COMBINED SEWER SYSTEM

INSPECTION AND MAINTENANCE PLAN

City of Troy

City of Rensselaer

Rensselaer County Sewer District (RCSD)

December 6, 2013



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Appendix E – Joint Annual Evaluation Documentation (to be added at a later date)



Section 1 Introduction

1.1 Background

The Rensselaer County Sewer District (RCSD) was formed in the 1970s to collect and treat wastewater from the cities of Troy and Rensselaer and surrounding communities. Both cities utilized combined sewer systems, which until the sewer district was formed, discharged directly to the Hudson River via numerous outfall pipes. Creation of the sewer district included the installation of separate interceptor sewers in Troy and Rensselaer to collect the sewage flow before it reached the river; construction of five pump stations (two in Troy, two in Rensselaer, and one in the Village of Wynantskill); and construction of a wastewater treatment plant in North Greenbush. At each city sewer connection to the interceptor, a regulating chamber (regulator) was installed to control the volume of flow to the WWTP; these regulators were typically set to direct dry weather flow and a portion of wet weather flow to the interceptor, while allowing the balance of the wet weather flow to overflow to the Hudson River via the original City discharge pipes. The regulators were also equipped with tide gate chambers, where needed, to prevent inflow of river water into the RCSD system.

The wet weather overflows are regulated under separate Troy and Rensselaer SPDES permits. RCSD has its own SPDES permit for the discharge from the WWTP. As members of the Albany Pool Community (six local communities with combined sewer overflows to the Hudson River), the City of Troy and City of Rensselaer have developed a Combined Sewer Overflow Long Term Control Plan (LTCP) which was submitted in draft form to the NYSDEC in June of 2011. This LTCP identifies ways to reduce the volume and impact of CSO discharges from these communities to the Hudson River.

The City of Troy, City of Rensselaer and RCSD are joint respondents to an Order on Consent, dated March 27, 2012 for dry weather overflows to the Hudson River. As part of this Order, the respondents are required to develop a written maintenance and inspection program for the combined sewer system, as agreed to in the Inter-Municipal Agreement (IMA) executed between the parties.

1.2 Purpose

This Inspection and Maintenance Plan (I&MP) is meant to formally document the combined sewer system inspection and maintenance activities of the City of Rensselaer, City of Troy and the Rensselaer County Sewer District. Per the Order on Consent, the activities documented herein should aim to minimize the occurrence of dry weather overflows (DWOs) and maximize the wet weather flow conveyed to the RCSD WWTP for treatment.

1.3 Joint Annual Evaluation

The respondents shall complete a joint annual evaluation of this I&MP and the preceding year's inspection results to identify recurrent problems and determine program modifications necessary to adequately address the recurrent problems. As part of this evaluation, the respondents will submit a letter to the NYSDEC documenting the recurrent problems and outlining the proposed program modifications. A copy of the letter will be appended to this I&MP in Appendix E.



Existing Conditions

2.1 Existing Condition Survey

The Order on Consent requires, as part of this Inspection and Maintenance Plan, completion of a baseline survey to document the existing conditions of the regulators and outfalls. Information to be included in the existing conditions survey includes:

- Digital photographic survey of the regulating chambers;
- Determination of the condition of all dams, weirs, orifices and operational equipment in each regulator;
- Determination of which CSO outfalls are visible or submerged;
- Digital photographic survey of the visible CSO outfalls and outfall signs.

This information was collected from various sources, summarized in a spreadsheet and submitted to the NYSDEC on June 28, 2012. Various updates to the summary spreadsheet have been made and the current version is provided in Appendix A.



City of Troy

3.1 Background

The City of Troy is nearly 9 miles long and 4 miles wide and ranges in elevation from 10 feet to 465 feet above sea level. The sewer system consists of approximately 120 miles of sewer mains ranging in size from 6" to 72" in diameter. The system is primarily combined and has 48 Combined Sewer Overflows (CSOs). The components of the combined sewer system that the City is responsible for maintaining are:

- Collection system piping (combined, sanitary and storm sewers) within City limits up to the Rensselaer County Sewer District (RCSD) regulator structures.
- Outfall sewers (CSOs) and Outfall Signs.
- Catch basins and manholes within City limits, except manholes on the RCSD interceptor.
- Three (3) small sewage lift stations.

The City's maintenance and inspection program for these assets is detailed below. Samples of the inspection forms referenced herein are attached as Appendix B. The completed inspection forms are maintained in the Sewer Department Supervisor's office.

3.2 Catch Basin Cleaning

The City of Troy owns and maintains over 4,100 catch basins. The Department of Public Utilities has two (2) operational sewer eductor trucks that are routinely used to clean catch basins and open clogged sewers. The department also has a truck with a hydraulic clamshell or orange peel bucket to mechanically clean catch basins. As part of the cleaning process, the catch basin structures are inspected to determine the general condition of the structure. The City has found that about ninety percent of the catch basins inspected have either an internal or external trap.

Catch basins within the City are generally separated into two categories, and the frequency of cleaning and inspection activities are defined by the catch basin category. Catch basins in the "priority" category are located in areas subject to ponding/flooding during rainfall events. These areas are generally at the toe of steep slopes and in low points along major roadways. These catch basins are inspected and cleaned if necessary in advance of significant rainfall events. This generally includes storms with predicted rainfall totals of 1-inch or more. The priority areas are shown on Figure 1 in Appendix B.

Catch basins in the rest of the City were historically cleaned and inspected on an as-needed basis throughout the year. The Sewer Department Supervisor scheduled preventative maintenance activities within these non-priority areas based on resource availability and their extensive experience with the operation and maintenance of the combined sewer system. Moving forward, the City will establish a program that cleans and inspects every catch basin on a cycle. Considering the number of catch basins in the sewer system and the anticipated level of repairs that will be identified during the



inspections, the City will establish a 10 year cycle for this program. The priority of inspections will be tied to the criticality rating assigned to each catch basin as part of the City's Asset Management Plan with the most critical catch basins being inspected first. Where there are more catch basins of a given criticality score than can be inspected in one year, the condition rating as defined in the Asset Management plan will be used to prioritize inspections.

Cleaning and inspection in either area can also be triggered by customer complaints. These complaints are generally forwarded directly to the sewer department trucks to allow for a quick response. This type of reactive inspection will supersede the schedule defined above and define the place in the cycle for a given structure moving forward.

All cleaning and inspection activities are documented on the "Catch Basin Inspection Form" included in Appendix B.

3.3 Combined Sewer Cleaning

The City of Troy owns and maintains about 120 miles of combined and separate sanitary sewers. Within that total, the sewer department has identified specific segments of the combined sewer system as "trouble mains". These areas historically require more frequent cleaning to maintain flow capacity. A checklist, identifying all of the trouble mains identified by the sewer department is provided in Appendix B. These sewers are cleaned at least quarterly. The checklists are maintained in each eductor truck, and the Sewer Department Supervisor regularly reviews the progress to keep the cleaning work on schedule.

The City historically completed internal pipe inspections using CATV on an as needed basis to address customer complaints and identify sewers that are in need of replacement. Moving forward, the City will establish a program that inspects every pipe segment on a cycle. Considering the total length of pipe in the sewer system and the anticipated level of cleaning needed to support the CATV inspections, the City will establish a 20 year cycle for this program. The priority of inspections will be tied to the criticality rating assigned to each pipe segment as part of the City's Asset Management Plan with the most critical pipe segments being inspected first. Where there are more pipe segments of a given criticality score than can be inspected in one year, the condition rating as defined in the Asset Management plan will be used to prioritize inspections. While the City is performing pipe inspections, they will inspect the manholes associated with each pipe segment at the same time.

The City traditionally contracts this work to a company specializing in CATV work, and the reports produced as part of this inspection work are stored in the Sewer Department Supervisors office. Given the breadth of the inspection program outlined above, the City will begin to budget for the purchase of CATV equipment in the near future. This will allow the City to more readily plan inspection activities in coordination with other sewer department work.

Pipe inspections can also be triggered by customer complaints, which are forwarded directly to the sewer department trucks to allow for a quick response. The sewer crew records work performed in response to a customer complaint on a "work order". The work orders are transcribed into a spreadsheet program by the Senior Account Clerk/Dispatcher, and a summary of these work orders is provided to the Sewer Department Supervisors on a routine basis. Sewers that have a documented history of frequent customer complaints and cleaning needs are added to the "trouble main" list by the Sewer Department Supervisors. This type of reactive inspection will supersede the schedule defined above and define the place in the cycle for a given pipe segment moving forward.



3.4 Pump Station Inspections

The City owns, operates and maintains three small pump stations. The Chelton Avenue and Pinewoods Avenue Pump Stations are Smith and Loveless package units that were installed in the 1960's. Both stations have natural gas fired emergency electrical generators for use in power outages. In recent years, the pumps at each station have been replaced and the instrumentation and controls have been significantly upgraded. The third pump station is a grinder station on Winter Street.

The Pump Stations are inspected on a weekly basis and the emergency generators at each pump station are exercised as part of the inspection. These inspections are documented on the "Pump Station Inspection" form in Appendix B. The completed forms are kept at the shop building and transcribed into a spreadsheet program by the Senior Account Clerk/Dispatcher. A summary of these work orders is provided to the Sewer Department Supervisors on a routine basis.

3.5 RCSD Regulator Inspections

Although the regulators are not owned by the City of Troy, the City does own the outfall pipes and is mutually responsible (with the RCSD) for preventing dry weather overflows. As many of the outfalls are submerged (see Section 3.6) and cannot therefore be inspected to determine the presence of dry weather overflows, the City has developed a program to inspect certain RCSD regulators on a daily (Monday-Friday) basis. Several regulators were identified as high risk for dry weather overflows during development of the Storm Water Management Model for the LTCP, particularly during periods of high groundwater.

The regulators the City has been monitoring since that time are presented in Table 3-1.

SPDES Outfall ID	Location	County Outfall ID					
001	6 th Ave Ext (River Rd)	A36R					
013	113 th St (north side)	A13R1					
024	Hoosick St	D28R					
026	Jacob St	D24R					
027	Federal St	D20R					
035	Liberty St	D9R					
039	Madison St	D2R					
045	Cross St	E22R					

Table 3-1 Past Regulator Inspection Locations

The Regulator Capacity Analysis required as Compliance Action #3 of the Order on Consent in conjunction with historical inspections show the Jacob St. and Liberty St. regulators can be removed from the inspection list as no dry weather overflows have been observed and the regulator has sufficient capacity to pass the dry weather flow as configured.

The Regulator Capacity Analysis showed the potential for dry weather overflows at Outfall 007/119th Street and Outfall 046A/Water Street.



The revised list of regulators to be inspected as part of this program based on the above are identified on the City Regulator Inspections form included in Appendix B

As recorded on the inspection form in Appendix B, the inspection includes a measurement of the depth of flow above or below the outfall weir and documentation of the current weather conditions. Measurements are made from street level, and the inspections do not include an evaluation of the condition of the regulator components, as this work is performed by the RCSD (see Section 5). However, if the City notes a condition that could result in a dry weather overflow, these conditions are reported to the Water and Sewer Supervisor, who in turn notifies the RCSD. Overflows noted during non-rain conditions are immediately reported to the Water and Sewer Supervisor who then reports the condition to the RCSD and who coordinates a response with the NYSDEC.

One exception to the above conditions is the Elm Street regulator. Combined sewage enters a City owned manhole that is fitted with a shelf and overflow pipe. The overflow pipe discharges to the overflow pipe from the Water Street regulator that discharges to the river. The Water Street overflow is permitted as Outfall 046A and the Elm Street overflow is permitted as Outfall 046B. Both overflows share a common outfall pipe to the Hudson River. Normal flow from the City manhole on Elm Street is directed to the RCSD owned regulator that is equipped with a slide gate. The only effluent pipe from the RCSD regulator flows to the discharge pipe from the Water Street regulator, and the combined flow is directed to the interceptor. Figure 3-1 depicts the piping arrangement between these structures.

3.6 Outfalls

3.6.1 Outfall Pipes

Of the 48 permitted CSO outfalls within the City of Troy, only two outfalls are continuously visible and ten others are visible depending on tidal conditions. Several of these visible outfalls can only be seen from the river or western riverbank. The remaining outfalls are submerged. The pipe visibility is noted on the regulator summary form included in Appendix A.

The City of Troy completes monthly inspections of the visible CSO outfalls, using the "CSO Outfalls" inspection form in Appendix B. The vantage point of the inspection (at outfall or from western riverbank) is noted on the inspection form for each outfall.

The submerged outfall pipes are inspected on an as-needed basis, since the use of underwater cameras and/or divers is required to perform these inspections. Moving forward, inspection of the outfall pipes will be included in the overall pipe inspection cycle defined above.

3.6.2 Outfall Signs

Signs are posted at each outfall with the SPDES permit number, outfall number and point of contact to report problems. On an annual basis, the City of Troy visits each outfall to verify the presence of the outfall sign and to determine if the condition of the sign warrants replacement. These findings are documented in the Annual CSO Report.



Section 4 City of Rensselaer

4.1 Background

The City of Rensselaer is a small urban community located on the eastern shore of the Hudson River, directly across from Albany. The City is approximately three miles long and one mile wide. The sewer system includes combined sewers in the old urban core and separated sewers in the northern end of the City, where there has been heavy residential development in recent years. There are eight permitted Combined Sewer Overflows (CSOs) discharging to the Hudson River and Mill Creek. The components of the combined sewer system that the City is responsible for maintaining are:

- Collection system piping (combined, sanitary and storm sewers) within City limits up to the Rensselaer County Sewer District (RCSD) regulator structures.
- Outfall sewers (CSOs) and Outfall Signs.
- Catch basins and manholes within City limits, except manholes on the RCSD interceptor.
- Two small sewage lift stations.
- Regulator manhole for CSO 003B (to Mill Creek).

The City's maintenance and inspection program for these assets is detailed below. Samples of the inspection forms referenced herein are attached as Appendix C. The completed inspection forms are maintained in the Department of Public Works (DPW) office.

4.2 Catch Basin Cleaning

The City of Rensselaer owns and maintains over 1,300 catch basins. The City owns one Jet-vac truck that is routinely used to clean catch basins and open clogged sewers. As part of the cleaning process, the catch basin structures are inspected to determine the general condition of the structure.

Catch basins within the City are cleaned and inspected on an annual basis. Cleanouts are generally performed April through October, beginning in the southern end of the City and proceeding north, using a 3-man crew working 3 days per week. This schedule may shift as necessary to accommodate customer complaints or emergency work orders. Additional cleaning is performed as necessary throughout the year. This work is coordinated and tracked by the Sewer Department Supervisor.

All cleaning and inspection activities are documented on the "Catch Basin Cleanout Form" included in Appendix C.



4.3 Combined Sewer Cleaning

All City sewers are cleaned on an annual basis, however, the DPW understands that there are portions of the combined sewer system that typically require more frequent cleanings to maintain flow capacity. These areas are inspected and cleaned, as necessary, on a more frequent basis. The areas are depicted on Figure 1 in Appendix C. Additionally, sewer cleaning and inspection may be performed in response to customer complaints.

All sewer cleaning work is coordinated and tracked by the Sewer Department Supervisor. Any sewer cleaning work performed is logged on standard work orders. An example work order is provided in Appendix C.

Internal pipe inspections using CCTV are performed on an as needed basis to address customer complaints and identify sewers that are in need of replacement. The City has an agreement with the Town of East Greenbush to utilize their equipment to perform the inspections. The videos produced as part of the above mentioned inspections are stored in the Sewer Department Supervisors office.

The intent of the City is to purchase CCTV pipe camera equipment so that a comprehensive cyclical pipe inspection plan can be implemented. The City will continue to utilize the Town of East Greenbush's CCTV equipment for periodic inspection, and when necessary to assist with the remediation of system failures.

4.4 Pump Station Inspections

The City owns and operates two small pump stations. The first is located on Washington Avenue and was originally built to service the Washington Avenue area north of I-90. With the construction of a new gravity connection to the RCSD interceptor, the service area for this pump station has been reduced to just a few houses. The second pump station is located at the northern end of the City and services the Grandview Estates complex. The DPW inspects these pump stations on a monthly basis.

4.5 Regulator Inspections

Rensselaer County Sewer District (RCSD) owns the majority of the regulating structure in the City of Rensselaer, and is therefore responsible for maintaining and inspecting these structures. The City does, however, own the regulating structure associated with CSO 003B on Second Avenue. This regulator is a manhole with a high-level overflow pipe; the overflow pipe discharges to Mill Creek. The City performs weekly inspections that are documented on the "Regulator Inspection Form" in Appendix C.

4.6 Outfalls

4.6.1 Outfall Pipes

One CSO outfall is continuously visible and seven others are visible depending on tidal conditions. The pipe visibility is noted on the regulator summary form included in Appendix A. All eight outfalls are inspected by the DPW on a monthly basis. During these inspections, any collected material (sticks, bricks or other debris) is removed from the outfall pipe. This work is noted on the inspection form. The inspection form used by the City is included in Appendix C.



4.6.2 Outfall Signs

Signs are posted at each outfall with the SPDES permit number, outfall number and point of contact to report problems. On an annual basis, the City of Rensselaer visits each outfall to verify the presence of the outfall sign and to determine if the condition of the sign warrants replacement. These findings are documented in the Annual CSO Report.



Rensselaer County Sewer District

5.1 Background

The Rensselaer County Sewer District provides secondary treatment for approximately 75,000 residential and commercial users within five surrounding communities (Cities of Troy and Rensselaer, as well as the Towns of Brunswick, North Greenbush, Sand Lake and Schaghticoke). The district owns and operates approximately 13 miles of interceptor sewers, five pumping stations, 8 miles of force mains and 56 flow regulating chambers. The components of the combined sewer system that the RCSD is responsible for maintaining are:

- Flow regulating chambers in Troy and Rensselaer.
- Interceptor Sewers and associated manholes.
- Pump Stations (2 in Troy, 2 in Rensselaer, 1 in Wynantskill).
- Pump Station force mains.

RCSD's maintenance and inspection program for these assets is detailed below. Samples of the inspection forms referenced herein are attached as Appendix D. The completed inspection forms are maintained in the office of the Director of Operation and Maintenance.

5.2 Regulators

The RCSD is responsible for inspecting and maintaining a total of 56 flow regulating chambers within the Cities of Troy and Rensselaer. There are several configurations for these regulators, but typically a regulator includes an influent chamber, with a dry weather flow channel and discharge orifice, a flow control sluice gate and an overflow weir; and an overflow chamber, with a tide gate to prevent river inflow to the RCSD system. The specific configuration for each regulator is presented in the Existing Conditions Summary provided in Appendix A. The condition of these components can vary from regulator to regulator, and RCSD has prepared a written evaluation of the regulators, as required by Item 1c of the Order on Consent. This evaluation is provided as Section 6 of this report.

The regulators are inspected on a weekly basis, as documented on the "Regulator Inspection and Maintenance Form" included in Appendix D, per the Required Incident Reporting in Accordance with BMP No. 6, 6 NYCRR Part 750-2.7, and the Sewage Pollution Right to Know Act. If, during the course of an inspection, a dry-weather overflow is observed, the RCSD is required to notify the NYSDEC using the "Dry Weather Overflow Form" also located in Appendix D. When this notification is made, the RCSD also notifies the City of Troy or the City of Rensselaer, whichever is appropriate in accordance with the IMA executed between the parties



In addition to these weekly inspections, the RCSD performs daily maintenance activities on the regulators. These activities typically involve removing any accumulated debris to maximize flow to the interceptor. The RCSD owns and uses a vac truck for this purpose. Maintenance activities are generally scheduled to ensure that each regulator is visited at least one time per week (Monday – Friday). Additional maintenance visits are typically scheduled following large storm events.

5.3 Interceptor Sewers

The interceptor sewers in Troy, Rensselaer and North Greenbush are were historically cleaned on an as needed basis. These cleanings were typically triggered as a result of the regulator inspections, and are noted in the "Repairs Made" section of the Regulator Inspection Form

Moving forward, the RCSD will establish a program that inspects every pipe segment on a cycle in addition to these reactive cleanings. Considering the total length of interceptor pipe and the anticipated level of cleaning needed to support the CATV inspections, the RCSD will establish an initial 5 year cycle for this program. The RCSD will inspect each manhole along the interceptors at the same time as the pipe inspection. Given the service history of the interceptor sewers, the RCSD does not anticipate repeating this inspection cycle every 5 years and will update the program after the initial round of inspections are complete.

The RCSD owns a vac truck to perform cleaning work triggered by the regulator or CATV inspections, but may also reach out to the City of Rensselaer or City of Troy, as appropriate, to assist with interceptor cleaning activities.

5.4 Pump Station Inspections

The RCSD operates and maintains five pump stations within the boundaries of the sewer district. RCSD staff visit each pump station on a daily basis noting operational issues and performing regular preventive and corrective maintenance at each location. The daily maintenance activities and items to be inspected are documented on the "Pump Station Inspection Form" provided in Appendix D. A copy of this checklist is completed for each pump station.

Manual raking of the influent screens is one of the maintenance activities regularly performed at the 106th Street, Monroe Street, Aiken Avenue and Forbes Avenue pump stations. This activity is completed at least one time per shift (3 shifts daily). Additional rakings are performed in advance of and after significant storm events. The screen raking activity is logged on the "Bar Screen Log" posted at each pump station. A copy is provided in Appendix D.

Additional inspection forms and procedures have been developed specifically for the Wynantskill Pump Station, including daily flow logs for the two influent flow meters; a daily flow log for the effluent flow meter; and a high flow monitoring and response procedure. These documents are typically kept at the pump station. Copies are provided in Appendix D.

Scheduled preventative maintenance activities are tracked through a Computerized Maintenance Management System (CMMS) that produces work orders for each pump station. Additional maintenance activities at each pump station, as required in response to alarms or issues indentified during a regular inspection, are documented on the "Pump Station Incident Form" included in Appendix D.



5.5 Force Mains

The force mains from the five pump stations range in size from 16" up to 42" in diameter and cover a total distance of approximately 8 miles. The force main material is pre-stressed concrete cylinder pipe (PCCP). There are no isolation valves on the force mains, but there are air relief valves throughout the system. A baseline assessment of the condition of the force mains and air relief valves is currently underway, and the RCSD anticipates that a recommended schedule for inspections of the air relief valves and reassessment of the pipe condition will be developed as part of this work.



Section 6 Regulator Modifications

6.1 Background

Previous sections of this CSS I&M Plan discuss the function and components of the regulators. The existing conditions survey including a regulator summary form is included in Appendix A. The regulator summary form contains pertinent information including type and condition of various components and descriptions of repair needs. This section presents a written discussion of the repairs and an implementation timeline.

6.2 Regulating Gates

As previously discussed the regulators are fitted with either a hand wheel operated slide gate or a float operated gate. Based on previous inspections of the regulators and discussions with RCSD operations staff, all hand wheel operated gates are operational with only a lubricant application being required to operate them.

None of the float operated gate mechanisms are operational and attempting to repair or replace them is not practical. In their present state, there is no restriction of flow to the interceptor from these structures. Given these conditions, RCSD will remove the 9 float operated gate mechanisms from the regulators and anticipates completing this work by August 2014.

6.3 Dam/Shelf

Previous inspections of the dam or shelf in each regulator show that all are in good condition and no repairs are necessary. Inspection logs and photographs are included in the electronic supplement to this CSS I&M Plan.

RCSD installed a temporary 3-inch high board at the River Rd regulator to raise the overflow elevation and direct more flow to the interceptor. RCSD will replace the board with a concrete dam by June 2014.

6.4 Tide Gates

All but 6 of the regulators contain a tide gate that serves to keep the river from backing up into the sewer system. As noted during previous inspections, most gates appear in good condition and operational except as noted below.

The outfalls north of the Federal Dam are continuously submerged so the tide gates have hydraulic pressure on them from the river. Previous investigations showed 9 of the regulators in this part of the combined sewer system are leaking in varying amounts around the perimeter. While this condition does not prevent the tide gates from operating as designed, it does allow clean water from the river into the interceptor which increases the flow through the pump stations to the WWTP. Given the nature of this condition, multiple possible repair methods may be utilized to reduce the inflow from the river into the sewer system. The RCSD and City of Troy will conduct an investigation whereby the pipe from the overflow structure to the river outfall is plugged and the structure dewatered to allow a



closer inspection. The intent of the inspection is to determine if re-surfacing the metal facing or installing some type of gasket will reduce the amount of infiltration. Following this inspection, both parties will determine if there is a feasible means of repairing the tide gates.

Appendices

Appendix A



CITY OF RENSSELAER ENGINEERING OFFICE

CITY HALL, 62 WASHINGTON STREET RENSSELAER, NEW YORK 12144-2696

Engineering (518) 694-3968

Fax (518) 465-2031

Osvaldo Priotti, P.E. City Engineer ozzie.priotti@rensselaerny.gov

December 4, 2013

Paul Kolakowski, P.E. Environmental Engineer 2 New York State Department of Environmental Conservation Division of Water Permits, 4th Floor 625 Broadway Albany, NY 12233-3505

Re: CSO Signs in City of Rensselaer

Dear Mr. Kolakowski:

Please be advised that all Combined System Overflow outlets within the City of Rensselaer are in compliance with the discharge notification requirements of ECL 17-0815-a.

Sincerely,

Osvaldo Priotti, PE City of Rensselaer Louis A. Rosamilia Mayor

> Peter Ryan Deputy Mayor



Chris Wheland

Superintendent of Public Utilities Phone: (518) 237-0193 Fax: (518) 233-7038 Chris.wheland@troyny.gov

Department of Public Utilities

25 Water Plant Road Troy, New York 12182

December 5, 2013

Derek Thorsland New York State Department of Environmental Conservation Region 4 1130 North Westcott Rd Schenectady, NY 12306

Re: Outfall signs

Dear Mr. Thorsland,

On the date of this letter the city of Troy understands to be in compliance with ECL 17-0815-a, meeting the requirements of signage to be in the proximity of the CSO outfall. All signs contain necessary language including CSO number, emergency contact info and SPDES number.

The city of Troy has re-investigated the outfall signs and replaced many that were defaced or not legible. Signs that were previously located at the regulator have been relocated to the proximity of the outfall. The outfall sign located at the Cross St. regulator will remain there until the outfall is reestablished to the river and the sign will be moved to the proximity of the outfall.

Please contact me if you have any questions,

Sincere

Chris E. Wheland

RENSSELAER COUNTY SEWER DISTRICT NO.1 Regulator Summary Form - City of Troy December 2013

									Regula	ator						Outfall					Р	hotograg	oh Taken					Requ	ator Details					
										Dam	n/Shelf														Inlet Pipe	Inlet Inv.	Outlet Pipe	Outlet Pipe	Outlet Inv.	Outlet Plate	Outlet Plate	-	Tide Gate	Tide Gate
				Coordi	nates	Type Hand Elect		Regul	lator Condition	Cor	ndition Tid	e Gate		Coor	dinates	Pip	e Visibility	/		Sign	SDDES			Inlet Pipe Size	Mat.	Elev.	Size	Mat.	Elev.	(H)	(W)	Dam Elev.	(H)	(W)
Location	RCSD ID C	ity ID	Owner	Northing	Easting	Wheel Chambe	r Other	r Operatio	onal Repair	Good	Repair Operation	al Leaking	Description of Repair Needs	Latitude	Longitude	Submerged	Tidal	Visible	Posted	Visible	Info. Outfal	II Sign	Regulating Chamber	(ft)		(ft)	(ft)		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
River Road/6th Ave Ext.	A36R	001	RCSD	1443456.22	714763.72	х		x		х			Make dam modification permanent	42° 47′ 59″	73 ° 40 ' 26			x	х	х	x x	х	х	2.00	RCP	30.57	1.50	RCP	30.07	0.70	1.20	31.53	NA	NA
River Road/6th														42 ° 47 ' 60 "	73 ° 40 ' 29 '						x													
123rd	A26R	002	RCSD	1440671.12	714198.04	х		х		Х	Х			42 ° 47 ' 13 "	73 ° 40 ' 28 '	" X			х	х	X	х	х	2.60	RCP	18.75	0.67	CIP	17.66	0.50	0.70	19.25	2.50	3.00
123rd	A25R	003	RCSD	1440503.25	713872.70	х		Х		Х	х	х		42 ° 47 ' 08 "	73 ° 40 ' 47 '	" X			Х	Х	х	Х	Х	3.7 x 2.5 (egg)	RCP	14.96	0.67	CIP	14.66	0.70	0.40	15.49	3.50	3.50
122nd	A24R	004	RCSD	1440059.29	713733.25	X		X		X	X			42 ° 47 ' 00 "	73 ° 40 ' 52	" X			X	X	x	X	X	1.60	VCP	20.67	0.67	CIP	20.72	0.40	0.40	21.57	1.60	2.20
121st 120th	A23R A21R	005	RCSD	1439621.21	713588.20	×		X		×	X	×		42° 46' 94" 42° 46' 86"	73 ° 40 ' 54 '	·			x	×	x	X	x	2.20 2.5 x 1.7 (egg)	VCP RCP	15.01	0.67	CIP	14.61	0.30	0.70	15.23	2.00	3.00
119th	A20R	007	RCSD	1438733.15	713309.07	x		X		X	X	x		42 ° 46 ' 79 "	73 ° 40 ' 59 '	" X			X	X	x	X	X	1.60	VCP	14.67	0.67	CIP	14.36	0.50	0.40	15.06	1.50	2.50
118th	A19R	008	RCSD	1438326.07	713123.06	Х		Х		Х	Х			42° 46′ 72″	73 ° 40 ' 63 '	" X			Х	Х	х	Х	Х	1.60	VCP	20.06	0.67	CIP	19.70	0.30	0.50	20.10	1.50	2.25
117th	A18R	009	RCSD	1437901.37	712988.98	x		Х		х	X			42° 46' 65"	73 ° 40 ' 65 '	" X			Х	х	х	Х	х	2.6 x 1.9 (egg)	RCP	12.82	0.67	CIP	12.73	0.50	0.30	16.20	2.60	2.50
116th	A17R	010	RCSD	1437456.72	712838.08	X		X		X	X			42 ° 46 ' 58 "	73 ° 40 ' 69 '	" X			X	X	x	X	X	1.50	VCP	17.25	0.67	CIP	16.95	0.30	0.40	17.31	1.50	2.30
115th 114th	A16R	011	RCSD	1437013.06	712684.34	×		X		×	X	×		42° 46' 50" 42° 46' 43"	73 ° 40 ' 72 '	·			x	×	x	X	x	2.6 x 1.7 (egg)	Brick	12.60	0.67	CIP	12.45	2.50	1.16	12.81	2.60	2.60
113th	A13R2	012	RCSD	1436121.94	712439.26	x		X		X	X	~		42 ° 46 ' 36 "	73 ° 40 ' 79	" X			X	X	x	X	X	3.00	RCP	16.28	0.67	CIP	16.28	2.50	1.16	17.03	3.00	3.50
113th	A13R1 0	013A	RCSD	1436106.17	712446.21	х		Х		Х	х			42 ° 46 ' 35 "	73 ° 40 ' 79 '	" X			Х	Х	х	Х	Х	1.60	VCP	21.26	0.67	CIP	20.51	0.30	0.40	20.96	1.60	2.30
112th	A12R	014	RCSD	1435709.33	712285.15	х		Х		Х	х	х		42° 46′ 29″	73 ° 40 ' 83 '	" X			Х	Х	х	Х	Х	2.00	VCP	13.74	0.67	CIP	12.74	0.50	0.60	14.14	2.00	3.00
111th	A10R	015	RCSD	1435234.97	712134.07	X		X		X	X	х		42 ° 46 ' 21 "	73 ° 40 ' 85 '	" X	_		X	X	x	Х	X	2.4 x 1.5 (egg)	Brick	12.88	0.67	CIP	12.69	0.67	0.67	13.33	2.60	2.60
109th	A7R	016	RCSD	1434211.83	712097.64	X		X		X	X	×		42 ° 46 ' 05 "	73 ° 40 ' 89 '	"X			X	X	X	X	X	2.3 x 3.8 egg	Brick	21.76	0.67	CIP	21.36	0.40	0.50	22.62	3.50	2.50
107th	A4R	018	RCSD	1433265.87	711964.17	X		X		X	X	~		42 45 30 42 45 89 "	73 ° 40 ' 92 '	" X	1		X	X	x	x	X	1.60	VCP	20.65	0.67	CIP	20.41	0.40	0.35	20.75	1.00	2.20
106th	A1R	019	RCSD	1432841.88	711823.95	х		Х		Х	Х			42° 45' 82"	73 ° 40 ' 92 '	" X			Х	Х	х	Х	Х	1.80	RCP	11.84	0.67	CIP	11.52	0.60	0.35	11.92	2.00	3.00
105th	B2R	020	RCSD	1432331.51	711882.91	Х		Х		Х	Х			42° 45′ 74″	73 ° 40 ' 92 '	" X			Х	Х	х	Х	Х	1.90	VCP	22.14	0.67	CIP	21.79	0.50	0.45	22.18	2.00	3.00
Rensselaer	D37R	022	RCSD	1425412 96	711027.32	×			×	×	×		Float mechanism is not operational	42 ° 44 ' 60 "	73 ° 41 ' 16		x		х	x	x x	x	x	6.00	Brick	10.31	1x1	Concrete Opening	10.01	No Plate	No Plate	11 21	5.00	8.00
Vanderheyden	D29R	022	RCSD	1424560.03	710763.38	X		Х	~	X	X			42 ° 44 ' 46 "	73 ° 41 ' 20 '		X		X	X	X X	X	X	3.50	Brick	12.60	0.67	CIP	12.25	0.60	0.40	13.25	2.00	4.00
						×.			~	~	~		Float mechanism is not operational, tide gate				v		v	~	~ ~	v	v					Concrete						
HOOSICK	D28R D26R	024	RCSD	1424166.61	710733.27	×		×	^	×	X	+ +	hinges need repair	42° 44' 39" 42° 44' 28"	73 ° 41 ' 22 '		×		x	×	× ×	X	x	4.20	RCP Brick	8.64	1.6 X 2.5	CIP	8.50	NO Plate	No Plate	9.80	2.00	4.00
Tiditoff	DZOK	025	RCOD	1420047.10	710343.19	~				~	~			42 44 20	75 41 25		~		X	~	~ ~	~	~	4.00	DIICK	11.50	0.07	Concrete	10.00	0.2 / 0.4	0.07 0.3	11.50	2.00	4.00
Jacob	D24R	026	RCSD	1422892.06	710436.83	Х	_	NA		Х	Х		Float mechanism removed	42° 44 ' 19"	73 ° 41 ' 28 '	" X			х	х	Х	Х	Х	5.00	Brick	7.13	0.625x1.03	Opening	6.63	No Plate	No Plate	7.78	4.00	6.00
Federal	D20R	027	RCSD	1422322.20	710100.13	х		NA		х	х		Float mechanism removed	42° 44′ 08″	73 ° 41 ' 34 '		х		х	х	х х	х	х	4.50	Brick	7.54	1x1	Opening	7.62	No Plate	No Plate	8.82	4.00	6.00
Grand	D18R	028	RCSD	1422181.75	709912.82	Х		Х		Х	Х			42° 44′ 05″	73 ° 41 ' 39 '	" X			Х	Х	х	Х	Х	1.30	VCP	13.05	0.67	CIP	12.30	No Plate	No Plate	13.40	1.00	2.00
Fulton	D17AR	029	RCSD	1421813.04	709495.93	X		X		X	X	_		42 ° 44 ' 00 "	73 ° 41 ' 46	• X	_	v	X	X	x	X	X	4.00	RCP	8.95	0.67	CIP	8.75	0.80	0.35	9.70	3.00	5.00
Broadway	D16R	030	RCSD	1421375.08	709065.23	×		×		X	×			42 43 93 "	73 ° 41 ' 56 '			×	X	X	X X	×	X	1.60	VCP	8.48	0.67	CIP Concrete	7.84	0.4 / 0.4	0.65 / 0.35	8.89	1.00	2.00
State	D13R	031	RCSD	1420792.10	708533.24	х			х	х	х		Float mechanism is not operational	42 ° 43 ' 83 "	73 ° 41 ' 68 '	" X			х	х	х	Х	х	2.80	CIP	5.31	1x1	Opening	4.66	No Plate	No Plate	5.86	4.00	6.00
Congress	D12R	032	RCSD	1420331.78	708423.99	X		X		X	X	_		42 ° 43 ' 76 "	73 ° 41 ' 72		х		X	X	x x	X	X	3.4 x 5.0 (egg)	Brick	6.08	0.67	CIP	5.38	0.60	0.35	6.38	2.00	4.00
Ferry	D11R	033	RCSD	1419936.12	708271.10	X		X		X	X			42 43 69	73 ° 41 ' 75 '	"X	x		X	X	X X	X	X	4.00	RCP	3.94	0.67	CIP	3.89	0.50	0.40	5.89 9.10	2.00	4.00
Division	DIOR	004	ROOD	1413470.03	700130.01	~		~		~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			42 40 02	10 41 11		~		~	~	A A	~	~	4.00	ROI	1.00	0.07	Concrete	1.25	0.007 0.0	0.170.0	0.15	2.00	4.00
Liberty	D9R	035	RCSD	1419098.70	708151.55	X			х	Х	X		Float mechanism is not operational	42 ° 43 ' 56 "	73 ° 41 ' 49 '		х		Х	Х	x x	Х	X	6.00	Brick	4.47	1x1	Opening	3.97	No Plate	No Plate	5.27	6.00	7.00
Washington	D8R	036	RCSD	1418776.50	708005.70	X		X		X	X			42 ° 43 ' 50 "	73 ° 41 ' 81 '	"X			X	X	x	X	X	2.90	RCP	4.93	0.67	CIP	3.83	0.35/0.35	0.85/0.3	4.63	2.00	4.00
Jefferson	D6R	037	RCSD	14176216.30	70813273	X		X		x	X			42 43 41	73 ° 41 ' 53 '	" X	1		x	x	x	x	X	3.0 x 3.3 (egg)	RCP	5.56	1 17	CIP	5.06	0.1570.6	0.60	6.70	5.00	4.00
Conclusion	Boit	000	11005	1111021100	100102.10									12 10 01	10 11 00									1.00		0.00		Concrete	0.00	0.00	0.00	0.10	0.00	
Madison	D2R	039	RCSD	1416558.45	708111.30	X		v	X	X	X		Float mechanism is not operational	42 ° 43 ' 16 "	73 ° 41 ' 94	" X	V		X	X	X	X	X	3.2 x 4.7	Brick	8.25	1.0 x 1.0	Opening	7.95	No Plate	No Plate	9.35	4.00	3.00
Monroe	DIR	040	RUSD	1416000.96	708026.30	^		~		^	~			42 * 43 * 07 *	73 * 41 * 94	-	^		~	^	<u> </u>	^	^	3.00	Brick	9.10	0.67	CIP	8.50	NO Plate	No Plate	10.10	2.00	4.00
Van Buren	E3R	041	RCSD	1414998.17	707870.47	х		NA		х	х	Х	Float mechanism removed	42° 42' 88"	73 ° 42 ' 03 '	" X			х	х	х	Х	х	5.00	Brick	8.31	1x0.5	Opening	7.65	No Plate	No Plate	9.01	4.00	4.00
Harrison	E6R	042	RCSD	1414387.16	707950.81	x			х	х	x		Float mechanism is not operational	42 ° 42 ' 79 "	73 ° 42 ' 05 '	×			х	х	х	х	х	2.00	RCP	10.69	0.8x1.3	Opening	8.79	No Plate	No Plate	9.89	4.00	5.00
Tyler	E9R	043	RCSD	1413816.72	707832.24	X		х		Х	X			42 ° 42 ' 69 "	73 ° 42 ' 07 '	" X	1		х	х	Х	Х	Х	4.00	Brick	8.57	1.00	CIP	9.27	0.60	0.70	10.27	3.50	5.00
Polk	E13R	044	RCSD	1413252.10	707671.11	Х		Х		Х	Х			42 ° 42 ' 36 "	73 ° 42 ' 09 '	" X							Х	3.00	CIP	10.95	0.83	CIP	10.30	1.00	0.50	11.55	3.00	3.00
Cross 3	E22R	045	RCSD	1411542.04	707644.56	х			х	х	NA		Gate has been removed	42 ° 42 ' 34 "	73 ° 42 ' 11	" X			х	х	х	х	х	4.00	Brick	32.12	1.50	CIP	29.12	No Plate	No Plate	31.12	NA	NA
Water St.	W1R C	046A	RCSD	1410555.47	707957.83	x		X		х	NA			42 ° 42 ' 11 "	73 ° 42 ' 12 '	" X		L [х	x	Х	х	х	3.4 x 2.3	Brick	62.60	1.00	CIP	61.40	0.5 / 0.5	0.7 / 0.5	62.20	NA	NA
EIM St. ¹	WR	046B	RCSD City of Trov	1410145.12	707692.12	X NA	+	X NA		NA X	NA NA			NA NA NA 42 ° 42 ' 11 "	NA NA NA 73.º 42 ' 12	NA	NA	NA	NA	NA	NA NA	NA	X	0.67 / 0.67	ACP / CIP	52.25 56.70	0.83	CIP	52.15	0.50 NA	0.35 NA	NA 57.50	NA NA	NA NA
Hudson Ave.	Q1R	047	RCSD	1408558.48	706889.00	X		X		X	NA			42 ° 41 ' 86 "	73 ° 42 ' 13 '	•	Х		х	х	х х	х	X	1.00	VCP	61.65	0.83	CIP	60.05	0.45	0.30	61.25	NA	NA

Notes:

See text in Section 3 and Figure 3-1.
 The second set of River Road/6th Ave Ext. outfall coordinates correspond to the location of the drainage swale at the Hudson River. The first coordinates correspond to the outfall pipe location
 The outfall sign is presently posted at the regulator. The sign will be moved to the outfall location on the Hudson River after it is re-established.

The street side outfall sign are currently posted at the regulator or close to it and not at the outfall discharge point. The City will re-locate the existing street side signs at the river outfall location after receiving permission from property owners.
 The street side outfall sign is posted near the regulator because the outfall pipe discharges to the river within the limits of the Rensselaer County Jail.
 The river side outfall sign was found to be missing during the November 2013 inventory update and will be replaced.

RENSSELAER COUNTY SEWER DISTRICT NO.1 Regulator Summary Form - City of Rensselaer December 2013

									Regulator							Outfall			Photogra	ph Taken					R	egulator Deta	ils				
									D	am/Shelf											Inlet Pipe	Inlet Pipe	Inlet Inv.	Outlet Pipe	Outlet Pipe	Outlet Inv.	Outlet Plate	Outlet Plate		Tide Gate	Tide Gate
				Coor	dinates		Туре	Regulate	or Condition 0	Condition	Tide	Gate		Coord	linates	Pipe Visibility		Sign			Size	Mat.	Elev.	Size	Mat.	Elev.	(H)	(W)	Dam Elev.	(H)	(W)
						Hand	Eloat			Need			1					SPD	-s	Descriptions								· · · · ·			
Location		City		Northing	Easting	Whee	Chamber	Other Operational	Needs Repair Goo	d Repai	r Operation	al Leaking	Description of Repair Needs	Latitude	Longitude	Submerged Tidal Visible	Posted Vi	sable Info	- Outfall Sign	Chamber	(ft)		(ft)	(ft)		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
Dalasaas	MOD			D 4005000.04	004040.0	r V		V	v			3	Description of Repair Recas	40.0.00.00.00.00	70 0 45 1 00		V V	V V	v v	V	0.0	VOD	4.40	4.47	OID	4.00	0.5		4.05	47	0.5
Beimore	M2R	004	JZ RUS	D 1385222.91	694019.8	^ Ci	_	^	^		^			42 - 38 - 00 -	73 - 45 - 03	~ ^	^	^ X	^ ^	^	2.0	VCP	4.40	1.17	CIP	4.22	0.5	0.8	4.85	1.7	2.5
Partition	J9R	000	06 RCS	D 1390220.72	696389.7	'8 X		Х	Х		Х			42 ° 38 ' 52 "	73 ° 44 ' 39	" X	Х	х х	ХХ	Х	3.0	RCP	6.54	1.0	CIP	6.01	0.6	0.5	6.91	3.5	4.5
Fowler	HJR	00	7 RCS	D 1393329.73	697468.2	6 X		Х	Х		Х			42 ° 39 ' 22 "	73 ° 44 ' 19	" X	Х	х х	ХХ	Х	2.1	VCP	6.80	1.0	CIP	6.10	0.3	0.7	7.40	1.6	2.5
Tracy	H2R	008	8 RCS	D 1393686.83	697620.3	2 X		Х	Х		Х			42 ° 39 ' 27 "	73 ° 44 ' 14	" X	Х	х х	х	Х	1.6	VCP	3.54	0.83	CIP	3.14	0.5	1.3	4.14	1.0	2.0
Central N.E.	H3R2	009	9 RCS	D 1393968.74	697756.9	0 X		Х	Х		Х			42 ° 39 ' 27 "	73 ° 44 ' 11	" X	Х	Х Х	ХХ	Х	1.8	RCP	5.91	1.0	CIP	5.31	0.2	1.2	6.11	1.5	2.5
Central N.W.	H3R1	010	0 RCS	D 1393964.02	697740.4	2 X		Х	Х		Х			42 ° 39 ' 27 "	73 ° 44 ' 11	" X	Х	х х	X X	Х	4.0	RCP	6.52	0.83	CIP	6.12	0.5	0.4	7.12	3.6	4.5
2nd Ave.	L5R	003	3A RCS	D 1387143.39	694651.4	2 X		Х	Х		Х			42 ° 38 ' 22 "	73 ° 44 ' 56	" X	Х	х х	X X	Х	3.6	Brick	4.52	1.17	CIP	3.86	0.7	0.8	5.12	3.6	4.0
																									Concrete			í '			
Columbia ¹	L4R	003	3A RCS	D 1386802.43	694458.3	2		Х	Х		NA			42 ° 38 ' 22 "	73 ° 44 ' 56					Х	1.7	RCP	4.89	1.17	Opening	3.15	0.4	0.7	5.09	-	-
2nd Ave ²	NA	003	3B Cit	r				X X	Х		NA			42 ° 38 ' 11 "	73 ° 44 ' 35	" X	Х	х х	х х	Х	1.8	VCP	2.48	1.3	VCP	2.32	NA	NA	4.04	NA	NA

Notes:

The outfall from the L4R regulator discharges to the inlet pipe to L5R regulator.
 The regulator for Outfall 003B is a manhole with a high level pipe that discharges to Mill Creek.

Appendix B





CITY OF TROY DEPARTMENT OF PUBLIC UTILITIES 25 WATER PLANT ROAD TROY, NY 12182 BUREAU OF SANITARY SEWERS CATCH BASIN, MANHOLE & MAIN CLEANING PROGRAM

			OPERATORS:
TRUCK:	-		
Catch Basin C	leaned:		
Catch Basin ID:			Relative Location (NE-NW-NE-SW)
• Trap:		Visible (Yes or No)	
· 4.	PVC-		
5. 6.	Brick "P" Trap)	
Manholes & M	ain Cleaned:		

Supervisors Review & Approval____

City of Troy Department of Public Utilities

Trouble Mains

Address	Date	Checked BY	Cleaned BY
1008 5th Ave @ S/Troy Rec Center			
104th St Between 4th & 5th (N-Alley)			
105th St between 3rd & 4th Ave (N-side)			
105th St Between 4th & 5th (S-Alley)			
105th St between 4th & 5th Alley			
106th St between 3rd & 4th Ave (N-side)			
107th St Between 6th & 7th (N-Alley)			
109th St between 2nd & 3rd Ave (N-Alley)			
109th St Between 3rd & 4th (N-Alley)			
110th St Between 7th & 8th (S-Alley)			
110th-111th St between 5th & 6th Ave			
111th St Between 3rd & 4th (S-Alley)			
112th St between 6th & 7th Ave Alley			
113th St @ West Park Place			
113th St between 2nd & 3rd Ave			
113th St Between 7th & 8th N-Alley			
116th St between 3rd & 4th Ave			
116th St between 4th and 5th (N-Alley)			
117th St & 1St Ave (check mouth)			
117th St Between 2nd & 3rd (S-Alley)			
117th-118th St between 1St & 2nd Ave			
118th St Between 2nd & 3rd (N-Alley)			
118th-119th St between 1St & 2nd Ave			
119th St & 1St			
119th St between 3rd & 4th Ave			1.25
125th & 2nd B/O Colonial			
2152 12th St Cleanout @ Driveway			
734 6th Ave			
821 6th Ave			
Belle Ave			
Blakely CT			
Blakely CT & Fonda Ave			
Center St (flush			
Colleen Drive @ #50			
Congress ST to State ST 4th -5th			
Ferry St @ 4th St			
Gillette Avenue			
Hutton ST & 8th			
Lakewood PL & Sycamore PL			
Lexington Ave@ O'dell St			
Liliac I n to Brookview			
Locust Ave @ Spring Ave			
Lower Ford Ave @75			

Mountainview Drive		
Parkview CT		
Plum Ave		
Pointview Drive		
Spring Ave Ext.		
Vandenburgh Ave (rear of #52)		
Victoria Ave @ Pawling Ave		
West Sunnyside (rear main)		
Willis ST (check mouth)	an	
Woodrow Ct		

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CITY OF TROY DEPARTMENT OF PUBLIC UTILITIES BUREAU OF SANITARY SEWERS PUMP STATION MAINTENANCE & INSPECTION

INSPECTOR(S):			DATE:		
PUMP STATION:	CHELT	ON AVE.		PINEW	OODS AVE.
	(PLEAS	SE CIRCLE YE	S OR NO)		
VISUAL INSPECTION					
LEAKS	YES	NO		YES	NO
OTHER	YES	NO		YES	NO
GREASE PUMPS	YES	NO		YES	NO
CLEAN GLASS FILTER	YES	NO		YES	NO
RUN PUMPS	YES	NO		YES	NO
CHECK WET SEAL	YES	NO		YES	NO
CHECK VALVE OPER.	YES	NO		YES	NO
CHECK HAND OPER.	YES	NO		YES	NO
CHECK AUTO OPER.	YES	NO		YES	NO
EMERGENCY GENERATOR					
RUN 10 MINUTES	YES	NO		YES	NO
CHECK INLET MANHOLE	YES	NO		YES	NO
CHECK OUTLET MANHOLE	YES	NO		YES	NO
COMMENTS:					

EXCEL: PUMPSTATION.FORM

City of Troy Regulator Inspection Form

Weather:

Date:

SPDES Dutfall ID	Location	County Outfall ID	Time	In overflow condition? Y/N	Depth of flow above/below weir (in)	Inspector Initials	Comments
11	6th Ave Ext (River Rd)	A36R					
07	119th St	A20R					
13	113th St (north side)	A13R1					
24	Hoosick St	D28R					
27	Federal St	D20R					
39	Madison St	D2R					
45	Cross St	E22R					
46A	Water St	W1R					

City of Troy

Combined Sewer Outfall Monthly Inspection Data Sheet

Date:			Weather:		
Name:			Snowmelt Conditions (Y/N)		
		Pipe Flow Present	Observation Location		
Location	CSO	Yes/No*	Bank (B); River (R); Opposite Bank (OB)	Comments	
River Road	001				
Rensselaer	022				
Vanderheyden	023				
Hoosick	024				
Hutton	025				
Federal	027				
Broadway	030				
Congress	032				
Division	034				
Liberty	035				
Monroe	040				
Hudson	047				

* - If pipe flow is present and it is not currently raining, and snow melt conditions are not present, report condition to the Water and Sewer Department Supervisor for review and reporting as necessary

Appendix C



Catch Basin Cleanout Form

	Gatch Bashi	Gleanout i onn		DATE: Sen]
Catch Basin ID Number (or street address location)	3rd o	we Brid	lye	
Basin Gate Condition	Fairly Clogged	Very Clogged	Damaged	Replace
D Basin Grate Collar Condition	No damage	Some Damage	Heavy Damage	Collapsed
Distance of Sediment Level from Grate Opening NON C	sticks			
) sin Sedimentation	Low (0-30%)	Medium (31-60%)	High (61-90%)	Total (91-100%)
% Presence-Other Pollutants	Floatable/Trash	Yard Waste	Oll	Other
•	×			

OTHER NOTES: Basins cleaned i .

City of Rensselaer Combined Sewer Outfall Monthly Inspection Data Sheet

Date: <u>Tuesday oct</u> 5th 2010. Name of Reporter: <u>Jim Thomas</u>

· · · ·	and the second se	1 7 1
Pipe Flow Present?	Comments*]
none	Few Bricks Removed	и.
none		
none		
none	Bricks - word removed	
none		
None :	Plastic Bottle (removed)	
none		
none:	n	the neg(βtied.) ,
	Pipe Flow Present? <u>NONC</u> <u>NONC</u> <u>NONC</u> <u>NONC</u> <u>NONC</u> <u>NONC</u>	Pipe Flow Present? NONC Sew Bricks (Removed) NONC NONC NONC NONC NONC Plastic Bottle (removed) Nonc

***IF FLOW INDICATED IS NOT CLEAR GROUNDWATER CALL THE FOLLOWING** AUTHORITIES IMMEDIETLY

- 1-Rensselaer County Sewer District 283-2355 (8 AM-4 PM) 283-4577 (After 4 PM)
- 2-DEC Ask for Andrea Dzierwa or Derek Thorsland 357-2045

CITY OF R DEPARTMENT OF PUBLIC WORKS 62 WASHINGTON ST. RENSSELAER AV 1214

CITY OF RENSSELAER Regulator Inspection Form

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										DWO Reported to
			Weather	· Conditions	Flow to t	he Sewer	Ö	ause		NYSDEC
Location	City ID	Date/Time	Rain	Snow Melt	All	Partial	Blockage	High Flow	Water On the Shelf	Date/Time
2nd Ave.	003B									
2nd Ave.	003B									
2nd Ave.	003B									
2nd Ave.	003B									

Notes:								

Appendix D

RENSSELAER COUNTY SEWER DISTRICT NO.1 Regulator Inspection Form City of Troy - Page 1 of 2

Month:

20

Date/Time Current Weather West File To Int Since Rain Since I ass All None Last None L	Date/Time Current Weather Rain Weather Since Flow To Intereptor Ait Yone Partial Ait None Partial	Date/Time Current Weather Weather Since Flow To Interceptor Bate/Time Sinon Lass All None Partial Rain Mappenio All None Partial Debris	Current Veather Weather statue Weather statue Flow To Interceptor It*Not Bate/Tune Raini Sinov Last All None Parrial Other Parrial Inspection All None Parrial Debris Other Parrial Inspection All None Parrial Debris Other	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Current Weather Bate/Time Weather Sines Flow To Interceptor It "None" or "Partual". Canse: All Note Rain Sines All None Partial Migh Plow. Inspection Inspection All None Partial Plot Plow Inspection Inspection Inspection All None Partial Debris High Plow Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspection Inspecinon Inspectin	Image: Current Manuality Water State Fion Telescription Itt*None* or "Partual". Cause Diversion Structure Date/Time Same Sam			Duction Vert Weather Weather Meat Flow To Interceptor Tel "None" or "Partal". Cause Diversion Structure Tele Cate (if pression) Ded minimenery flow all repression Rain Sinex Lasi All None Partial Date (if pressin) Plow control to the service allow all repression Plow control to the service allow all repression I have pression Plow pression Plow pression Plow control to the service allow all repression Plow control to the service allow all repression Plow control to the service allow all repression I have pression Plow pression Plow pression Plow control to the service allow all represent to the service allow a	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Ductions Walk since since Two intervanded since Two intervanded since Two intervanded since Two intervanded since Report to RCSS Report to RCSS	Duction: Wild First of larcespot Trivance of Paratitic Line Devices Structure Determine Membersol
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RENSSELAER COUNTY SEWER DISTRICT NO.1 Regulator Inspection Form City of Troy - Page 2 of 2

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Month:

i m

Notes Reported to RCSD Reported to DEC Admin. *RCSD Admin. Use (Date/Time) Only* (Date/Time)
 Diversion Sincture
 Tide Gate (if present)
 Did maintenance /

 Flow Over Dam*
 Flow Going
 River
 repair(s) allow all Our?

 Flow Over Dam*
 Our?
 Leaking In?
 flow to return to the
 Flow Over Dam? If "None" or "Partial". Cause Other High Flow High Flow (Wet Weather) (Other) Debris Partial Flow To Intercento None IIV Wet Weather Since Current Weather Rain Snow Date/Time
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 D12R
 0.24

 Broudway
 D12R
 0.24

 Broudway
 D24R
 0.24

 City ID Q Location

RENSSELAER COUNTY SEWER DISTRICT NO.1 Regulator Inspection Form City of Rensselaer

Month: 20

				Current	weather	Wei	LION	10 Interec	prot		II NONC OF	Farmar . Cause		Diversion Structure	1 1dc Galc (II present)	Did maintenance /	Reported to RCSD	Reported to DEC		1
Location	8	City ID	Date/Time	Rain	Snow Melt	Weather Since	IIV	Nonc	Partial	Debris	Other H (We	t Wcather)	High Flow (Other)	Flow Over Dam?	Flow Going Out?	River Leaking In?	repair(s) allow all flow to return to the	Admin. (Date/Time)	*RCSD Admin. Use Only* (Date/Time)	Notes	
Central N.E.	H3R2	600																			1
Central N.W.	H3R1	- 010 -																			
Fowler	HJR	007																			
Partition	J9R	000																			1
2nd Ave.	L5R	003B																			
Columbia	L4R	003A																			
Belmore	M2R	002																			
City Connect	01D	800																			

Required Incident Reporting in Accordance with BMP No. 6, 6 NYCRR Part 750-2.7, and Sewage Pollution Right to Know Act

A combined sewer systems (CSS) must be capable of passing all dry weather flow to the interceptor and the publicly owned treatment works (POTW) for treatment. Dry weather flow is defined in the EPA Combined Sewer Overflow Control Policy as "the flow in a combined sewer that results from domestic sewage, groundwater infiltration, commercial and industrial wastewater, and any other non-precipitation related flows." Anytime a CSS is not capable of passing all dry weather flow, the resulting overflow must be reported to the Department in accordance with 6 NYCRR Part 750-2.7 (c) and the Sewage Pollution Right to Know Act (SPRTK).

Properly operating, wet weather combined sewer overflows (CSOs) are permitted. For an overflow to be considered a properly operating, wet weather CSO, the overflow must be the result of precipitation related / wet weather flow (storm water flow, including snow melt runoff) and the conditions in the regulator chambers must be maximizing flow to the interceptor and the POTW for treatment.

The following describes conditions in regulating chambers that may be encountered during routine inspection and maintenance activities and the generally required incident reporting based on current known circumstances relating to the Rensselaer County Sewer District (RCSD) regulator chambers and interceptor sewers and the City of Troy and City of Rensselaer CSSs. In addition to the requirements below, when debris accumulation is restricting flow into an interceptor, field staff should try to identify and note the type of debris such that potential upstream sources can be investigated. Hydraulic interconnections in the collection system should also be recognized. Conditions in the interceptor may impact the operation or function of regulating chambers and vice versa. As a result, field staff should note such conditions accordingly.

- 1. When conditions in a regulating chamber are such that <u>all</u> flow is stopped from entering the interceptor, causing <u>all</u> the flow to go over the dam, this is <u>a discharge of untreated sewage that would otherwise be treated</u>, not a discharge from a properly operating, wet weather CSO. When this situation is identified, the applicable information must be recorded on the inspection form and the incident must be reported to the Department in accordance with 6 NYCRR Part 750-2.7 (c) / SPRTK. These situations must be immediately investigated and corrected. When this situation is identified, the impairment in the operation or function of the regulator must also be reported in accordance with RCSD's BMP No. 6.
- 2. When conditions in a regulating chamber are such that <u>a portion of</u> the flow is entering the interceptor and <u>a portion of</u> the flow is going over the dam, it must be determined whether the specific situation requires reporting in accordance with 6 NYCRR Part 750-2.7 (c) / SPRTK. To make this determination field staff must, to the maximum extent practicable, determine the following: If there are any problems with the operation or function of the regulator (ex. debris accumulation restricting flow into the interceptor). If problems are identified, field staff must determine if all flow returns to the interceptor after the problem(s) have been corrected. If no problems are identified, field staff must determine if the flow going over the dam is the result of wet weather flow or some other cause (ex. hydrant flushing entering catch basins on the CSS). The determination of wet weather flow should be based on an understanding of dry weather flow at each regulator in conjunction with knowledge of recent wet weather events. The following are possible reporting scenarios under these conditions.
 - a. If problems are identified and all flow returns to the interceptor after the problem(s) have been corrected, the overflow should be identified as <u>a discharge of untreated sewage that would have otherwise been treated</u>, not a discharge from a properly operating, wet weather CSO. When this situation is identified, the applicable information must be recorded on the inspection form and the incident must be reported to the Department in accordance with 6 NYCRR Part 750-2.7 (c) / SPRTK. When this situation is identified, the impairment in the operation or function of the regulator must also be reported in accordance with RCSD's BMP No. 6.
 - b. If problems are identified and flow continues to go over the dam because of wet weather flow after the problem(s) have been corrected, the applicable information must be recorded on the inspection form. A follow-up inspection must be performed to confirm that the precipitation related flows have subsided and the overflow has stopped. When this situation is identified, the impairment in the operation or function of the regulator must be reported in accordance with RCSD's BMP No. 6.
 - c. If problems are identified and flow continues to go over the dam because of something other than wet weather flow after the problem(s) have been corrected, the overflow should be identified as <u>a discharge of untreated sewage that would have otherwise been treated</u>, not a discharge from a properly operating, wet weather CSO. When this situation is identified, the applicable information must be recorded on the inspection form and the incident must be reported to the Department in accordance with 6 NYCRR Part 750-2.7 (c) / SPRTK. These situations must be immediately investigated and corrected. When this situation is identified, the impairment in the operation or function of the regulator must also be reported in accordance with RCSD's BMP No. 6.
 - d. If NO problems are identified and the flow going over the dam is caused by wet weather flow, the applicable information must be recorded on the inspection form. A follow-up inspection must be performed to confirm that the precipitation related flows have subsided and the overflow has stopped.
 - e. If NO problems are identified and the flow going over the dam is caused by something other than wet weather flow, the overflow should be identified as <u>a discharge of untreated sewage that would have otherwise been treated</u>, not a discharge from a properly operating, wet weather CSO. When this situation is identified, the applicable information must be recorded on the inspection form and the incident must be reported to the Department in accordance with 6 NYCRR Part 750-2.7 (c) / SPRTK. These situations must be immediately investigated and corrected.

Please note that other reporting under the Environmental Conservation Law (ECL) and its regulations (NYCRR) may be required.



RENSSELAER COUNTY SEWER DISTRICT NO. 1

GERARD S. MOSCINSKI, P.E. ADMINISTRATIVE DIRECTOR

STEVEN J. SKOWRON ,Jr DIRECTOR OF OPERATION AND MAINTENANCE

<u>Rensselaer County Sewer District</u> Notification of Dry Weather Overflows

Date		ity sewer Distric	et discovered a Dry weathe
Overflow occurring over the da	m at the Locat	ion	_ regulating chamber.
RCSD notified	at approximately	by Fime/Date	Name
The Following is a brief descrip	otion of the problem:		

Rensselaer County Sewer District No. 1 1600 Seventh Avenue Troy New York 12180 Telephone 518-283-2235 Facsimile 518-283-7324 www.rensco.com

Rensselaer County Sewer District Pump Station Inspection Form

Location

Date Time

Task	Checked	Comments
Rake the Screen		
Heating system		
Day tank level		
Supply Tank Level		
Flow matcher system		
Electroliite level		
Electrolite		
Temperature		
Electrolite Pump		
Temp.		
Electrolite Leaking		
E-gen		
Test ran(Auto Switch)		
Battery Charge		
Flow chart(MGD)		
Wet Well Level (inches)		
Pumps		
Bearing		
Motor	10.00	
Seal Water		
Cone Valve		
Check Valve		10 C
Sump Pump		
Odors (Unusual/Normal)		
Gate position		
Lighting		
Indoor		
Outdoor		
	TI	

Initials

RENSSELAER COUNTY SEWER DISTRICT #1

PUMP STATION INCIDENT REPORT

Date:	
Time Out:	Time In:
Initials:	Supervisor Initials:

Incident Requiring Action:

Action Taken:

Rensselaer County Sewer District No. 1 Pump Station Bar Screen Log

	-		Drained Screening Placed in	
Date	Time	Screen Raked	Bucket	Initials
Accession 1				
				1000
		and the second		
-				
			and the second sec	

Wynantskill Pump Station – Elm Ct.

Date:_____

During high flow events the following information is needed to investigate any flooding conditions.

Mark the time of day on the Wyn Strip Chart when these events occur:

- Time that the 2nd pump starts cycling
- Time that the 2nd pump starts running constantly
- Time that the 3rd pump starts cycling
- Time that the 3rd pump starts running constantly

When the 3rd pump is running constantly you must start checking the pump station every four hours until flooding ends.

Mark down the following times:

- When wet well floods.
- When the creek overflows.
- When sewage is first noticed coming out of the manholes.
- When manholes no longer discharge.
- When wet well is no longer flooded.

At this point start wet well cleanup. Trips to check pump station every four hours are no longer needed.

Mark down the time when the 3rd pump starts cycling down.

Extra notes:

	MONTH _				
DATE	TIME	WEATHER	INSTANTANEOUS FLOW	TOTALIZER (x 1000)	DAILY FLOW MGD
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21		2			
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					

MONTHLY TOTAL	
DAILY AVG	

	NORT	H GREENBU	JSH FLOW LOG - M	METER #2 - MAIN	AVENUE
[]	MONTH				
DATE	TIME	WEATHER	INSTANTANEOUS FLOW	TOTALIZER (x 1000)	DAILY FLOW MGD
1					
2					
3					
4					
5					
6					
7					
8					
9				-	
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24				in the second	
26					
27					
28					
29					
30					
31					

MONTHLY TOTAL

DAILY AVG

1	MONTH _			
DATE	TIME	WEATHER	TOTALIZER (x 1000)	DAILY FLOW MGD
1				
2				
3				
4			-	
5				
6				
7				
8				
9				
10				
11				
12				
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24				
25			· · · · · · · · · · · · · · · · · · ·	
26				
27				
28				
29				
30				

MONTHLY TOTAL	
DAILY AVG	

+



