



November 8, 2012

Mr. Charles Petty
Assistant Warren County Engineer
210 W. Main Street
Lebanon, OH 45036

RE: Storm Water Program Evaluation

Dear Mr. Petty:

On Friday, October 12, 2012, I met with you, Caitlin Botschner, Jeff Allen and Neil Tunison to discuss Warren County's storm water management program. This cursory "screening" evaluation was intended to identify significant deficiencies with the program, and to suggest a course of action for addressing these deficiencies. The evaluation was also intended to discuss ways to improve Warren County's storm water management plan (SWMP), which was first submitted in 2003 and is now in need of updating.

The balance of this letter discusses how Warren County should consider revising its SWMP so that it is easy to read, intelligible, and accurate with respect to activities the county conducts as required by its storm water permit. A list of suggested improvements is provided for each of the 6 minimum control measures that comprise storm water management programs.

MCMs 1 and 2 – Public Outreach, Education, Involvement and Participation

1. The revised plan should list education and outreach activities that the county reasonably expects to continue in the future. Additional information should be provided about the specific types of work done with school children and how the effectiveness of the efforts is gauged. Is this work done with public school children, private school children, or both? Is the topic of storm water discussed on its own, or is it incorporated into a broader environmentally oriented curriculum?

Details of specific approaches taken from one year to the next can be provided in subsequent annual reports.

2. The county's revised SWMP should expand on how it will make use of the Internet in the future as an outlet for both current and archived storm water information. Relevant website addresses should be provided in the plan with links to other

websites, Ohio EPA, U.S. EPA, Center for Watershed Protection, etc., where storm water information can be found. Directions for locating archived articles over Warren County's website should also be provided in the plan.

Because it is very difficult to determine the effectiveness of making storm water information available on line, the next best thing is to count the number of visits to relevant websites. The County should consider tracking the number of visits to sections of its website that contain storm water management information.

3. For annual reports, the County must provide titles to storm water articles it makes available to the public, and cite the source of the information.
4. The revised SWMP should discuss the existence of the County's storm water hotline, and include the number. Given the length of time the number has been in existence, the revised plan should also speak to the frequency of calls made to the hotline, how calls are generally handled, and if it looks like the hotline will be maintained in the future.
5. The revised plan should list the specific festivals the County expects to be involved with in the future, and the kinds of storm water information it expects to make available at the events. Information dispersed should be tracked, and about the only way to do this is keep count of how many brochures or other handouts which address storm water management issues are given out.
6. For storm drain tagging, the revised plan should discuss the basic plan of attack that will be followed to accomplish the task (or, if it's completed, how will storm sewer inlets be monitored in the future so that tags noted as missing get replaced)? The plan should provide a figure for how many storm drain inlets are present within the MS4, and an estimate as to how many require tags. The plan should also state that storm sewer inlet grates installed at new developments have the "do not dump" message stamped right in to the grate itself.

MCM 3 – Illicit Discharge Detection and Elimination

1. Warren County's revised SWMP must explain its storm sewer mapping program, in terms of the department(s) responsible for developing and updating its storm sewer maps. The County's storm sewer network (with the designated Urbanized Area) is required to be fully mapped by the end of the current permit term in January 2014.
2. The revised SWMP must contain a list of residential properties which are known to have septic systems that discharge to the County's storm sewer network. If no such discharging systems are thought to be present, the plan should explain how this was determined.

Information pertaining to the thousands of known on-lot residential septic systems located throughout Warren County is not relevant for the purposes of storm water

permitting. An exception could be if an on-lot system has failed so miserably as to create a discharge that reaches county storm sewers.

3. It seems unlikely that there are no true outfalls to "waters of the state" from storm sewers managed by Warren County. Recent annual reports suggest, however, that outfalls are present, and that the County has been working toward developing a list, and prioritizing which to screen first. The revised SWMP must explain how this list was developed, and explain how it will go about conducting required dry weather screening of its outfalls. If resources are expected to remain insufficient to screen outfalls once each permit term as currently required, this must be explained in the revised SWMP.

If it's true that outfalls from county managed storm sewer or other conveyances do not reach waters of the state, then a supporting explanation must be in the revised SWMP.

Note that storm sewer outfalls within the designated Urbanized Area were supposed to be identified and mapped by the end of the first small MS4 permit term in 2008.

4. The revised plan should also explain how the County works with its township co-permittees to address illicit discharges to the storm sewer network. "Illicit discharges" are loosely defined as anything other than storm water being put in to the system, with some exceptions for firefighting water or hydrant flushing, etc. Since the County is not able to develop its own ordinances, it must explain how it would deal with a situation brought to its attention that involved the discharge of waste or other inappropriate material into its storm sewer network.

MCM 4 – Construction Site Storm Water Management

1. Warren County's revised SWMP must explain the general review process developers must follow for projects that disturb more than one acre of land. The explanation must discuss where in the review process emphasis is placed on erosion and sediment controls, and other requirements intended to minimize impacts from new developments, such as concrete washout and general waste/materials management practices.
2. The narrative of the revised plan must reference key parts of the county's sediment and erosion control regulations. The entire set of regulations can be included as an Appendix to the plan, or directions for finding them at a county website can be provided.
3. The revised plan should also speak to provisions for performance bonding, and the issuance of stop work orders when projects are found to be non-compliant with relevant requirements.
4. An example of the form used to document construction site inspections should be

provided in the revised SWMP. Details concerning numbers of sites plans reviewed and sites inspected can continue to be provided in future annual reports.

MCM 5 - Post-Construction Storm Water Management

1. The revised SWMP must explain where in the review process for new development post-construction runoff management issues are broached, and if county regulations will accommodate best management practices (BMPs) that differ from those listed in Ohio EPA's general construction permit.
2. The revised plan must also speak to the issue of "operations and maintenance" (O&M) agreements that are expected to be put in place for new developments to ensure long term maintenance of post construction BMPs is addressed. Information pertaining to inspections of existing BMPs, which are predominantly detention basins, does not have to be provided. Only sites constructed since phase II storm water regulations were implemented in 2003 are technically required to have O&M agreements in place. A copy of the form used to document these inspections should be included in the revise plan.

Linking the release of bond monies to the preparation of O&M agreements is one way to ensure that the agreements are drafted. The more difficult part is ensuring that the agreements are honored over time, on both public and private properties. The revised plan should explain the differences that may result from implementing O&M agreements on public versus private properties, and how the County will attempt to ensure that private land owners with BMPs installed on their properties are held to the terms of the maintenance agreements.

3. Relevant portions of the County's regulations that address storm water management systems should be included in the narrative portion of the revised SWMP. All the regulations can be included as an Appendix to the plan, or direction for accessing the entire document over the internet can be provided instead.

Information included in Warren County's 2011 annual report suggests that new post-construction regulations are pending, and may be put in place by the end of 2012. It's acceptable to wait until the final version of these rules is implemented before the revised plan is prepared.

MCM 6 - Pollution Prevention/Good Housekeeping for Municipalities

1. Township and municipal storm water program co-permittees are expected to provide information to Warren County regarding the amounts of salt, pesticides, herbicides and fertilizers each has applied during the previous year. Likewise for the amounts of street sweepings collected, assuming these entities perform this activity. The County in turn includes this information in the appropriate year's annual report.
2. The basic approach to employee training should be outlined in the revised SWMP.

Typically storm water management requirements are not significant enough to carry an entire training session, so it's more pragmatic to include this information as part of a wider training effort. The revised plan should also state if training is done in-house, or if outside contractors are hired.

3. The revised plan must explain how Warren County and each of its storm water program co-permittees manage road de-icing salts prior to use. Basic information in annual reports about application of road salt should be expanded to more fully explain how efficiency has improved in recent years (due mainly to financial pressure, but also because of better equipment), and what opportunities may still exist for further improvement.
4. The revised plan should speak to this same issue as it relates to use of fertilizers, pesticides and herbicides. Are employees who apply these materials certified? Or does the County contract out this work to companies that have certified applicators? Any information that explains how the county is being as wise as possible with the use of these materials should be included in the revised plan.

Conclusions

Based on my cursory review of information submitted by the County, and our discussions, it appears Warren County is addressing most of the requirements imposed by its small MS4 general storm water permit. At this point the County needs to revise its SWMP so it provides a more thorough description of its program that incorporates changes which have occurred since 2003. The deadline for having an updated plan available will be when the next version of the small MS4 general permit is implemented near the end of January, 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.

Sincerely,



Chris Cotton
Environmental Specialist II
Division of Surface Water

CC/tf

cc: Ohio EPA/SWDO/DSW Files
Anthony Robinson, Ohio EPA/CO/DSW

