

Appendix C – Sanitary Sewer Overflow Events

Year	Location	Location of Discharge	Did SSO Enter Surface Water or MS4	Date Discovered	Time Discovered	Date Stopped	Time Stopped	Estimated Volume (gal)	Description of event with known or suspected causes	Mitigation and Corrective measures
	33 Shelly Avenue	Backup into property basement	No release to surface water	10/24/2016	9:30 AM	10/21/2016	7:00 PM	3,000	Rain event, insufficient capacity in system	City installed backflow preventer in this location sometime in following weeks to prevent future SSO's.
	29 Goodwin Street	Ground surface	No release to surface water	9/29/2016	11:00 AM	9/29/2016	1:00 PM	20	Sewer system blockage due to size transition in pipe (10 inch diameter to 6 inch). Sewage ran down street 10 feet and infiltrated into grass.	Blockage was cleared with jetter, debris was removed, and roots were cut out of pipe.
	132 Green Street	Backup into property basement	No release to surface water	9/27/2016	5:00 PM	9/27/2016	5:30 PM	10	Sewer system blockage, root intrusion. Resident claims lateral was clear but sewage was still entering basement. Sewer collections team jetted mainline and pulled back debris. Baby wipe build up appears to have cause blockage.	Blockage was cleared with jetter. Considerations for putting extra manhole to provide access to both ends of main line were made.
	Water Street at Walnut (CSO-039)	Direct to receiving water	North Nashua River	6/21/2016	1:00 PM	6/21/2016	2:00 PM	577,000	After a rain event the SSO was discovered during routine checks and was caused by sand/grit and rags blocking the base flow outlet pipe of the CSO regulator.	The blockage was cleared and the structure was cleaned with a jetter/vacuum truck. All catch basin sumps upstream were cleaned.
	1 Delisle Street (Park Hill Park)	Ground surface	No release to surface water	3/1/2016	2:00 PM	3/1/2016	3:00 PM	150	Sewer system blockage; 6 to 12 inch sized rip-rap stones were found in sewer manhole causing blockage. Sewage from SSO percolated into ground around surcharged manhole.	The rip-rap was removed via a catch basin clamshell cleaner truck, vector truck, and manual labor. Sewer main up and downstream of the block was cleaned and inspected with camera. City will install a locking frame on manhole to prevent unauthorized access and debris.
	10 Jerry Street	Ground surface	No release to surface water	2/11/2016	10:00 AM	2/11/2016	11:00 AM	1,000	Sewer system blockage due to bricks, rocks, and a tire-chock block.	Blockage relieved by jetting main line and cleaning out SMH. Crew vactored up sewage that had pooled on road, remaining sewage percolated into ground.
	65 Fredette Street	Ground surface; Backup into basement	No release to surface water	2/10/2016	10:30 PM	2/10/2016	11:30 PM	2,000	Sewer system blockage due to bricks. Homeowner pumped sewage into backyard where it percolated into ground.	Main line was jetted. 25 bricks were removed from sewer. Repairs were made to failing manhole where the bricks originated.
2015	130 South Street	Catch basin (MS4) to receiving water	North Nashua River	12/15/2015	Unknown	12/15/2015	Unknown	Unknown	Resident discharging gray water from basement via pipe protruding from foundation wall.	Notified Board of Health for enforcement action, worked with homeowner to correct.
	444 Franklin Street	Backup into property basement	No release to surface water	11/10/2015	6:45 AM	11/10/2015	6:45 AM	Unknown	Sewer system blockage in main line due to protruding tap.	Line was jetted and blockage was cleared.
	300' West of 50 Stoneybrook Road	Catch basin (MS4) to receiving water	Unnamed brook	10/14/2015	10:00	10/15/2015	2:00 PM	2,000	Leaking steel sewer force main. The line was jetted which led to short relief period. Leak continued so the pump station was shut down.	Replaced 8 feet of sewer force main. Condition assessment was conducted on the sewer force main to determine if any other repairs or replacements needed to be made.
	149 High Street	Backup into property basement	No release to surface water	10/5/2015	Unknown	10/5/2015	Unknown	Unknown	Sewer system blockage and pipe collapse.	Rooter team snaked line but only up to 80 ft. where they could not go any further. Suspected pipe had been crushed or broken. Excavation of area and repair of pipe was done.
	40 Ray Avenue	Backup into property basement	No release to surface water	9/30/2015	Unknown	9/30/2015	Unknown	Unknown	Rain event caused sewer surcharging.	Surcharging subsided with rain event.
	35 Proctor Avenue	Backup into property basement	No release to surface water	9/30/2015	10:45 AM	9/30/2015	11:45 AM	16,000	Rain event; Heavy inflow to sewer system due to torrential rains surcharged sewer in street. Blockage caused by debris in sewer main that originated from newly installed sewer.	Surcharging subsided with rain event. Investigation of storm drains to see if a blockage was the reason for transfer from storm sewer to sanitary sewer.
	667 Westminster Street	CB and 1000' of pipe (MS4) to receiving water	North Nashua River	6/20/2015	9:00 AM	6/24/2015	9:00 AM	205,000	Multiple sewer system collapses in same area over 4 day period. 8-inch VC pipe constructed on ledge was shaken apart by vibratory compactor during paving project 2 weeks prior. Sewage was released onto ground surface and into catch basin.	2 Located collapse with camera truck and called in on-call services contractor. Multiple collapses in area over 4 day period required multiple temporary fixes leading to permanent fix.
	54 Fredette Street	Backup into property basement	No release to surface water	2/10/2015	10:00 AM	2/10/2015	3:00 PM	200	Sewer system blockage of 8 inch VC pipe.	Vac truck cleared blockage, pipe was cleaned. Attempt to CCTV was made however protruding lateral in way. Plans for lateral to be cut out after weather improved were made.
	55 Fredette Street	Backup into property basement	No release to surface water	2/10/2015	10:00 AM	2/10/2015	3:00 PM	50	Sewer system blockage of 8 inch VC pipe.	Vac truck cleared blockage, pipe was cleaned. Attempt to CCTV was made however protruding lateral in way. Plans for lateral to be cut out after weather improved were made.
2014	John Fitch Highway at Woodbury Ave	Ground; Catch basin (MS4) to detention basin	No release to surface water	11/19/2014	10:15 PM	11/19/2014	10:40 PM	2,000	Caused by a failed bypass pumping system. The bypass system was being transferred from pump 1 to pump 2 and with the valve not being closed properly and the pump being brought online not primed properly the SSO occurred.	An employee of the company that had installed the pump figured out the problem and closed the valve. The site of the SSO was cleaned.
	285 Main Street	Backup into property basement	No release to surface water	7/27/2014	Unknown	7/27/2014	Unknown	2,000	Sewer system blockage. Contractor didn't get proper information from engineering firm during project leading to blockage in sewer lateral.	City assisted the contractor in clearing the blockage. Rooterman vacuumed the SSO into their vector truck and decanted into a sewer manhole on Day St.
	95 Goodrich Street	Backup into basement; Ground surface	No release to surface water	7/7/2014	5:00 PM	7/7/2014	5:00 PM	200	Rain event, insufficient capacity. 1.1 inches of rain in 20 minutes too much capacity for system under construction. Homeowner bailed the sewage onto the back lawn where it infiltrated the ground.	Contractor made temporary modifications to system to utilize more capacity in storm drain.
	96 St Bernard St	Backup into basement; Ground surface	No release to surface water	7/7/2014	5:00 PM	7/7/2014	5:00 PM	1,000	Rain event, insufficient capacity. 1.1 inches of rain in 20 minutes too much capacity for system under construction. Homeowner bailed the sewage onto the back lawn where it infiltrated the ground.	Contractor made temporary modifications to system to utilize more capacity in storm drain.
	254/256 Boutelle Street	Backup into basement; Ground surface	No release to surface water	7/7/2014	5:00 PM	7/7/2014	5:00 PM	400	Rain event, insufficient capacity. 1.1 inches of rain in 20 minutes too much capacity for system under construction. Homeowner bailed the sewage onto the back lawn where it infiltrated the ground.	Contractor made temporary modifications to system to utilize more capacity in storm drain.
	264 Boutelle Street	Backup into basement; Ground surface	No release to surface water	7/7/2014	5:00 PM	7/7/2014	5:00 PM	200	Rain event, insufficient capacity. 1.1 inches of rain in 20 minutes too much capacity for system under construction. Homeowner bailed the sewage onto the back lawn where it infiltrated the ground.	Contractor made temporary modifications to system to utilize more capacity in storm drain.
	276 Boutelle Street	Backup into basement; Ground surface	No release to surface water	7/7/2014	5:00 PM	7/7/2014	5:00 PM	500	Rain event, insufficient capacity. 1.1 inches of rain in 20 minutes too much capacity for system under construction. Homeowner bailed the sewage onto the back lawn where it infiltrated the ground.	Contractor made temporary modifications to system to utilize more capacity in storm drain.
	300 Boutelle Street	Backup into basement; Ground surface	No release to surface water	7/7/2014	5:00 PM	7/7/2014	5:00 PM	200	Rain event, insufficient capacity. 1.1 inches of rain in 20 minutes too much capacity for system under construction. Homeowner bailed the sewage onto the back lawn where it infiltrated the ground.	Contractor made temporary modifications to system to utilize more capacity in storm drain.
	4 Maverick Street	Backup into property first floor and basement	No release to surface water	6/26/2014	3:00 AM	6/26/2014	3:00 AM	200	Rain event, insufficient capacity, sewer system blockage. Temporary connection due to construction was insufficient for combined sewer. Sewage emptied into first floor and drained into basement.	Contractor made a permanent connection to existing combined sewer.
	Boutelle Street at St Bernard Street	Ground surface	No release to surface water	5/17/2014	5:45 AM	5/17/2014	5:45 AM	1,000,000	Rain event. Revoli Construction installed a temporary connection that was undersized and restricted flow causing SSO to exit manhole and run down the street before infiltrating the ground. Sewage also entered a few basements of surrounding properties.	Surcharging subsided with rain event. City met to discuss measures to be taken. Included better plans for temporary connections to be provided by Revoli Construction.
	65 Fredette Street	Ground; CB and 5,230' (MS4) to receiving water	Nashua River	2/12/2014	5:00 PM	2/12/2014	5:00 PM	5,000	Sewer system blockage of 8 inch VC pipe in street lead to backup in property basement which was pumped into driveway and eventually entered a catch basin which brought it to the Oak Hill Road bridge outfall.	Vac truck cleared blockage. Collections crew cleaned pipe and checked it the following day.
	75 Walnut Street	Direct to receiving water	North Nashua River	1/11/2014	Unknown	1/29/2014	Unknown	1,800	Sewer system collapse; Large block of ice knocked manhole off its base in river. Private lateral assumed to come loose concurrently.	Blue Diamond Construction hired to fix manhole. Lateral reconnected on 1/29/2014
2013	66 Thorndike Street	Backup into basement; Ground surface	No release to surface water	12/16/2013	10:30 AM	12/16/2013	10:30 AM	500	Sewer system blockage in street due to 8 inch VC pipe collapse. Plumber bailed 500 gallons into backyard where it percolated into ground underneath snow.	Vac truck cleared blockage. Excavation planned to repair pipe in following days.
	Regulator 036 at 98 Laurel Street	CB and 1000' of pipe (MS4) to receiving water	Nashua River	9/22/2013	5:15 AM	9/22/2013	5:15 AM	50,000	Rain event; insufficient capacity. During combined sewer separation regulator was closed too soon; not enough capacity in downstream pipe. Sewer manhole cover popped off, crew arrived after event was over.	Short term fix included opening regulator and installing meter. Long term fix included more catch basin separation.
	905 Merriam Ave, Pizzeria Uno, Twin City Plaza	Ground surface; wetland area	Wetland area	6/11/2013	7:45 AM	6/11/2013	11:30 AM	81,000	Sewer system blockage of 12 inch discharge pipe due to rocks, grease, and rags.	Two 3 inch trash pumps setup to stop SSO. 6 inch pump installed to bypass problem manhole. Surcharging in system relieved. Problem manhole is isolated and blockage is cleared.
	58 St Andrew Street	Backup into property basement	No release to surface water	5/22/2013	7:00 AM	5/22/2013	7:00 AM	200	Rain event; Sewer system blockage due to grease and a root intrusion.	Blockage cleared with jetter and roots were cut out. Line CCTV'd following incident.
	Pole 55, Oak Hill Road	Ground surface	No release to surface water	4/29/2013	9:15 AM	4/29/2013	9:15 AM	125	Sewer system blockage due to grease from Oak Hill Country Club. SSO flowed for 75 ft. along side of road eventually percolating into ground at low point.	Blockage was cleared. City scheduled to visit pipe to clean, jet and CCTV in the following months. Notified OHCC to be diligent about semi-annual pump outs.