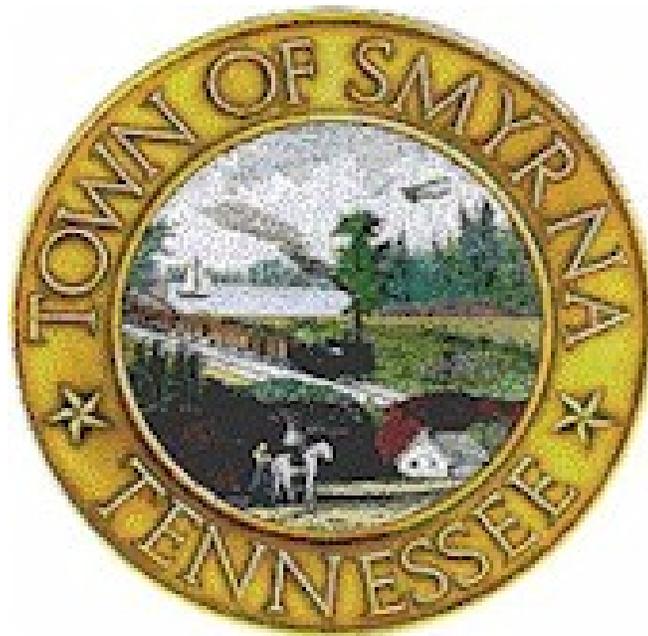


# 2003 Sanitary Sewer Overflow Evaluation Report

October 30, 2006



## SUMMARY

The Sanitary Sewer Overflow Evaluation Report (SSOER) is an assessment tool Smyrna Utilities uses as part of its ongoing collection system improvement program. The 2003 SSOER is a summation of the sanitary sewer overflows (SSOs) between January 1, 2003 and December 31, 2003. The report analyzes the specific causes of each overflow and categorizes them as requiring short-term or long-term corrective measures, or both.

### Key to the spreadsheet headings in the SSOER

1. **Date:** Date the overflow was discovered by/or reported to Smyrna Utilities
2. **Address:** The street address, intersection, road, etc. of the location where the overflow occurred.
3. **Manhole:** Smyrna Utilities uses an alphanumeric numbering system to label the manholes. The letters represent basin, sub-basin, and mini-basin while the numbers represent a specific manhole in the basin, sub-basin and mini-basin.
4. **Basin:** An area of the sewer system separated by natural topography or system configuration. Smyrna Utilities uses letters to label the basins, sub-basins, or mini-basins
5. **Volume:** The estimated gallons of wastewater spilled in the overflow
6. **Specific Cause:** The causes of SSO's are inflow and infiltration (I&I) from rain or flooding, blockages caused by grease build-up, roots, or debris, mechanical failure of pumps, etc., or third party damage.
7. **Short Term Controls List:** Short-term resolutions to SSO's include activities to reduce and/or eliminate the cause of the overflow. These activities include equipment/pipe/manhole repairs, routine pipe cleaning, chemical root control, grease inspections/enforcement, power restoration, etc. In some cases when an overflow has occurred two or more times in a 12-month period, a long-term corrective action will also be needed.
8. **Long-Term Planning:** Indicates whether the SSO requires long-term resolution, such as a capital improvement project. The five-year capital improvement plan is formally updated on an annual basis and at other times during the fiscal year as needed to reflect changing conditions, priorities, and/or needs.

## **Analysis**

### **Blockages**

There were no SSO's reported during the 2003 calendar year resulting from line blockages. Smyrna Utilities is currently implementing a blockage abatement program. The program will consist of periodic maintenance and cleaning of existing lines, televising of all new lines prior to being placed in service, and a grease control program which will include public education on the effects of fats, oil, and grease on the collection system

### **Heavy Rainfall**

There were two significant rainfall events during 2003 which resulted in SSO's from inflow and infiltration (events 1-5) exceeding the system capacity. The SSO's occurred in sub-basin AH. Smyrna Utilities initiated a rehabilitation program in the affected areas at a total cost of \$1,109,150 which included among other remedies lining the collection system, rehabilitating manholes, and replacing service connections to the system. The project was completed in November of 2003. No SSO's have been reported in sub-basin AH since completion of the project.

**TOWN OF SMYRNA**  
**SANITARY SEWER OVERFLOW EVALUATION REPORT**  
 January 1, 2003 through December 31, 2003

<b>DATE</b>	<b>ADDRESS (House Address, intersection, road, etc.)</b>	<b>MANHOLE</b>	<b>BASIN (SUB-BASIN) [MINI-BASIN]</b>	<b>ESTIMATED VOLUME GALLONS</b>	<b>SPECIFIC CAUSE</b>	<b>SHORT TERM CONTROLS LIST</b>	<b>LONG TERM PLANNING</b>
1. February 15, 2003	Morton and Coleman	AH 25	A (AH)	1,440,000	Total rainfall event of 4.04 inches, bypassed manhole due to I & I	X	X
2. February 15, 2003	Richland Av.	AH 41	A (AH)	1,440,000	Total rainfall event of 4.04 inches, bypassed manhole due to I & I	X	X
3. May 7, 2003	Morton and Coleman	AH 25	A (AH)	302,400	Total rainfall event of 7.49 inches, bypassed manhole due to I & I	X	X
4. May 8, 2003	Richland Av.	AH 41	A (AH)	302,400	Total rainfall event of 7.49 inches, bypassed manhole due to I & I	X	X
5. May 9, 2003	Crosslin Ct		A (AH)	302,400	Total rainfall event of 7.49 inches,	X	X
6. June 6, 2003	1R Lift Station		E	10,000			