

EXHIBIT A

Summary of Sanitary Sewer Overflows Reported in 2018

**Town of Highland
Summary of Sanitary Sewer Overflows Reported in 2018**

Date / Time	Drainage Basin Location	Location Description	Type of Overflow Event	Estimated Quantity of Overflow	Cause	Rainfall Event Classification	Comments	Receiving Waters
1-30-2018 8:00 AM to 2:15 PM	5 th Street Basin	Across from 3022 Lincoln Street	Pipe Failure (Grace Street Lift Station Force Main)	65 gal	Grace St Force Main Pipe Failed		Untreated Release	Cady Marsh Ditch
2-19-2018 to 2-22-2018 10:00 PM to 2:00 AM	5 th Street Basin	MH 1230 on 5th St Interceptor	At 1 Constructed Overflow out of 5 th St San Swr into 5 th St Stm Swr	2,254,970 gal	Rainfall, Excessive I/I, Under Capacity Sewer	48-hr, 2.5 yr.+ (3.50 inches Rainfall) + Significant Snow Melt	Untreated Release	Little Calumet River
2-19-2018 to 2-20-2018 11:30 PM to 12:30 AM	5 th Street Basin	MH 1098 on 5th St Interceptor	At 1 Constructed Overflow out of 5 th St San Swr into 5 th St Stm Swr	5,746 gal	Rainfall, Excessive I/I, Under Capacity Sewer	48-hr, 2.5 yr.+ (3.50 inches Rainfall) + Significant Snow Melt	Untreated Release	Little Calumet River
2-19-2018 to 2-21-2018 11:30 PM to 6:00 PM	5 th Street Basin	MH 1345 on 5th St Interceptor	At 1 Constructed Overflow out of 5 th St San Swr into 5 th St Stm Swr	3,467,198 gal	Rainfall, Excessive I/I, Under Capacity Sewer	48-hr, 2.5 yr.+ (3.50 inches Rainfall) + Significant Snow Melt	Untreated Release	Little Calumet River
2-19-2018 to 3-1-2017 11:50 PM to 10:45 AM	5 th Street Basin	MH 1001 on 5th St Interceptor	Bypass Pumping to Storm Sewer	6,765,888 gal	Rainfall, Excessive I/I, Under Capacity Sewer	48-hr, 2.5 yr.+ (3.50 inches Rainfall) + Significant Snow Melt	Untreated Release	Little Calumet River
2-20-2018 to 2-22-2018 12:00 AM to 3:10 PM	5 th Street Basin	MH 1039, Duluth Street and Grace Place	Bypass Pumping to Storm Sewer	3,525,000 gal	Rainfall, Excessive I/I, Under Capacity Sewer	48-hr, 2.5 yr.+ (3.50 inches Rainfall) + Significant Snow Melt	Untreated Release	Little Calumet River
2-20-2018 to 2-21-2018 5:42 AM to 7:44 AM	5 th Street Basin	MH 4001 (41st Street Lift Station)	Bypass Pumping to Storm Sewer	1,614,740 gal	Rainfall, Excessive I/I, Under Capacity Sewer	48-hr, 2.5 yr.+ (3.50 inches Rainfall) + Significant Snow Melt	Untreated Release	Little Calumet River
4-15-2018 10:00 AM to 10:30 AM	5 th Street Basin	MH 1230 on 5th St Interceptor	At 1 Constructed Overflow out of 5 th St San Swr into 5 th St Stm Swr	446 gal	Pump Failure at N. 5 th St Pump Station		Untreated Release	Little Calumet River
5-19-2018 8:30 AM to 10:00 AM	5 th Street Basin	9031 Liable Road	Basement Backup	0 gal	Blocked Sanitary Sewer Line		Removed blockage and sewage drained to sewer	None
5-19-2018 9:30 AM to 10:00 AM	5 th Street Basin	3541 Laverne Drive	Basement Backup	0 gal	Blocked Sanitary Sewer Line		Removed blockage and sewage drained to sewer	None
7-4-2018 to 7-5-2018 9:45 PM to 3:30 AM	5 th Street Basin	MH 1230 on 5th St Interceptor	At 1 Constructed Overflow out of 5 th St San Swr into 5 th St Stm Swr	237,104 gal	Rainfall, Excessive I/I, Under Capacity Sewer	3-hr, 4.5 yr. (2.23 inches Rainfall)	Untreated Release	Little Calumet River
7-4-2018 10:15 PM to 11:45 PM	5 th Street Basin	MH 1345 on 5th St Interceptor	At 1 Constructed Overflow out of 5 th St San Swr into 5 th St Stm Swr	14,257 gal	Rainfall, Excessive I/I, Under Capacity Sewer	3-hr, 4.5 yr. (2.23 inches Rainfall)	Untreated Release	Little Calumet River
7-5-2018 to 7-6-2018 3:15 PM to 1:45 AM	5 th Street Basin	MH 1230 on 5th St Interceptor	At 1 Constructed Overflow out of 5 th St San Swr into 5 th St Stm Swr	472,913 gal	Rainfall, Excessive I/I, Under Capacity Sewer	24-hr, 5.7 yr. (3.70 inches Rainfall)	Untreated Release	Little Calumet River
7-5-2018 3:30 PM to 10:45 PM	5 th Street Basin	MH 1345 on 5th St Interceptor	At 1 Constructed Overflow out of 5 th St San Swr into 5 th St Stm Swr	200,465 gal	Rainfall, Excessive I/I, Under Capacity Sewer	24-hr, 5.7 yr. (3.70 inches Rainfall)	Untreated Release	Little Calumet River
7-5-2018 to 7-6-2018 6:12 PM to 12:28 AM	5 th Street Basin	MH 1039, Duluth Street and Grace Place	Bypass Pumping to Storm Sewer	169,200 gal	Rainfall, Excessive I/I, Under Capacity Sewer	24-hr, 5.7 yr. (3.70 inches Rainfall)	Untreated Release	Little Calumet River
7-16-2018 2:00 PM to 4:45 PM	5 th Street Basin	MH 1345 on 5th St Interceptor	At 1 Constructed Overflow out of 5 th St San Swr into 5 th St Stm Swr	110,128 gal	Rainfall, Excessive I/I, Under Capacity Sewer	1-hr, 19.3 yr. (2.27 inches Rainfall)	Untreated Release	Little Calumet River
7-16-2018 2:30 PM to 8:15 PM	5 th Street Basin	MH 1230 on 5th St Interceptor	At 1 Constructed Overflow out of 5 th St San Swr into 5 th St Stm Swr	253,145 gal	Rainfall, Excessive I/I, Under Capacity Sewer	1-hr, 19.3 yr. (2.27 inches Rainfall)	Untreated Release	Little Calumet River
7-16-2018 4:28 PM to 10:10 PM	5 th Street Basin	MH 1039, Duluth Street and Grace Place	Bypass Pumping to Storm Sewer	153,900 gal	Rainfall, Excessive I/I, Under Capacity Sewer	1-hr, 19.3 yr. (2.27 inches Rainfall)	Untreated Release	Little Calumet River
8-20-2018 9:15 PM to 11:45 PM	5 th Street Basin	MH 1230 on 5th St Interceptor	At 1 Constructed Overflow out of 5 th St San Swr into 5 th St Stm Swr	67,536 gal	Rainfall, Excessive I/I, Under Capacity Sewer	1-hr, 3.0 yr. (1.47 inches Rainfall)	Untreated Release	Little Calumet River

11-26-2018 2:00 AM to 8:00 AM	5 th Street Basin	MH 1230 on 5th St Interceptor	At 1 Constructed Overflow out of 5 th St San Swr into 5 th St Stm Swr	50,502 gal	Rainfall, Excessive I/I, Under Capacity Sewer	12-hr, 5.4 mo. (1.64 inches Rainfall)	Untreated Release	Little Calumet River
11-26-2018 7:00 PM to 9:00 PM	5 th Street Basin	3740 41st Lane	Basement Backup	<100 gal	Blocked Sanitary Sewer Line		Removed blockage and sewage drained to sewer	None
11-26-2018 7:00 PM to 9:00 PM	5 th Street Basin	3743 41st Lane	Basement Backup	<100 gal	Blocked Sanitary Sewer Line		Removed blockage and sewage drained to sewer	None
11-26-2018 7:00 PM to 9:00 PM	5 th Street Basin	9336 Kleinman Road	Basement Backup	<100 gal	Blocked Sanitary Sewer Line		Removed blockage and sewage drained to sewer	None

EXHIBIT B

Summary of Progress Made of the Three I/I
Investigative Programs

Town of Highland, Indiana
Board of Sanitary Commissioners

Summary of Progress Made on the Three I/I Investigative Programs

January 31, 2019

1. RedZone Robotics, Inc.

- a. **Program Objective:** Televis the entire 5th Street Basin sanitary sewer system and 81st Street Basin sanitary sewer system using digital, 360 deg camera; provide an evaluation of condition for each pipe and manhole; provide an asset management software system. Any observed active infiltration or potential infiltration, such as root intrusion or mineral deposits, will also be noted. Program provides another resource for continued I/I identification as well as identification and prioritization of necessary sewer repairs.
- b. **Progress Made (5th Street Basin):**
 - 1) All pipe segments in the 5th Street Basin have been inspected by RedZone and/or Highland Public Works personnel. All inspection videos have been added to the ICOM3 software platform.
 - 2) The CIPP sewer lining work included on the 2018 priority list of sewer replacement/repair/rehabilitation is complete. Total length of pipe lined, by size, is as follows: 7,129 feet of 8-inch, 3,612 feet of 10-inch, 3,811 feet of 12-inch, 831 feet of 15-inch and 625 feet of 18-inch. The initial Work Order amount for CIPP sewer lining was \$887,983.00; costs are being finalized to include field changes and adjustments from original estimate.
 - 3) Utilizing RedZone's ICOM3 software, Highland Public Works personnel are in the process of updating the priority list of sewer replacement/repair/rehabilitation for 2019.
 - 4) The Highland Sanitary Board has paid the total contract amount of \$539,620.
- c. **Progress Made (81st Street Basin):**
 - 1) On September 4, 2018, The Highland Sanitary Board entered into a contract with RedZone Robotics, Inc. to inspect all sanitary sewer pipe and manholes within the 81st Street Basin. The contract amount of \$388,824.15 is divided into five annual payments.
 - 2) RedZone has completed initial inspections of pipes and manholes in the 81st St Basin and is working with Highland Public Works to address segments that were not able to be inspected completely.

2. Micro Flow Monitoring and Corrective Action Program.

- a. **Program Objective:** Utilize flow monitoring technology developed by Stantec Consultants that allows area-velocity flow meters to be installed upstream in smaller diameter sewers with less fouling and maintenance problems. This provides valuable assistance in locating small diameter sewers with higher I/I. Further field work and analysis is required then to try to identify and correct a more specific source of the I/I.
- b. **Progress Made:**
 - 1) No additional micromonitoring work was performed since the last semi-annual status update in July 2018.
 - 2) Micromonitoring Area B (Maple/Eder/Grand, between Parrish Ave and Grace St): all of the sewer pipe segments in this micromonitoring area were rehabilitated using CIPP lining in 2018.

3. Smoke Testing Deficiency Correction Program.

- a. **Program Objective:** Utilizing deficiencies identified in the February 2009 Smoke Testing Study, correct the deficiencies to the extent practicable and reasonable and document/verify that corrections have taken place.
- b. **Progress Made.**
 - 1) The first project involves removing manhole covers with open pick holes and replacing them with closed pick hole manhole covers. Since the last semi-annual update in July 2018, no additional defective manhole covers were found or replaced.
 - 2) The second project involves correcting area drains on residential property that have been identified during smoke testing as being connected to the sanitary sewer system. This work has been placed on hold by the Board due to cost considerations.
 - 3) The third project consists of disconnecting storm drainage from the sanitary sewer system for commercial/industrial properties, primarily in Downtown Highland. To date, sixteen properties have completed disconnection work, eliminating a cumulative total of approximately 72,625 square feet of tributary area. Since the last semi-annual update in July 2018, no additional disconnection work has been performed.