



Environmental  
Protection Agency

John R. Kasich, Governor  
Mary Taylor, Lt. Governor  
Scott J. Nally, Director

April 20, 2011

Ms. Darla Bokeno  
Administrative Specialist III  
City of Hamilton  
345 High Street, Suite 520  
Hamilton, OH 45011

**RE: Stormwater Program Evaluation, NPDES permit # 1GQ00011**

Dear Ms. Bokeno:

On Tuesday, March 22, 2011, I conducted a "screening evaluation" of the City of Hamilton's stormwater management program. You and Rich Engle represented the city during this review. The evaluation consisted of discussions about the 6 "Minimum Control Measures" (MCMs) that provide the framework for municipal stormwater programs. The intent was to evaluate program activities over the first 5 year term of the small MS4 general permit.

Note that following the discussion of activities for each MCM, specific annual reporting requirements and performance standards (taken directly from the current permit) are listed. Also note that future stormwater program reviews will likely be true audits, and will look at each aspect of the city's program in greater detail.

Based on my review of the city's current stormwater management plan, recent annual reports, and our discussion, I offer the following observations and recommendations:

**MCMs 1 and 2 – Public Information, Participation, Education and Outreach**

Information submitted in 2009 and 2010 stormwater program annual report suggests that the city is doing an excellent job of informing its residents about relevant stormwater issues. Newsletters sent to every home receiving a utility bill allow the city to say it has "reached" 100% of its population. Billboards posted along heavily travelled local roads also expose large numbers of people to the "Only Rain in the Drain" message. Unfortunately, without follow up surveying of some kind, it's impossible to know if people who received the information have modified their behavior accordingly. The inability to measure behavioral change, however, should not dissuade the city from continuing with this kind of educational outreach in the future.

Other educational efforts focus on a variety of approaches, from marking storm drain inlets to working with teachers and schoolkids and providing stormwater information at local festival booths. It is hoped such outreach efforts can continue in the future.

### **Recommendations**

Because Hamilton's original stormwater management plan (SWMP) is outdated, and thus inaccurate, it should be rewritten to reflect the specific outreach strategies the city currently uses, and expects to use in the near future. The revised SWMP should also include a discussion of the city's use of the internet, and how it intends to incorporate (and archive) basic stormwater information within its web site.

Copies of newly written stormwater related articles should be included with future annual reports. If previously published articles will be re-used in some way, then copies do not have to be included in subsequent annual reports. Ideally, articles can be archived on line for future reference.

The revised SWMP should also explain the basics of Hamilton's program for marking storm sewer inlets with the "do not dump" message, how long it expects to take to complete the work, and how labels will be maintained after all storm sewer inlets have been marked.

**MCM 1 - Performance Standards** Hamilton's stormwater public education and outreach program shall include more than one mechanism and target at least five different stormwater themes or messages over the permit term. At a minimum, at least one theme or message shall be targeted to the development community. Stormwater public education and outreach shall reach at least 50 percent of the city's population over the permit term.

**Annual Reporting** Annual reports shall identify each mechanism used, including each stormwater theme, audience targeted and estimate of how many people were reached by each mechanism.

**MCM 2- Performance Standards** Hamilton's stormwater public involvement/participation program shall include, at a minimum, five public involvement activities over the permit term.

**Annual Reporting** Annual reports shall identify each public involvement and/or participation activity conducted, including a brief description of each activity and an estimate of how many people participated.

### **MCM 3 – Illicit Discharge Detection and Elimination (IDDE)**

**Mapping** All storm sewer outfalls within Hamilton's boundaries have been mapped, as has 80% of the entire storm sewer system. The city has until January, 2014 to complete mapping of the entire system. The revised SWMP should explain

Ms. Darla Bokeno  
April 20, 2011  
Page 3

which city department is responsible for updating these maps when development adds new storm sewers to the existing network. A copy of the completed map does not have to be submitted to OEPA, but should be made available during the next stormwater program audit/evaluation.

**IDDE Ordinance** – The City of Hamilton does not have specific language in either an ordinance or other regulatory mechanism that clearly prohibits illegal discharges of improper materials or wastes into its storm sewer network. Language reviewed so far, either in the original SWMP or in information provided after our meeting, appears to address illegal discharges into Hamilton's sanitary sewers. A copy of whatever language is crafted to meet this requirement must be included (as an attachment or Appendix) to the city's updated stormwater management plan. If existing language from other current city ordinances can be cobbled together in a reasonable way to meet the intent of the requirement, this should be explained in the revised stormwater plan. Specific sections of relevant codes can be referenced, but the explanation of the ordinance and how it meets the intent of the permit requirement should be general.

While complaints of illicit discharges into Hamilton's storm sewers are rare (as opposed to complaints of blocked pipes that cause drainage problems), the revised SWMP plan should explain the general process used by the city to address complaints, from receipt to resolution. We discussed the "cityworks" system currently used to log and track complaints of all sorts lodged by city residents. If that will remain the primary way in which stormwater related calls are managed in the foreseeable future, the revised plan needs to explain this.

**Home Sewage Treatment Systems** – None of the 100 residential septic systems present within Hamilton's jurisdiction are thought to discharge to the city's storm sewers. The revised SWMP should state this fact. The revised SWMP should also explain the course of action the city would take if one of these systems were to fail so badly that it would end up discharging into the city's storm sewers.

**Dry Weather Screening** – Thus far the city has only screened a small number of storm sewer outfalls within its jurisdictional area, though it has until the end of the first permit term in 2014 to complete the task. Because the original SWMP (page 2-14) makes little mention of this requirement, the revised SWMP must discuss how the city will approach dry weather screening its storm sewer outfalls, and provide a schedule that explains which outfalls will be screened, and when, over the 5 year permit term. The revised plan should also discuss the general approach that will be taken in the event a discharge is observed. The outcome of specific situations, either complaint-driven or from routine screening work, should be summarized and included in respective annual reports.

Ms. Darla Bokeno  
April 20, 2011  
Page 4

**MCM 3 - Performance Standards** Hamilton's illicit discharge detection and elimination program shall include or have included an initial dry-weather screening of all stormwater outfalls over the permit term. The program shall establish priorities and specific goals for long-term systemwide surveillance of the MS4, as well as for specific investigations of outfalls and their tributary area where previous surveillance demonstrates a high likelihood of illicit discharges. Data collected each year shall be evaluated and priorities and goals shall be revised annually based on this evaluation. Hamilton's storm sewer system map shall be updated annually as needed.

**Annual Reporting** Annual reports shall document the following: (1) number of outfalls dryweather screened, (2) number of dry-weather flows identified, (3) number of illicit discharges identified, (4) number of illicit discharges eliminated, (5) provide schedules for elimination of illicit connections that have been identified but have yet to be eliminated and (6) summary of any storm sewer system mapping updates

**MCM 4 – Construction Site Stormwater Runoff Control**

Inspection records were not requested during the review, but annual report information suggests that the city is actively inspecting construction sites to ensure erosion and sediment controls are installed and maintained as necessary. It's not clear, however, how many of the 93 sites reported as "requiring plans" were construction projects at which erosion/sediment controls would be needed. Future annual reports should only include information about such sites, and not those that only "...impact the exterior of a property..." Copies of checklists or other forms developed and used by the city to document construction site inspections should be included in the revised SWMP as an attachment.

The construction ordinance sent to me electronically following our meeting does not seem to address, or even reference, specific erosion and sediment control requirements that MS4s are expected to administer. Perhaps stronger language that holds developers accountable for erosion control requirements is present in other city codes, or perhaps other parts of section 929 were meant to be included with this document. At any rate, the city must explain in its revised SWMP how proposed construction projects are evaluated in terms of erosion and sediment controls, how often active sites will be inspected, and what penalties may be levied if approved plans are not followed. A summary of the ordinance(s) or other regulatory mechanism(s) that provide the basis for the specific parts of the city's construction program (that is of interest to OEPA) should also be included in the revised plan.

The performance standards listed below may be a helpful guideline the city can follow when revising this section of its SWMP. The original SWMP does contain information that helps explain the city's construction program, and perhaps some of that verbiage can be used in the revised plan.

**MCM 4 - Performance Standards** Hamilton's construction site stormwater control program shall include preconstruction stormwater pollution prevention plan review of all projects from construction activities that result in a land disturbance of greater than or equal to one acre. To ensure compliance, these applicable sites shall be initially inspected. The frequency of follow-up inspections shall be on a monthly basis unless the city documents its procedures for prioritizing inspections such as location to a waterway, amount of disturbed area, compliance of site, etc. If the city initially had coverage under a previous version of this permit it shall revise the program to satisfy these performance standards, if needed, within two years of when coverage under this general permit was granted.

**Annual Reporting.** Annual reports shall document the following: (1) number of applicable sites in your jurisdiction, (2) number of pre-construction stormwater pollution prevention plan reviews performed, (3) number and frequency of site inspections, (4) number of violation letters issued, (5) number of enforcement actions taken and (6) number of complaints received and number followed up on.

**MCM 5 – Post Construction Stormwater Management in New Development**

It's not clear how Hamilton's construction project review process accommodates post-construction stormwater runoff management requirements. Section 929.10 of Ordinance 2010-1-3 references Ohio EPA's general construction stormwater permit, and states that new developments must comply with the post construction portions of this permit. But the narrative portion of the original SWMP needs to be rewritten to reflect how post-construction best management practice options are evaluated prior to new construction projects getting underway. (Note that post-construction requirements as stipulated in OEPA's construction permit currently apply only to new developments that disturb 5 or more acres of land.)

The current version of Hamilton's SWMP says nothing about Operation and Maintenance (O&M) agreements that are expected to be in place at new developments where post-construction BMPs have been installed, regardless of if the BMPs are considered public infrastructure. During our meeting you explained that maintenance agreements are now made between the city and owners of properties on which post-construction practices have been installed. The revised SWMP should include a summary explanation of how these agreements are handled, with ordinance language and other relevant details made available in an appendix or attachment to the plan. A sample copy of a signed agreement should also be included in the plan.

**MCM 5 – Performance Standards**

Hamilton's post-construction SWMP shall include pre-construction stormwater pollution prevention plan review of all projects from construction activities that result in a land disturbance of greater than or equal to one acre to ensure that required controls are

designed per requirements. These applicable sites shall be inspected to ensure that controls are installed per requirements. The program shall also ensure that long-term operation and maintenance (O&M) plans are developed and agreements in place for all applicable sites. If the city initially had coverage under a previous version of this permit it shall revise its program to satisfy these performance standards, if needed, within two years of when coverage under this general permit was granted.

**Annual Reporting** Annual reports shall document the following: (1) number of applicable sites in your jurisdiction requiring post-construction controls, (2) number of pre-construction stormwater pollution prevention plan reviews performed, (3) number of inspections performed to ensure as built per requirements and (4) number of long-term operation and maintenance (O&M) plans developed and agreements in place.

**MCM 6 – Pollution Prevention/Good Housekeeping for Municipalities**

Little time was spent discussing this section, but information provided in the most recent annual report suggests Hamilton is training some of its staff about stormwater issues and better materials management, is recording the amounts of salt used in winter for road deicing, and is tracking amounts of street sweepings collected and disposed.

This section of Hamilton's SWMP should be rewritten to better explain the city's current employee training program and the usefulness of "tailgate" meetings in relaying relevant information to staff. The revised plan should describe city efforts to minimize its use of various materials such salt and pesticides/herbicides. Portions of the original plan may be used in the revised plan, but the emphasis should be on describing how materials management practices have improved, with less emphasis on activities such as catch basin and storm sewer cleaning or repair.

**MCM 6 - Performance Standards** Hamilton's pollution prevention/good housekeeping program shall include, at a minimum, an annual employee training. Its operation and maintenance program shall include appropriate procedures, controls, maintenance schedules and recordkeeping to address Part III.B.6.d.iii of the small MS4 permit.

**Annual Reporting** Annual reports shall document the following: (1) summary of employee training program(s) implemented with number of employees that attended and (2) summary of activities and procedures implemented for Hamilton's operation and maintenance program.

**Conclusions**

Hamilton appears to be doing an adequate job of addressing the requirements of its stormwater permit. But, as repeatedly mentioned in this letter, the city's stormwater management plan needs to be updated so that it more accurately reflects the full extent of the city's activities. Recent annual reports contain information about various

Ms. Darla Bokeno  
April 20, 2011  
Page 7

stormwater related activities that would not otherwise be known by reading the original SWMP. In addition to improving its accuracy, the goal of rewriting the plan is to have a document that is general in nature, and can provide to the average reader a decent overall understanding of how the city is addressing stormwater management requirements. Requirements undoubtedly will change over time, but the city should be able to prepare a revised plan that will remain reasonably accurate for many years.

It is expected that the city will have its revised SWMP in place by the time the next small MS4 general permit has been implemented, early in 2014.

If there are questions about anything in this letter, I can be reached at 937.285.6442 or via email at [chris.cotton@epa.state.oh.us](mailto:chris.cotton@epa.state.oh.us).

Sincerely,

A handwritten signature in black ink, appearing to read "Chris Cotton". The signature is fluid and cursive, with the first name "Chris" and last name "Cotton" clearly distinguishable.

Chris Cotton  
Division of Surface Water

cc: OEPA/SWDO/DSW Files  
Anthony Robinson, OEPA/CO/DSW

CC/ca