

DBUA 2-6-2014 DBUA 2-10-2014 Waterlos 2-10-2014 .O. Box 2968 DMS

Murfreesboro, TN 37133-2968

(615) 895-8221 Fax: (615) 895-0632

January 31, 2014

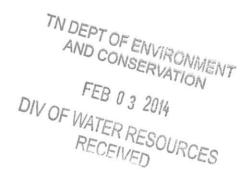
Ms. Jessica Murphy, Enforcement Manager Division of Water Resources William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 11<sup>th</sup> Floor Nashville, Tennessee 37243

RE:

CASE No. WPC09-0057; APD No. 04.30-120871A

CITY OF WAYNESBORO G&M FILE #981-13

Dear Ms. Murphy,



City of Waynesboro officials have asked me to inform you of the following. Agreed Order Item XIX.1 requires Waynesboro to submit annual progress reports describing activities regarding the CMOM Program. Please consider this letter and attachments as the annual report for the January – December 2013 reporting period.

- a) Find Attached Exhibit A System Profile and Performance Summary.
- b) Find Attached Exhibit B System-wide CMOM Program Performance Summary.
- c) Find Attached Exhibit C Sub-basin Statistics Summary.
- d) The following capital improvement program and projected budgets are based on the 2012 Compliance Action Plan (CAP), revised as appropriate.

Activity	Year	Approximate Budget
Completion of wastewater treatment plant upgrades	2014	\$1,150,000
Install/purchase flow monitors	2014	\$1,130,000
Evaluate initial flow monitoring & identify Phase I rehabilitation area Further investigate Phase I I&I areas Recommend Phase I rehabilitation activities for that area	2015	\$100,000
Complete recommended Phase I rehabilitation activities	2016	\$600,000
Identify and further investigate Phase II I&I areas Recommend Phase II rehabilitation activities	2017	\$100,000
Complete recommended Phase II rehabilitation activities Perform flow monitoring to evaluate rehab effectiveness	2018	\$600,000

Note - The budgets for 2016 and 2018 assume that Waynesboro will receive a CDBG grant to assist with rehabilitation.

- e) Narrative description of the status of all contracted wastewater improvement projects, all inhouse replacement and rehabilitative projects, and the funding status of all improvement projects.
  - Contracted Wastewater Improvement Projects Fully Funded The current wastewater improvement project that is contracted out is that of the Wastewater Treatment Plant Upgrades. Construction on this project started in May of 2013 and the contract time runs through March 25, 2014. The contractor has been informed that construction activities are currently behind schedule. The Engieer has requested information to show how the project will be brought back into schedule or provide justification for an extension, if either of those are applicable.

- 2. In house Replacement and Rehabilitative Projects In house efforts to begin in 2014. The City of Waynesboro is preparing to execute a rate increase of 50% on sewer customers to pay for the WWTP upgrades. There is a high rate of unemployment and Low to Moderate Income households in Waynesboro. In addition, one of the largest industries in the town shut down in December of 2013, increasing unemployment. Therefore, the rate increase that is already necessary to pay for the required WWTP upgrades is going to be a significant burden on many customers. In an effort to avoid additional rate increases, the City plans to maximize the effectiveness of available funds by using City forces whenever possible and by applying for grant funding. The City is currently using grant funding from Rural Development and the Tennessee Division of Economic and Community Development in combination with low interest rate loans to fund the WWTP upgrades. These upgrades should be complete in 2014, allowing the City to apply for additional CDBG funding in 2015. If they receive the grant, those funds will not be available for use until 2016. The City could use those funds, apply again in 2017, and project additional funding in 2018. The capital improvements plan above projects that the City will receive these grants to provide significant funding for the needed sewer rehabilitation. If the City does not receive these funds, the budget for that year will be reduced by \$500,000 in 2016 and 2018.
- f) Maps and other additional documents A map of the sewer collection system identifying the WWTP and the wastewater collection basins is attached.

I believe that the City of Waynesboro is using their limited resources to implement the CMOM and bring the WWTP into compliance as quickly and efficiently as possible. They have identified areas in which they need to invest additional resources and are working to do so. The City has focused initial efforts on upgrading the plant in order to stop violations and releases of contaminants to the environment as quickly and effectively as possible. Once this step is complete, the City will be able to focus resources on other areas of the Agreed Order, CMOM and CAP to invest in the reduction of I&I in the system

If you have any questions regarding this report, please contact me at (615) 895-8221.

Sincerely,

GRIGGS & MALONEY, INC.

Kimberly Eakes, P.E.

Cc: John Hickman, Jeff Staggs, Patrick Burns, George Gray - City of Waynesboro

Bill Griggs, Roger Morse – G&M

## Exhibit A

## SYSTEM PROFILE AND PERFORMANCE SUMMARY - 2013

 Population Served:
 2441

 Number of Customers:
 799

 Number of Treatment Plants:
 1

 Total Wastewater Design Treatment Capacity:
 0.5 MGD = 182.5 MG/yr

 Total Volume of Wastewater Treated:
 130.541 MG

 Miles of Gravity Sewers:
 15.3

 Number of Manholes:
 385

 Number of Inverted Siphons:
 0

 Number of Pump Stations:
 12

 Miles of Force Main:
 3.8

 Number of Employees:
 9\*

 Annual Capital Improvement Budget\*\*:
 \$4,384,750

 Annual Operation and Maintenance Budget:
 \$293,453

 Total Annual Operating Budget:
 \$4,678,203

<sup>\*</sup>Note: There are a total of 9 Public Works Employees that spread their time over maintenance of the Water System, Sewer System, Natural Gas System, Parks, and Streets and Sidewalks.

<sup>\*\*</sup>This budget includes the WWTP upgrades.

Exhibit B

System Wide MOM Programs Recent Performance Summary

Pe	Performance Measures for Previous 12 Months	S												
	Year - 2013	Total/Avg Jan	lan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
A	Number of Customer Complaints	33												
В	Number of NPDES Violations*	0	0		0	0	0	0	0	0	0	0	0	0
C	Number of Capacity-Related Overflows	64	5	10	7	8	7	, 2	4	4	5	3	5	4
0	Numb. of Maintenance-Related Overflows	0	0		0 0	0	0	0	0	0	0	0	0	0
ш	Number of Operations-Related Overflows	0	0		0	0	0	0	0	0	0	0	0	0
ш	Number of Blockages	0	0	)	0 0	0	0	0	0	0	0	0	0	0
G	Number of Cave-Ins	0	0	)	0 0	0	0	0	0	0	0	0	0	0
I	Number of Pump Station Failures	0	0		0 0	0	0	0	0	0	0	0	0	0
_	Peak Flow Factor at Treatment Plant**	4.3												
	(1 hour high/dry month avg.)													
_	Monthly Average WWTP Flow Rate	4.8	6.0	6.1	1 5.5	5.9	5.1	4.2	3.7	3.7	4.3	4.1	4.5	4.9
	(gal/capita/day)													
$\times$	Monthly High 1-Day WWTP Flow Rate	5.9	6.6	.9	7 6.4	7.1	6.3	6.2	5.0	4.3	6.3	5.0	5.4	5.5
	(gal/capita/day)													
_	Number of By-Passes at WWTP	0	0	)	0 0	0	0	0	0	0	0	0	0	0
Σ	M Volume of WWTP By-Passes (gal)	0	0	)	0 0	0	0	0	0	0	0	0	0	0
Z	N WWTP Weekly Avg Influent BOD (mg/L)	114.15	112.50	104.13	88.33	107.04	118.41	130.66	122.96	125.02	115.17	132.03	118.60	94.95

<sup>\*</sup> While overflows are violations of the NPDES Permit, we did not include them in this line item since they are included in the next line item and we do not want to double count them.

<sup>\*\*</sup> Note: The WWTP does not currently record the hourly flows. The plant operator will begin recording hourly peak flows manually until the WWTP upgrades are complete. Once the new SCADA system is in place, this data will be automatically recorded. 2013 numbers were calculated as the maximum one day flow for the year/dry month average.

# Exhibit C – Waynesboro Wastewater System

2013 Annual Report

#### 1. Summary

	Total	Basin A	Basin B	Basin C	Basin D	Basin E	Basin F
Gravity Sewer – Feet	80,836	5,118	16,848	20,525	9,094	10,561	18,690
Force Main – Feet	20,000						
Connections	799						,

<sup>\*</sup>Note: Force main and connections data are not currently broken down by Basin. Utility personnel will review records and provide the breakdown by basin in the next annual report.

## 2. Overflows

	Basin A	Basin B	Basin C	Basin D	Basin E	Basin F
Overflows - Number	64	0	0	0	0	0
Overflows - Gallons	1,983,000	0	0	0	0	0
Overflows Reaching Water – # (Estimated about 10%)	7	0	0	0	0	0
Overflows Reaching Water – Gal*	60,000	0	0	0	0	0
Dry Weather Overflows	0	0	0	0	0	0
Wet Weather Overflows	64	0	0	0	0	0
Individual Releases	64	0	0	0	0	0
Overflows Cleaned Up	16	0	0	0	0	0
Overflows Reported on DMR	64	0	0	0	0	0
Initial Report Notification	52**	0	0	0	0	0
Follow Up Report Sent Within 5 Days	52**	0	0	0	0	0
Dry Weather System Failure Backups	0	0	0	0	0	0
Wet Weather System Failure Backups	0	0	0	0	0	0

<sup>\*</sup>Overflows must run across a significant length of grassy, gradually sloped drainage terrain between the overflow point and the creek. Based on the deposition of solids, the operator concludes that most overflows soak into the ground before reaching the creek and estimates that only about 10% of the overflows ever reach the creek. He cannot measure the gallons of that overflow that reaches the creek but we have estimated that 30% of the flow of 10% of the overflows reaches the creek as follows:

Gallons to Creek = 1,983,000 total gallons of overflow x 10% x 30% = 59,490 gal  $^{\sim}$  60,000 gal

## 3. Complaints

	Total	Basin A	Basin B	Basin C	Basin D	Basin E	Basin F
Complaints Received	33	4	10	4	5	5	5
Complaints Investigated	33	4	10	4	5	5	5
Complaints Resolved	33	4	10	4	5	5	5
Complaints Determined to be Customer Private Line Issues	4						

<sup>\*\*</sup> This number is an estimate. The operator was not previously required to track the reporting of overflow events outside of the DMRs. However, he will begin tracking that for 2014.

### 4. Assessment & Prioritization - Corrosion

	Total	Basin A	Basin B	Basin C	Basin D	Basin E	Basin F
Locations Subject to Corrosion	29,000	2,000	3,000	9,000	2,400	5,800	6,800
Corrosion Inspections Conducted	0	0	0	0	0	0	0
Corrosion Defects Identified	0	0	0	0	0	0	0

#### 5. Manholes

	Basin A	Basin B	Basin C	Basin D	Basin E	Basin F
Number of Manholes	27	124	84	31	40	79
Manholes Inspected in 2013	0	0	0	0	0	0
Manholes Inspected Since Program Began*	0	0	0	0	0	0
Manholes with Defects	0	0	0	0	0	0

<sup>\*</sup>Note: We have defined the "Program Start" date as September 23, 2013; the date that the Agreed Order was executed. Since the beginning of the program, manholes have only been inspected as part of responses to complaints. The City is currently investing available resources into the WWTP upgrades. After completion of these upgrades, the City will have more available resources to further investigate the collection system.

### 6. Flow Measurement

<b>During Monitoring Period</b>	Basin A	Basin B	Basin C	Basin D	Basin E	Basin F
Year – Most Recent Flow Monitoring	-		-	-	-	-
Peak Flow (gpm/cfm)	-	-	-	-	-	-
Instantaneous Peak Flow (gpm/cfm)	-	-	-	-	-	-
Average Flow (gpd)	-	-	-	-	-	-
Low Flow (gpd)	-	-	-	-	-	-
Basins Contributing to Flow to This Basin	:=	-	-	-	-	-

Currently the 10" and 18" trunk lines feeding the plant are allowed to surcharge during normal operational conditions to minimize the hydraulic peak loadings to the plant, provide the highest treatment rates possible with the existing equipment, and control storm related plant washout events. Until this surcharging is eliminated with the new plant's placement into service in 2014, inline flow monitoring within Basins A, B, and E are not possible.

With the completion of the wastewater treatment plant upgrades, the interceptor surcharged condition should be eliminated and the raw sewage pumps will be operated as originally intended. This upgrade should remove any intentional overflow conditions within the Waynesboro Sanitary Sewer collection system. At that time, system wide flow monitoring will be initiated to determine the actual infiltration and inflow rates contained within each system Basin.

#### 7. CCTV Inspection

	Basin A	Basin B	Basin C	Basin D	Basin E	Basin F
Feet CCTV Inspected in 2013	0	0	0	0	0	0
Feet CCTV Inspected Total	0	0	0	0	0	0
Feet Cleaned for Inspection	0	0	0	0	0	0
Feet Cleaned for Routine of Scheduled Maintenance	0	0	0	0	0	0
Defects Identified by CCTV Inspection	0	0	0	0	0	0
Defects Catalogued or Recorded into Database	0	0	0	0	0	0

<sup>\*</sup>Note: We have defined the "Program Start" date as September 23, 2013; the date that the Agreed Order was executed. Since the beginning of the program, manholes have only been inspected as part of responses to complaints. The City is currently investing available resources into the WWTP upgrades. After completion of these upgrades, the City will have more available resources to further investigate the collection system.

#### 8. Smoke Testing

	Basin A	Basin B	Basin C	Basin D	Basin E	Basin F
Feet Smoke Tested in 2013	0	0	0	0	0	0
Leaks Identified on Public System	0	0	0	0	0	0
Public System Leaks Repaired	0	0	0	0	0	0
Public System Leaks Not Repaired in 2013	0	0	0	0	0	0
Public System Leaks Not Repaired Total	0	0	0	0	0	0
Leaks Identified on Private Service	0	0	0	0	0	0
Private Service Leaks Repaired	0	0	0	0	0	0
Private Leaks Ident Not Repaired in 2013	0	0	0	0	0	0
Private Leaks Ident Not Repaired - Total	0	0	0	0	0	0

<sup>\*</sup>Note: We have defined the "Program Start" date as September 23, 2013; the date that the Agreed Order was executed. The City is currently investing available resources into the WWTP upgrades. After completion of these upgrades, the City will have more available resources to further investigate the collection system.

## 9. Gravity Line Rehabilitation

	Basin A	Basin B	Basin C	Basin D	Basin E	Basin F
Feet Gravity Line Rehabilitated in 2013	0	0	0	0	0	0
Feet Gravity Line Rehabilitated Total	0	0	0	0	0	0
Feet Replaced in 2013	0	112	0	0	0	0
Feet Replaced Total	0	0	0	0	0	0
Feet Sliplined in 2013	0	0	0	0	0	0
Feet Sliplined Total	0	0	0	0	0	0
Feet Cured in Place in 2013	0	0	0	0	0	0
Feet Cured in Place Total	0	0	0	0	0	0
Manholes Rehabilitated in 2013	0	0	0	0	0	0
Manholes Rehabilitated Total	0	0	0	0	0	0
Feet of Rehabilitation Inspected	0	0	0	0	0	0
Feet of Rehabilitation Tested	0	0	0	0	0	0

<sup>\*</sup>Note: We have defined the "Program Start" date as September 23, 2013; the date that the Agreed Order was executed. The City is currently investing available resources into the WWTP upgrades. After completion of these upgrades, the City will have more available resources to further investigate and rehabilitate the collection system.

# 10. Grease Program

	Total	Basin A	Basin B	Basin C	Basin D	Basin E	Basin F
Facilities Required to have a Grease Device	19	6	3	7	1	0	2
Facilities with Installed Grease Device	19	6	3	7	1	0	2
Grease Installation Inspections Conducted and Documented	0	0	0	0	0	0	0
Facilities Inspected for Compliance with Grease Ordinance	0	0	0	0	0	0	0
Grease NOVs to System Users	0	0	0	0	0	0	0
Fines Issued to Grease Generators	0	0	0	0	0	0	0
Grease Generators Water Service Discontinued	0	0	0	0	0	0	0

<sup>\*</sup>Note – In the past, grease traps have been inspected as needed if a blockage occurs. Starting in 2014, all grease traps will be inspected semi-annually.

# 11. Other Inspections

	Basin A	Basin B	Basin C	Basin D	Basin E	Basin F
Construction Inspections	WWTP - Daily	0	0	0	0	0
Pump Station Inspections	0	0	0	0	0	0
Documented Pump Station Inspections	0	0	0	0	0	0