City of Morristown

Incorporated 1855

JUL 3 1 2014

Assistant City Administrator

Jason Mann
State of Tennessee
Department of Environment and Conservation
Tennessee Division of Water Resources
3711 Middlebrook Pike
Knoxville, Tennessee 37921-6538

Re: MS4 Program Audit
City of Morristown
NPDES Permit No. TNS076031
Hamblen County

July 28, 2014

Dear Mr. Mann:

In addressing issues listed in your letter dated May 22, 2014 to Mayor Danny Thomas regarding the audit of the City of Morristown's Municipal Separate Storm Sewer System (MS4) program, the following responses to each individual item are listed below. The responses are chronologically numbered to correspond to the list in your letter.

Issue # 1:

In accordance with Illicit Discharge Detection and Elimination requirements in the permit, dry weather screenings must be conducted within the storm system in order to detect, identify, and eliminate non- storm water discharges. A formal schedule of dry weather screenings should be developed and implemented (Section 4.2.3).

Response to audit item # 1:

The City will meet the intent of the permit by completing all monitoring by June 2016. There are two dry seasons remaining in the five year monitoring cycle.

Issue # 2:

The Public Education component of the permit requires targeted educational campaigns be designed to inform multiple stakeholder groups on stormwater- related issues; chemical

applicators, home owners associations, and the local engineering community are some of the groups listed in this permit requirement. The audit findings show no such educational campaigns being conducted at this time (Sections 4.2.1.a – 4.2.1.h).

Response to audit item # 2:

Keep Morristown Hamblen Beautiful has continued to provide general stormwater education as part of the educational component of our program each permit year. This organization offers many other events that promote recycling and a litter free community. Many of these events are aimed at children, while others target adults and community leaders as well. KMHB's programs and events promote clean stormwater.

During the 2014 permit year, a Hot Spot BMP mail out was completed. A copy is attached. Corresponding to the mail out, staff worked with a local newspaper to produce an article regarding the purpose of the mail out. The article listed general BMPs for the hotspots.

As discussed during your audit of the City of Morristown's Municipal Separate Storm Sewer System (MS4) program, the City has been restructuring the public works and engineering divisions as well as filling vacant employee positions. In the short term these issues impacted the City's stormwater program by affecting its ability to complete educational components within the stormwater permit. The short term issues have now been resolved. Moving forward the City will be completing the Public Education component of its permit by addressing two of the issues as listed in 4.2.1 a through h for each permit year remaining.

In the 2015 permit year the City's stormwater program will target the following issues:

e. General public and professional auto repair businesses awareness of the proper storage, use, and disposal of oil and other automotive- related fluids.

h. Municipal employees/contractors awareness of water quality impacts from daily operations

In the 2016 permit year the program will target the following issues:

f. General public and municipal employees on awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.

g. Local engineering, development, and construction awareness of water quality impacts from daily operations.

Issue # 3:

The City of Morristown has not developed a monitoring program in watersheds listed on the 303(d) list of impaired waterways. Both analytical and non-analytical monitoring is required for Turkey Creek, and a monitoring program must be developed and implemented as soon as possible to meet the terms and conditions of the NPDES permit (Sections 5.1 & 5.2)

Response to audit item # 3:

The City has reviewed and updated its Stream Monitoring Program document, which was originally prepared September 24, 2012. A copy of the current Program is attached. Turkey Creek is the only impaired stream which has the City identified as the source of the impairment, so it is the only stream which must be monitored.

The required Non-Analytical Monitoring, performed using the Maryland Department of Natural Resources protocol, was completed in March 2011.

Biological and bacteriological stream sampling is also required in Turkey Creek. The biological sampling will be performed between January and June of 2015. The bacteriological monitoring will be completed between June and September of 2015.

Issue # 4:

The Pollution Prevention/Good Housekeeping component of the MS4 permit requires an operation and maintenance plan be developed for individual municipal facilities within a given jurisdiction. First, the City of Morristown must develop a comprehensive list of municipal facilities, then develop operation and maintenance plans to comply with the terms and conditions of TNS076031 (Section 4.2.6).

Response to audit item # 4:

CITY FACILITIES:

Morristown Municipal Airport – 5233 Old Hwy 11-E – The Morristown Municipal Airport does not have a current SWPPP; therefore one must be developed. This SWPPP will be developed and implemented no later than June 2015. Training will be provided to the Fixed Based Operator (FBO) and to companies that operate from leased hangars at the airport.

Fire Stations - SWPPPs are not required for Morristown Fire Stations.

- Station One – 625 South Jackson Street
- Station Two – 1801 Buffalo Trail
- Station Three – 3205 East Andrew Johnson Highway
- Station Four – 3835 West Andrew Johnson Highway
- Station Five – 5700 Air Park Blvd.

- Station Six – 5020 South Davy Crockett Parkway

Park and Recreation Facilities - All Parks and Recreation facilities are currently covered by a single SWPPP.

- Civic Park – 390 Sulphur Springs Road
- Dr. Martin Luther King Park – 350 West 9th North St.
- Frank Lorino Park – 3100 Lorino Park Rd.
- Fred Miller Park – 441 W. Morris Blvd.
- Hillcrest Park – 407 Liberty Hill Road
- Jaycee Field Dog Park – 1726 Dalton Ford Road
- King Park – 400 Montvue Ave.
- Long-Reel Track – 506 Inman Street
- Popkin Field – 1049 Merwin Street
- Sherwood Park – 301 South Daisy Street
- Turkey Creek Greenway – Civic Park to Fred Miller Park
- Walters Park – 600 Hubble Street
- Wayne Hansard Park – 5100 Dearing Road
- West Elementary Park – 235 West Converse Street
- Wildwood Park – 1925 Shields Ferry Road

Public Works Facilities - Public Works operates out of two facilities. The facility located at 400 Dice Street has a current SWPPP; however, the facility located at 701 North Liberty Hill Road does not have a SWPPP. This SWPPP will be developed and implemented no later than June 2015. Training will be provided on an annual basis for all Public Works employees.

In addition, the City leases space at the North Liberty Hill location to Morristown Utility Commission. Training will be provided to those MUC employees who utilize the facility.

- 400 Dice Street
- 701 North Liberty Hill Road

City Center – City Center is the administrative headquarters for the City. The few activities which might impact stormwater, such as lawn mowing and custodial services, are performed by Public Works employees. These activities are covered under the Public Works SWPPP.

- 100 West First North Street

Issue # 5:

Currently, the City of Morristown is not inspecting active construction sites on a monthly basis as specified in the Storm Water Management Plan. The MS4 permit requires monthly

inspections on all sites discharging to high quality waters and impaired waters (Section 4.2.4j).

Response to audit item # 5:

At the time of the audit the Engineering Department was not fully staffed. Since the audit, the department has undergone restructuring and is now fully staffed with individuals who are trained for construction inspection as well as TDEC Level 1 stormwater inspection.

Issue # 6:

A formal set of Standard Operating Procedures (SOP) should be developed to aid stormwater staff and to consistently implement the program. The Illicit Discharge Detection and Elimination, Construction Site Stormwater Runoff Control, and Permanent Stormwater Management components of the program must be uniformly applied, and a formal SOP will aid in that process.

Response to audit item # 6:

1. The City will review the existing Zoning Ordinance, Subdivision Regulations, all existing and proposed (see below) stormwater management ordinances, stormwater and drainage related notices, directives, SOPs, guidelines, model agreements, policies, and protocols. In addition, the City will review its relevant written, unwritten, formal and informal procedural processes in detail. The City will also review the existing requirements of state (e.g., construction general permit) and federal (e.g., endangered species) mandates as they relate to stormwater management.

2. Following the comprehensive review described above, the City will prepare two primary SOPs:
    a. The Plans, Permitting and Inspection Procedures SOP will detail the requirements and specific steps to be followed for projects falling under the purview of the City's Stormwater Management Program. The SOP will include desired directives, protocols, etc. not mandated by the Stormwater Management Ordinance.

    b. The Stormwater Operations Procedures will detail the requirements and steps used, or to be used, by City staff in carrying out the various components of the Stormwater Management Program. Examples include: construction site runoff control and inspection, permanent stormwater management facilities inspection, illicit discharge detection and elimination, visual and analytical stream monitoring, and reporting.

The City will complete these SOPs no later than June 15, 2016.

Issue # 7:

Currently, the City of Morristown has 4 separate ordinances addressing stormwater- related subjects; in these ordinances, 2 separate governing bodies are named for hearing appeals to stormwater regulations. An ordinance update/ consolidation might be appropriate to better serve citizen's needs within the City of Morristown.

Response to audit item #7:

We propose the following:

1. The City will prepare a single Stormwater Management Ordinance. The ordinance will incorporate the current requirements (including updating as necessary) of the Land Disturbance, Illicit Discharge, Post-Construction, and Water Quality Buffer ordinances. In addition, the City will review the Zoning Ordinance, Subdivision Regulations, all existing and proposed stormwater and drainage related notices, directives, SOPs, guidelines, model agreements, policies and protocols to ensure consistency and will consolidate relevant requirements into the Stormwater Management Ordinance where practical. The end result will be a comprehensive ordinance with consistency in the procedural, technical and enforcement requirements.

2. In conjunction with the development of the Stormwater Management Ordinance, the City will revise the Municipal Floodplain Zoning ordinance to ensure that it is consistent with the Stormwater Management Ordinance, and to update the ordinance to clarify selected aspects of the floodplain management program.

The City will complete the consolidated ordinance and review and revise other ordinances as necessary no later than June 15, 2016.

It is the City's goal that these responses are satisfactory and have demonstrated our commitment to compliance with our permit. Your assistance during the audit process and consideration of this response are greatly appreciated. Should you have questions or require additional information please contact me at 423.581.0100 or bfielder@mymorristown.com.

Sincerely,

Ralph "Buddy" Fielder, ACA
City of Morristown, Tennessee

JUL 3 1 2014

Stream Monitoring Program

for

City of Morristown Stormwater Program

September 24, 2012

revised July 11, 2014

-Prepared By-

City of Morristown Engineering Department
PO Box 1499
Morristown, Tennessee 37816
Telephone: (423) 581-0100

1.0 Introduction

Section 5 of City's NPDES General Permit for Discharges from Small Municipal Separate Storm Sewer Systems (MS4) requires the City to perform both Analytical and non-analytical monitoring of streams if the City is identified as the source of the impairment. This document is the City's Program for complying with this requirement. All required monitoring shall be completed within a five-year period.

Any monitoring of stormwater discharges, or of receiving waters, will comply with the following:

1. Representative monitoring – Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

2. Test Procedures – Monitoring results must be conducted according to test procedures approved under 40 CFR §136.

1.1 Current Analytical Monitoring

The City has performed monitoring of fecal coliforms at 19 locations on Turkey Creek for several years. These results have been used as a BMP evaluation tool for the 2010-2011 and 2011-2012 Annual Reports.

This monitoring program was suspended in June 2012 and is currently under review to determine if switching to testing for E. coli is feasible.

2.0 Analytical Monitoring

Each stream with EPA approved TMDL's and each impaired stream where the City is listed as the source of the impairment will be monitored with analytical monitoring based on the cause of the impairment as described in the following sections.

The most recent 303(d) list will be used to determine the streams to be monitored.

2.1 Streams to be Monitored

The streams to be monitored for each type of sampling are listed below.

2.1.1 Biological Stream Sampling

Analytical monitoring is required for streams impaired for siltation and/or habitat alteration if the MS4 has been identified as the source of the impairment. As of June 2011, only Turkey Creek requires monitoring due to impairment due to siltation and/or habitat alteration.

2.1.2 Bacteriological Stream Sampling

Analytical monitoring is required for streams impaired for pathogens (E. coli) if the MS4 has been identified as the source of the impairment. As of June 2011, only Turkey Creek requires monitoring due to impairment for pathogens.

2.2 Monitoring Methods

Bacteriological stream sampling and biological stream sampling will be conducted as required by the Permit.

2.2.1 Biological Stream Sampling

Biological stream sampling will be performed utilizing the Semi-Quantitative Single Habitat (SQSH) Method as identified in the division's Quality System Standard Operating Procedure for Macroinvertebrate Stream Survey, most recent revision.

Sampling shall include collection of one sample per stream segment, with all segments in the MS4 jurisdiction sampled in a five-year period.

2.2.2 Bacteriological Stream Sampling

Bacteriological stream sampling will be performed utilizing methods identified in the division's Quality System Standard Operating Procedure for Chemical and Bacteriological Sampling of Surface Water, most recent revision.

Sampling shall include the collection of five samples, within a thirty-day period (to establish a geometric mean), and be performed during summer (June through September). Bacteriological sampling will be performed such that all pathogen-impaired segments in the MS4 jurisdiction are sampled within a five-year period.

2.3 Monitoring Records

Records of monitoring information will include:

1. The date, exact place indicated by latitude and longitude, and time of sampling or measurements;
2. The names(s) of the individual(s) who performed the sampling or measurements;
3. The date(s) analyses were performed;
4. The names of the individuals who performed the analyses;
5. The analytical techniques or methods used; and

6. The results of such analyses.

3.0 Non-analytical Monitoring

Each stream with EPA approved TMDL's and each impaired stream will be monitored with non-analytical monitoring based on the source of the impairment as described in the following sections.

The most recent 303(d) list will be used to determine the streams to be monitored.

3.1 Streams to be Monitored

Non-analytical monitoring is required for streams impaired for siltation, habitat alteration, or pathogens if the MS4 has been identified as the source of the impairment. At this time, only Turkey Creek requires monitoring per this criteria.

3.2 Monitoring Method

Visual Stream Surveys and Impairment Inventories will be performed on Turkey Creek. A visual stream survey will be performed immediately upstream and downstream of each MS4 outfall that discharges into an impaired stream segment. The State of Maryland Department of Natural Resources protocol will be utilized.

All impaired stream segments in the MS4 jurisdiction will be surveyed in a five-year period.

3.3 Monitoring Records

Records of non-analytical monitoring of stormwater discharges will include:

1. The date, exact place, and time of observation/monitoring;
2. The names(s) of the individual(s) who performed the observation/monitoring;
3. The date(s) of the observation/monitoring;
4. A description of the protocol employed;
5. Documentation of findings, including a prioritized written description, photographs and corrective action plan and timeline.