination program will be effective to the maximum extent practicable. To do so, we will cooperate with existing officials.

Illicit Discharge Detection and Elimination 3.2.3.2.4

Detecting and addressing illicit discharges to the MS4, including illegal dumping, will be included in our program. We will create a method to conduct dry weather field screening for non-storm water flows and possibly field tests of selected chemical parameters as indicators of discharge sources, to the maximum extent practicable. The program will also address on-site sewage disposal systems that flow into our storm drainage system. The most likely areas to contain illicit connections will be prioritized by the appropriate department and/or agency with the authority to correct problems. We will research, develop, and adopt procedures for tracing the source of an illicit discharge and will detect the location of the source by methods that are logical and effective. Procedures will also be developed for removing the illicit discharge source. We will also develop procedures for program evaluation and assessment.

Methods of Informing Various Audiences about the Hazards Associated with Illegal Discharges 3.2.3.2.5

We will inform businesses, public employees, and general public of hazards associated with illegal discharges through public service announcements as described under Minimum Control Measure 1 (see Table 1).

Responsible Party 3.2.3.2.6

The responsible party for overall management and implementation of our storm water illicit discharge detection and elimination program and the responsible party for each of the BMPs are defined in the table included above.

Evaluation 3.2.3.2.7

Success will be measured by meeting the deadlines we have set for our work in developing this program for detecting and eliminating illicit discharges.

CONSTRUCTION SITE STORM WATER RUNOFF CONTROL
Minimum Control Measure #4

PROGRAM OVERVIEW

Table 4:

Construction Site Storm Water Runoff Control				
Create an ordinance or other regulation requiring erosion and sediment controls on disturbed sites equal to or greater than one acre that includes sanctions to help ensure compliance, in accordance with 3.2.4.1.1 of Ohio's General Permit.				
BMP	Measurable Goal	Time	Responsible Party	Rationale
Ensure construction activities do not degrade water quality with sediments.	Amend Land Use Permit language to require 100% of contractors working on MCD property to submit a copy of necessary state permit(s) and comply with local regulations.	Duration: PCD + 24 months through PCD + 60 months	Miami Conservancy District - Property Administrator	To reduce potential of sediments entering streams from work sites.
Ensure construction activities do not degrade water quality with sediments.	Amend Land Use Permit language to require 100% of contractors working on MCD property to post a copy of the necessary state permit(s) and comply with local regulations regarding land disturbances.	Duration: PCD + 24 months through PCD + 60 months	Miami Conservancy District - Property Administrator	To reduce potential of sediments entering streams from work sites.
Ensure construction activities do not degrade water quality with sediments.	Amend contract specifications to require 100% of MCD contractors working on MCD-owned land to submit the necessary state permit(s) and comply with local regulations regarding land disturbances.	Duration: PCD + 24 months through PCD + 60 months	Miami Conservancy District - Chief Engineer	To reduce potential of sediments entering streams from work sites.
Ensure construction activities do not degrade water quality with sediments.	Amend contract specifications to require 100% of MCD contractors working on MCD property to post a copy of the necessary state permit(s) and comply with local regulations regarding land disturbances.	Duration: PCD + 24 months through PCD + 60 months	Miami Conservancy District - Chief Engineer	To reduce potential of sediments entering streams from work sites.

Miami Conservancy District NPDES Phase II Storm Water Management Program

Require construction site operators to implement appropriate erosion and sediment control BMPs, in accordance with 3.2.4.1.2 of Ohio's General Permit.				
BMP	Measurable Goal	Time	Responsible Party	Rationale
Ensure construction activities do not degrade water quality with sediments.	Require 100% of MCD contractors working on MCD property to submit a copy of necessary state permit(s) and comply with local regulations regarding land disturbances.	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Chief Engineer	To reduce potential of sediments entering streams from work sites
Ensure construction activities do not degrade water quality with sediments.	Require 100% of MCD contractors working on MCD land to post a copy of the necessary state permit(s) and comply with local regulations regarding land disturbances.	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Chief Engineer	To reduce potential of sediments entering streams from work sites.
Ensure construction activities do not degrade water quality with sediments.	Require 100% of contractors working on MCD property to submit a copy of necessary state permit(s) and comply with local regulations regarding land disturbances.	Duration: PCD + 24 months through PCD + 60 months	Miami Conservancy District - Property Administrator	To reduce potential of sediments entering streams from work sites.
Ensure construction activities do not degrade water quality with sediments.	Require 100% of contractors working on MCD property to post a copy of the necessary state permit(s) and comply with local regulations regarding land disturbances.	Duration: PCD + 24 months through PCD + 60 months	Miami Conservancy District - Property Administrator	To reduce potential of sediments entering streams from work sites.

Miami Conservancy District NPDES Phase II Storm Water Management Program

Require construction site operators to control waste, including discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste, in accordance with 3.2.4.1.3 of Ohio's General Permit.				
BMP	Measurable Goal	Time	Responsible Party	Rationale
Ensure construction activities do not degrade water quality with sediments.	Require 100% of MCD contractors working on MCD property to comply with project specifications and obtain necessary state permit(s) and comply with local regulations regarding land disturbances.	Duration: PCD + 24 months through PCD + 60 months	Miami Conservancy District - Chief Engineer	To reduce potential of pollutants entering streams from work sites.
Ensure construction activities do not degrade water quality with sediments.	Require 100% of contractors working on MCD property to submit a copy of the necessary state permit(s) and comply with local regulations regarding land disturbances.	Duration: PCD + 24 months through PCD + 60 months	Miami Conservancy District - Property Administrator	To reduce potential of sediments entering streams from work sites.
Ensure construction activities do not degrade water quality with sediments.	Require 100% of contractors working on MCD property to post a copy of necessary state permit(s) and comply with local regulations regarding land disturbances.	Duration: PCD + 24 months through PCD + 60 months	Miami Conservancy District - Property Administrator	To reduce potential of sediments entering streams from work sites.
Develop and implement procedures for site plan review which incorporates consideration of potential water quality impacts, in accordance with 3.2.4.1.4 of Ohio's General Permit.				
BMP	Measurable Goal	Time	Responsible Party	Rationale
Ensure construction activities do not degrade water quality with sediments.	Amend 100% of project specifications to include runoff control requirements.	Duration: PCD + 24 months through PCD + 60 months	Miami Conservancy District - Chief Engineer	To reduce potential of sediments entering streams from work sites.
Ensure construction activities do not degrade water quality with sediments.	Review runoff control provisions in 100% of Land Use Permit applications.	Duration: PCD + 24 months through PCD + 60 months	Miami Conservancy District - Property Administrator	To reduce potential of sediments entering streams from work sites.

Develop and implement procedures for receipt and consideration of information submitted by the public, in accordance with 3.2.4.1.5 of Ohio's General Permit.				
BMP	Measurable Goal	Time	Responsible Party	Rationale
Develop procedure for receiving and referring information submitted by public.	Refer the public to the appropriate jurisdiction where our MS4 is located.	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Field Operations Manager and Public Affairs Manager	To provide continuity between permitting authority and public input.
Develop and implement procedures for site inspection and enforcement of control measures, in accordance with 3.2.4.1.6 of Ohio's General Permit.				
BMP	Measurable Goal	Time	Responsible Party	Rationale
Ensure construction activities do not degrade water quality with sediments.	Inspect 100% of MCD contractors to ensure they comply with contract specifications and to ensure erosion control is practiced.	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Chief Engineer	To reduce potential of sediments entering streams from work sites.
Ensure construction activities do not degrade water quality.	Enforce contract specifications regarding runoff control measures for 100% of contracts.	Duration: PCD + 24 months through PCD + 60 months	Miami Conservancy District - Chief Engineer	To reduce potential of sediments entering streams from work sites.

DECISION PROCESS

As a leader in ongoing collaborative effort for the Great Miami River Watershed, we will have the option of meeting with other communities to create a cohesive and somewhat uniform program for sediment and erosion control. The benefits of such a joint effort are many and include: reduction of the variety of requirements currently in place, simplification of process for developers in complying with different requirements based on jurisdictional lines, and sharing of knowledge from neighboring communities. Though joint program development is available and encouraged, final responsibility for development and implementation lies with each jurisdiction. Details about our plan's measurable goals, timeline, responsible party, and rationale for choosing those goals are contained within the program overview chart above.

RATIONALE STATEMENT

Regulatory Mechanism Development 3.2.4.2.1

We will enforce existing regulatory mechanisms or develop new ones to require sediment and erosion controls on construction sites that disturb one acre and above. Miami Conservancy District's most effective tool in preventing soil erosion is in the language of both the Land Use Permit for other entities using our land and the language of our own job specifications and agreements with construction contractors. For copies

of existing documents of this type to be modified in compliance with this program, see the Appendix to this document.

Enforcement 3.2.4.2.2

A program to enforce this regulatory mechanism via sanctions such as stop work orders, fines, bonding requirements, and/or permit denials will be created during the permit period. We will determine the appropriate sanctions to suit our local needs.

Construction Site BMPs and Waste Control 3.2.4.2.3

Our program will require construction site operators to implement appropriate erosion and sediment control BMPs and control waste at construction sites that may cause adverse impacts to water quality. Such waste includes discarded building materials, concrete truck washouts, chemicals, litter, and sanitary waste.

Site Plan Review 3.2.4.2.4

During the permit period, we will strengthen procedures for site plan review, including the review of pre-construction site plans, which incorporate consideration of potential water quality impacts. All plans will continue to be reviewed.

Information from the Public 3.2.4.2.5

The program will strengthen our methods of receiving and considering information submitted by the public related to construction site sediment and erosion control.

Site Inspection Procedures 3.2.4.2.6

The program will further develop procedures for site inspection and enforcement of control measures to the maximum extent practicable. Miami Conservancy District currently inspects 100% of construction projects we contract.

Responsible Party 3.2.4.2.7

The responsible party for overall management and implementation of the construction site storm water runoff control program and the responsible party for each of the BMPs are defined in the table above.

Evaluation 3.2.4.2.8

Success will be measured by meeting the deadlines we have set for our work in developing our program for construction site storm water runoff control.

POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

Minimum Control Measure #5

PROGRAM OVERVIEW

Table 5:

Post-Construction Storm Water Management in New Development and Redevelopment				
Develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre, in accordance with 3.2.5.1.1 of the Ohio General Permit.				
BMP	Measurable Goal	Time	Responsible Party	Rationale
Reduce storm water runoff from development and redevelopment as appropriate.	Reduce storm water runoff from 100% of new development and redevelopment on MCD-owned land.	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Chief Engineer	To reduce stream impacts of increased flows and impaired quality from developed projects
Reduce storm water runoff from development and redevelopment as appropriate.	Cooperate and coordinate with local authorities to reduce storm water runoff from development and redevelopment on land adjacent to MCD property.	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Chief Engineer	To reduce stream impacts of increased flows and impaired quality from developed projects.

Miami Conservancy District NPDES Phase II Storm Water Management Program

Develop and implement strategies which include a combination of structural and/or non-structural BMPs, in accordance with 3.2.5.1.2 of Ohio's General Permit.				
BMP	Measurable Goal	Time	Responsible Party	Rationale
Utilize structural and/or non-structural BMPs.	Identify appropriate structural and non-structural BMPs for projects on MCD land.	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Chief Engineer	To implement the most effective practices on MCD land.
Protect floodplains, riparian lands, wetlands, and other appropriate natural lands within the Great Miami River Watershed.	Continually identify lands that have potential to be damaged or lost. Update map annually.	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Watershed Coordinator	To increase infiltration and reduce run-off that impacts streams.
Protect floodplains, riparian lands, wetlands and other appropriate natural lands within the Great Miami River Watershed.	Cooperate and coordinate with local authorities to protect these lands. Update map of protected lands annually.	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Watershed Coordinator	To increase infiltration and reduce run-off that impacts streams.
Encourage structural and/or non-structural BMPs.	Cooperate and coordinate with local authorities in requiring structural and non-structural BMPs on land adjacent to MCD property.	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Chief Engineer	To provide continuity of design between MCD land and other land within each jurisdiction.

Use a regulatory mechanism to address post-construction runoff from new development or redevelopment projects, in accordance with 3.2.5.1.3 of Ohio's General Permit				
BMP	Measurable Goal	Time	Responsible Party	Rationale
Incorporate project specifications to ensure post-construction runoff equals pre-construction runoff.	100 % of MCD contracts include specifications for post-runoff control	Duration: PCD + 24 months through PCD + 60 months	Miami Conservancy District - Chief Engineer	To reduce potential for flow modifications to impair stream health.
Ensure adequate and long-term operation and maintenance of BMPs, in accordance with 3.2.5.1.4 of Ohio's General Permit.				
BMP	Measurable Goal	Time	Responsible Party	Rationale
Encourage proper jurisdiction to develop a policy that ensures long-term operation and maintenance of BMPs.	Cooperate and coordinate with local authorities.	Duration: PCD + 24 months through PCD + 60 months	Miami Conservancy District - Field Operations Manager	To maintain the functionality of the original design and therefore protect stream health.
Update caretaker manual to define inspection procedures	Annual report of maintenance activity	Duration: PCD + 24 months through PCD + 60 months	Miami Conservancy District - Field Operations Manager	To maintain the functionality of the original design and therefore protect stream health.

DECISION PROCESS

As a leader of collaborative effort for the Great Miami River Watershed, we will have the option of meeting together with Great Miami River Watershed communities to create a cohesive and somewhat uniform program for post-construction runoff control. The benefits of such a joint effort are many and include: reduction of the variety of requirements currently in place, simplification of process for developers in complying with different requirements based on jurisdictional lines, and sharing of knowledge from neighboring communities. Though joint program development is available and encouraged, final responsibility for development and implementation lies with each jurisdiction. Details about our plan’s measurable goals, timeline, responsible party, and rationale for choosing those goals are contained within the program overview chart above.

RATIONALE STATEMENT

Program and Priority Areas 3.2.5.2.1

The post-construction storm water management program will address storm water runoff from new development and redevelopment projects. The development of the program will identify priority areas such as those properties that could be converted from existing green space to commercial, residential, or industrial uses.

Program and Community 3.2.5.2.2

This program will be tailored to the local community by minimizing water quality impacts through maintaining pre-development run-off conditions.

Non-structural BMPs as Appropriate 3.2.5.2.3

As we develop our program, we will incorporate policies to direct growth to identified areas, protect sensitive areas such as wetlands and riparian areas, maintain and/ or increase open space, provide buffers along sensitive water bodies, minimize impervious surfaces, and minimize disturbance of soils and vegetation. Other policies will encourage infill development in higher density urban areas and areas with existing storm sewer infrastructure. Education programs for developers and the public about project designs that minimize water quality impacts will be offered. As appropriate we will research and develop other measures such as minimization of the percentage of impervious area after development and the use of measures to minimize directly connected impervious areas. Good housekeeping, preventive maintenance, and spill prevention are all practices to be adopted by the program to reduce impervious surface impacts on water quality.

Structural BMPs as Appropriate 3.2.5.2.4

As determined practicable, we will incorporate structural BMPs such as detention / wet ponds, filtration via grassed swales, bioretention cells, sand filters, filter strips, and infiltration basins/ trenches into the program.

Regulatory Mechanisms 3.2.5.2.5

We will enforce existing regulatory mechanisms and develop new policies to control post-construction run-off from new developments and redevelopments.

Long-Term Operation and Maintenance 3.2.5.2.6

We will develop procedures to ensure long-term operation and maintenance of selected BMPs.

Responsible Party 3.2.5.2.7

The responsible party for overall management and implementation of the storm water post-construction runoff control program and the responsible party for each of the BMPs are defined in the table contained in the program overview chart above.

Evaluation 3.2.5.2.8

Success will be measured by meeting the deadlines we have set for our work in developing our program for post-construction runoff control.

POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

Minimum Control Measure #6

PROGRAM OVERVIEW

Table 6:

Pollution Prevention/Good Housekeeping for Municipal Operations				
Develop and implement an operation and maintenance program that includes a training component to prevent/reduce pollutant runoff from municipal operations, in accordance with 3.2.6.1.1 of Ohio's General Permit.				
BMP	Measurable Goal	Time	Responsible Party	Rationale
Ensure all hazardous materials are properly stored and labeled in MCD facilities.	Perform annual inspections of all hazardous materials stored in MCD facilities.	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Field Operations Manager and Safety Committee	Properly handle hazardous materials to prevent accidental spills.
To know where drains within MCD facilities go to or are connected.	Analyze and document where storm drains go.	Duration: PCD + 12 months through PCD + 48 months	Miami Conservancy District - Field Operations Manager	To be aware of possible path of any spilled fluids.
Respond to spills of hazardous materials by MCD staff.	Review and update spill response program and include in caretaker's manual.	Duration: PCD + 24 months through PCD + 36 months	Miami Conservancy District - Field Operations Manager and Safety Committee	To reduce contamination of streams by unexpected spills.
Respond to hazardous materials spills by MCD staff.	Determine which haz-mat team is appropriate to contact at each of MCD's flood control features and include in caretaker's manual.	Duration: PCD + 24 months through PCD + 36 months	Miami Conservancy District - Field Operations Manager, Safety Committee	To improve response time in the event of an unexpected spill.
Enhance program to deter illegal dumping on MCD property in cooperation with local police force.	Caretakers include information on local police calls for dumping incident in their regular reports.	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Field Operations Manager	To reduce the amount of debris and trash deposited on MCD property, much of which will ultimately have easy access to local streams.
Reduce amount of debris and trash from river channels.	Hold all-employees trash pick-up day, annually.	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Field Operations Manager	To gather debris and trash that has been dumped or deposited on MCD land.
Improve fuel storage practices at MCD maintenance locations.	Install fuel containment system for MCD facilities.	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Field Operations Manager	To reduce likelihood of a fuel leak that could negatively impact streams

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Properly manage automobile fluids.	Maintain oil and solvent recycling program by approved contractor and include pick-up dates in annual report.	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Field Operations Manager	To ensure that fluids are disposed of properly.
Sweep bikeways	Document annual reporting of miles swept.	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Field Operations Manager	To reduce likelihood that contaminants are washed from bike path and into the streams.
Minimize runoff from fleet washing operations.	Review and update MCD fleet vehicle washing practices.	Duration: PCD + 12 months through PCD + 48 months	Miami Conservancy District - Field Operations Manager	To reduce possibility that wash water will result in stream impairment.
Maintain floodgates to consider pollution impacts.	Analyze floodgate maintenance practices and update as practicable	Duration: PCD + 12 months through PCD + 48 months	Miami Conservancy District - Field Operations Manager	To reduce potential for stream impacts from these practices.
Continue to practice responsible pesticide use.	Continue to retain licensed pesticide applicators on staff.	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Field Operations Manager	To ensure that only the proper amount of pesticides are applied
Continue to practice responsible fertilizer use.	Continue to use fertilizer products as needed, not exceeding manufacturer's recommendations.	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Field Operations Manager	To limit excess nitrogen and phosphorus from impacting streams
Ensure Dayton Fire Department is aware of all flammable liquids stored at MCD's Dayton Maintenance Facility.	Maintain permit with Dayton Fire Department for all flammable liquids stored at MCD's Dayton Maintenance Facility.	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Field Operations Manager	To reduce the likelihood of discharge to the stream.
Use available training materials to train employees to prevent/reduce storm water pollution from park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance, in accordance with 3.2.6.1.2 of the Ohio General Permit.				
BMP	Measurable Goal	Time	Responsible Party	Rationale
Train employees on existing policies related to pollution prevention and good housekeeping, once developed.	Train 100% of employees on existing policies related to pollution prevention and good housekeeping	Duration: PCD + 12 months through PCD + 48 months	Miami Conservancy District - Watershed Coordinator	To provide employees with skills to maintain a minimum level of protection of the stream from facility operations
Train employees on new policies related to pollution prevention and good housekeeping, once developed.	Train 100% of employees on new policies related to pollution prevention and good housekeeping	Start Date: 3/10/2003 End Date: Permit Expiration	Miami Conservancy District - Watershed Coordinator	To provide employees with skills to maintain protection of the stream from facility operations.

DECISION PROCESS

We have established a working group of staff people to create this section of our Storm Water Management Plan that addresses pollution prevention and good housekeeping for municipal operations. Details about our plan's measurable goals, timeline, responsible party, and rationale for choosing those goals are contained within the program overview chart above.

RATIONALE STATEMENT

Operation and Maintenance Program 3.2.6.2.1

MCD's operations impacted by this program include all maintenance facilities, properties, and the MS4 within the Urbanized Area. Industrial facilities owned by the community that are subject to Ohio EPA's Industrial Storm Water General Permit or individual NPDES permits for discharges of storm water associated with industrial activity that ultimately discharge to our MS4 will also be included in each community's list. As our program is developed, we will include the Ohio EPA permit number or a copy of the Industrial NOI form for each facility in the appropriate annual report.

Government employee training program 3.2.6.2.2

We will implement a government employee training program to prevent and reduce storm water pollution by educating employees on maintaining parks and open spaces, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance. As part of the training program development process, we will seek to use existing materials whenever appropriate and will list those materials used in our annual reports. This training program will be coordinated with the outreach programs developed for the public information and illicit discharge minimum measures by involving responsible parties for those minimum measures.

Program Description 3.2.6.2.3

Our program will include maintenance activities and schedules and long-term inspection procedures to reduce floatables and pollutants to the MS4. It will provide controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, waste transfer stations, fleet or maintenance shops with outdoor storage areas, and salt/sand storage locations and snow disposal area we operate, as applicable. Procedures for proper disposal of waste removed from MS4 and municipal operations will be implemented, including dredge spoil, accumulated sediments, floatables and other debris. New flood management projects will assess impacts on water quality and we will assess existing projects for additional water quality protection devices or practices that could be added.

Responsible Party 3.2.6.2.4

The responsible party for overall management and implementation of the storm water post-construction runoff control program and the responsible party for each of the BMPs are defined in the table in the program overview chart above.

Evaluation 3.2.6.2.5

Success will be measured by meeting the deadlines we have set for our work in developing this program for pollution prevention/good housekeeping for our municipal operations.

Sharing Responsibility

MIAMI CONSERVANCY DISTRICT'S RESPONSIBILITIES

Miami Conservancy has agreed to accept responsibility for the measurable goals so indicated in this document. Miami Conservancy has agreed to accept these responsibilities in order to comply with this regulation and also to fulfill objectives within their existing Strategic Plan.

Miami Conservancy District, as a watershed-based organization whose mission includes the conservation of water resources, hereby accepts responsibility for implementing Best Management Practices under minimum control measures #1, #2, and #3 within the five year permit period on behalf of the following communities:

Bath Township (Greene County)
Bethel Township (Clark County)
Bethel Township (Miami County)
Butler County
Butler Township (Montgomery County)
Carlisle
Centerville
Clark County
Clayton
Concord Township (Miami County)
Englewood
Enon
Fairborn
Franklin
German Township (Clark County)
German Township (Montgomery County)
Germantown Village
Green Township (Clark County)
Greenville
Hamilton
Harrison Township (Montgomery County)
Huber Heights
Jefferson Township (Montgomery County)
Kettering
Lawrenceville
Mad River Township (Clark County)
Miami County
Miami Township (Montgomery County)
Miamisburg

Monroe Township (Miami County)
Montgomery County
Moorefield Township (Clark County)
Moraine
Oakwood
Piqua
Riverside
Sidney
Springboro
Springfield
Springfield Township (Clark County)
Staunton Township
Tipp City
Trotwood
Troy
Union
Union Township (Miami County)
Vandalia
Washington Township (Montgomery County)
West Carrollton
West Milton
Wright State University

The practices these communities are assigning to Miami Conservancy District are so indicated by the symbol "*" within each table.

Monitoring and Record keeping

MONITORING

Each responsible party will monitor and evaluate the success of their commitments. As appropriate, they will utilize procedures approved by the Ohio Revised Code.

RECORD KEEPING

Each responsible party will keep accurate, regular records including, as appropriate, all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, copies of monitoring reports, a copy of the NPDES permit, and records of all data used to complete the NOI application for this permit, for a period of at least three years from the date of the sample, measurement, report or application, or for the term of this permit, whichever is longer.