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I. Legal Authorities to Implement the Storm Water Management Program

The Board of Cuyahoga County Commissioners (BOCC) has only limited legal authority to implement many portions of a complete Storm Water Management Program (SWMP). County Government consists of several elected officials and their respected offices. Of concern is the division between the work of the County Engineer's Office and the Offices under control of the County Commissioners. In consideration of the functional differences between the two offices separate storm water management programs are being prepared for the Cuyahoga County Commissioners and the Cuyahoga County Engineer's Office. The Ohio Revised Code provides the authority for control and implementation of rules regulating storm water management directly to the villages and cities within the county. Section 711 of the Ohio Revised Code provides the Cuyahoga County Planning Commission (CCPC) and the Board of County Commissioners with the authority to develop subdivision regulations within unincorporated areas of the County.

Further, section 307.79 of the Ohio Revised Code limits the County Commissioner's ability to adopt rules regulating storm water to areas of five (5) or more acres. No county in Ohio can regulate storm water controls for developments between one (1) and five (5) acres without a change in Ohio Law.

Therefore, the following SWMP and its Best Management Practices (BMPs) were developed to comply with the requirements of the Permit within our legal authority to the Maximum Extent Practicable.

II. Financial Ability to Implement the Storm Water Management Program

In 2003, the CCEO will fund the additional activities necessary to implement its SWMP through dollars from the Road and Bridge fund. In 2004, the CCEO Storm Water Manager (see Section IV for details concerning our Storm Water Plan Review Committee) will evaluate the costs of implementing the SWMP and, if necessary, suggest alternative funding arrangements.

III. Overview of Community Storm Water System

As indicated previously, the CCEO has limited regulatory authority throughout the County. The CCEO Municipal Separate Storm Sewer System (MS4) is limited to Chagrin Falls Township and Olmsted Township. This is further limited by the fact that the Townships each own and operate the MS4s on the local Township Roads (non-County Roads).

For purposes of this permit, our MS4 is considered the system of ditches and conduits used for storm water drainage of the County Road System in the unincorporated sections of Cuyahoga County. Specifically, this would include Chagrin Falls Township and Olmsted Township.

Additionally, the CCEO owns and operates five (5) maintenance facilities located throughout Cuyahoga County.

Chagrin Falls Township is located in the Chagrin River watershed. Olmsted Township is in several different watersheds. Portions of the Township are located in the Busby Ditch watershed and the Plum Creek watershed, both draining into the Rocky River. The remaining portion of Olmsted Township is located in the French Creek watershed draining to the Black River. The French Creek is considered by the Ohio EPA to be particularly at risk due to rapid development and associated land use impacts on water quality.

The CCEO MS4 consists primarily of open ditches supplemented with enclosed storm drains. Most of the residents include HSTS with overflow pipes to these ditches.

IV. Description of Permit Development and Decision Process

To develop its SWMP, the CCEO followed the steps detailed below:

Assigned staff to develop a SWMP:

We organized a Storm Water Management Plan Review Committee. The Storm Water Management Plan Review Committee consisted of the Department Heads of the Departments that were anticipated to be affected by the SWMP. These are:

Michael W. Dever, Chief Construction Administrator
Brian S. Driscoll, Chief Highway Design Engineer
Paul Ealy, Chief Maintenance Superintendent
Brendan G. Finn, Chief Bridge Design Engineer
Jeffrey D. Horvath, Chief Bridge Inspection/Maintenance Engineer
Jamal H. Husani, Chief Transportation and Traffic Engineer
Kathleen M. Needham, Public Information Officer
Thomas Snezek, Chief Surveyor

Brian Driscoll, the Chief Highway Design Engineer was designated the Storm Water Manager.

We then divided into subcommittees for each MCM.

Our subcommittees are:

Public Involvement/Public Education
Construction /Post Construction
Illicit Discharge
Good Housekeeping

Reviewed the specific requirements of the Ohio EPA NPDES Phase II permit:

The French Creek is considered by the Ohio EPA to be particularly at risk due to rapid development and associated land use impacts on water quality. A portion of our MS4 in Olmsted Township is located within the French Creek Watershed. Therefore, for uniformity, we chose to apply Ohio NPDES Permit No. OHQ100000 – Small Municipal and Separate Storm Sewer Systems Located within Rapidly Developing Watersheds throughout our entire SWMP.

After reviewing the general Phase II requirements and inventorying our existing BMPs, we examined the specific requirements of each MCM. We determined the extent to which our current activities meet these specific requirements and selected additional BMPs to fill any short falls in our existing programs. Our BMPs were selected based on our financial and legal ability to implement these practices, as well as their suitability for our community.

Selected measurable goals and assigned responsible parties: After BMPs were selected, we assigned these to specific staff and set dates for implementation.

Finalized Storm Water Management Program: Using the drafts developed by the Euclid Creek Watershed Pilot Project, the Chagrin River Watershed Partners, Inc. and the Northeast Ohio Regional Coordinating Agency (NOACA), we finalized our SWMP.

Held Public Hearings: The CCEO listened to public comments concerning the draft SWMP at a public meeting on March 4, 2003.

Approved: Jimmy Dimora, President, Cuyahoga County Board of Commissioners signed the NOI on March 4, 2003.

V. Storm Water Management Program

A. Public Education and Outreach on Storm Water Impacts and Public Involvement/Participation (MCM #1 & #2)

1. The Permit requirement (per Ohio EPA NPDES Permit No.: OHQ100000)

3.2.1.1 Implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and steps that the public can take to reduce pollutants in storm water runoff.

3.2.2.1 Comply with State and local public notice requirements when implementing a public involvement/participation program.

2. Public Education and Involvement Plan

Given the similarity of these two MCMs, the CCEO has developed a unified Public Education and Involvement Program. The BMPs, measurable goals and responsible parties in this Public Education and Involvement Plan are detailed in Table 1.

In addition to Table 1, per Ohio EPA NPDES permit requirement 3.2.1.2 and 3.2.2.2, we are documenting our decision process with the following information required by the permit.

3.2.1.2.1 & 3.2.1.2.2 How you plan to inform individuals and households about the steps they can take to reduce storm water pollution and how to become involved in the storm water management program.

As presented in Table 1, we will inform the General Public and our employees about the steps they can take to become involved in our SWMP through a combination of community outreach and print media including brochures and flyers, newsletters, news releases and website postings.

Our website is fairly active and is frequently updated. We will also post links to NOACA and EPA, as well as our phone number for further information, on our website. Our office is extremely active in various outreach events including Home Days, Home Shows, various county events, etc. These events are well attended by residents of Cuyahoga County throughout the year. We will have representatives from the office present at many of these events, as well as informational brochures on display.

3.2.1.2.3 Who are the target audiences for your public education and involvement plan who are likely to have significant storm water impacts and why those target audiences were selected?

The target audience for our Public Education and Involvement plan includes the general public and employees of the CCEO.

During daily activities, maintenance employees may come upon forms of illicit discharge. When this occurs, we will provide this targeted area with information flyers concerning illicit discharge.

3.2.1.2.4 What are the target pollutant sources your public education plan is designed to address?

We will target pollutant sources common to the five CCEO Maintenance Yards including sediment pollution from stream bank erosion and improperly controlled construction sites; habitat alteration due to land use changes; household hazardous wastes; and bacteria nutrient pollution from home sewage treatment systems.

Because the majority of these pollution problems are caused by increases in impervious cover and the resulting increases in storm water volume and velocity, we will focus much of our Public Education and Involvement Program on increasing public awareness of the links between land use practices and storm water pollution.

3.2.1.2.5 What is your outreach strategy, including mechanisms (e.g. printed brochures, newspapers, media, workshops, etc.) you will used to reach your target audiences, and how many people you expect to reach with the outreach strategy over the permit term?

Our outreach strategy is to use printed informational brochures and flyers, newsletters and our website to reach our target audiences. Our intent is to distribute all information to residents throughout Cuyahoga County. We also intend to inform all CCEO maintenance yard employees.

3.2.1.2.6 Who (person or department) is responsible for overall management and implementation of your storm water public education and outreach program and, if different, who is responsible for each of the BMPs identified for this program?

The Public Information Officer is responsible for overall management and implementation of our storm water public education, outreach program and the BMPs identified with this program.

3.2.1.2.7 How will you evaluate the success of this minimum measure, including how you selected the measurable goals for each of the BMPs?

We will continue to attend a great number of public events, as stated in the BMPs, and have storm water information available at all events. We will also have this information available on our website, along with added links to NOACA and EPA.

3. Public Involvement/Participation

3.2.2.1 The permit requirement (per Ohio EPA NPDES Permit) at a minimum, we will comply with state and local public notice requirements when implementing a public involvement/participation program.

3.2.2.2.1 How you have involved the public in the development and submittal of your NOI and SWMP.

The public will be involved in the development and submittal of the NOI and SWMP by attending a public meeting and through advertisements. A public hearing was held in the chambers of the Cuyahoga County Commissioners on March 4, 2003. Additionally, advertisements were published in the Plain Dealer on February 14, 2003 and February 21, 2003, as well as on our own website.

The draft of our storm water plan was made available to the public for comments. We have received many written comments over a period of three weeks.

3.2.2.2.2 What is your plan to actively involve the public in the development and implementation of your plan?

We will include the public in the development and implementation by way of a public meeting, advertisements on our website, as well as advertisements in local papers.

3.2.2.2.3 Who are the target audiences for your public involvement program, including a description of the types of ethnic and economic groups engaged. You are encouraged to actively involve all potentially affected stakeholder groups, including commercial and industrial businesses, trade associations, environmental groups, homeowners associations, and educational organizations, among others.

Our target audiences for our Public Education and Involvement plan are the citizens of Cuyahoga County and CCEO employees.

3.2.2.2.4 What types of public involvement activities are included in your plan?

We have involved the public by way of a public meeting. Also, as detailed in Table 1, we formed a Storm Water Management Plan Review Committee (SWMPRC) to assist us in developing our SWMP and overseeing implementation during the permit term.

3.2.2.2.4.2 Public hearings

We have held a public meeting related to storm water in 2003. It was on March 4, 2003 and included the SWMPRC updating the Board of Cuyahoga County Commissioners of the requirements under Phase II and presenting the SWMP before it was adopted as final.

3.2.2.2.5 Who is responsible for overall management and implementation of your Public Education and Involvement Plan?

The Public Information Officer is responsible for overall management and implementation of our Public Education and Involvement plan. They will oversee that all BMPs are completed in an orderly and timely fashion, as stated in Table 1.

The Cuyahoga Soil and Water Conservation District has agreed to provide some of the educational materials discussed above and in the Summary of Best Management Practices for Public Involvement/ Public Education shown in Table 1. A copy of their Memorandum of Understanding is in Appendix D of this document.

3.2.2.2.6 How will you evaluate the success of this minimum measure, including how you selected the measurable goals for each of the BMPs?

The success of CCEO Public Education and Involvement Program MCM will be measured by our ability to meet or exceed the measurable goals of each and every BMP listed in Table 1. The table outlines the schedules for plan development, employee training, and policy implementation. The measurable goals for each BMP were individually selected through evaluation of current practices of the CCEO as well as advancements that we feel can be practically achieved.

B. Illicit Discharge Detection and Elimination (MCM #3)

1. The Permit requirement (per Ohio EPA NPDES Permit No.: OHQ100000)

3.2.3.1.1 Develop, implement and enforce a program to detect and eliminate illicit discharges into your small MS4 (for illicit discharges to your MS4 via an adjacent, outside of your jurisdiction interconnected MS4, you are only required to inform the neighboring MS4 and the Ohio EPA in your annual report submission, of their existence).

3.2.3.1.2 & 3.2.3.1.2.1.2 Develop a storm sewer system map, showing the location of all outfalls and HSTSSs connected to the MS4 and the surface waters that receive discharges from those outfalls.

3.2.3.1.2.1.1 Submit a list of all on-site sewage disposal systems (HSTSSs) connected to your MS4.

3.2.3.1.3 To the extent allowable under State or local laws, effectively prohibit, through ordinance or other regulatory mechanism, illicit discharges into your MS4 and implement appropriate enforcement procedures and/or actions.

3.2.3.1.4 Develop and implement a plan to detect and eliminate non-storm water discharges, including illegal dumping, to your system.

3.2.3.1.5 Inform public employees, municipalities and the general public of hazards associated with illegal discharges and improper disposal of waste.

3.2.3.1.6 Address the non-storm water discharges identified as significant pollutant contributors to the MS4.

3.2.3.1.7 Develop a list of other non-storm water discharges that will not be addressed as illicit discharges.

2. Illicit Discharge Detection and Elimination Plan

The BMP's measurable goals and responsible parties in this Illicit Discharge Detection and Elimination Plan are detailed in Table 2 contained at the end of this permit. In addition to Table 2, per Ohio EPA NPDES Permit requirement 3.2.3.2, we are hereby documenting our decision process with the following information required by the permit.

3.2.3.2.1 How you will develop a storm sewer map showing the location of all outfalls and the names and location of all receiving waters. Describe the sources of information you used for the maps, and how you plan to verify the outfall locations with field surveys. Describe how your map will be regularly updated.

CCEO shall develop the following plan per EPA requirements and submit the proposal by March 10, 2003. The plan overview is shown in Table 2 at the end of this permit.

Storm Sewer Map – Location of Outfalls

The base map shall be developed utilizing digital orthophotos coupled with the 1993 DTM contours. The bridge and culvert locations will be overlaid on this map to show our inspections of such. In addition, our maintenance yard facilities will be shown. Most of the data is existing on our digital maps in different locations; coordination will be the key to combine each of these areas. The areas, which will be developed in conjunction with this plan, are as follows:

Olmsted Township – All outflows through the storm sewer system and the location of all existing HSTSs shall be mapped; existing creek, rivers, ditches and their flow patterns will also be mapped for the entire township including a perimeter outside the boundaries of the township for approximately 200 feet.

Chagrin Falls Township – All outflows through the storm sewer system and the location of all existing HSTSs shall be mapped; existing creeks, rivers, ditches and their flow patterns will also be mapped for the entire township including a perimeter outside the boundaries of the township for approximately 200 feet.

County Maintenance Yards – All outflows through the storm sewer system and the location of any existing HSTSs shall be mapped; existing creek, rivers, ditches and their flow patterns will also be mapped for each location including a perimeter outside the right-of-way up to 200 feet. Present yard facilities include Brookpark, Miles, Bridge Complex, Fitch and York.

Structures – All outflows through the storm sewer system tied to or adjacent to county bridges and culverts shall be mapped.

In addition to compiling data as described above, field investigations will begin during the summer of 2004, along the County and Township Roads, as well as along the major storm water outfalls in and through Olmsted

and Chagrin Townships. These field investigations will be charted against the digital records and be imported into the mapping database.

On-Site Sewage Disposal Systems: A list of all on-site sewage disposal systems (HSTSs) connected to discharge to our MS4 including addresses is being developed.

We will field locate each HSTS and their connections to our system.

Storm Sewer Map and HSTS Details: A storm sewer map, as described above, showing the location of all HSTSs connected to our MS4 is also being developed. The map will include details on the type and size of conduits/ditches in the MS4 that receive discharges from those HSTSs, as well as the water bodies receiving the discharges from our MS4.

The above information will be updated on a yearly basis for the structures in conjunction with our annual inspections per the Ohio Revised Code. At the same time, facilities will be inspected and updated as needed. CCEO personnel (maintenance, bridge, construction, survey and design) will intermittently inspect the townships throughout the year and the map will be updated yearly to reflect any changes.

3.2.3.2.2 The mechanism (ordinance or other regulatory mechanism) you will use to prohibit illicit discharges and why you chose that mechanism. If you need to develop this mechanism, describe your plan and a schedule to do so. If your ordinance or regulatory mechanism is already developed, include a copy of the relevant sections with your program.

CCEO does not have legal authority to proceed with sanctions or other enforcement procedures, although we shall document, measure and follow up with each occurrence, as it becomes evident.

The CCEO will provide the data they have, and make it available to all communities that lie within our service area. Other outside communities and counties will have to provide for mapping requirements on their own. CCEO will also provide a standardized database to all communities to facilitate data management and sharing.

3.2.3.2.3 Your plan to ensure through appropriate enforcement procedures and actions that your illicit discharge regulation is implemented.

As stated above, the county does not have legal authority to develop ordinances or sanctions against violations. We will however, develop a countywide inspection worksheet for general use. This shall be contained on a server database so that whether the occurrence is generated from the

Bridge Design, Bridge Inspection, Public Information, Construction or Highway Design Department, the report will be documented in sequence. The plan is already in place for our bridge inspection teams.

3.2.3.2.4 Your plan to detect and address illicit discharges to your system, including discharges from illegal dumping and spills. Your plan must include dry weather field screening for non-storm water flows and field tests of selected chemical parameters as indicators of discharge sources. Your plan must also address on-site sewage disposal systems (including failing on-lot HSTS and off-lot discharging sewage discharging HSTS) that flow into your storm drainage system. Your description must address the following at a minimum:

CCEO will initiate a program and prioritize all problem areas, coordinating with proper authorities (community health organizations, Ohio EPA, Board of Health, etc.). Responses to dry-weather discharges and complaint-based investigations will also be coordinated.

3.2.3.2.4.1 Procedures for locating priority areas which includes areas with higher likelihood of illicit connections (e.g. areas with older sanitary sewer lines, for example) or ambient sampling to locate impacted reaches.

The first areas to be addressed will be those identified in the Public Notice Permit dated December 27, 2002. Attachment A of that Permit shows the watershed of streams identified as being particularly at risk due to rapid development and associated land use impacts on water quality. The portion of French Creek located in Olmsted Township will be identified and visually inspected for illicit discharges as part of our first step procedure.

3.2.3.2.4.2 Procedures for tracing the source of an illicit discharge, including specific techniques you will use to detect the location of the source.

The first line of defense will be The Visual Inspection Worksheet. All personnel will be introduced to this countywide format via our Public Education and Outreach BMP. The following specific techniques will be utilized for county facilities:

Townships – When an illicit discharge is detected through the Visual Inspection Worksheet, personnel will be required to contact the appropriate yard and corresponding Superintendent. Together they will track the upstream areas checking and identifying ditches, manholes, catch basins, all pipes/outlets and the general upstream characteristics. Once the process is narrowed down within the township, additional monitoring will be performed based on dry-weather flows and HSTS maps.

When the discharge is traced to an area which lies outside the township and/or the county, documentation will be gathered and the proper municipality and/or county and Board of Health officials will be contacted. All existing data will be forwarded to these agencies.

County Maintenance Yards – When an illicit discharge is detected through the Visual Inspection Worksheet, personnel will be required to contact the Yard Superintendent. Together they will track the upstream areas checking and identifying ditches, manholes, catch basins, all pipes/outlets and the general upstream characteristics. If the discharge cannot be traced while on county property, documentation will be gathered and the proper municipality and Board of Health officials will be contacted. All existing data will be forwarded to these agencies.

Structures – Although we own and maintain the bridges on the County Road System, most of these bridges are within incorporated areas. Therefore, in almost all cases, an illicit discharge detected on one of our bridges will have originated from an MS4 outside of our jurisdiction. All outflows through the storm sewer system tied to or adjacent to county bridges and culverts will be visually inspected as part of our annual bridge/culvert inspections per the Ohio Revised Code. When an illicit discharge is detected, the Visual Inspection Worksheet will be filled out. Inspectors shall then be responsible to visually check upstream for 200 feet for any indications of the outfall source or known origin. If the illicit discharge cannot be detected, documentation will be gathered and the proper municipality and Board of Health officials will be contacted. If the source of the illicit discharge is detected, the inspector/engineer will then make attempts to trace back the pipe, ditch, system, etc. to the origin. This will only be required for a distance of 200 feet in any direction from the approaches of the structure (at the roadway level), 200 feet upstream from the discharge, or 200 feet in the direction of the discharge pipe, ditch or system. If the inspector/engineer has a site plan that already documents the existing affected pipe, ditch or system, he/she shall note this on the plan and forward the information as above.

3.2.3.2.4.3 Procedures for removing the source of an illicit discharge.

CCEO can only be responsible for the above descriptions when the source of an illicit discharge is found to be on our property. This will mostly apply to Olmsted and Chagrin Falls Townships and County Maintenance Yards. These will be handled as follows:

Townships – When the discharge is known to be in the township, personnel in the immediate vicinity of the illicit discharge shall first be notified. For example, if detected in the ditch system and traced to a specific address, the negligent residence/industry shall be put on notice

and five (5) adjacent properties (either side) will also be notified. This will serve to communicate effectively to the municipalities the impacts of illicit discharges into our storm water system and the importance of detection and elimination.

County Maintenance Yards – When an illicit discharge is detected in one of our yards, personnel shall inform the Superintendent of that yard. The affected pipe, ditch, catch basin or water supply system shall be flushed thoroughly. It should then be determined if the source initiated in that yard or was located coming into our system. If it initiated in our yard, further testing may be warranted and performed. If the source is known to be outside our facility, we will work with the Board of Health and the municipality to eliminate the illicit discharge.

Dry-Weather Sampling – If outfalls are identified as flowing in dry-weather (dry-weather defined as less than .1” rain over a period of 72 hours), the County, depending on the scenario, will take samples of the dry-weather flow to determine if the flow is contaminated due to illicit discharges. These will be done on an as-needed basis. The County will also look at the quantity discovered over the period of the first year through the general inspections and determine if further consulting and/or environmental testing is required.

3.2.3.2.4.4 Procedures For Program Evaluation and Assessment

CCEO will gather all information based on the annual inspections, yard inspections and township data gathering and coordinate with communities and the Board of Health to determine the extent of illicit discharges affecting our MS4. Based upon results of any additional investigations (Visual Inspections, dye-testing, dry-weather sampling, etc.), the County will develop an assessment of the source of any problem to determine if the problem is attributed to a point source or if it is widespread (multiple sources).

3.2.3.2.5 How you plan to inform public employees, businesses, and the general public of the hazards associated with illegal discharges and improper disposal of waste. Include in your description how this plan will coordinate with your public education minimum measure and your pollution prevention/good housekeeping minimum measure.

This item will be coordinated through our Public Information Department. All illicit discharges and the tracking and elimination procedures thereof will be outlined in the annual report to the Board of County Commissioners. We will coordinate these efforts with Site Maps, pictures, database information, etc. to bring the public awareness to the forefront. The target audiences for Illicit Discharge Hazard education

should include the General Public, all County Employees, residents of Olmsted and Chagrin Falls Townships and Commercial/Industrial Businesses.

3.2.3.2.6 Who is responsible for overall management and implementation of your storm water illicit discharge detection and elimination plan and, if different, who is responsible for each of the BMPs identified for this plan.

Refer to Table 2.

The Cuyahoga County District Board of Health and The Cuyahoga County Engineer's Office have an Memorandum of Understanding whereby the Board of Health will provide sampling and testing of specific areas of suspected illicit discharge. A copy of their Memorandum of Understanding is in Appendix D of this document.

3.2.3.2.7 How will you evaluate the success of this minimum measure, including how you selected the measurable goals for each of the BMPs.

The success of CCEO's Illicit Discharge Detection and Elimination MCM will be measured by our ability to meet or exceed the measurable goals of each and every BMP listed in Table 2. The table outlines the schedules for employee training, and policy implementation. The measurable goals for each BMP were individually selected through evaluation of current practices of the CCEO as well as advancements that we feel can be practically achieved.

C. Construction Site Storm Water Runoff Control (MCM #4)

1. The Permit requirement (per Ohio EPA NPDES Permit No.: OHQ100000)

3.2.4.1.1 Regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under State or local law.

3.2.4.1.2 Requirements for construction site operators to implement appropriate erosion and sediment control BMPs.

3.2.4.1.3 Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary wastes at the construction site that may cause adverse impacts to water quality.

3.2.4.1.4 Procedures for site plan review which incorporate consideration of potential water quality impacts.

3.2.4.1.5 Procedures for receipt and consideration of information submitted by the public.

3.2.4.1.6 Procedures for site inspections and enforcement of control measures.

2. Construction Site Storm Water Control Plan

The BMPs, measurable goals, and responsible parties in this Construction Site Storm Water Control Plan are detailed in Table 3. In addition to Table 3, per Ohio EPA NPDES permit requirement 3.2.4.2, we are documenting our decision process with the following information required by the permit.

3.2.4.2.1 The regulatory mechanism you will use to require E&SC at construction sites and why you chose that mechanism. If you need to develop this mechanism, describe your plan and schedule to do so. If your mechanism is already developed, include a copy of the relevant sections with your SWMP.

The CCEO does not possess the legal authority to enact ordinances. The CCEO will review subdivision regulations for the CCPC in the next year and make recommendations concerning E&SC measures to strengthen their current policies and standards.

For all CCEO road, bridge and culvert projects, we will require, by policy, the design and construction of all necessary E&SC measures to mitigate storm water runoff and water quality impacts. The CCEO already includes E&SC measures on construction projects, including perimeter

filter fabric fence, inlet protection, construction seeding and mulching, and other measures covered in the Ohio Department of Transportation Construction and Material Specifications. We will investigate utilizing other appropriate BMPs on future projects based upon an increased understanding of water quality impacts. The CCEO possesses the authority to require E&SC measures on our own projects, including punitive damages, and requires no other regulatory mechanism for their implementation.

3.2.4.2.2 Your plan to ensure compliance with your E&SC regulatory mechanism, including the sanctions and enforcement mechanisms you will use to ensure compliance. Describe your procedures for when you will use certain sanctions. Possible sanctions include non-monetary penalties (such as a stop work order, fines, bonding requirements, and /or permit denials for non-compliance.)

For CCEO road, bridge and culvert projects, we will not approve for construction any plans that lack the necessary E&SC measures required by policy. The CCEO controls the letting of our own contracts and we possess the authority to require these measures prior to letting the contract. No other regulatory mechanism aside from our own design and review policies will be required to ensure compliance.

To ensure compliance with E&SC measures for subdivision development within the townships, the CCEO shall not recommend approval of any subdivision plans for construction without the required E&SC measures specifically addressed in the plans. Construction of subdivision development within the townships cannot begin without the approval of the CCPC.

3.2.4.2.3 Your requirements for construction site operators to implement E&SC BMPs and control waste at construction sites that may cause adverse impacts on water quality. Such waste includes discarded building materials, concrete truck washouts, chemicals, litter and sanitary waste.

For CCEO road, bridge and culvert projects, the CCEO inspects and supervises all construction activities. The CCEO construction supervisor possesses the authority to direct on-site dumping practices and to enforce the plan and contract provisions requiring E&SC measures, waste control practices and their proper execution. The contract general provisions will assign specific penalties to the contractor for non-compliance with E&SC and waste control measures. The specific penalties, such as liquidated damages and withholding of payments for non-compliance, will be defined in our revised general provisions. Our general provisions will be revised to reflect these requirements and penalties in 2005.

When inspecting the construction of subdivision roads within the townships, the CCEO will enforce all requirements of the approved subdivision plans, including the implementation of required E&SC BMPs and the control of construction site waste.

3.2.4.2.4 Your procedures for site plan review, including the review of pre-construction site plans, which incorporate consideration of potential water quality impacts. Describe your procedures and the rationale for how you will identify certain sites for site plan review, if not all plans will be reviewed. Describe the estimated number and percentage of sites that will have pre-construction site plan review.

All site plans, plan notes and specifications for CCEO road, bridge and culvert projects are currently reviewed by CCEO design personnel prior to approval for construction. We will continue to review all pre-construction plans for conformance with measures to control water quality impacts during construction. All plans will be reviewed for the implementation of all appropriate and up-to-date BMPs for E&SC. Plans that do not adequately address E&SC measures will not be approved for construction.

3.2.4.2.5 Your procedures for receipt and consideration of information submitted by the public. Consider coordinating this requirement with your public education and involvement plan.

Pre-construction and construction signage for all CCEO road, bridge and culvert projects will include a telephone number for the public to call with construction-related concerns, including concerns about construction site storm water runoff and waste control. All telephone calls will be logged with names, dates, times, nature of concerns and follow-up responsibilities. All concerns requiring action on the part of the CCEO and/or the contractor will be addressed and a record or copy of all follow-up communication will be kept on file. A uniform public commentary form will be developed to facilitate convenient organization of input. This mechanism will be in place in 2005.

3.2.4.2.6 Your procedures for site inspection and enforcement of control measures, including how you will prioritize sites for inspection.

All construction sites for CCEO road, bridge and culvert projects are inspected daily by CCEO construction personnel and contract provisions are enforced. E&SC measures required by the contract will be inspected and their use enforced for the duration of all projects. Enforcement will be as per the contract general provisions, which will define penalties imposed on the contractor for non-compliance with E&SC and waste control measures. The revised general provisions will be in place by January 1, 2006.

When inspecting road construction for subdivision development within the townships, the CCEO construction supervisor will inspect E&SC measures and dumping practices for compliance with plan and contract provisions.

3.2.4.2.7 Who is responsible for the overall management and implementation of your construction site storm water control plan, and if different, who is responsible for each of the BMPs identified in this plan.

The CCEO Storm Water Management Plan Review Committee, including the Subcommittee on Construction Site and Post-Construction Storm Water Control, is responsible for the overall management and implementation of this plan. The individuals responsible include the Chief Highway Design Engineer, the Chief Bridge Design Engineer, the Chief Transportation and Traffic Engineer, the Chief Construction Administrator and the Area Construction Engineers. The design departments are charged with the design and review of E&SC BMPs in the plans, and the Construction Department is charged with the implementation and enforcement of the measures in the field as indicated in Table 3.

3.2.4.2.8 Describe how you will evaluate the success of this minimum measure, including how you selected the measurable goals for each BMP.

The success of the CCEO's Construction Site Runoff MCM will be measured by our ability to meet or exceed the measurable goals of each and every BMP listed in Table 3. The table outlines the schedules for employee training, policy implementation, design revision, standards revision and educational program implementation. The measurable goals for each BMP were individually selected through evaluation of current practices of the CCEO as well as advancements that we feel can be practically achieved.

D. Post-Construction Site Storm Water Runoff Control (MCM #5)

1. The Permit requirement (per Ohio EPA NPDES Permit No.: OHQ100000)

3.2.5.1.1 Develop, implement and enforce a program to address storm water runoff from new development and redevelopment projects that disturb greater than or equal to 1 acre, including projects less than 1 acre that are part of a larger common plan of development or sale, that discharge into your small MS4. Your program must ensure that controls are in place that would prevent or minimize water quality impacts.

3.2.5.1.2 Develop and implement strategies which include a combination of structural and/or non-structural BMPs appropriate for your community.

3.2.5.1.3 Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State or local law.

3.2.5.1.4 Ensure adequate long-term operation and maintenance of BMPs.

2. Post-Construction Storm Water Management in New Development and Redevelopment Plan

The BMPs, measurable goals, and responsible parties in this Post-Construction Storm Water Management in New Development and Redevelopment Plan are detailed in Table 4. In addition to Table 4, per Ohio EPA NPDES permit requirement 3.2.5.2, we are documenting our decision process with the following information required by the permit.

3.2.5.2.1 Your program to address storm water runoff from new development and redevelopment projects. Include in this description any specific priority areas for this program.

As detailed in Table 4, the CCEO will use a combination of public education, plan review procedures, non-structural and structural practices to address storm water runoff from subdivision development in the townships and from road, bridge and culvert construction projects falling under the jurisdiction of the CCEO.

The CCEO possesses no legal authority to pass ordinances or institute policies that direct growth, maintain or increase open spaces or to provide buffers along sensitive water bodies. The CCEO will coordinate with the CCPC for the development of their regulations affecting these issues in unincorporated areas of the County. The CCEO will investigate the use of

BMPs in our road, bridge and culvert projects to minimize impervious surfaces and to minimize disturbance of soils and vegetation.

Most projects undertaken by the CCEO will be within municipal boundaries of other MS4 operators with their own SWMPs. The CCEO will adhere to the commitments made therein on any given project.

3.2.5.2.2 How your program will be specifically tailored for your local community, minimize water quality impacts, and attempt to maintain pre-development runoff conditions.

The CCEO is not the maintaining agency for most of the County Roads throughout the county. The majority of these are serviced by storm sewer systems owned by the municipality in which the road is located. There are still County Roads within the Townships of Olmsted and Chagrin Falls whose storm water is managed with roadside ditches, which are owned and maintained by the CCEO.

The CCEO does not possess the authority to control residential, commercial or institutional development within the county. The CCEO will cooperate with the CCPC and with other incorporated cities and villages in enforcing their storm water control measures as they affect our projects.

The CCEO will utilize both structural and non-structural BMP's in CCEO road, bridge and culvert projects to minimize water quality impacts and attempt to maintain pre-development runoff conditions. The specific BMPs used for each project will depend upon the site characteristics and anticipated water quality impacts, and will also adhere to the requirements of the local communities and/or watershed collectives within which the project is located. The investigation and utilization of structural and non-structural BMP's will be defined in CCEO design policies and will be stated in the individual scopes of services for all CCEO design projects.

3.2.5.2.3 Any non-structural BMPs in your program, including, as appropriate:

3.2.5.2.3.1 Policies and ordinances that provide requirements and standards to direct growth to identified areas, protect sensitive areas such as wetlands and riparian areas, maintain and/or increase open space (including dedicated funding source for open space acquisition), provide buffers along sensitive water bodies, minimize impervious surfaces, and minimize disturbance of soils and vegetation.

The CCEO has no legal authority to enact ordinances or set policies that direct growth, protect sensitive areas, maintain and/or increase open space,

provide buffers, minimize impervious surfaces or minimize disturbance of soils and vegetation.

In planning CCEO road, bridge and culvert projects, we will tailor the impacts of each particular project to fit the local requirements of the community and/or watershed collective. All CCEO projects will be designed and constructed with the intent of minimizing post-construction water quality impacts and maintaining pre-construction runoff conditions to the maximum extent practicable.

3.2.5.2.3.2 Policies or ordinances that encourage infill development in higher density urban areas, and areas with existing storm sewer infrastructure.

The CCEO has no legal authority to enact ordinances that encourage infill development in higher density urban areas or areas with existing storm sewer infrastructure.

3.2.5.2.3.3 Education programs for developers and the public about project designs that minimize water quality impacts.

Apart from those activities undertaken by the Public Information / Public Education mechanism, literature will be distributed or comments made regarding the post-construction policies of the CCEO at pre bid and pre construction meetings. We will arrange or participate in workshops for our design and construction agents as well as contractors with whom we do business that will keep them updated on current BMPs.

The CCEO will distribute literature and utilize other means of communication explaining to the public specific measures being taken to minimize water quality impacts on CCEO construction projects. The CCEO will participate in local and regional BMP workshops conducted for the benefit of the general public and to educate design and construction professionals in the implementation and execution of post-construction runoff control measures.

3.2.5.2.3.4 Other measures such as minimization of the percentage of impervious area after development, use of measures to minimize directly connected impervious areas and source control measures often thought of as good housekeeping, preventative maintenance and spill prevention.

The CCEO will implement standards that will minimize the amount of impervious surface created in any given project.

For construction projects within the jurisdiction of the CCEO, we will review our standards and strive to keep lane widths of new and

reconstructed roadways and bridges to the minimum required for safe travel. We will seek to provide curbs and gutters only on roadways in more urbanized settings where the drainage systems are conducive to their use. The CCEO will investigate the use of porous pavements for specific roadway projects and the use of alternative pavers for sidewalks where justified by site conditions, in order to minimize impervious surfaces.

The CCEO will continue to inspect and maintain post-construction runoff control measures on all roads and structures for which we have maintenance responsibility. We will examine existing control measures and judge their effectiveness with the intention of determining the need for new and different measures. The feedback generated shall be used for better design and implementation of post-construction BMPs in future construction projects.

3.2.5.2.4 Any structural BMPs in your program, including, as appropriate:

3.2.5.2.4.1 Storage practices such as wet ponds and extended-detention outlet structures.

Steps will be taken to ascertain whether or not storage practices will be applicable to the operations undertaken by this office.

We shall coordinate with the CCPC in their development of subdivision regulations to comply with all governing post-construction runoff control requirements.

The CCEO will explore options for storm water storage practices on CCEO road, bridge and culvert projects, based upon projected water quality impacts resulting from new construction and reconstruction and with the intent of maintaining pre-construction runoff conditions. We will explore the implementation of improved practices through our process to adopt an improved storm water management plan for CCEO construction projects by 2005.

3.2.5.2.4.2 Filtration practices such as grassed swales, bioretention cells, sand filters and filter strips.

Due to the nature of the activities that the CCEO undertakes, the applicable filtration practices are few. We will continue to utilize grassed swales alongside roads that are not serviced by a storm sewer system and we will explore the implementation of new management controls as the technology advances.

We will explore the implementation of improved practices through our process to adopt an improved storm water management plan for CCEO

construction projects by 2005. The CCEO currently utilizes grassed swales, or grassed roadside ditches, on less urbanized road projects.

3.2.5.2.4.3 Infiltration practices such as infiltration basins and infiltration trenches.

We will explore the implementation of improved practices through our process to adopt an improved storm water management plan for CCEO construction projects by 2005. Among the infiltration BMPs we will consider the use of porous pavements for particular road projects.

3.2.5.2.5 What are the mechanisms (ordinance or other regulatory mechanisms) you will use to address post-construction runoff from new developments and redevelopments and why you chose that mechanism. If you need to develop a mechanism, describe your plan and a schedule to do so. If your ordinance or regulatory mechanism is already developed, include a copy of the relevant sections with your program.

The CCEO has no legal authority to enact ordinances or other regulatory mechanisms to address post-construction runoff from new developments and redevelopments.

3.2.5.2.6 How will you ensure the long-term operation and maintenance of your selected BMPs. Options to help ensure that future operation and maintenance responsibilities are clearly identified include an agreement between you and another party such as a post-development landowner or regional authority.

For road projects within incorporated municipalities, maintenance is the responsibility of the respective municipality. A paragraph will be added to the cooperation agreement with the municipality (a legally binding contract stating that the road will be maintained as designed by the CCEO) that will require said municipality to assume responsibility for the operation and maintenance of the selected BMPs.

Projects that are undertaken in unincorporated areas of the county, namely Olmsted Township and Chagrin Falls Township, are maintained by the CCEO after construction is completed. The Maintenance Department of the CCEO will maintain structural BMPs.

For roads and bridges falling under the maintenance responsibility of the CCEO, we shall continue to inspect for effectiveness of the selected BMPs and perform maintenance necessary for correction of deficiencies. For roads where the maintenance responsibility falls back upon the municipality following construction, we will enforce compliance in the cooperation agreement with the municipality requiring them to ensure future operation and maintenance of the BMPs. Communities not

complying with long-term maintenance will be penalized in accordance with the requirements of the cooperation agreement.

The long-term operation and maintenance of BMPs in subdivision development within the townships will fall upon the private property owners and the townships' building departments. The O&M within the subdivisions is outside the jurisdiction of the CCEO.

3.2.5.2.7 Who is responsible for overall management and implementation for you post-construction plan and, if different, who is responsible for each of the BMPs identified for this program.

The CCEO Storm Water Management Plan Review Committee, including the Subcommittee on Construction Site and Post-Construction Storm Water Control, is responsible for the overall management and implementation of this plan. The Chief Transportation & Traffic Engineer is responsible for executing the municipal agreements covering long-term O&M once finished roads are turned over to the municipalities after construction. The Chief Highway Design Engineer and the Chief Bridge Design Engineer will be responsible to oversee the design and review of post-construction storm water management BMPs in the plans. The Chief Construction Administrator and the Area Construction Engineers will be responsible for the construction of the BMPs. The Chief Maintenance Superintendent and the Chief Bridge Inspection and Maintenance Engineer will be responsible for inspecting and maintaining the post-construction BMPs on all roads, bridges and culverts for which the CCEO has maintenance responsibility.

3.2.5.2.8 How will you evaluate the success of this minimum measure, including how you selected the measurable goals for each of the BMPs.

The success of CCEO's Post-Construction Site Runoff MCM will be measured by our ability to meet or exceed the measurable goals of each and every BMP listed in Table 4. The table outlines the schedules for employee training, policy implementation, design revision, standards revision and educational program implementation. The measurable goals for each BMP were individually selected through evaluation of current practices of the CCEO as well as advancements that we feel can be practically achieved.

E. Pollution Prevention / Good Housekeeping for Community Operations (MCM #6)

1. The Permit requirement (per Ohio EPA NPDES Permit No.: OHQ100000)

3.2.6.1.1 Develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from community operations; and

3.2.6.1.2 Using training materials that are available from Ohio EPA or other organizations, your program must include employee training to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance.

2. Pollution Prevention and Good Housekeeping Plan

The BMPs, measurable goals, and responsible parties in this Pollution Prevention and Good Housekeeping Plan are detailed in Table 5. In addition to Table 5, per Ohio EPA NPDES permit requirement 3.2.6.2, we are documenting our decision process with the following information required by the permit.

3.2.6.2.1 Your operation and maintenance program to prevent or reduce pollutant runoff from your community operations. Your program must specifically list the community operations that are impacted by this operation and maintenance program. You must also include a list of industrial facilities your community owns or operates that are subject to the 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 your MS4. Include the Ohio EPA permit number or a copy of the Industrial NOI for each facility.

The CCEO has a Maintenance Department of approximately 77 employees. We are responsible for the maintenance of approximately 22 lane miles of the County Road system in Olmsted Township and Chagrin Falls Township. Additionally, we are responsible for the maintenance of approximately 220 bridges on the County Road system throughout the county. With the exception of the bridges, the CCEO is not responsible for the maintenance of the County Road system in the incorporated areas. While we are responsible for the maintenance of the bridges, we are not responsible for snow and ice removal on the bridges in incorporated areas. In order to accomplish our responsibilities, we operate a total of five (5) maintenance yards located throughout Cuyahoga County.

3.2.6.2.2 Any government employee training program you will use to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance. Describe any existing, available materials you plan to use. Describe how this training program will be coordinated with the outreach program developed for the Public Involvement and Education minimum measure and the illicit discharge minimum measure.

Currently, the CCEO does not provide any training to its employees to prevent and reduce storm water pollution from its various activities. However, we are in the process of developing a program that will help educate 100% of our maintenance employees within three (3) years and will continue annual training for said employees. This program, along with the Illicit Discharge Minimum Control Measure will be coordinated along with our Public Information Department. Our training program will utilize information gathered by the Public Information Department and the Chief Maintenance Superintendent regarding Pollution Prevention/Good Housekeeping for Municipal Operations. Included in this practice is the use of brochures, flyers, newsletters, and web sites. These information pieces are made available by the Ohio EPA, the Cuyahoga County Soil and Water Conservation District, The Cuyahoga County Board of Health and others. In addition, along with the Illicit Discharge Minimum Control Measure, we will also teach our employees how to properly document the tracking and elimination procedures of any and all waste. These forms of documentation will be reviewed at annual training sessions and will be updated annually.

Employees will be trained in the educational materials that the CCEO has available for the public. In the event that they become aware of activities by the public detrimental to the storm water system, they will notify our Public Information Office so that proper educational materials can be provided to that specific target area.

3.2.6.2.3 Your program description must specifically address the following areas:

3.2.6.2.3.1 Maintenance activities, schedules, and long-term inspection procedures for controls to reduce floatables and other pollutants in your MS4.

The CCEO currently disposes of construction debris in proper landfills. The CCEO will maintain records of such disposals.

The CCEO will review various sources to determine the maintenance schedules required for proper catch basin and ditch cleaning, street sweeping and debris removal, develop and implement the appropriate policy and assure that all employees are trained.

The CCEO will review various sources to determine the proper storage and optimum application schedule for road salt, develop and implement the appropriate policy and assure that all employees are trained.

3.2.6.2.3.2 Controls for reducing or eliminating the discharge of pollutants from streets, community parking lots, maintenance and storage yards, waste transfer stations, fleet maintenance shops with outdoor storage areas, and salt/sand storage locations and snow disposal areas you operate.

The CCEO currently disposes of construction debris in proper landfills. The CCEO will maintain records of such disposals.

The CCEO will review various sources to determine the proper method of debris storage and removal from catch basin and ditch cleaning and street sweeping. The CCEO will develop and implement the appropriate policy and assure that all employees are trained.

The CCEO will review all maintenance yards to assure that all stored products are protected from spillage, insure that all waste products are disposed of properly and all spills contained. The CCEO will develop and implement the appropriate policy and assure that all employees are trained.

3.2.6.2.3.3 Procedures for the proper disposal of waste removed from your MS4 and your community operations, including dredge spoil, accumulated sediments, floatables, and other debris.

The CCEO will review various sources to determine the proper method of debris storage and disposal from catch basin and ditch cleaning, street sweeping and other maintenance activities. The CCEO will develop and implement the appropriate policy and assure that all employees are trained.

3.2.6.2.3.4 Procedures to ensure that new community flood management projects are assessed for impacts on water quality and that existing projects are assessed for incorporation of additional water quality protection devices and practices.

This item is not directly applicable to our activities.

3.2.6.2.4 Who is responsible for overall management and implementation of your pollution prevention/good housekeeping program and, if different, who is responsible for each BMP identified in this program.

The CCEO Chief Maintenance Superintendent will be responsible for overall management and implementation of our pollution prevention/good

housekeeping program. Responsibility for individual BMPs will be noted in Table 5.

3.2.6.2.5 How you will evaluate the success of this minimum measure, including how you selected the measurable goals for each of the BMPs.

The success of this MCM will be determined by our ability to meet or exceed the measurable goals of each and every BMP as listed in Table 5. The measurable goals for each BMP were individually selected based upon the current practices of the CCEO as well as advancements that we feel can be practically achieved.

VI Monitoring and Record Keeping

3.4.1 You must do an annual review of your SWMP in conjunction with the preparation of the annual report required under part 4.3 of this permit.

4.1 Evaluating: You must:

4.1.1 You must evaluate program compliance, the appropriateness of the identified BMP's, and progress toward achieving identified measurable goals.

4.2 Record Keeping

4.2.1 You must retain copies of all reports required by this permit, a copy of the NPDES permit, and records of all data used for to complete the NOI application for this permit, for a period of at least three years from the date of the report or application, or for the term of this permit, whichever is longer. This period may be extended by the request of the Ohio EPA at any time.

4.2.2 You must submit your records to the Ohio EPA only when specifically asked to do so. You must retain the SWMP required by this permit (including a copy of the permit language) at a location accessible to Ohio EPA. You must make your records, including the NOI and the SWMP, available to the public if requested to do so in writing.

4.3 Reporting

You must submit annual reports to the director starting one year after the date Ohio EPA has granted you general coverage. The report must include:

4.3.1 The status of your compliance with permit conditions, an assessment of the appropriateness of the identified BMP's, progress toward achieving the statutory goal of reducing the discharge of pollutants to the MEP, and the measurable goals for each of the minimum control measures;

4.3.2 Results of information collected and analyzed, if any, during the reporting period, including monitoring data used to assess the success of the program at reducing the discharge of pollutants to the MEP;

4.3.3 A summary of the storm water activities you plan to undertake during the next reporting cycle (including an implementation schedule);

4.3.4 Proposed changes to your SWMP, including changes to any BMPs or any identified measurable goals that apply to the program elements; and

4.3.5 Notice that you are relying on another government entity to satisfy some of your permit obligations (if applicable).

As indicated in Section IV, we organized a Storm Water Management Plan Review Committee. The Storm Water Management Plan Review Committee consists of the Department Heads of all of the Departments anticipated to be affected by the SWMP.

The Storm Water Management Plan Review Committee is responsible to assure that all evaluation and reporting required by the Permit is completed in a timely manner.

Additionally, the MCM Summaries in Table 1 –5 list the responsible party for each BMP included in the SWMP.

TABLE 1 - Public Education and Public Involvement Best Management Practices Summary

Best Management Practice	Permit Requirement Filled	Responsible Party	Measurable Goal
Storm Water Management Plan Review Committee	(Section 3.2.2.2.5)	Chief Highway Design Engineer: Serves as the SWMP Storm Water Manager and is responsible for overseeing the development of the CCEO's SWMP	Committee formed in 2002.
Storm Water Management Committee Prepares the SWMP Draft	(Section 3.2.2.2.5) (Section 3.2.2.2.4.2)	Chief Highway Design Engineer: Oversees the development and completion of the SWMP draft.	Completed and available for review in February 2003.
Advertisement of SWMP Draft and Availability for Public Viewing and Comments on Draft	(Section 3.2.2.2.1) (Section 3.2.2.2.2) (Section 3.2.2.2.4.2)	Chief Highway Design Engineer	Advertisements for SWMP in Plain Dealer and on CCEO website in February 2003.
Public Hearing Held on SWMP Draft	(Section 3.2.2.2.1) (Section 3.2.2.2.4) (Section 3.2.2.2.4.2)	Chief Highway Design Engineer	Public meeting on draft held on March 4, 2003.
Annual Updates Made Available for Public to View Prior to Submittal	(Section 3.2.2.2.6)	Chief Highway Design Engineer	Annual update available for public hearings.
Distribute Print Media Supplied by the Soil and Water Conservation District Concerning These Topics: <ol style="list-style-type: none"> 1. Septic Operation & Maintenance 2. Disposal of Household Hazardous Wastes 3. E&SC for Small Projects 4. Management for Backyard Streams and Ravines 5. Green Lawn Care and Requirements for Registration of Lawn Care Companies 6. Water Quality Including the Impact of Suburban Activities 	(Section 3.2.1.2.3) (Section 3.2.1.2.4) (Section 3.2.1.2.5) (Section 3.2.2.2.6)	Public Information Officer	Print media available at outreach events attended by the CCEO, at all headquarters including the administrative office and all maintenance yards, and on our website beginning in 2003.
Attendance by the CCEO at Various Fairs, Home Days, Home Improvement Shows and a Variety of Other Outreach Events	(Section 3.2.1.2.2) (Section 3.2.1.2.7)	Public Information Officer: Will see that all outreach volunteers have adequate storm water informational brochures and fact sheets available at all outreach events.	We annually attend various outreach events including the Cuyahoga County Fair, Home Days throughout the county, and many Home Improvement and Auto Shows. We will have print media available for distribution to the public at all shows attended by this office.
Informational Brochures and Fact Sheets	(Section 3.2.1.2.3) (Section 3.2.1.2.5)	Public Information Officer: Will receive and ensure that informational brochures are delivered to the target audiences.	We will be supplied with brochures and fact sheets from the Soil and Water Conservation district in conjunction with regional themes and local problems and concerns. This information will be included at all outreach events attended by the CCEO, included with the mailing of county highway maps, and at all Engineer's maintenance yards by

Best Management Practice	Permit Requirement Filled	Responsible Party	Measurable Goal
			Dec. 31, 2003.
Community Newsletter	(Section 3.2.1.2.1) (Section 3.2.1.2.5)	Public Information Officer: Will provide information to the Soil and Water Conservation District for their newsletter.	We will become part of the soil and Water Conservation District's newsletter by Dec. 31, 2004, which is distributed three times per year.
Storm Water Website	(Section 3.2.1.2.1) (Section 3.2.1.2.2) (Section 3.2.1.2.5) (Section 3.2.1.2.7) (Section 3.2.2.2.2)	Public Information Officer: Will provide the information for website. MIS Coordinator: Will develop the web page and will update it with information provided by the Public Information Officer.	Create a page on the CCEO website to address storm water concerns for the community. It will include information on current activities, pertinent information related to storm water, and convenient resources for the public. It will contain links to NOACA and EPA. The creation process will begin by Dec. 31, 2003. This website address will be advertised in all materials distributed to community and our employees. The website will be updated annually.

TABLE 2 - Illicit Discharge Best Management Practices Summary

Best Management Practice	Permit Requirement Filled	Responsible Party	Measurable Goal
Develop, implement and enforce a program to detect and eliminate illicit discharges.	3.2.3.1.1	Chief Bridge Inspection/Maintenance Engineer	Program development by March 10, 2003 Revisions – Annually or as needed.
Develop a storm sewer system map, showing the location of all outfalls and HSTSSs connected to the MS4 and the surface waters that receive discharges from those outfalls.	3.2.3.1.2 3.2.3.1.2.1.2	Chief Surveyor	Draft of Map to be submitted prior to March 10, 2003. Map data listing prior to March 10, 2003. Collection plan developed, by Dec. 31, 2003. Begin collection of the necessary data by Dec. 31, 2003.
Submit list of all on-site sewage disposal systems (HSTSSs) connected to your MS4.	3.2.3.1.2.1.1	Chief Surveyor	Will be completed by Dec. 31, 2005.
Develop and implement a plan to detect and eliminate non-storm water discharges, including illegal dumping, to your system.	3.2.3.1.4	Chief Bridge Inspection/Maintenance Engineer and Chief Surveyor	Initial visual inspection of all community outfalls should be accomplished by Dec. 31, 2003 if feasible or as soon after is possible. Routine follow-up investigations should be scheduled on an annual basis and arrangements should be made to perform complaint-generated inspections. Develop program by Dec. 31, 2003 to provide for problem tracing follow-up investigations to respond to prioritized dry-weather discharges or complaint-based investigations.
Inform public of hazards associated with illegal discharges.	3.2.3.1.5	Chief Bridge Inspection/Maintenance Engineer	Identify messages and methods of informing public by Dec. 31, 2003. Educational activities performed annually starting by Dec. 31, 2004. Perform public education program. Annual report describing educational focus taken and identifying future messages.
Address the non-storm water discharges identified as significant pollutant contributors to the MS4.	3.2.3.1.6	Chief Bridge Inspection/Maintenance Engineer	Identify if there are any non storm-water discharges that need to be addressed prior to March 10, 2003. Develop a plan to address these non storm-water discharges as necessary, throughout permit cycle.
Develop a list of other non-storm water discharges that will not be addressed as illicit discharges.	3.2.3.1.7	Chief Bridge Inspection/Maintenance Engineer	Begin assessment of non-storm water discharges in community prior to March 10, 2003. Develop list of non-storm water discharges that will not be addressed by Dec. 31, 2003. Revise list annually or as needed.

TABLE 2 - Illicit Discharge Best Management Practices Summary

Best Management Practice	Permit Requirement Filled	Responsible Party	Measurable Goal
Describe the methods, means and compiling of data relevant to our storm sewer map described in Table 2, BMP 2 and Table 2, BMP 3. Develop a yearly program for field verification and updating.	3.2.3.1.2, 3.2.3.1.2.1.2	Chief Surveyor & Chief Bridge Inspection/Maintenance Engineer	Map & Field verify 25 % of HSTS by 12/31/04 Map & Field verify 50 % of HSTS by 12/31/05 Map & Field verify 75 % of HSTS by 12/31/06 Map & Field verify 100 % of HSTS by 12/31/07 Field verify 25 % of HSTS by 12/31/04 Field verify 50 % of HSTS by 12/31/05 Field verify 75 % of HSTS by 12/31/06 Field verify 100 % of HSTS by 12/31/07

TABLE 3 - Construction Site Storm Water Runoff Best Management Practices Summary

Best Management Practice	Permit Requirement	Responsible Party	Measurable Goals
Update Construction Site Inspection Standards to include considerations for E&SC measures.	3.2.4.1.6 3.2.4.2.2 3.2.4.2.6	Chief Construction Administrator	Review Current practices by Dec. 31, 2003 Research and explore alternatives by Dec. 31, 2004 Create and implement standards by Dec. 31, 2005
Update Design and Site Plan Review Standards to include most appropriate E&SC measures.	3.2.4.1.1 3.2.4.1.4 3.2.4.2.1 3.2.4.2.2	Chief Bridge Design Engineer Chief Highway Design Engineer	Review Current practices by Dec. 31, 2003 Research and explore alternatives by Dec. 31, 2004 Create and implement standards by Dec. 31, 2005
Revise Contract General Provisions to stipulate enforcement of E&SC standards.	3.2.4.1.1 3.2.4.1.2 3.2.4.1.3 3.2.4.2.3	Chief Bridge Design Engineer Chief Highway Design Engineer	Review Current practices by Dec. 31, 2003 Research and explore alternatives by Dec. 31, 2004 Create and implement standards by Dec. 31, 2005
Review Subdivision Regulations to determine necessity of modifications in light of new legislation.	3.2.4.1.1 3.2.4.1.2 3.2.4.2.1	Chief Bridge Design Engineer Chief Highway Design Engineer	Review Current Subdivision Regulations by Dec. 31, 2003 Provide recommendations to CCPC by Dec. 31, 2004
Train Inspectors to recognize proper E&SC practices.	3.2.4.1.6 3.2.4.2.6	Chief Construction Administrator	Investigate available programs by Dec. 31, 2003 Develop a training program by Dec. 31, 2004 100% of staff trained by Dec. 31, 2005
Train Design Staff to recognize and use proper E&SC practices.	3.2.4.1.4 3.2.4.2.4	Chief Bridge Design Engineer Chief Highway Design Engineer	Investigate available programs by Dec. 31, 2003 Develop a training program by Dec. 31, 2004 100% of staff trained by Dec. 31, 2005
Establish Public Input Mechanism to receive complaints and comments regarding construction site stormwater runoff issues.	3.2.4.1.5 3.2.4.2.5	Chief Construction Administrator	Create Procedures by Dec. 31, 2003 Train Staff in new procedures by Dec. 31, 2004 Update Pre-Construction and Construction Signage and implement new policy by Dec. 31, 2005

TABLE 4 - Post – Construction Best Management Practices Summary

Best Management Practice	Permit Requirement	Responsible Party	Measurable Goals
Update design standards and plan review procedures to consider post-construction water quality issues	3.2.5.1.1 3.2.5.1.3 3.2.5.2.3.1 3.2.5.2.3.4	Chief Bridge Design Engineer Chief Highway Design Engineer	Review Current practices by Dec. 31, 2003 Research and explore alternatives by Dec. 31, 2004 Create and implement standards by Dec. 31, 2005
Revise Co-operation agreement with municipalities to include considerations for long term maintenance of E&SC measures.	3.2.5.1.4 3.2.5.2.6	Chief Transportation and Traffic Engineer	By Dec. 31, 2004
Create BMP Workshop or other educational program for the public, county employees and contractors.	3.2.5.1.1 3.2.5.2.3.3	Chief Construction Administrator	Research literature, information and currently offered workshops by Dec. 31, 2003. Design policy and mechanism for educational activities by Dec. 31, 2004. Implement mechanism by Dec. 31, 2005.
Explore applicability of Structural E&SC Measures, storage, filtration and infiltration practices	3.2.5.1.2 3.2.5.2.2 3.2.5.2.4.1 3.2.5.2.4.2 3.2.5.2.4.3	Chief Bridge Design Engineer Chief Highway Design Engineer	Review Current practices by Dec. 31, 2003 Research and explore alternatives by Dec. 31, 2004 Create and implement standards by Dec. 31, 2005
Investigate and utilize structural and Non-structural mechanisms to minimize Water quality impacts and to maintain Pre-development runoff conditions	3.2.5.2.1 3.2.5.2.2	Chief Bridge Design Engineer Chief Highway Design Engineer	Review Current practices by Dec. 31, 2003 Research and explore alternatives by Dec. 31, 2004 Create and implement standards by Dec. 31, 2005
Inspect and maintain BMPs for Roads And Bridges falling under our Maintenance responsibility	3.2.5.1.4 3.2.5.2.6	Chief Maintenance Supervisor Chief Bridge Inspection/Maintenance Engineer	Identify Inspection Requirements by Dec. 31, 2003 Train Employees by Dec. 31, 2004 Fully Implement Inspection and Maintenance By Dec. 31, 2005

TABLE 5 – Pollution Prevention/Good Housekeeping Best Management Practices Summary			
Best Management Practice	Permit Requirement Fulfilled	Responsible Party	Measurable Goal
Chemical lawn care use	3.2.6.1.1 3.2.6.1.2 3.2.6.2.2	Chief Maintenance Superintendent	By Dec. 31, 2003 Develop policy to minimize the use of herbicides, fertilizers, and insecticides by community personnel to no more than the recommended levels. Provide training to employees concerning proper herbicide use by Dec. 31, 2004.
Disposal of Construction Debris from Community projects	3.2.6.1.1 3.2.6.3.3.1 3.2.6.3.3.2 3.2.6.3.3.3	Chief Maintenance Superintendent	Verify that all construction debris is disposed in a proper manner.
Catch Basin Cleaning	3.2.6.1.1 3.2.6.1.2 3.2.6.2.2 3.2.6.2.3.1 3.2.6.2.3.2 3.2.6.2.3.3	Chief Maintenance Superintendent	Review available sources to determine proper interval for catch basin cleaning by Dec. 31, 2003. Determine location of all catch basins in our jurisdiction from the storm sewer map, and develop a policy for regular cleaning by Dec. 31, 2004. Follow policy for regular catch basin cleaning starting by Dec. 31, 2005. Verify that all catch basin debris is disposed in a proper manner, at a special waste landfill
Fleet Maintenance	3.2.6.1.1 3.2.6.1.2 3.2.6.2.2 3.2.6.2.3.1 3.2.6.2.3.2	Chief Maintenance Superintendent	Inventory all maintenance locations. Determine if stored products are protected from spillage. Insure that all waste products are properly disposed or recycled. All spills shall be contained and collected. Develop policy and training program by Dec. 31, 2004.
Outdoor Storage	3.2.6.1.1 3.2.6.1.2 3.2.6.2.3.1 3.2.6.2.3.2	Chief Maintenance Superintendent	<ul style="list-style-type: none"> Develop an existing drainage plan of each outdoor storage facility (Maintenance Yard) by Dec. 31, 2003. Review Drainage plan to determine if deficiencies exist in storm runoff. Proper storage of salt and other materials will be included in this plan by Dec. 31, 2004. Develop a plan to correct storm water collection deficiencies at all outdoor storage facilities by Dec. 31, 2005. Begin implementing plan to correct deficiencies at all outdoor storage facilities by Dec. 31, 2006. Complete implementation of plan to correct deficiencies at all outdoor storage facilities by Dec. 31, 2007.
Salt Storage	3.2.6.1.1 3.2.6.1.2 3.2.6.2.3.1 3.2.6.2.3.2	Chief Maintenance Superintendent	Assure that salt storage complies with outdoor storage plan developed above by Dec. 31, 2007. Inspect annually.
Snow removal & Street Salting	3.2.6.1.1 3.2.6.1.2 3.2.6.2.3.1 3.2.6.2.3.2	Chief Maintenance Superintendent	Verify that the existing program for snow removal is followed to minimize salt discharge to the environment.
Ditch Cleaning	3.2.6.1.1 3.2.6.1.2 3.2.6.2.2 3.2.6.2.3.1 3.2.6.2.3.2	Chief Maintenance Superintendent	The CCE currently cleans roadside ditches in township jurisdiction when weather permits (normally April until inclement weather prevents us from doing so). CCE will review this policy to determine proper intervals and procedures by Dec. 31, 2003

TABLE 5 – Pollution Prevention/Good Housekeeping Best Management Practices Summary			
Best Management Practice	Permit Requirement Fulfilled	Responsible Party	Measurable Goal
	3.2.6.2.3.3		Train employees concerning policy by Dec. 31, 2004 Follow policy for regular ditch cleaning: 2005 – 2007 Verify that all ditch debris is disposed in a proper manner, at a special waste landfill annually through 2007
Street Sweeping	3.2.6.2.3.2	Chief Maintenance Superintendent	Review available sources to determine proper interval for street sweeping by Dec. 31, 2003. Develop Street Sweeping policy by Dec. 31, 2004. Follow policy for regular street sweeping starting by Dec. 31, 2005.
Employee Education	3.2.6.2.2	Chief Maintenance Superintendent	Along with the Public Information Department, will gather all information, in the form of brochures, flyers, newsletter, etc., on Pollution Prevention/Good Housekeeping, and present to CCEO maintenance employees annually. Information will include proper herbicide use, disposal of construction debris, how to properly clean catch basins, treatment of fleet maintenance, drainage of outdoor storage, proper storage of salt, snow removal and street salting, proper cleaning of ditches and street sweeping. Meeting will be held with the entire Maintenance staff by the end of 2004 and will be repeated annually.

Acronyms Used in this Draft Include

BMP: Best Management Practice

CCEO: Cuyahoga County Engineer's Office

CCPC: Cuyahoga County Planning Commission

E&SC: Erosion and Sediment Control

HSTS: Home Sewage Treatment System

MCM: Minimum Control Measure

MOU: Memorandum of Understanding

NOACA: Northeast Ohio Areawide Coordinating Agency

MS4: Municipal Storm Sewer System

NOI: Notice of Intent

NPDES: National Pollutant Discharge Elimination System

Ohio EPA: Ohio Environmental Protection Agency

SWMP: Storm Water Management Program

SWTF: Storm Water Task Force