April 11, 2008

Ms. Andrea J. Dzierwa, P.E.
New York State Department of Environmental Conservation
Region IV
1150 North Westcott Road
Schenectady, NY12306

Re: Preliminary Response to NYS DEC Comments
SPDES Permit No. NY-002 5747 (City of Albany)
SPDES Permit No. NY-002 6026 (City of Rensselaer)
SPDES Permit No. NY-009 9309 (City of Troy)
SPDES Permit No. NY-003 0899 (City of Watervliet)
SPDES Permit No. NY-003 1046 (City of Cohoes)
SPDES Permit No. NY-003 3031 (Village of Green Island)

Dear Andrea:

Enclosed please find the final Combined Sewer System Monitoring Plan submitted by the Albany Pool Joint Venture Team (APJVT) on behalf of the Capital District Regional Planning Commission (CDRPC) and the Albany Pool Communities SPDES Permit holders referenced above. This document addresses the comments received from your Department via email and reflects the discussions between representatives of your staff and the Technical Advisory Committee at our March 20, 2008 meeting.

As we had indicated in our March 12, 2008 correspondence, the CDRPC, the Albany Pool Communities, and the APJVT anticipated providing the NYSDEC with additional written details to clarify specific elements of the Receiving Water Sampling Plan and CSS Monitoring Plan which heretofore have been expressed in general terms. In particular, we will provide more defined roles for the municipal participation, specific CSS sampling locations, specific receiving water sampling locations, and specific flow monitoring locations. While we had previously indicated that these details would be provided on or about April 23, 2008 it is now likely that this addendum will be provided on or about May 2, 2008.

Very truly yours,

MALCOLM PIRNIE, INC.

Gregory J. Daviero Ph.D., P.E.
Associate

pjb

F:\PROJECT\0241003\DOC\Task B4\Monitoring Plan\Final CSS Monitoring Plan Cover Letter.doc

c: C. Webber, NYSDEC
F. Sievers, NYS DEC
R. Ferraro, CDRPC
L. Engstrom, CDRPC
D. Loewenstein, Malcolm Pirnie-ALB
J. Kleyman, Malcolm Pirnie-BUF
D. Durfee, CDM – ALB
R. Rudolph, CHA
M. Miller, CHA
W. Lavery, City of Albany
Mayor John McDonald, City of Cohoes
N. Ostapkovich, City of Watervliet
S. Ward, Village of Green Island
N. Bonesteel, City of Troy
M. Pettit, City of Rensselaer
R. Lyons, ACSD
G. Moscinski, RCSD

Combined Sewer System Monitoring Plan

Albany Pool
Part B Long-Term Control Plan

Prepared for:
Capital District Regional Planning Commission (CDRPC)

Prepared by:
Albany Pool Joint Venture Team (APJVT)

February 2008
Revised April 11, 2008

Contents

List of Tables

List of Figures

Attachments

1. Sampling Event Summary Sheet
2. Sample Labeling
3. Chain-of-Custody Form
4. Sampling Equipment Decontamination
5. APJVT Contact Details
6. Block Testing Data
7. Correspondence

1. Introduction

1.1. Project Background

This Combined Sewer System Monitoring Plan (Plan) describes the approach that will be taken to monitor the combined sewer system (CSS) flows and to sample combined sewer overflow (CSO) discharges. This Plan was prepared in accordance with the conditionally approved Scope of Work and Combined Sewer System Monitoring and Modeling Plan dated February 2007. This Plan defines the sampling and monitoring activities to be performed under Task B.4, Combined Sewer System Monitoring.

The Albany Pool Communities have CSOs that discharge to the Hudson and Mohawk Rivers. To develop a plan for evaluating the impact of these discharges, the City of Troy, City of Albany, City of Cohoes, City of Rensselaer, City of Watervliet and the Village of Green Island (the *"Albany Pool"* communities) have joined in a comprehensive inter-municipal venture, led by the Capital District Regional Planning Commission (CDRPC), to develop a Phase I Long-Term Control Plan (LTCP).

The Albany Pool Communities' flows are tributary to three wastewater treatment plants (WWTPs) including the Rensselaer County Sewer District (RCSD) plant and two Albany County Sewer District (ACSD) plants (both North and South plants). There are 95 discharge locations (including the three WWTPs) within the CSS that are permitted under the State Pollution Discharge Elimination System (SPDES) permits. These discharge to the Hudson and Mohawk Rivers and their tributaries.

A major task in planning and developing a LTCP for CSOs is the characterization of the CSS. As part of the LTCP for the Albany Pool Communities, a monitoring and sampling program will be conducted to verify and supplement available CSS monitoring data (in addition to the flow data already being collected by the ACSD and the RCSD) and water quality data (in addition to that water quality data collected by Malcolm Pirnie in the summer of 2003). This plan includes additional sampling and laboratory analyses of wet-weather flows and the installation of additional flow meters to record depth and velocity of CSS flows during both dry and wet weather.

1.2. The Albany Pool Communities

According to the New York State Department of Environmental Conservation (NYSDEC), CSOs from each of the Albany Pool Communities include:

- City of Albany with eleven (11) CSOs under SPDES Permit No. NY-002 5747;
- City of Rensselaer with eight (8) CSOs under SPDES Permit No. NY-002 6026;
- City of Watervliet with five (5) CSOs under SPDES Permit No. NY-002 0899;
- Village of Green Island with three (3) CSOs under SPDES Permit No. NY-003 3031;
- City of Cohoes with seventeen (17) CSOs under SPDES Permit No. NY-003 1046; and
- City of Troy with forty-eight (48) CSOs under SPDES Permit No. NY-009 9309.

1.3. Scope of This Plan

This Plan describes the locations, equipment, methodologies, and data management protocols that will be used by the Albany Pool Joint Venture Team (APJVT) to gather flow and water quality data for the CSS and outlines responsibilities of each party, the procedures to be followed, and the timeframe for events.

Collection of water quality data is required for the CSS during storm events in order to determine water quality characteristics of the CSO discharges. Collection of flow monitoring data within the CSS is required to analyze the CSS flow patterns. These data combined with the analyses of the receiving water bodies performed under a separate task can enable the Albany Pool Communities to assess the impacts of CSOs, and help prioritize areas of principal concern with regard to water quality impacts. In addition, the sampling results can help with selecting the most effective CSO control alternatives and establishing their benefits.

The discussion in this Plan includes:

- The flow monitoring equipment that will be used.
- The locations of the flow monitoring equipment to be installed.
- The duration of the flow monitoring.
- The determination of which storm events should be sampled.
- The locations of CSS sampling points.
- The water quality parameters to be analyzed.
- Data storage protocols to be followed.

The specifications in this Plan must be followed by all APJVT members and the Pool communities' employees conducting the water quality sampling program. The APJVT is responsible for defining the protocols for implementation of the system-wide water quality sampling program as presented in this Plan. The APJVT members are also

responsible for providing system-wide coordination during implementation of the program and are responsible for defining the detailed logistics required to implement the program in the communities and for conforming to the protocols outlined in this Plan. Significant resources will be required by the communities potentially including the commitment of vehicles, staff, and equipment for sampling activities.

2. CSS Monitoring Program

2.1. Introduction

This section describes the specifications and protocols to be followed for the monitoring program, including:

- Flow and rainfall monitoring equipment that will be used;
- Locations where equipment will be installed;
- Recording interval;
- Duration of flow and rainfall monitoring period;
- Programming and calibration protocols;
- Data retrieval and data storage protocols; and
- Maintenance frequency and procedures.

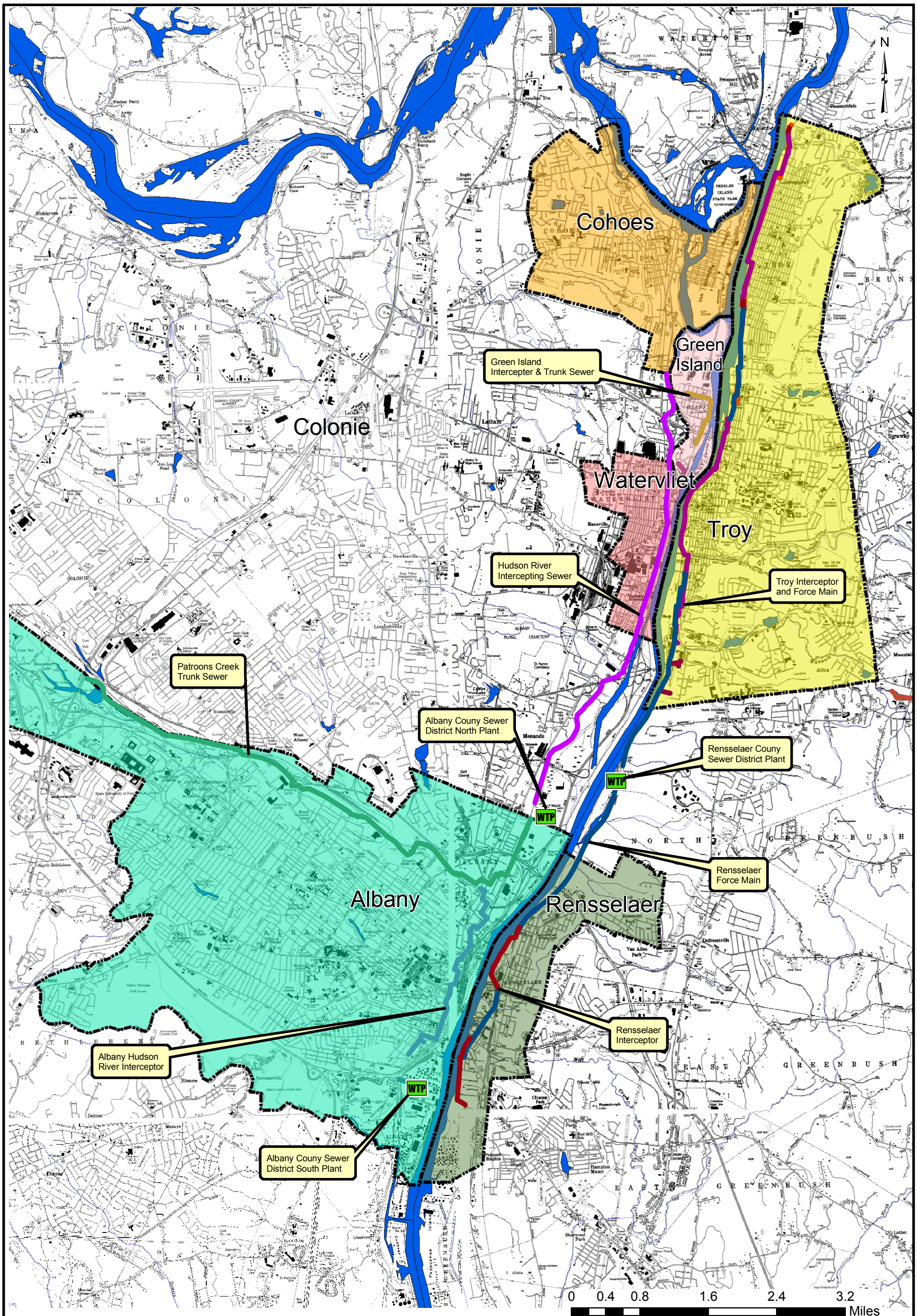
Sewer system models will be developed to characterize the behavior of the CSS, quantify CSO discharges, and evaluate CSO control alternatives. The models will help the communities assess the hydraulics of the systems and, using event mean concentration, predict existing pollutant loads discharged from the CSS during CSO events. These will be used to evaluate impacts on the CSS that may result from future development, improvements to the sewer system, and changes in maintenance and operational procedures. This effort will directly contribute to the reduction of CSO discharges that may impair water quality and affect contact recreation and habitat in the Class C waters of the Hudson and Mohawk rivers.

The primary intent of the metering is to collect data that can be used to accurately characterize the collection system and assess the hydraulics of the interceptor sewers. This information will then be used to calibrate the model under the Combined Sewer System Modeling task.

Flow and CSS wastewater quality data will be collected to support the CSS models including those systems tributary to the:

- ACSD North Plant.
- ACSD South Plant.
- RCSD Plant: City of Troy contributory area.
- RCSD Plant: City of Rensselaer contributory area.

Figure 2-1 shows an overview of the Albany Pool CSO area.



albany pool Joint Venture Team CDM MALCOLM PIRNIE CHA

CDRPC

ALBANY CSO POOL
LONG TERM CONTROL PLAN

TASK B4: CSS MONITORING PLAN
OVERALL ALBANY POOL PLAN

MALCOLM PIRNIE, INC.

FEBRUARY 2008

FIGURE 2-1

2.2. Flow Metering

Flow meters will be installed at 25 locations within the CSS of the Albany Pool communities. In addition, the flow monitoring program will utilize and incorporate to the greatest extent possible information from the ACSD which owns and maintains 27 flow meters. Meters located at the in-system pump stations and influent sewers to the Rensselaer County Sewer District (RCSD) Wastewater Treatment Plant (WWTP) will also be used. The combination of the data collected from the new meters and the existing meters will be used for the CSS characterization.

2.2.1. Block Testing

The conditionally approved Scope of Work and Characterization, Monitoring and Modeling Plan requires that each municipality collect preliminary monitoring data (block testing and chalk data) from their overflow control regulators.

The purpose for the collection of the block and chalk data is to identify the most active CSO regulators and assist in selecting flow metering locations for CSO activation monitoring. This effort will reduce detailed data collection at those overflow regulators which do not exhibit overflow events, or only exhibit minimal overflow events and therefore represent a smaller percentage of the total overall volume discharged to the receiving water from the CSS. Preliminary data collection is typically a requirement to prepare for a LTCP, as defined in the United States Environmental Protection Agency (EPA) *Combined Sewer Overflows Guidance for Nine Minimum Controls*, 1995, Chapter 10.

Block testing consists of the placement of a tethered block on a CSO control weir. During the block testing period, each regulator being tested must be inspected after every rain event and, at a minimum, once per week during dry weather to record the regulator activity or inactivity. The event can be recorded when the block has been pushed off of the weir by an overflow. Block testing provides an indication of CSO activity but does not quantify the CSO duration, volume, or peak flow rate. During the block testing period, estimates for peak flow rates can also be collected by measuring flow depth over the CSO weirs. A simple method for measuring flow depth and for approximating the peak overflow rate can be employed in each overflow structure by utilizing a continuous chalk mark on the wall of the chamber above the weir. In some chambers with rough wall surfaces, a board may be attached to the wall to provide a better surface for more legible chalk marks. After an overflow event, the amount of the chalk line washed away by flow over the weir can be measured so that an approximation of peak flow depths and peak flow rates discharged over the weirs can be made.

Block and chalk testing has been performed as an in-kind service by the ACSD, RCSD, and by the communities. Data collected by the sewer districts and municipalities are routinely forwarded to the APJVT for review and analyses. Block testing was initiated

by the ACSD beginning September 17, 2007. The RCSD block and chalk testing data collection was initiated in November, 2007. The City of Watervliet has been collecting data since September 7, 2007. Although every overflow point has not yet been included within the block testing program, blocks have been put in place and monitoring has been ongoing at a substantial quantity of the overflow locations (see Section 2.2.2 below). The communities are continuing to work with the sewer districts and members of the APJVT to identify and install blocks on the remaining discharge points.

During the initial block and chalk testing period, some overflows demonstrated a greater activity and/or peak discharge than others and were therefore considered more favorable locations for meter installation. Block testing data received as of March 28, 2008 has been included in Attachment 6. Note that where chalk test data is provided, it represents an approximation of the peak level of water in an overflow chamber during an overflow event and does not give a clear indication of total overflow volume.

2.2.2. Flow Metering Locations

Due to the cost of developing the many components of the LTCP, the CDRPC and communities have limited the number of flow monitoring sites to 25 locations total. The 25 new flow meter locations were chosen based on a combination of many factors including:

- Historical knowledge of the system.
- The size of the upstream trunk sewer.
- The activity of the overflow locations during the initial block and chalk testing period.
- The location of existing meters.
- The inclusion of at least one flow meter within each community.
- The interceptor hydraulic data requirements.
- Characteristics of the tributary areas and receiving water bodies.
- Modeling requirements.
- Data requirements for tributary communities to establish boundary conditions (upstream flow contributors).
- Site access and safety.

The following sections detail the preliminary selection of flow monitoring locations identified to support the CSS models currently being developed for this project.

2.2.2.1. Flow Monitoring for the ACSD North Plant CSS Model

Six flow meters have been proposed for placement within the CSS system contributory to the ACSD North Plant. One of the additional considerations for this model was the

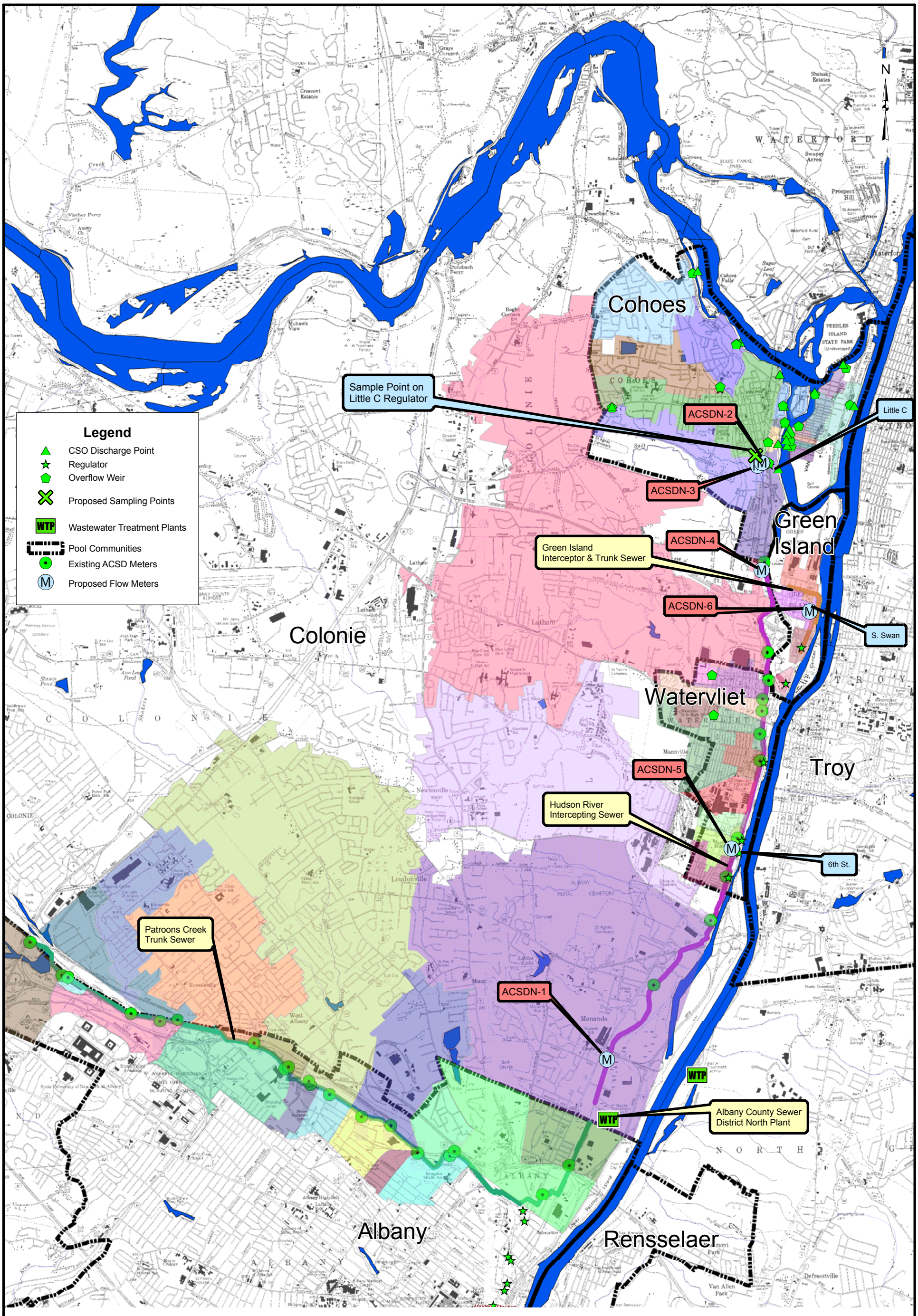
presence of the 27 ACSD flow meters. While these will likely be of beneficial use during dry weather, their capacity may be exceeded during wet weather events. The meters are placed to capture the greatest extent of the contributory area possible and to capture the data required to calibrate the hydraulic model of the Hudson River Interceptor. Figure 2-2 shows updated ACSD North Plant contributory sewershed areas, the regulator locations, the CSO locations, and the proposed metering locations. The areas contributory to the proposed metering locations represent approximately 37 percent of the total combined sewer contributory area to ACSD North Plant. Table 2-1 further identifies the characteristics of the contributory areas and provides additional information supporting the selection of the metering locations.

Table 2-1.
CSS Flow Metering Locations

Flow Metering Identification Number	Community/CSO Served	Flow Metering Location	Comments
ACSDN - 1	Watervliet, Green Island, Cohoes, Colonie, and Menands	Erie Blvd., North of ACSD North Plant , South of Menands	Captures downstream boundary condition for the Hudson River Interceptor
ACSDN - 2	Cohoes – Little C (008) CSO	Upstream of Little C Regulator	Captures Cohoes' largest area tributary to a CSO
ACSDN - 3	Cohoes – Little C (015) CSO	Upstream of Little C Regulator	Captures Cohoes' second largest area tributary to a CSO
ACSDN - 4	Cohoes	Cohoes southern corporate boundary	Captures the Cohoes flow to the Hudson River Interceptor and upstream boundary condition for the Hudson River Interceptor
ACSDN - 5	Watervliet – 6th St. CSO	6th Street	Captures an active CSO representative of Watervliet's combined sewer area
ACSDN - 6	Green Island – Swan St. CSO	Swan Street	Captures Green Island's largest area tributary to a CSO

2.2.2.2. Flow Monitoring for the ACSD South Plant CSS Model

Four flow meters have been proposed for placement within the CSS system contributory to the ACSD South Plant. The meters are placed to capture the greatest extent of the contributory area possible and to characterize the hydraulics of the interceptor. The regulated flow meter will be utilized to capture the Beaver Creek Sewer District flows tributary to the "Big C" overflow. This area captures approximately 75 percent of the area contributory to the ACSD South Plant. Figure 2-3 shows the ACSD South Plant contributory sewershed areas, the regulator locations, the CSO locations, and the proposed metering locations. Table 2-2 further identifies the characteristics of the areas and provides additional information supporting the selection of the metering locations.



\\Albany\m\GISMOD\0241003\task B4\figure 2-2.mxd

albany pool Joint Venture Team CDM MALCOLM PIRNIE CHA

CDRPC

ALBANY CSO POOL
LONG TERM CONTROL PLAN

TASK B4: CSS MONITORING PLAN
ACSD NORTH CONTRIBUTORY SEWERSHEDS, REGULATORS, CSO LOCATIONS, AND METERS

MALCOLM PIRNIE, INC.

APRIL 2008

FIGURE 2-2

Albany Hudson River Interceptor

ACSDS-3

Sample Point on Big C Regulator (Rennselaer)

ACSDS-2

ACSDS-4

ACSDS-1

Albany County Sewer District South Plant

Legend

- WTP — Wastewater Treatment Plants
- Pool Communities
- Rensselaer Regulator Sub-Sewershed Delineation
- Proposed Sampling Points
- M — Proposed Flow Meters

0 0.25 0.5 1 1.5 2 Miles

\\Albany\mGISMOD\0241003\task B4\figure 2-3.mxd

albany pool Joint Venture Team CDM MALCOLM PIRNIE CHA

CDRPC

ALBANY CSO POOL
LONG TERM CONTROL PLAN

TASK B4: CSS MONITORING PLAN
ACSD SOUTH CONTRIBUTORY SEWERSHEDS, REGULATORS, CSO LOCATIONS, AND METERS

MALCOLM PIRNIE, INC.

APRIL 2008
FIGURE 2-3

Table 2-2.
ACSD South CSS Flow Metering Locations

Flow Metering Identification Number	Community/ CSO Served	Flow Metering Location	Comments
ACSDS - 1	Albany	On Albany Hudson River Interceptor just upstream of Albany South Treatment Plant	Captures downstream boundary condition for the City of Albany Hudson River Interceptor
ACSDS - 2	Albany	Rensselaer Street	Captures Albany's largest tributary area and most significant outfall
ACSDS - 3	Albany	Downstream of Rensselaer sewershed, on Albany Hudson River Interceptor	Captures midpoint of interceptor
ACSDS - 4	Albany	Bouch Avenue	Captures Albany's second largest contributory sewershed

2.2.2.3. Flow Monitoring for the RCSD CSS Model (City of Troy Contributory Area)

Twelve flow meters have been proposed for placement within the Troy CSS system contributory to the RCSD Plant. The meters are placed to capture the greatest extent of the contributory area possible, verify reactions of the interceptor under various weather conditions, and to characterize contributions from select trunk sewers entering from outside communities. The flow metering locations were identified and distributed in a way to maximize the sewershed area covered while establishing controls along the interceptor sewer and the trunk sewers from the outside communities. Existing flow meters located at the 106th Street Pump Station, the Monroe Street Pump Station, and on the influent sewer to the RCSD Plant will also be used in characterizing the CSS that services Troy and the upstream communities.

Figure 2-4 shows updated City of Troy, RCSD contributory sewershed areas, the regulator locations, the CSO locations, and the proposed metering locations. The areas contributory to the proposed metering locations represent approximately 57 percent of the total combined sewer contributory area to RCSD Plant. Table 2-3 further identifies the characteristics of the contributory areas and provides additional information supporting the selection of the metering locations.

Pleasantdale Influent
Outfall 001
Downgradient from 006 Regulator
Downgradient from 016 Regulator
Downgradient from 039 Regulator
Rensselaer St. Outfall 022
River St/HW 7 Outfall 024
River St./Bridge Outfall 027
1st St. Outfall 039
Cross St. Outfall 045
Greenbush Influent
RCSD WWTP Influent
Rensselaer County Sewer District Plant
Rensselaer County Interceptor & Trunk Sewer
Sample Point on Outfall 045 Regulator
RCSD-12
RCSD-15
RCSD-4
RCSD-3
RCSD-8
RCSD-7
RCSD-11
RCSD-6
RCSD-2
RCSD-5
RCSD-14
RCSD-1
Cohoes
Green Island
Watervliet
Troy
Pleasantdale
Lansingburgh
Sycaway
Mountain View
Wynantskill
Menands
Albia
Mannville
Brunswick
PEEBLES ISLAND STATE PARK (Undeveloped)
Sugar Loaf Pond
Cohoes Falls
Lansingburgh Reservoir
Oakwood Cemetery
Prospect Park
Frear Park
Knickerbacker Park
Burden Environmental Park
Poesten Kill
Hudson Valley Community College
Rensselaer Polytechnic Institute
Samaritan Hospital
Troy High Sch
Lansingburgh Senior High Sch
Emma Willard School
Russell Sage College
Doyle Mid Sch
Lady of Victory Sch
St Mary's Cemetery
St Agnes Cemetery
St Patrick Cemetery
Immaculate Conception Cem
Oakwood Cemetery
New Mt Ida Cemetery
Forest Hills Cemetery
George Washington School
St Jean Cem
Bethel Cem
Gardner-Dickinson School
St Judes Sch
Golf Course
Waste Treatment Facility
WTP
N
0 0.25 0.5 1 1.5 2 Miles

Legend

- Proposed Sampling Points
- WTP — Wastewater Treatment Plants
- Pool Communities
- M — Proposed Flow Meters
- Existing RCSD Flow Meters
- Troy Force Main
- Troy Interceptor

\\Albany\m\GIS\MOD\0241003\task B4\figure 2-4.mxd

albany pool Joint Venture Team — CDM, Malcolm Pirnie, CHA

CDRPC

ALBANY CSO POOL
LONG TERM CONTROL PLAN

TASK B4: CSS MONITORING PLAN
TROY CONTRIBUTORY SEWERSHEDS, REGULATORS, CSO LOCATIONS, AND METERS

MALCOLM PIRNIE, INC.

FEBRUARY 2008
FIGURE 2-4

Table 2-3.
Troy Contributory Area CSS Flow Metering Locations

Flow Metering Identification Number	Community/ CSO Served	Flow Metering Location	Comments
RCSD - 1	Troy – RCSD WWTP Influent	Trunk Sewer upstream of Troy influent to WWTP	Characterizes City of Troy dry and wet weather interceptor flow entering the WWTP
RCSD - 2	Troy – RCSD Troy Interceptor Sewer	Along the Troy Interceptor Sewer Downstream of CSO 039	Characterizes dry and wet weather interceptor flow downstream of CSO 039
RCSD - 3	Troy – RCSD Troy Interceptor Sewer	Along the Troy Interceptor Sewer Downstream of CSO 016	Characterizes dry and wet weather interceptor flow upstream of CSO 017
RCSD - 4	Troy – RCSD Troy Interceptor Sewer	Along the Troy Interceptor Sewer Downstream of CSO 006	Characterizes dry and wet weather interceptor flow upstream of CSO 007
RCSD - 5	Troy – CSO 045	Trunk Sewer upstream of regulator for CSO 045	Characterizes dry and wet weather interceptor flow upstream of regulator for CSO 045
RCSD - 6	Brunswick/ Troy CSO 039	Suitable manhole along Rte 29 trunk sewer upstream of connection to the CSO 039 trunk	Characterizes dry and wet weather contributions from the Rte 29 Trunk Sewer servicing Brunswick
RCSD - 7	Troy – CSO 024	Regulator for CSO 024	If conditions allow, utilize multiple probes to monitor flow from 60", 48" and 30" trunk sewers entering the regulator chamber
RCSD - 8	Troy – CSO 022	Regulator for CSO 022	If conditions allow, utilize multiple probes to monitor force main from 106th St PS in addition to the 72" trunk sewer
RCSD - 11	Troy – CSO 027	Regulator for CSO 027	Characterizes dry and wet weather interceptor flow upstream of regulator for CSO 027
RCSD - 12	Pleasantdale – Troy CSO 001	Upstream of Schaghticoke Trunk Sewer connection to Troy system	Characterizes contributions to the Troy CSS from the Schaghticoke Sewer District No.1 located in Pleasantdale
RCSD - 14	North Greenbush	North Greenbush Trunk Sewer upstream of Troy Interceptor	Characterizes contributions to the Troy CSS from the Greenbush Trunk Sewer
RCSD - 15	Troy – CSO 001	Trunk Sewer upstream of regulator for CSO 001	Characterizes dry and wet weather interceptor flow upstream of regulator for CSO 001

2.2.2.4. Flow Monitoring for the RCSD CSS Model (City of Rensselaer Contributory Area)

Three flow meters have been proposed for placement within the Rensselaer CSS system contributory to the RCSD Plant. The meters are placed to capture the greatest extent of the contributory area possible and verify reactions of the interceptor under various weather conditions. The flow metering locations were identified and distributed in a way to maximize the sewershed area covered while establishing controls along the interceptor sewer. Existing flow meters located at the Columbia Street Pump Station, the Forbes Avenue Pump Station, and on the influent sewer to the RCSD Plant will also be used in characterizing the CSS that services Troy and the upstream communities.

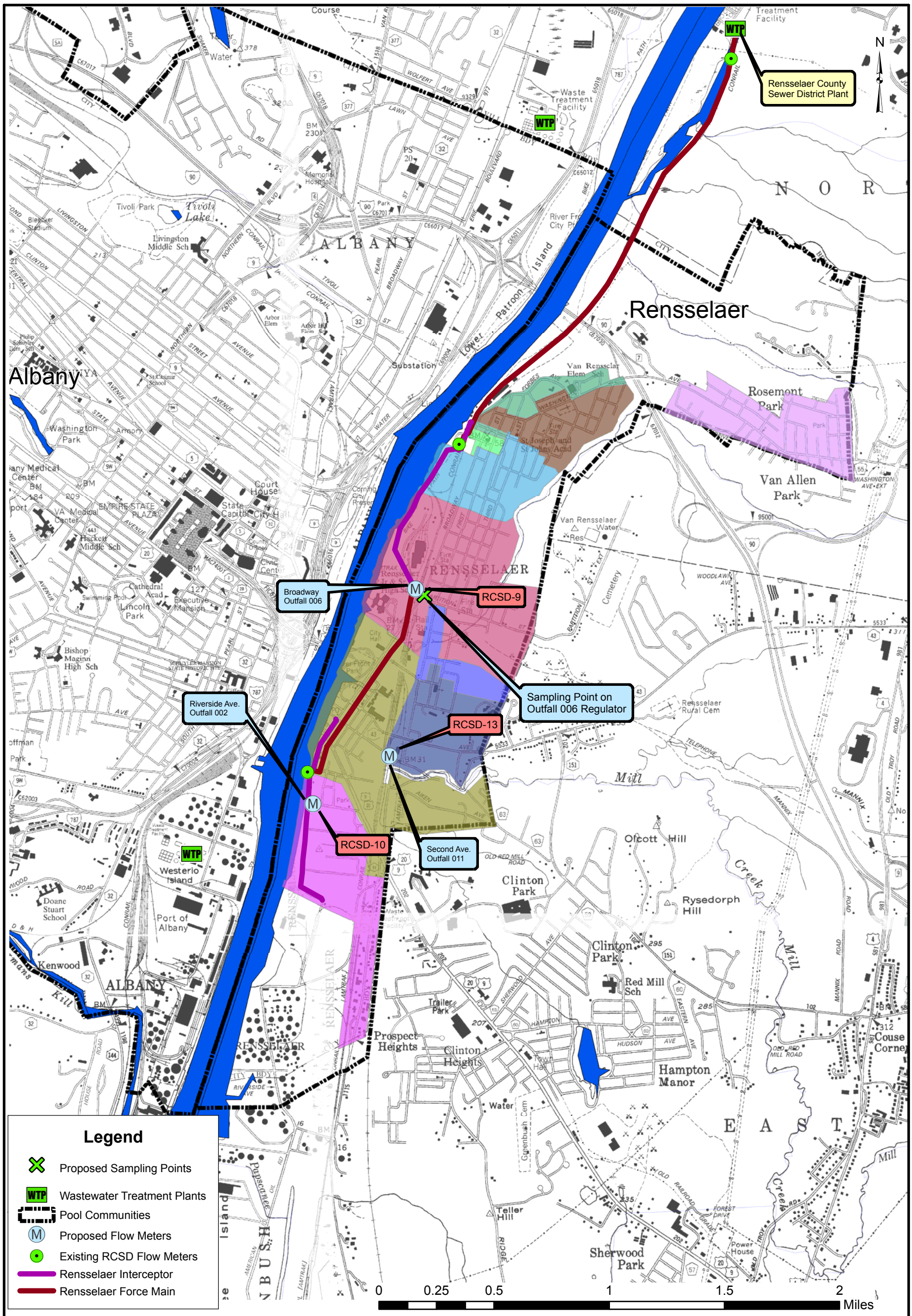
Figure 2-5 shows updated City of Rensselaer, RCSD contributory sewershed areas, the regulator locations, the CSO locations, and the proposed metering locations. The areas contributory to the proposed metering location represent approximately 46 percent of the total combined sewer contributory area to the RCSD Plant. Table 2-4 further identifies the characteristics of the contributory areas and provides additional information supporting the selection of the metering locations.

Table 2-4.
Rensselaer Contributory Area CSS Flow Metering Locations

Flow Metering Identification Number	Community/ CSO Served	Flow Metering Location	Comments
RCSD – 9	Rensselaer - CSO 006	Trunk Sewer upstream of regulator for CSO 006	Characterizes dry and wet weather interceptor flow upstream of regulator for CSO 006
RSCD – 10	Rensselaer – CSO 002	Trunk Sewer upstream of regulator for CSO 002	Characterizes dry and wet weather interceptor flow upstream of regulator for CSO 002
RCSD – 13	Rensselaer – CSO 011	Trunk Sewer upstream of regulator for CSO 011	Characterizes dry and wet weather interceptor flow upstream of regulator for CSO 011

2.2.3. Flow Metering Specifications

The flow monitoring will be accomplished using site-specific monitoring equipment from various manufacturers, by the use of continuous monitoring devices incorporating a velocity sensor combined with a pressure depth sensor in order to quantify surcharge depths. The flow meters will collect flow velocity and depth at 5-minute intervals and will compute the flow rate based on the collected data and channel geometry. All data will be collected and verified weekly by the subcontractor for bi-weekly transmittal to the APJVT. The flow monitors will be checked every week to update flow data, obtain required calibration data, perform required maintenance, and assure proper operation.



\\Albany\mlGISMOD\0241003\task B4\figure 2-5.mxd

albany pool Joint Venture Team CDM MALCOLM PIRNIE CHA

CDRPC

ALBANY CSO POOL
LONG TERM CONTROL PLAN

TASK B4: CSS MONITORING PLAN
RENSSELAER CONTRIBUTORY SEWERSHEDS, REGULATORS, CSO LOCATIONS, AND METERS

MALCOLM PIRNIE, INC.

FEBRUARY 2008
FIGURE 2-5

Flow monitoring data reduction and review will be performed on all data obtained from each flow monitoring location.

The flow meters will be installed by ADS Environmental Services (ADS). ADS is a specialty flow monitoring subcontractor who has a proven track record working with members of the APJVT. ADS, with assistance from the sewer districts or municipalities (depending on the monitoring location), will be responsible for quality control of their meters which includes performing weekly calibration testing for depth and velocity as well as equipment maintenance. ADS will be responsible for validation and verification of the depth and velocity data prior to bi-weekly delivery to the APJVT.

The proposed monitoring locations will be field verified by ADS for suitability for meter installation. Final monitoring locations will be identified and photographs and detailed site sketches, along with the GPS-obtained coordinates, will be available to the team and NYSDEC prior to implementation of the monitoring program.

2.3. Rainfall Monitoring

Rainfall data is required for the flow monitoring and water quality sampling period to assist the characterization of the CSS. The rainfall data will be used to interpret the flow monitoring and water quality sampling data as well as to calibrate the hydraulic model. Rainfall intensity and volume will be monitored for the duration of the flow and water quality monitoring effort.

2.3.1. Equipment Locations

Four rain gauges will be installed for project purposes, one in each of the four main community areas (Albany North, Albany South, Troy and Rensselaer). The rain gauges will enable the project team to get an accurate measurement of rainfall within each sewer district and in the surrounding service area.

2.3.2. Equipment Specifications

The tipping bucket rain gauges will be supplied by ADS Environmental Services. The resolution of the rain gauges will be set at 0.01 inch of rain and will collect rainfall volume at 5-minute intervals.

2.3.3. Rainfall Gauge Data

Data from all rain gauges will be downloaded by ADS Environmental Services weekly for the duration of the flow monitoring effort. ADS will be responsible for validation and verification of the rainfall data prior to bi-weekly delivery to the APJVT.

2.3.4. Maintenance and Calibration of Equipment

Rain gauges will be inspected, maintained and cleaned weekly by ADS throughout the monitoring period. Documentation of weekly maintenance activities will be provided to

the APJVT by the monitoring consultant. These reports will be submitted within a week of the inspection/calibration.

2.4. Metering Period

The continuous flow metering program will be conducted for a minimum of 12 weeks, between April/May and June/July. As data is collected and evaluated, metering locations may be adjusted to better characterize the community's CSS. Such adjustments may be made if structure access is deemed to be unfavorable, collected data is inconsistent with block testing results, or other unforeseen conditions arise.

The intent of the flow and rainfall monitoring program is to collect sufficient flow monitoring data to calibrate the Combined Sewer System model using three rainfall/runoff events and verify the model using a fourth rainfall/runoff event. To the extent practical, each of the three CSS models will use the same storm events for calibration. Because of the complexities involved in modeling the combined sewer systems and measuring the rainfall and flow, specific flow monitoring criteria cannot be developed in advance. No specific criteria have been developed due to the differences in the behavior of the four modeled areas (Albany North, Albany South, Troy/Rensselaer), the frequency of CSO activation, and system response times. Because of this variability, the flow and rainfall data will be reviewed weekly to identify representative events and data sets to which the CSS model can be calibrated. The flow and rainfall program will need to be extended if a sufficient number of events are not available for calibration and validation of the four CSS models.

In order to identify the need for such an extension proactively, a meeting will be held after nine weeks of monitoring to discuss the assessment of the quality and completeness of the data collected. The necessity to extend the monitoring period will be determined at that time in conjunction with discussion with the communities and with the NYS DEC. Additional weeks (more than 12) of monitoring will not be authorized by the APJVT unless prior authorization is granted by the CDRPC and the communities.

3. CSS Water Quality Characterization

3.1. Introduction

This section details the locations where CSS water quality samples will be collected, the frequency and duration of the sampling program, water sample collection and documentation protocols, and laboratory protocols that will be used.

The primary intent of the water quality sampling is to collect data that can be used to accurately characterize pollutant loading leaving the CSS.

3.2. Water Quality Sampling Locations

In the conditionally approved Scope of work, CSS water quality data was planned to be collected at 18 CSS locations. However, based on preliminary conversations with the NYSDEC and on our experience in other communities, we are proposing the use of national average pollutant loading figures to supplement field sampling. The APJVT feels that some field sampling should be performed to verify that the communities' pollutant loadings are consistent with the national averages. In an effort to minimize cost and the manpower requirements for the field sampling task, samples of CSS flows will be collected for laboratory analysis at 4CSS overflow locations within the Albany Pool project limits. The four CSS sampling locations were selected to place one sampling point in the largest contributing combined sewershed within the contributory sewershed of each CSS model. Sampling locations are planned to be coincident with block testing locations which will facilitate ease of access and eliminate the need for additional access points.

In addition, results from 24-hour composite samples currently collected on the influent to all three Albany Pool Community treatment plants (ACSDN, ACSDS, and RCSD) will be considered to help characterize the quality of the waste stream. ACSD and RCSD staff will perform the additional sampling and analytical work for the treatment plant influent.

The proposed sampling locations are listed in Table 3-1 and CSS sampling locations are shown on Figures 2-2 through 2-5. Final sampling locations will be identified and photographs and detailed site sketches, along with the GPS-obtained coordinates, will be available to the team and NYSDEC prior to implementation of the sampling program.

Table 3-1.
CSS Sampling Locations

Sampling Location Identification Number	Sample Collection Location	Nearest Access Road or Address
ACSDN – 1	Cohoes – Little C (008) CSO	Saratoga Street – intersection with Main Street
ACSDN – 2	ACSD North Plant influent	Erie Blvd. and Canal Road
ACSDS – 1	Albany – Big C	Rensselaer Street – intersection with Dongan Avenue
ACSDS – 2	ACSD South Plant influent	South Pearl St. and McCarty Ave.
RCSD – 1	Regulator for Troy CSO 045	Cross Street
RCSD – 2	Regulator for Rensselaer CSO 006	Broadway north of Partition Street
RCSD – 3	RCSD Plant influent	River Road

The CSS sampling data will be compared to typical pollutant values for CSOs presented industry accepted reports including the August 2004 *Report to Congress: Impacts and Control of CSOs and SSOs*, the Water Environment Federation's CSO Control Manual as well as EMCs for similar Northeast communities developed by the team on other projects.. The CSS sampling data collected within each CSS modeled tributary area will be utilized to provide estimations of pollutant loadings from the remaining CSOs within the modeled area.

For informational purposes, a map of the Albany Pool area with the locations of Significant Industrial Users (SIU) is shown on Figure 3-1. This map illustrates the sewersheds which are to be sampled and the sewersheds that contain the SIUs. As is evident from the figure, there is little correlation between the locations of the SIUs and the CSS sampling locations. The CSS sampling locations have been selected to capture the representative wastewater characteristics of each of the four combined sewer systems tributary to their respective county wastewater treatment plant. This data will be used to develop "Event Mean Concentrations" (EMCs) for each combined sewer system that will then be applied to the CSO volumes from that system. EMCs will be developed for fecal coliform, e-coli, TSS, BOD5, Total Phosphorous, Ammonia and TKN (modified from Nitrate). Because the potential for metals and other toxics are site specific they were not considered in selecting the CSS Sampling locations.

Legend

- Proposed Sampling Points
- Significant Industrial Users
- Sewersheds with SIU's (no sampling)
- Sewersheds Sampled (no SIU's)
- Sewersheds with SIU's (with sampling)

N

Cohoes

Green Island

Colonie

Watervliet

Troy

Albany

Rensselaer

Sample Point on Little C Regulator

Mohawk Paper

Honeywell Friction

Saint Gobain

Unifirst

Lydall Thermal

RPI Cogswell Bldg

Sample Point on Outfall 045 Regulator

UltrePET

Morgan Linen

Friehofer Co

University Albany

WTP

Sample Point on Big C (Rensselaer) Regulator

Sample Point on Outfall 045 Regulator

Amtrak Maintenance Facility

AMRI

BASF Corporation

Rensselaer Cogen

Quala Systems Inc

0 0.4 0.8 1.6 2.4 3.2 Miles

\Albany\m\GISMOD\0241003\task B4\figure 3-1.mxd

albany pool Joint Venture Team CDM MALCOLM PIRNIE CHA

CDRPC

ALBANY CSO POOL
LONG TERM CONTROL PLAN

TASK B4: CSS MONITORING PLAN
SIGNIFICANT INDUSTRIAL USERS AND SAMPLING POINTS

MALCOLM PIRNIE, INC.

APRIL 2008

FIGURE 3-1

3.3. Program Organization and Communications During Sampling Events

The sampling period will begin in May 2008 and last through September 2008. At least three wet-weather events will be sampled at all designated CSO sampling locations. Sampling will not be conducted during Memorial Day weekend between Friday, May 23 at 5:00 P.M. and Tuesday, May 27 at 6:00 A.M. or during 4th of July weekend between Thursday, July 3 at 5:00 P.M. and Monday, July 7 at 6:00 A.M. Should the sampling program be extended into September, sampling will not be conducted on Labor Day weekend between Friday, August 30 at 5:00 P.M. and Tuesday, September 2 at 6:00 A.M. It is the goal of the CSS sampling program to coincide the CSS Sampling events with the receiving water sampling events.

The APJVT will designate a person as the Sampling Coordinator for the sampling program. The Sampling Coordinator will be present in the field during all sampling events. As part of their in-kind services, each of the communities will assist with access to sites and traffic control, and provide staff and equipment for the sampling crews. Sampling will be performed at the locations using dedicated teams made up of two to three field personnel. Each sampling team will be responsible for a specific sampling location. Some sampling locations may require personnel with confined space entry training to access the sampling point. Note that the sampling coordinator for this task will be the same person as the sampling coordinator for the Receiving Water Assessment task as these sampling activities will be performed concurrently.

Based on the proximity of the sampling locations, it is estimated that there will be four sampling teams required. Generally, each sampling team will be made up of 2 to 4 members depending on the complexities of the sampling location. Each team will be led by a Team Leader from the APJVT and assisted by personnel from the communities. It is anticipated that at least 1 municipal employee will be available for each of the four teams over 3 sampling shifts. Therefore, a minimum of 12 municipal employees will be required from the communities. Additional members will include other APJVT personnel and/or subcontractors. Municipal employees' roles may include traffic control and structure access.

A facility preliminarily identified at the Port of Albany located on Smith Boulevard may be used as the field station and staging area for the wet-weather sampling events. This location was preliminarily identified for the Receiving Water Quality Sampling Plan already approved by the NYSDEC. Other locations may be designated for staging areas on the west side of the Hudson River as well. Directions to the field station and staging areas and a map showing their locations will be provided prior to the implementation of the sampling program. The APJVT Sampling Coordinator will coordinate the sampling effort from one of these locations. The staging area will also be used for organization, preservation, and packaging of samples prior to delivery to the laboratories.

The APJVT Sampling Coordinator is responsible for communication with all field teams throughout the sampling events. Team Leaders are responsible for establishing appropriate lines of communication between their field teams and the Sampling Coordinator, which may include use of cell-phones, two-way radios, or other equipment. The Team Leaders are responsible for relaying important information, problems, and questions from their field teams immediately to the APJVT Sampling Coordinator who will be stationed at the field station and staging area and who will be equipped with a telephone. The APJVT will provide a list of critical phone numbers and contacts to the Sampling Coordinator, prior to the initiation of the sampling program.

3.4. CSS Wastewater Sampling Procedures

CSS wastewater samples will be collected using the manual grab sampling technique identified in Chapter 5 of the USEPA guidance document, *Combined Sewer Overflows" Guidance for Monitoring and Modeling*. New, sterile, nitrile powder-free surgical gloves will be worn by sampling personnel at all times during sampling. Sampling gloves will be changed between sampling circuits. Samples will be collected in the following order using the procedures outlined below:

1. Fecal coliform.
2. E. coli.
3. Single sample for remaining constituents (total suspended solids (TSS), biochemical oxygen demand (BOD5), total phosphorus, ammonia, and nitrate).
4. Field measurement (dissolved oxygen, pH, temperature, and conductivity).

Procedure:

- Face upstream and into the flow entering the chamber.
- Orient the sample container with the opening toward the flow and in front of the sampler.
- Lower the sample container to a depth of approximately 6 to 10 inches below the water surface, or to the middle depth point if flow depth is smaller.
- Allow the container to fill with water and re-cap the container underwater when it is full.
- Remove the sample container from the water, cap and label in accordance with Section 3.7, and place in a cooler with ice. Note sample time in the Sampling Event Summary Sheet (Attachment 1). Repeat the sampling process with the remaining containers.
- When laboratory sample collection is complete, lower the Horiba U-10 water quality meter or similar multi-parameter field probe to the sampling depth. Alternatively, the

probe can be utilized with the most recent grab sample. These activities can be done simultaneously should sufficient personnel be available.

- Allow meter readings to stabilize, then record field parameter measurements on the Sampling Event Summary Sheet.

If the exterior of a sample bottle becomes grossly contaminated during sample collection, the exterior of the bottles will be rinsed with deionized water before placing the sample container in the cooler.

Fecal coliform and E. coli samples must be delivered to the laboratory within approximately 3 to 5 hours of sample collection to meet the 6-hour holding time for these analyses.

3.5. Sample Collection Methodology

The sampling methodology is similar for all the sampling locations including the list of parameters for which samples will be analyzed. Access to each sampling location may differ. The sections below detail sampling frequencies, durations, and methodologies for wet-weather sampling. Necessary containers for each sampling event, with labels and with preservatives, will be coordinated by APJVT through the selected analytical laboratories. The designated field station and staging area will be used for required preservation and packaging of samples after the sampling events.

The primary constituents, fecal coliform and E. coli, will be analyzed within the required 6-hour period by a local laboratory with sufficient capacity to analyze the quantity of samples that will be submitted for each event. St. Peters Bender Analytical Laboratory has been selected to perform the analyses for Fecal Coliform and E-coli. Based on extensive communications with this facility including a tour and a description of work flow, the APJVT is confident that they can adequately process the numbers of samples required while maintaining a high technical quality and quality assurance and control measures.

Laboratory selection for the remaining analytical work is still outstanding. A Woman-owned Business Enterprise/Minority-owned Business Enterprise (WBE/MBE) laboratory will be used for the secondary constituents as these have a longer allowable holding time requirement.

The wet-weather sampling will be performed for at least three storm events between May and September 2008. The goal is to collect samples over a CSO activation period starting just after the CSO activation and finishing after the CSO becomes inactive. Discrete samples will be collected at specified time intervals for each location and for each event (see Section 4.2.4).

3.5.1. Laboratory Analysis Sample Collection

Sampling will be conducted according to the protocol detailed in Section 3.4. Discrete samples will be poured or collected directly into the appropriate laboratory bottles in the field, ensuring each bottle is filled to provide enough sample for analysis of the required parameters. Samples collected for laboratory analysis of fecal coliform and E. coli will be collected in a single bottle at each time interval for each site. Samples collected for the remaining constituents will be collected in a second bottle at each time interval for each site. Immediately upon sample collection at each location, the samples will be sealed, labeled, and packed in coolers with ice. The fecal/E. coli bottles will periodically be taken to the field station and staging area for transport with the other samples collected by the other sampling teams. The secondary constituent bottles will be packed in coolers and prepared for shipment after event completion. The APJVT will coordinate transportation of samples with the laboratories.

Laboratory personnel will initiate bacteriological testing of the fecal/E. coli samples within 6 hours of the samples being collected, due to the 6-hour test holding time.

3.5.2. Wet-Weather Field Measurements

The field measurements that will be performed at each sampling position are: dissolved oxygen, temperature, conductivity, and pH. These measurements will be conducted using Horiba U-10 Water Quality Meters or similar multi-parameter field probe. Additionally, limited depth and/or water surface elevation will be recorded at selected locations. Field parameters will be logged on field data sheets so that the project team is aware of the ambient conditions under which the water quality samples were collected. In addition to laboratory analyses and field parameters, flow data and rainfall data will also be compiled following each sampling event and maintained in the project database.

3.6. Field Documentation During Sampling

Sampling Event Summary Sheets (see Attachment 1) will be completed during each sampling event by each sampling team. These will include entry spaces for:

- Time
- Date
- Initials of Recorder
- Weather Conditions
- Ambient Temperature
- Water Quality Readings:
  - DO
  - pH

  - conductivity
  - temperature
- A comment area will be used for any additional observations deemed relevant by the sampling team.

These sheets will be completed by each field team and submitted to the APJVT Sampling Coordinator immediately upon completion of the sampling event.

Each sampling team will also be equipped with a field book to record any additional comments and observations at the time that the samples are taken.

A database will be maintained with the field measurements and laboratory testing results for each sampling event.

3.7. Sample Labeling

All sample containers must be labeled in indelible ink on waterproof labels with:

- Date
- Time of sampling
- Sample number
- Sample location / location identification number
- Team Leader's name and organization

All containers for submission of samples to the laboratory must be labeled with the above plus parameter type and preservative. Attachment 2 contains the Standard Procedure for Sample Labeling that will be followed by all the sampling teams. Sample bottle labels must be filled out by the APJVT members to the extent possible prior to the sampling event. Labels should be wrapped with clear tape after being completely filled out.

3.8. Sample Shipping and Chain-of-Custody

This guideline presents a method for chain-of-custody procedures to track sample shipments, to minimize loss or misidentification of samples, and to ensure that unauthorized persons do not tamper with collected samples.

1. Fill out the Chain-of-Custody form completely (see Attachment 3) with all relevant information (the white original goes with the samples and should be placed in a "Ziploc" plastic bag and taped inside the sample cooler lid; the yellow copy should be retained by the sampler).

2. Mark liquid volume levels on sample bottles with grease pencil.

3. Place about 3 inches of inert cushioning material such as Styrofoam peanuts or bubble pack in bottom of cooler. Place bottles in cooler (in a "Ziploc" bag) in the center of the cooler.

4. Cover and pack bottles with ice in plastic bags. Pack cooler with blue ice in "Ziploc" plastic bags and additional cushioning material.

5. Tape drain shut and wrap cooler completely with strapping tape to secure lid.

6. Place lab address on top of cooler. To protect the shipping coolers against tampering during shipment, the cooler lid will be taped to the cooler body. A chain-of-custody seal will be placed over the tape. A broken seal will indicate that the contents may have been tampered with.

7. For out-of-town laboratory shipments, specify that the contents are "Fragile" and place "This Side Up" labels on all four sides of the cooler. "This Side Up" labels are yellow labels with a black arrow with the arrow head pointing toward the cooler lid. "This Side Up" labels should not be affixed to the cooler lid or the cooler bottom.

3.9. Equipment Decontamination

Between sampling events, equipment will be decontaminated by the APJVT and/or Communities by autoclaving at the field station and staging area or following the sampling equipment decontamination protocol in Attachment 4. All liquid waste generated from decontamination must be collected and disposed of appropriately by the APJVT.

No decontamination of grab sample bottles is required since all grab sample bottles used in the field during each event must be provided by the laboratory that will analyze the samples.

During sampling events, each sampling location requiring any additional sampling equipment will have a clean sterile field sampling device dedicated to that location.

3.10. Submission of Samples to Laboratories

The laboratories to be used for water quality analysis will be specified by the APJVT. All laboratories specified will be NYS ELAP certified laboratories. The following key points regarding sample submission will be addressed by all parties:

- All samples will be submitted to the laboratories in laboratory provided bottles. For discrete samples collected at all sampling locations, the Chain-of-Custodies will be completed immediately upon collection of the samples by the APJVT members.
- All coliform samples must arrive at the laboratory for analysis within 5 hours of the sample collection time, with regard to the 6-hour holding time. All other samples must be submitted for analysis within 12 hours of collection.

- All samples must be packed in coolers with ice after collection.
- The APJVT is responsible for coordinating pick-up or delivery of all samples with the laboratories. The APJVT will ensure the laboratories have made appropriate arrangements to receive or take custody of the samples out-of-hours as required by the date and time of occurrence of the storm events. The field teams are responsible for transporting all samples to the field station and staging area, and submitting all samples in appropriate containers with appropriate labeling and Chains-of-Custody to the APJVT Sampling Coordinator immediately after the event.
- The APJVT is responsible for system-wide record keeping and for directing the laboratories in sample analysis.
- Sample results will be forwarded by the laboratories to the APJVT in a format specified by the APJVT.

Section 3.8 contains the Standard Procedure for Sample Shipping that will be followed by the APJVT, and Attachment 3 presents an example Chain-of-Custody form.

3.11. Equipment Calibration and Maintenance Protocols

All equipment will be programmed to the clocks of cellular telephones of the field personnel. As part of the pre-sampling staging before a sampling event, all Horiba U-10 water quality meters or similar multi-parameter field probes carried into the field by sampling crews will be checked for calibration following manufacturer's recommendations.

3.12. Health and Safety

Each Albany Pool Community and APJVT member is solely and completely responsible for conditions of the work sites, including safety of all persons (including employees) and property during performance of the services described in this Plan. Each Albany Pool Community and the APJVT is responsible for developing appropriate Health and Safety Plans for all work involved in project services. Safety and Health provisions shall conform to the U.S. Department of Labor Occupational Safety and Health Act, any equivalent state law, and all other applicable federal, state, county, and local laws, ordinances, codes, and regulations.

Each Albany Pool Community and the APJVT shall be solely and completely responsible for ensuring its employees and subcontractors engaged in project activities receive appropriate training prior to the individual's commencement of work on the project.

Health and Safety plans for this project shall be available at all times at all Project Site(s) performed by the Albany Pool Community and APJVT members. Each APJVT member shall ensure that its subcontractor(s) completely comply with the requirements of this Section.

Each Albany Pool Community and APJVT member shall be responsible for conformance with all Federal and New York State Departments of Transportation requirements for work in streets and in traffic controls. Each APJVT member shall coordinate its activities with the local law and traffic enforcement agencies and with bcal agencies responsible for the operations and maintenance of the affected roads.

Note that confined space entry may be a notable concern for some of the sampling points.

4. Determination of When to Sample

4.1. Wet-Weather Sampling

At least three wet-weather events will be sampled at all CSO locations identified in Table 3-1. The goal for the sampled storms will be to meet the following targets, though minor deviations may be required to meet the sampling schedule:

- Be a community-wide storm event. The decision on whether or not an event is "community-wide" will be an ongoing judgment by the APJVT Sampling Coordinator during the sampling event.
- Have a rainfall volume of at least 0.5 inches +/-50 percent (0.25 to 0.75 inches).
- Have a minimum predicted duration of 6 hours +/-50 percent (3 to 9 hours).

There must be a minimum of 72 hours of antecedent dry weather prior to a storm event for the event to be sampled. Interpretation of situations during an initiated event, such as intermittent overflows due to intermittent rainfall, etc., and any subsequent decisions on continuing the sampling event, are the responsibility of the APJVT Sampling Coordinator. The weather conditions will be tracked throughout the monitoring period to identify the appropriate times to mobilize crews for the wet-weather events. Due to the variability of weather patterns, there is the potential for sampling crews to be mobilized, but have to discontinue due to lack of rain.

4.2. Procedures for Initiation of Wet-Weather Sampling

4.2.1. General

The APJVT Sampling Coordinator will designate a qualified person to review real-time weather information and forecasts to determine if a significant storm is forecast for the Albany Pool vicinity within the next 48 hours and to monitor actual weather patterns.

The sampling period will begin in May 2008 and last through September 2008 or until three events are completed, whichever comes first. Sampling will not be conducted during Memorial Day weekend between Friday, May 23 at 5:00 P.M. and Tuesday, May 27 at 6:00 A.M. or during 4th of July weekend between Thursday, July 3 at 5:00 P.M. and Monday, July 7 at 6:00 A.M. Should the sampling program be extended into September, sampling will not be conducted on Labor Day weekend between Friday, August 30 at 5:00 P.M. and Tuesday, September 2 at 6:00 A.M. In addition, during the first three weeks of the sampling period, wet-weather events will only be sampled if storms are initiated on weekdays between 6:00 A.M. on Mondays and 5:00 P.M. on

Fridays. Sampling will not be initiated for rain occurring between 5:00 P.M. on Friday and 6:00 A.M. on Monday. Wet-weather sampling teams will therefore be on stand-by at all times except the period between 5:00 P.M. on Friday and 6:00 A.M. on Monday. Should at least one storm event have been captured by the end of the first three weeks, this will continue. If no storm events have been captured, teams will then be on standby to sample 24 hours a day, 7 days a week. If one storm is captured in the first three weeks but after another two weeks (five weeks of sampling in total) a second storm event has not been captured, teams will then be on standby to sample 24 hours a day, 7 days a week.

4.2.2. Stage 1: Preparation

If an appropriate storm is forecast, the APJVT Sampling Coordinator will notify all the Team Leaders from the five sampling teams 12 to 24 hours in advance of the storm's estimated arrival time.

The Team Leaders will then contact their sampling teams, including the staff of the Albany Pool Communities, to be on standby to assemble for wet-weather sampling. Based on the proximity of the sampling locations, it is estimated that there will be four sampling teams required. Each sampling team will be lead by a Team Leader from the APJVT and assisted by personnel from the communities. It is estimated that the sampling teams will require four employees from the communities, whose roles include traffic control, structure access, and sample delivery.

4.2.3. Stage 2: Assembly of Teams

The APJVT Sampling Coordinator will continue to track the storm and when the storm is predicted to reach the Albany Pool Communities area within 2 to 4 hours, the APJVT Sampling Coordinator will immediately contact the Team Leaders and inform them that a sampling event will be initiated.

The APJVT Sampling Coordinator will contact all the Team Leaders who will contact their sampling teams and instruct them to assemble at the designated field station and staging area as soon as possible prior to the storm's predicted arrival. The APJVT Sampling Coordinator will also go to the wet-weather staging area 2 hours prior to the storm.

4.2.4. Stage 3: Initiation of Sampling

Once the sampling teams have assembled at their designated field station and staging areas at least 2 hours prior to the storms predicted arrival, the field teams will mobilize to their locations. The Sampling Coordinator will then monitor the weather both visually and on-line using the field station's real-time weather network link, and as soon as rainfall starts, the APJVT Sampling Coordinator will record the time and inform the Team Leaders that the event has started.

Sample collection will begin at each location at the onset of a CSS overflow. At this stage, all the sampling teams will continue to collect grab samples throughout the duration of the overflow event.

During the activation of a CSS overflow, the approximate sample collection schedule for the CSS sampling teams is as follows:

- Sample 1 CSO activation
- Samples 2 thru 5 – 15-minute intervals up to hour T1
- Samples 6 thru 7 – 30-minute intervals up to hour T2
- Samples 8 thru 10 – 2-hour intervals up to hour T8
- Samples 11 thru 12 - 4-hour intervals up to T16
- Samples 13 thru 14 – 8-hour intervals up to T32
- Sample 15 at T48

The sampling will terminate according to the above schedule or after the CSS overflow ceases. For all events, the crew will remain on-site for at least 2 hours from the activation.

Field measurements using the probe as outlined in section 3.5.2 will be collected based on a different schedule. Since the supply of the probes that will be used to perform the field measurements is limited, the team collecting the samples for transport will have a probe with which they will make the field measurements at each location when they arrive to collect the samples. The schedule for the field measurement parameters will generally coincide with the receiving waster sampling schedule:

- Circuit 1 – pre-storm sample (T-4).
- Circuit 2 – storm event start (T0).
- Circuits 3-6 – four-hour intervals since the storm start (T4 thru T16).
- Circuits 7-10 – eight-hour intervals (T24 and T48).

The exact schedule will be determined during the sampling event based on the discussions between the Sampling Coordinator and Team Leaders.

5. Laboratory Analysis

5.1. Designated Laboratories

Samples will be submitted to a local laboratory for analysis of E. coli and fecal coliform and will be shipped to the selected WBE/MBE laboratory for analysis of the remaining constituents. Final selection of the laboratories is pending.

5.2. Analytical Methods

Table 5-1 details the parameters that will be sampled for and the analytical methods. Once the laboratories have been selected, the same filter type and manufacturer will be specified following a discussion with the laboratories. Laboratory standard operating procedures (SOPs) will be reviewed and checked for consistency. Each lab should provide sufficient range of sample dilutions to accommodate for a potential range of fecal coliform counts from 10 to 1,000,000. In addition, results from 24-hour composite samples currently collected on the influent to all three Albany Pool Community treatment plants (ACSDN, ACSDS, and RCSD) will be considered to help characterize the quality of the waste stream. ACSD and RCSD staff will perform the additional sampling and analytical work for the treatment plant influent. The data that will be collected at the ACSD plants include pH, COD, NH3, TON, TKN, SS, TS, and PO4. The Data that will be collected at he RCSD plant will include suspended solids, CBOD, pH, temperature and settleable solids.

Table 5-1.
Laboratory Analysis Details

Parameter	Method	Holding Time
Fecal Coliform	Membrane Filtration – Standard Method 9222D	6 hours
E. coli	EPA method 1603	6 hours
TSS	EPA method 160.2	7 days
BOD5	EPA method 405.1	48 hours
Total Phosphorus	EPA method 365.2	28 days
Ammonia	EPA method 350.1 or 350.2	28 days
TKN	EPA method 351.2	28 days

Notes: Estimated/anticipated detection limits only – to be confirmed by discussion with selec ted laboratories.

5.3. Laboratory Quality Assurance/Quality Control (QA/QC)

Quality control sample analyses that will be performed during this project to document the acceptability of the data will include:

Equipment Blanks
Method Blanks
Field Blanks
Duplicate Samples

- An equipment blank (rinsate blank) will be collected for each type of sampling device used during sample collection at the field station and staging area immediately prior to initiation of a dry- or wet-weather sampling event. This will be conducted by the APJVT Sampling Coordinator and Team Leaders assembled for a sampling event. Laboratory analyte-free water will be used to prepare an equipment blank by placing the laboratory water into one of each type of sampling device (decontaminated grab sampler, and bucket etc.) and filling one set of sampling bottles per type of sampling device and submitting them for analysis to the laboratory with the other samples.
- The laboratories will prepare and analyze one laboratory reagent blank (method blank) for each set of 20 samples received and whenever samples are processed (extracted, digested etc.) or other appropriate QA/QC as documented in the selected laboratories' Quality Assurance Project Plan (QAPP) and SOPs.
- For each sampling event, duplicate samples will be collected at one monitoring station during the event. The sampling teams must ensure they take extra sets of laboratory sample bottles into the field for collection of these duplicate samples during each event.

All quality control sample analytical results will be reported on standard forms in conjunction with data acceptance criteria. The selected laboratories will submit a detailed Quality Assurance Project Plan for review by the APJVT prior to initiation of the sampling program.

6. Team Quality Assurance Procedures

Several quality assurance procedures will be applied to team activities. These procedures are presented below.

6.1. Field Maintenance Activities and Documentation

Consistent field maintenance activity and documentation is a priority for the team. Prior to the implementation of the sampling program, the following activities will be carried out and documented:

- A site report will be prepared for each sampling location by the APJVT. Each site report will include a map showing the physical location, access and GPS-obtained coordinates. Visual observations of any hydraulic characteristics, safety concerns, and details of equipment installation will also be included on the report. A photograph will also be obtained showing the location of each site and submitted to APJVT in electronic format. A template for the site report will be provided by APJVT.
- All sampling teams will be equipped with a field book by the Team Leader and Sampling Event Summary Sheets from APJVT to document comments and observations at the time the samples are taken.

6.2. Team Training

Team training provides an important quality assurance mechanism for a water quality sampling program of this magnitude. A formal training workshop will be held to ensure that field personnel are comfortable with the sampling procedures. The workshop will be conducted by APJVT Sampling Coordinator, supported by the APJVT. All members of the sampling teams will participate in the workshop. Training topics will include:

- Health and Safety.
- Sampling Protocols.
- Coordination.

7. Data Submission and Reporting

7.1. Format for Submission of Data to Sampling Coordinator

The APJVT will coordinate with the analytical laboratories to ensure proper data transfer. Templates will be provided to the laboratories before the first sampling event to facilitate the transfer. The data will be provided to the APJVT as Excel spreadsheets and will include QA/QC results.

7.2. Data Storage

The APJVT is responsible for final storage of system-wide water quality data, made up of the transmittals from the analytical laboratories. The APJVT members are responsible for transmitting copies of all installation reports, maintenance reports, and sampling field logs and summary sheets to Clough Harbour & Associates (CHA) for inclusion in the project master files.

The turnaround time for the data will be specified with the laboratories that are selected to conduct the laboratory analyses.

8. Program Management

8.1. Responsibilities of the Project Team (Project Organization)

The Albany Pool Communities are responsible for:

- Providing staff and equipment for field sampling teams.

The APJVT is responsible for:

- Acquiring all sampling equipment (except as described above under Albany Pool Communities responsibility), including grab samplers, 500 ml grab sampling bottles, buckets, field books etc.
- Provision of hand held DO, pH, conductivity and temperature probes for in system sampling activities.
- Obtaining pre-labeled sample bottles with preservatives and shipping materials from laboratories.
- Providing a Sampling Coordinator to coordinate sampling activities from the staging area.
- Sample collection and transport to the wet-weather staging area.
- Sample preservation.
- Equipment decontamination between sampling events.
- Proper labeling of all samples.
- Record keeping for the sampling event and sample submission.
- Maintenance and calibration of equipment.
- Coordinating pickup or delivery of samples with the laboratories.
- Compilation and storage of system-wide water quality analytical data.
- Production of the Water Quality Data Summary Report.
- Retrieval and storage of field data.
- Notification to APJVT Sampling Coordinator should problems arise, field equipment malfunction, or other issues arise that may affect the water quality sampling effort.

8.2. Variation from the Plan

During implementation of this Plan, should the location of any sampling point require to be altered due to unanticipated conditions in the field, the APJVT Sampling Coordinator

must be notified as soon as practical. All sampling locations must be agreed to by the APJVT members prior to sample collection.

Should any other modifications to this Plan be required through unanticipated field conditions or other events, the APJVT Sampling Coordinator must be notified immediately. Contact details are provided in Attachment 5.

Wet-weather CSS wastewater quality sampling in a system as complex as the Albany Pool Community is an iterative process. If data obtained from one or more completed sampling events suggest a benefit from changing any sampling protocol defined in this Plan, the Albany Pool Communities may choose to make such a change. Similarly, should physical constraints to sampling or constraints in laboratory capabilities for dealing with such a large quantity of samplers be encountered, this Plan may be modified. Any such change will be documented, with justification, in an Addendum to this Plan.

Changes from the protocol described herein will be pre-approved to the extent possible with the NYSDEC.

ATTACHMENT 1

Sampling Event Summary Sheet

Attachment 1 - Sampling Event Summary Sheet

Initials: Page ___ of ____
Project:
Sampling Team:
Date:
Weather:
Temperature:

Sampling Location	Time	Field Parameter	Measurement	Comments
		DO		
		temperature		
		conductivity		
		pH		
		DO		
		temperature		
		conductivity		
		pH		
		DO		
		temperature		
		conductivity		
		pH		
		DO		
		temperature		
		conductivity		
		pH		

ATTACHMENT 2

Sample Labeling

Attachment 2 – Sample Labeling

1.0 Introduction

This guideline presents a method for sample labeling in order to properly identify environmental samples collected during the field investigation.

2.0 Methodology

1. Assign each sample of each matrix a unique identification alpha-numeric code.
2. Affix a non-removable (when wet) label to each sample container. The following information should be written on the label with permanent marker:

    - Site name
    - Sample identification
    - Project number
    - Date/time of sample collection (month, day, year)
    - Sampler's initials
    - Sample preservation
    - Analysis required

3. Wrap the label with 2-inch cellophane tape such that the label is completely covered and the tape wraps around the entire perimeter of the bottle.

3.0 Sample Designation

A sample numbering system will be used to identify each sample. The sample identifications for the four sample locations will consist of 2 designations as described below.

- **Sample Location:**
    - At Little C regulator: AN
    - At Big C regulator: AS
    - Cross Street (Outfall 045) regulator: RT
    - Broadway (Outfall 006) regulator: RR
- **Date:** Since samples will be collected at the same locations over several sampling events, the date and time of each sample will be part of the sample designation.

An example sample designation is listed below:

AN (7/14/08 14:30): Sample collected at sampling location AN on July 14, 2008 at 2:30 pm.

ATTACHMENT 3

Chain-of-Custody Form

MALCOLM PIRNIE

CHAIN OF CUSTODY RECORD

Page ___ of ___

518-786-7349
fax: 518-786-8645

MALCOLM PIRNIE, INC.
15 CORNELL ROAD
LATHAM, NEW YORK 12110
http://www.pirnie.com

CLIENT: Malcolm Pirnie, Inc.

PROJECT: Hudson River Water Quality

PROJECT NUMBER: 4570017

LABORATORY: St. Peter Bender Labs

LAB CONTACT: John Wilson

SPECIAL INSTRUCTIONS:

LAB ID	SAMPLE ID/ DESCRIPTION	DATE	TIME	MATRIX	GRAB/ COMPOSITE	No. of Cont.	ANALYSIS REQUIRED	NOTES / PRESERVATIVE
	HR-5-EB-(10/16/03)	10/16		SW	GRAB	2	100 ml Sterile Volume Total/Fecal Coliform	Sodium Thiosulfate
	HR-5-RC-(10/16/03)	10/16		SW	GRAB	2	500 ml Nalgene Total Suspended Solids	
	HR-5-WB-(10/16/03)	10/16		SW	GRAB	2	(SAME FOR ALL)	
	HR-6-EB-(10/16/03)	10/16		SW	GRAB	2		
	HR-6-RC-(10/16/03)	10/16		SW	GRAB	2		
	HR-6-WB-(10/16/03)	10/16		SW	GRAB	2		
	HR-7-EB-(10/16/03)	10/16		SW	GRAB	2		
	HR-7-RC-(10/16/03)	10/16		SW	GRAB	2		
	HR-7-WB-(10/16/03)	10/16		SW	GRAB	2		

Matrix Identification:

S - SOIL	SL - SLUDGE	SW - SURFACE WATER	DS - DRUM SOLID
SE- SEDIMENT	DW - DRINKING WATER	L - LEACHATE	DL - DRUM LIQUIDS
SO - SOLID	GW - GROUND WATER	A - AIR	X - OTHER
	O - OIL	WI - WIPE	WW - WASTE WATER

LAB USE ONLY

SAMPLED BY (SINGATURE):	DATE/TIME	RECEIVED BY (SIGNATURE):	DATE/TIME:
RELINQUISHED BY (SIGNATURE):	DATE/TIME	RECEIVED BY (SIGNATURE):	DATE/TIME:
RELINQUISHED BY (SIGNATURE):	DATE/TIME	RECEIVED BY (SIGNATURE):	DATE/TIME:
METHOD OF SHIPMENT:	DATE/TIME	LAB USE ONLY:	
RECEIVED AT LABORATORY:	DATE/TIME		

MALCOLM PIRNIE

CHAIN OF CUSTODY RECORD

Page ___ of ___

518-782-2100
fax: 518-782-0500

MALCOLM PIRNIE, INC.
43 British American Blvd
LATHAM, NEW YORK 12110
http://www.pirnie.com

CLIENT: _____

PROJECT: _____

PROJECT NUMBER: _____

LABORATORY: _____

LAB CONTACT: 0

SPECIAL INSTRUCTIONS:

LAB ID	SAMPLE ID/ DESCRIPTION	DATE	TIME	MATRIX	GRAB/ COMPOSITE	No. of Cont.	ANALYSIS REQUIRED	NOTES / PRESERVATIVE

Matrix Identification:

S - SOIL	**SL - SLUDGE**	**SW - SURFACE WATER**	**DS - DRUM SOLID**
SE- SEDIMENT	**DW - DRINKING WATER**	**L - LEACHATE**	**DL - DRUM LIQUIDS**
SO - SOLID	**GW - GROUND WATER**	**A - AIR**	**X - OTHER**
	O - OIL	**WI - WIPE**	**WW - WASTE WATER**

LAB USE ONLY

SAMPLED BY (SINGATURE):	DATE/TIME	RECEIVED BY (SIGNATURE):	DATE/TIME:
RELINQUISHED BY (SIGNATURE):	DATE/TIME	RECEIVED BY (SIGNATURE):	DATE/TIME:
RELINQUISHED BY (SIGNATURE):	DATE/TIME	RECEIVED BY (SIGNATURE):	DATE/TIME:
METHOD OF SHIPMENT:	DATE/TIME	LAB USE ONLY:	
RECEIVED AT LABORATORY:	DATE/TIME		

ATTACHMENT 4

Sampling Equipment Decontamination

Attachment 4 – Sampling Equipment Decontamination

1.0 INTRODUCTION

This guideline presents a method for the decontamination of sampling equipment used in the collection of environmental samples.

2.0 HEALTH AND SAFETY

Nitric acid is a strong oxidizing agent as well as being extremely corrosive to the skin and eyes. Solvents such as acetone, methanol, hexane, and isopropanol are flammable liquids. Limited contact with skin can cause irritation, while prolonged contact may result in dermatitis. Eye contact with the solvents may cause irritation or temporary corneal damage. Safety glasses with protective side shields, neoprene or nitrile gloves, and long-sleeve protective clothing must be worn whenever acids and solvents are being used.

3.0 METHODOLOGY

(4) All equipment used in sampling must be clean and free from residue of any previous samples. To accomplish this, the following procedures are to be followed:

a. wash equipment thoroughly with non-phosphate detergent and tap water[(1)] using a brush to remove any particulate matter or surface film;

b. rinse with tap water[(1)];

c. rinse with a 10% HNO_3 solution[(2)];

d. rinse with tap water[(1)];

e. rinse with pesticide grade acetone[(3)] or methanol[(3)];

f. rinse with pesticide grade-hexane[(3)];

g. rinse with deionized water (demonstrated-analyte-free)[(3)];

h. air dry; and

i. wrap in aluminum foil (shiny side out)

(4) Well evacuation equipment, such as submersible pumps and bailers, which are put into the borehole must be decontaminated following the procedures listed above. All evacuation tubing must be dedicated to individual wells, (i.e., tubing cannot be reused).

(4) Bailer cord must be cleaned with non-phosphate detergent and demonstrated analyte-free deionized water before use. Cord can be reused; it is not necessary to dedicate it to individual wells. If a ten (10) foot or greater length leader is being used, only the leader need be cleaned (assumes bailer cord is not allowed to contact water).

(4) All unused sample bottles and sampling equipment must be maintained in such a manner that there is no possibility of casual contamination.

4.0 EQUIPMENT REQUIREMENTS

- personal protective garment and gear
- brush, buckets, and wash basins
- squirt bottles
- supply of solvents and water
- aluminum foil

5.0 REFERENCES

New York State Department of Environmental Conservation, Division of Hazardous Substances Regulation, August 1989, RCRA Quality Assurance Project Plan Guidance.

Engineering Support Branch Standard Operating Procedures and Quality Assurance Manual, April 1, 1986. USEPA Region IV.

NOTES

(1) Tap water may be used from any municipal water treatment system. The use of an untreated potable water supply is not an acceptable substitute.

(2) Omit this step if metals are not being analyzed. For carbon steel split spoon samplers, a 1% rather than 10% HNO_3 solution should be used.

(3) This solvent rinse can be omitted if organics are not being analyzed. Alternatively, if approval from NYSDEC has been granted, use pesticide grade isopropanol as the cleaning solvent. Isopropanol is better suited as a cleaning solvent than acetone, methanol and hexane for the following reasons:

- Acetone is a parameter analyzed for on the Target Compound List (TCL); therefore the detection of acetone in samples collected using acetone rinsed equipment is suspect;

- Almost all grades of methanol contain 2-butanone (MEK) contamination. As for acetone, 2-butanone is a TCL compound. Thus, the detection of 2-butanone in samples collected using methanol rinsed equipment is suspect. In addition, methanol is much more hazardous than either isopropanol or acetone.

- Hexane is not miscible with water (hydrophobic) and therefore, is not an effective rinsing agent unless the sampling equipment is dry. Isopropanol is extremely miscible in water (amphoteric), making it an effective rinsing agent on either wet or dry equipment.

(4) Deionized water must be demonstrated to be analyte-free water. The criteria for analyte-free water are the Method Detection Limits (MDLs) for the analytes. Specifically for the common laboratory contaminants listed below, the allowable limits are set at three times the respective MDLs determined by the most sensitive analytical method:

1. Methylene Chloride
2. Acetone
3. Toluene
4. 2-Butanone
5. Phthalates

ATTACHMENT 5

APJVT Contact Details

Attachment 5 - Albany Pool Joint Venture Team Contact Details

Malcolm Pirnie
43 British American Blvd
Latham, NY 12110
Phone: (518) 782-2100
Fax: (518) 782-0500

Receiving Water Project Manager:	Greg Daviero Phone: (518) 782-2136 Email: gdaviero@pirnie.com
Sampling Coordinator:	Laura Zima Phone: (518) 782-2158 Email: lzima@pirnie.com
Team Leader:	TBD

Camp Dresser & McKee
15 Cornell Road
Latham, NY 12110
Phone: (518) 266-9620
Fax:

Team Leader:	TBD
Team Leader:	TBD

Clough Harbour & Associates
III Winners Circle
P.O. Box 5269
Albany, NY 12205-0269
Phone: (518) 453-4500
Fax: (518) 458-1735

Team Leader:	TBD
Team Leader:	TBD

ATTACHMENT 6

Block Testing Data

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Date: **9/14/07 - 9/17/07** Precipitation Reported by NOAA at UAlbany **.27 inches** Inspector Initials KBagley

Regulator/Dam	Time	Block Dislodged?	Estimated Maximum Depth of Flow Over Weir (based	Width of Dam	Height of Dam	Picture Number
Tivoli	8:00	N	XX	**61"**	**28"**	**1**
Thatcher	8:12	Y	2"	**10"**	**5"**	**2**
Livingston	8:24	Y	16"	**18"**	**14"**	**3**
Jackson	8:36	Y	8"	**68"**	**4"**	**4**
Quackenbush	8:48	Y	14"	**56"**	**20"**	**5**
Orange	9:00	Y	18"	**32"**	**10"**	**6**
Steuben	9:12	Y	2"	**16"**	**7"**	**7**
Maiden	9:24	Y	2"	**16"**	**6"**	**8**
State	9:36	Y	18"	**34"**	**7"**	**9**
Division	9:48	Y	2"	**10"**	**5"**	**10**
Liberty	10:00	N	XX	**14"**	**10"**	**11**
Madison	10:12	Y	4"	**12"**	**20"**	**12**
Ferry	10:24	Y	7"	**8"**	**7"**	**13**
Arch						**14**
4-4A	****	****	****	*****	*****	****
Rennselaer	10:36	Y	1"	**174"**	**18"**	**15**
Schyler	10:48	N	XX	**23"**	**9"**	**16**
Gansvort	11:00	Y	4"	**22"**	**10"**	**17**
Bouch	11:12	Y	5"	**90"**	**5"**	**18**
S. Swan	11:24	N	XX	**35"**	**12"**	**19**
Hamilton	11:36	N	XX	**26"**	**7"**	**20**
Saratoga	11:48	Y	13"	**18"**	**4"**	**21**
Duncan (012)						**22**
Mohawk (007)	12:00	N	XX	**49"**	**14"**	**23**
Little C (008)	12:12	N	XX	**122"**	**20"**	**24**
14th	12:24	N	XX	**34"**	**6"**	**25**
7th	12:36	Y	5"	**36"**	**5"**	**26**
6th	12:48	Y	4"	**23"**	**5"**	**27**
3rd	1:00	Y	5"	**23"**	**5"**	**28**

Albany
Green Island
Cohoes
Watervliet

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Date: **9/17/07 - 9/24/07** Precipitation Reported by NOAA at UAlbany **.07 inches** Inspector Initials Tmarsolais

Regulator/Dam	Time	Block Dislodged? (Y/N)	Estimated Maximum Depth of Flow Over Weir (based on chalk mark)	Width of Dam	Height of Dam	Picture Number
Tivoli	8:00	N		**61"**	**28"**	**1**
Thatcher	8:12	N		**10"**	**5"**	**2**
Livingston	8:24	N		**18"**	**14"**	**3**
Jackson	8:36	N		**68"**	**4"**	**4**
Quackenbush	8:48	N		**56"**	**20"**	**5**
Orange	9:00	N		**32"**	**10"**	**6**
Steuben	9:12	N		**16"**	**7"**	**7**
Maiden	9:24	N		**16"**	**6"**	**8**
State	9:36	N		**34"**	**7"**	**9**
Division	9:48	N		**10"**	**5"**	**10**
Liberty	10:00	N		**14"**	**10"**	**11**
Madison	10:12	N		**12"**	**20"**	**12**
Ferry	10:24	N		**8"**	**7"**	**13**
Arch				*****	*****	**14**
4-4A	****	****	****	*****	*****	****
Rennselaer	10:36	N		**174"**	**18"**	**15**
Schyler	10:48	N		**23"**	**9"**	**16**
Gansvort	11:00	N		**22"**	**10"**	**17**
Bouch	11:12	N		**90"**	**5"**	**18**
S. Swan	11:24	N		**35"**	**12"**	**19**
Hamilton	11:36	N		**26"**	**7"**	**20**
Saratoga	11:48	N		**18"**	**4"**	**21**
Duncan (012)						**22**
Mohawk (007)	12:00	N		**49"**	**14"**	**23**
Little C (008)	12:12	N		**122"**	**20"**	**24**
14th	12:24	N		**34"**	**6"**	**25**
7th	12:36	N		**36"**	**5"**	**26**
6th	12:48	N		**23"**	**5"**	**27**
3rd	1:00	N		**23"**	**5"**	**28**

Albany
Green Island
Cohoes
Watervliet

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Date: **9/24/2007 - 10/1/2007** Precipitation Reported by NOAA at UAlbany **.21 inches** Inspector Initials TMarsolais

Regulator/Dam	Time	Block Dislodged? (Y/N)	Estimated Maximum Depth of Flow Over Weir (based on chalk mark)	Width of Dam	Height of Dam	Picture Number
Tivoli	8:00	Y	4"	**61"**	**28"**	**1**
Thatcher	8:12	Y	6"	**10"**	**5"**	**2**
Livingston	8:24	Y	28"	**18"**	**14"**	**3**
Jackson	8:36	Y	16"	**68"**	**4"**	**4**
Quackenbush	8:48	Y	36"	**56"**	**20"**	**5**
Orange	9:00	Y	30"	**32"**	**10"**	**6**
Steuben	9:12	Y	12"	**16"**	**7"**	**7**
Maiden	9:24	Y	24"	**16"**	**6"**	**8**
State	9:36	Y	30"	**34"**	**7"**	**9**
Division	9:48	Y	12"	**10"**	**5"**	**10**
Liberty	10:00	Y	12"	**14"**	**10"**	**11**
Madison	10:12	Y	20"	**12"**	**20"**	**12**
Ferry	10:24	Y	14"	**8"**	**7"**	**13**
Arch				*****	*****	**14**
4-4A	****	****	****	*****	*****	****
Rennselaer	10:36	Y	1"	**174"**	**18"**	**15**
Schyler	10:48	Y	22"	**23"**	**9"**	**16**
Gansvort	11:00	Y	16"	**22"**	**10"**	**17**
Bouch	11:12	Y	15"	**90"**	**5"**	**18**
S. Swan	11:24	N	XX	**35"**	**12"**	**19**
Hamilton	11:36	N	XX	**26"**	**7"**	**20**
Saratoga	11:48	N	XX	**18"**	**4"**	**21**
Duncan (012)						**22**
Mohawk (007)	12:00	N	0"	**49"**	**14"**	**23**
Little C (008)	12:12	N	XX	**122"**	**20"**	**24**
14th	12:24	N	XX	**34"**	**6"**	**25**
7th	12:36	Y	13"	**36"**	**5"**	**26**
6th	12:48	Y	15"	**23"**	**5"**	**27**
3rd	1:00	Y	12"	**23"**	**5"**	**28**

Albany
Green Island
Cohoes
Watervliet

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Date: **10/1/07 - 10/9/07** Precipitation Reported by NOAA at UAlbany **.69 inches** Inspector Initials Tmarsolais

Regulator/Dam	Time	Block Dislodged? (Y/N)	Estimated Maximum Depth of Flow Over Weir (based on chalk mark)	Width of Dam	Height of Dam	Picture Number
Tivoli	8:00	Y	10"	**61"**	**28"**	**1**
Thatcher	8:12	Y	30"	**10"**	**5"**	**2**
Livingston	8:24	Y	16"	**18"**	**14"**	**3**
Jackson	8:36	Y	8"	**68"**	**4"**	**4**
Quackenbush	8:48	Y	35"	**56"**	**20"**	**5**
Orange	9:00	Y	32"	**32"**	**10"**	**6**
Steuben	9:12	Y	14"	**16"**	**7"**	**7**
Maiden	9:24	Y	32"	**16"**	**6"**	**8**
State	9:36	Y	36"	**34"**	**7"**	**9**
Division	9:48	Y	16"	**10"**	**5"**	**10**
Liberty	10:00	Y	16"	**14"**	**10"**	**11**
Madison	10:12	Y	18"	**12"**	**20"**	**12**
Ferry	10:24	Y	6"	**8"**	**7"**	**13**
Arch				*****	*****	**14**
4-4A	****	****	****	*****	*****	****
Rennselaer	10:36	Y	1"	**174"**	**18"**	**15**
Schyler	10:48	Y	20"	**23"**	**9"**	**16**
Gansvort	11:00	Y	12"	**22"**	**10"**	**17**
Bouch	11:12	Y	5"	**90"**	**5"**	**18**
S. Swan	11:24	Y	11"	**35"**	**12"**	**19**
Hamilton	11:36	Y	12"	**26"**	**7"**	**20**
Saratoga	11:48	Y	22"	**18"**	**4"**	**21**
Duncan (012)						**22**
Mohawk (007)	12:00	Y	7"	**49"**	**14"**	**23**
Little C (008)	12:12	N	XX	**122"**	**20"**	**24**
14th	12:24	Y	5"	**34"**	**6"**	**25**
7th	12:36	Y	5"	**36"**	**5"**	**26**
6th	12:48	Y	4"	**23"**	**5"**	**27**
3rd	1:00	Y	5"	**23"**	**5"**	**28**

Albany
Green Island
Cohoes
Watervliet

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Date: **10/9/07 - 10/10/07** Precipitation Reported by NOAA at UAlbany **.38 inches** Inspector Initials Tmarsolais

Regulator/Dam	Time	Block Dislodged? (Y/N)	Estimated Maximum Depth of Flow Over Weir (based on chalk mark)	Width of Dam	Height of Dam	Picture Number
Tivoli	8:00	Y	4"	**61"**	**28"**	**1**
Thatcher	8:12	Y	32"	**10"**	**5"**	**2**
Livingston	8:24	Y	8"	**18"**	**14"**	**3**
Jackson	8:36	Y	14"	**68"**	**4"**	**4**
Quackenbush	8:48	Y	18"	**56"**	**20"**	**5**
Orange	9:00	Y	14"	**32"**	**10"**	**6**
Steuben	9:12	Y	6"	**16"**	**7"**	**7**
Maiden	9:24	Y	4"	**16"**	**6"**	**8**
State	9:36	Y	14"	**34"**	**7"**	**9**
Division	9:48	Y	15"	**10"**	**5"**	**10**
Liberty	10:00	Y	26"	**14"**	**10"**	**11**
Madison	10:12	Y	16"	**12"**	**20"**	**12**
Ferry	10:24	Y	3"	**8"**	**7"**	**13**
Arch			XX	*****	*****	**14**
4-4A	****	****	****	*****	*****	****
Rennselaer	10:36	Y	1"	**174"**	**18"**	**15**
Schyler	10:48	Y	20"	**23"**	**9"**	**16**
Gansvort	11:00	Y	12"	**22"**	**10"**	**17**
Bouch	11:12	Y	5"	**90"**	**5"**	**18**
S. Swan	11:24	Y	3"	**35"**	**12"**	**19**
Hamilton	11:36	Y	3"	**26"**	**7"**	**20**
Saratoga	11:48	Y	7"	**18"**	**4"**	**21**
Duncan (012)			XX			**22**
Mohawk (007)	12:00	Y	9"	**49"**	**14"**	**23**
Little C (008)	12:12	N	XX	**122"**	**20"**	**24**
14th	12:24	Y	1"	**34"**	**6"**	**25**
7th	12:36	Y	4"	**36"**	**5"**	**26**
6th	12:48	Y	6"	**23"**	**5"**	**27**
3rd	1:00	Y	5"	**23"**	**5"**	**28**

Albany
Green Island
Cohoes
Watervliet

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Date: **10/10/07 - 10/15/07** Precipitation Reported by NOAA at UAlbany **.97 inches** Inspector Initials Tmarsolais

Regulator/Dam	Time	Block Dislodged? (Y/N)	Estimated Maximum Depth of Flow Over Weir (based on chalk mark)	Width of Dam	Height of Dam	Picture Number
Tivoli	8:00	Y	3"	**61"**	**28"**	**1**
Thatcher	8:12	Y	32"	**10"**	**5"**	**2**
Livingston	8:24	Y	12"	**18"**	**14"**	**3**
Jackson	8:36	Y	17"	**68"**	**4"**	**4**
Quackenbush	8:48	Y	17"	**56"**	**20"**	**5**
Orange	9:00	Y	17"	**32"**	**10"**	**6**
Steuben	9:12	Y	9"	**16"**	**7"**	**7**
Maiden	9:24	Y	34"	**16"**	**6"**	**8**
State	9:36	Y	19"	**34"**	**7"**	**9**
Division	9:48	Y	16"	**10"**	**5"**	**10**
Liberty	10:00	Y	15"	**14"**	**10"**	**11**
Madison	10:12	Y	15"	**12"**	**20"**	**12**
Ferry	10:24	Y	4"	**8"**	**7"**	**13**
Arch				*****	*****	**14**
4-4A	****	****	****	*****	*****	****
Rennselaer	10:36	Y	1"	**174"**	**18"**	**15**
Schyler	10:48	Y	21"	**23"**	**9"**	**16**
Gansvort	11:00	Y	16"	**22"**	**10"**	**17**
Bouch	11:12	Y	7"	**90"**	**5"**	**18**
S. Swan	11:24	Y	6"	**35"**	**12"**	**19**
Hamilton	11:36	Y	4"	**26"**	**7"**	**20**
Saratoga	11:48	Y	6"	**18"**	**4"**	**21**
Duncan (012)						**22**
Mohawk (007)	12:12	Y	3"	**49"**	**14"**	**23**
Little C (008)	12:24	Y	14"	**122"**	**20"**	**24**
14th	12:36	Y	3"	**34"**	**6"**	**25**
7th	12:48	Y	2"	**36"**	**5"**	**26**
6th	1:00	Y	8"	**23"**	**5"**	**27**
3rd	1:12	Y	5"	**23"**	**5"**	**28**

Albany
Green Island
Cohoes
Watervliet

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Date: **10/15/07 - 10/22/07** Precipitation Reported by NOAA at UAlbany **1.07 inches** Inspector Initials Tmarsolais

Regulator/Dam	Time	Block Dislodged? (Y/N)	Estimated Maximum Depth of Flow Over Weir (based on chalk mark)	Width of Dam	Height of Dam	Picture Number
Tivoli	8:00	Y	9"	**61"**	**28"**	**1**
Thatcher	8:12	Y	36"	**10"**	**5"**	**2**
Livingston	8:24	Y	45"	**18"**	**14"**	**3**
Jackson	8:36	Y	25"	**68"**	**4"**	**4**
Quackenbush	8:48	Y	42"	**56"**	**20"**	**5**
Orange	9:00	Y	30"	**32"**	**10"**	**6**
Steuben	9:12	Y	16"	**16"**	**7"**	**7**
Maiden	9:24	Y	36"	**16"**	**6"**	**8**
State	9:36	Y	35"	**34"**	**7"**	**9**
Division	9:48	Y	34"	**10"**	**5"**	**10**
Liberty	10:00	Y	30"	**14"**	**10"**	**11**
Madison	10:12	Y	27"	**12"**	**20"**	**12**
Ferry	10:24	Y	24"	**8"**	**7"**	**13**
Arch				*****	*****	**14**
4-4A	****	****	****	*****	*****	****
Rennselaer	10:36	Y	6"	**174"**	**18"**	**15**
Schyler	10:48	Y	36"	**23"**	**9"**	**16**
Gansvort	11:00	Y	27"	**22"**	**10"**	**17**
Bouch	11:12	Y	44"	**90"**	**5"**	**18**
S. Swan	11:24	Y	25"	**35"**	**12"**	**19**
Hamilton	11:36	Y	22"	**26"**	**7"**	**20**
Saratoga	11:48	Y	20"	**18"**	**4"**	**21**
Duncan (012)	12:00	Y	20"	**24"**	**18"**	**22**
Mohawk (007)	12:12	Y	13"	**49"**	**14"**	**23**
Little C (008)	12:24	Y	8"	**122"**	**20"**	**24**
14th	12:36	Y	15"	**34"**	**6"**	**25**
7th	12:48	Y	22"	**36"**	**5"**	**26**
6th	1:00	Y	26"	**23"**	**5"**	**27**
3rd	1:12	Y	12"	**23"**	**5"**	**28**

Albany
Green Island
Cohoes
Watervliet

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Date: **10/22/07 - 10/26/07** Precipitation Reported by NOAA at UAlbany **.21 inches** Inspector Initials Tmarsolais

Regulator/Dam	Time	Block Dislodged? (Y/N)	Estimated Maximum Depth of Flow Over Weir (based on chalk mark)	Width of Dam	Height of Dam	Picture Number
Tivoli	8:00	N		**61"**	**28"**	**1**
Thatcher	8:12	Y	2"	**10"**	**5"**	**2**
Livingston	8:24	N		**18"**	**14"**	**3**
Jackson	8:36	N		**68"**	**4"**	**4**
Quackenbush	8:48	Y	15"	**56"**	**20"**	**5**
Orange	9:00	Y	12"	**32"**	**10"**	**6**
Steuben	9:12	N		**16"**	**7"**	**7**
Maiden	9:24	Y	3"	**16"**	**6"**	**8**
State	9:36	Y	13"	**34"**	**7"**	**9**
Division	9:48	N		**10"**	**5"**	**10**
Liberty	10:00	N		**14"**	**10"**	**11**
Madison	10:12	N		**12"**	**20"**	**12**
Ferry	10:24	Y	2"	**8"**	**7"**	**13**
Arch				*****	*****	**14**
4-4A	****	****	****	*****	*****	****
Rennselaer	10:36	Y	5"	**174"**	**18"**	**15**
Schyler	10:48	Y	16"	**23"**	**9"**	**16**
Gansvort	11:00	Y	3"	**22"**	**10"**	**17**
Bouch	11:12	Y	12"	**90"**	**5"**	**18**
S. Swan	11:24	Y	4"	**35"**	**12"**	**19**
Hamilton	11:36	Y	4"	**26"**	**7"**	**20**
Saratoga	11:48	Y	13"	**18"**	**4"**	**21**
Duncan (012)	12:00	N		**24"**	**18"**	**22**
Mohawk (007)	12:12	N		**49"**	**14"**	**23**
Little C (008)	12:24	N		**122"**	**20"**	**24**
14th	12:36	N		**34"**	**6"**	**25**
7th	12:48	N		**36"**	**5"**	**26**
6th	1:00	Y	2"	**23"**	**5"**	**27**
3rd	1:12	N		**23"**	**5"**	**28**

Albany
Green Island
Cohoes
Watervliet

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Date: **10/27/07 - 10/31/07** Precipitation Reported by NOAA at UAlbany **1.94 inches** Inspector Initials Tmarsolais

Regulator/Dam	Time	Block Dislodged? (Y/N)	Estimated Maximum Depth of Flow Over Weir (based on chalk mark)	Width of Dam	Height of Dam	Picture Number
Tivoli	8:00	Y	7"	**61"**	**28"**	**1**
Thatcher	8:12	Y	40"	**10"**	**5"**	**2**
Livingston	8:24	Y	20"	**18"**	**14"**	**3**
Jackson	8:36	Y	32"	**68"**	**4"**	**4**
Quackenbush	8:48	Y	36"	**56"**	**20"**	**5**
Orange	9:00	Y	35"	**32"**	**10"**	**6**
Steuben	9:12	Y	24"	**16"**	**7"**	**7**
Maiden	9:24	Y	36"	**16"**	**6"**	**8**
State	9:36	Y	20"	**34"**	**7"**	**9**
Division	9:48	Y	18"	**10"**	**5"**	**10**
Liberty	10:00	Y	29"	**14"**	**10"**	**11**
Madison	10:12	Y	24"	**12"**	**20"**	**12**
Ferry	10:24	Y	27"	**8"**	**7"**	**13**
Arch				*****	*****	**14**
4-4A	****	****	****	*****	*****	****
Rennselaer	10:36	Y	5"	**174"**	**18"**	**15**
Schyler	10:48	Y	28"	**23"**	**9"**	**16**
Gansvort	11:00	Y	20"	**22"**	**10"**	**17**
Bouch	11:12	Y	44"	**90"**	**5"**	**18**
S. Swan	11:24	Y	17"	**35"**	**12"**	**19**
Hamilton	11:36	Y	35"	**26"**	**7"**	**20**
Saratoga	11:48	Y	27"	**18"**	**4"**	**21**
Duncan (012)	12:00	Y	14"	**24"**	**18"**	**22**
Mohawk (007)	12:12	Y	20"	**49"**	**14"**	**23**
Little C (008)	12:24	Y	19"	**122"**	**20"**	**24**
14th	12:36	Y	13"	**34"**	**6"**	**25**
7th	12:48	Y	12"	**36"**	**5"**	**26**
6th	1:00	Y	18"	**23"**	**5"**	**27**
3rd	1:12	Y	13"	**23"**	**5"**	**28**

Albany
Green Island
Cohoes
Watervliet

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Date: **11/01/07 - 11/07/07** Precipitation Reported by NOAA at UAlbany **.25 inches** Inspector Initials Tmarsolais

Regulator/Dam	Time	Block Dislodged? (Y/N)	Estimated Maximum Depth of Flow Over Weir (based on chalk mark)	Width of Dam	Height of Dam	Picture Number
Tivoli	8:00	N		**61"**	**28"**	**1**
Thatcher	8:12	N		**10"**	**5"**	**2**
Livingston	8:24	N		**18"**	**14"**	**3**
Jackson	8:36	N		**68"**	**4"**	**4**
Quackenbush	8:48	N		**56"**	**20"**	**5**
Orange	9:00	N		**32"**	**10"**	**6**
Steuben	9:12	N		**16"**	**7"**	**7**
Maiden	9:24	Y	2"	**16"**	**6"**	**8**
State	9:36	N		**34"**	**7"**	**9**
Division	9:48	N		**10"**	**5"**	**10**
Liberty	10:00	N		**14"**	**10"**	**11**
Madison	10:12	N		**12"**	**20"**	**12**
Ferry	10:24	N		**8"**	**7"**	**13**
Arch				*****	*****	**14**
4-4A	****	****	****	*****	*****	****
Rennselaer	10:36	N		**174"**	**18"**	**15**
Schyler	10:48	Y	3"	**23"**	**9"**	**16**
Gansvort	11:00	Y	2"	**22"**	**10"**	**17**
Bouch	11:12	Y	2"	**90"**	**5"**	**18**
S. Swan	11:24	Y	3"	**35"**	**12"**	**19**
Hamilton	11:36	Y	2'	**26"**	**7"**	**20**
Saratoga	11:48	Y	4"	**18"**	**4"**	**21**
Duncan (012)	12:00	N		**24"**	**18"**	**22**
Mohawk (007)	12:12	N		**49"**	**14"**	**23**
Little C (008)	12:24	N		**122"**	**20"**	**24**
14th	12:36	N		**34"**	**6"**	**25**
7th	12:48	N		**36"**	**5"**	**26**
6th	1:00	N		**23"**	**5"**	**27**
3rd	1:12	N		**23"**	**5"**	**28**

Albany
Green Island
Cohoes
Watervliet

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Date: **11/07/07 - 11/14/07** Precipitation Reported by NOAA at UAlbany **.15 inches** Inspector Initials Tmarsolais

Regulator/Dam	Time	Block Dislodged? (Y/N)	Estimated Maximum Depth of Flow Over Weir (based on chalk mark)	Width of Dam	Height of Dam	Picture Number
Tivoli	8:00	N		**61"**	**28"**	**1**
Thatcher	8:12	Y	4"	**10"**	**5"**	**2**
Livingston	8:24	N		**18"**	**14"**	**3**
Jackson	8:36	N		**68"**	**4"**	**4**
Quackenbush	8:48	N		**56"**	**20"**	**5**
Orange	9:00	N		**32"**	**10"**	**6**
Steuben	9:12	N		**16"**	**7"**	**7**
Maiden	9:24	Y	1"	**16"**	**6"**	**8**
State	9:36	Y	2"	**34"**	**7"**	**9**
Division	9:48	N		**10"**	**5"**	**10**
Liberty	10:00	N		**14"**	**10"**	**11**
Madison	10:12	N		**12"**	**20"**	**12**
Ferry	10:24	Y	1"	**8"**	**7"**	**13**
Arch				*****	*****	**14**
4-4A	****	****	****	*****	*****	****
Rennselaer	10:36	N		**174"**	**18"**	**15**
Schyler	10:48	N		**23"**	**9"**	**16**
Gansvort	11:00	Y	1"	**22"**	**10"**	**17**
Bouch	11:12	Y	1"	**90"**	**5"**	**18**
S. Swan	11:24	N		**35"**	**12"**	**19**
Hamilton	11:36	N		**26"**	**7"**	**20**
Saratoga	11:48	N		**18"**	**4"**	**21**
Duncan (012)	12:00	N		**24"**	**18"**	**22**
Mohawk (007)	12:12	N		**49"**	**14"**	**23**
Little C (008)	12:24	N		**122"**	**20"**	**24**
14th	12:36	N		**34"**	**6"**	**25**
7th	12:48	N		**36"**	**5"**	**26**
6th	1:00	N		**23"**	**5"**	**27**
3rd	1:12	N		**23"**	**5"**	**28**

Albany
Green Island
Cohoes
Watervliet

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Date: **11/15/07 - 11/19/07** Precipitation Reported by NOAA at UAlbany **1.48 inches** Inspector Initials Tmarsolais

Regulator/Dam	Time	Block Dislodged? (Y/N)	Estimated Maximum Depth of Flow Over Weir (based on chalk mark)	Width of Dam	Height of Dam	Picture Number
Tivoli	8:00	Y	3"	**61"**	**28"**	**1**
Thatcher	8:12	Y	42"	**10"**	**5"**	**2**
Livingston	8:24	Y	3"	**18"**	**14"**	**3**
Jackson	8:36	Y	10"	**68"**	**4"**	**4**
Quackenbush	8:48	Y	14"	**56"**	**20"**	**5**
Orange	9:00	Y	16"	**32"**	**10"**	**6**
Steuben	9:12	Y	26"	**16"**	**7"**	**7**
Maiden	9:24	Y	33"	**16"**	**6"**	**8**
State	9:36	Y	22"	**34"**	**7"**	**9**
Division	9:48	Y	15"	**10"**	**5"**	**10**
Liberty	10:00	Y	13"	**14"**	**10"**	**11**
Madison	10:12	Y	14"	**12"**	**20"**	**12**
Ferry	10:24	Y	4"	**8"**	**7"**	**13**
Arch				*****	*****	**14**
4-4A	****	****	****	*****	*****	****
Rennselaer	10:36	Y	21"	**174"**	**18"**	**15**
Schyler	10:48	Y	24"	**23"**	**9"**	**16**
Gansvort	11:00	Y	15"	**22"**	**10"**	**17**
Bouch	11:12	Y	36"	**90"**	**5"**	**18**
S. Swan	11:24	Y	10"	**35"**	**12"**	**19**
Hamilton	11:36	Y	17"	**26"**	**7"**	**20**
Saratoga	11:48	Y	5"	**18"**	**4"**	**21**
Duncan (012)	12:00	Y	24"	**24"**	**18"**	**22**
Mohawk (007)	12:12	Y	6"	**49"**	**14"**	**23**
Little C (008)	12:24	Y	5"	**122"**	**20"**	**24**
14th	12:36	Y	9"	**34"**	**6"**	**25**
7th	12:48	Y	3"	**36"**	**5"**	**26**
6th	1:00	Y	9"	**23"**	**5"**	**27**
3rd	1:12	N	****	**23"**	**5"**	**28**

Albany
Green Island
Cohoes
Watervliet

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Date: **11/20/07 - 11/28/07** Precipitation Reported by NOAA at UAlbany **.80 inches** Inspector Initials Tmarsolais

Regulator/Dam	Time	Block Dislodged? (Y/N)	Estimated Maximum Depth of Flow Over Weir (based on chalk mark)	Width of Dam	Height of Dam	Picture Number
Tivoli	8:00	Y	3"	**61"**	**28"**	**1**
Thatcher	8:12	Y	33"	**10"**	**5"**	**2**
Livingston	8:24	Y	3"	**18"**	**14"**	**3**
Jackson	8:36	Y	10"	**68"**	**4"**	**4**
Quackenbush	8:48	Y	9"	**56"**	**20"**	**5**
Orange	9:00	Y	14"	**32"**	**10"**	**6**
Steuben	9:12	Y	8"	**16"**	**7"**	**7**
Maiden	9:24	Y	30"	**16"**	**6"**	**8**
State	9:36	Y	20"	**34"**	**7"**	**9**
Division	9:48	Y	10"	**10"**	**5"**	**10**
Liberty	10:00	Y	7"	**14"**	**10"**	**11**
Madison	10:12	Y	13"	**12"**	**20"**	**12**
Ferry	10:24	Y	4"	**8"**	**7"**	**13**
Arch				*****	*****	**14**
4-4A	****	****	****	*****	*****	****
Rennselaer	10:36	Y	1"	**174"**	**18"**	**15**
Schyler	10:48	Y	17"	**23"**	**9"**	**16**
Gansvort	11:00	Y	10"	**22"**	**10"**	**17**
Bouch	11:12	Y	18"	**90"**	**5"**	**18**
S. Swan	11:24	Y	10"	**35"**	**12"**	**19**
Hamilton	11:36	Y	6"	**26"**	**7"**	**20**
Saratoga	11:48	Y	11"	**18"**	**4"**	**21**
Duncan (012)	12:00	Y	26"	**24"**	**18"**	**22**
Mohawk (007)	12:12	Y	8"	**49"**	**14"**	**23**
Little C (008)	12:24	N		**122"**	**20"**	**24**
14th	12:36	N		**34"**	**6"**	**25**
7th	12:48	Y	2"	**36"**	**5"**	**26**
6th	1:00	Y	9"	**23"**	**5"**	**27**
3rd	1:12	Y	10"	**23"**	**5"**	**28**

Albany
Green Island
Cohoes
Watervliet

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Date: **11/29/07 - 12/06/07** Precipitation Reported by NOAA at UAlbany **.70 inches** Inspector Initials Tmarsolais

Regulator/Dam	Time	Block Dislodged? (Y/N)	Estimated Maximum Depth of Flow Over Weir (based on chalk mark)	Width of Dam	Height of Dam	Picture Number
Tivoli	8:00	N		**61"**	**28"**	**1**
Thatcher	8:12	Y	12"	**10"**	**5"**	**2**
Livingston	8:24	Y	1/2"	**18"**	**14"**	**3**
Jackson	8:36	N		**68"**	**4"**	**4**
Quackenbush	8:48	N		**56"**	**20"**	**5**
Orange	9:00	N		**32"**	**10"**	**6**
Steuben	9:12	N		**16"**	**7"**	**7**
Maiden	9:24	N		**16"**	**6"**	**8**
State	9:36	N		**34"**	**7"**	**9**
Division	9:48	Y	2"	**10"**	**5"**	**10**
Liberty	10:00	N		**14"**	**10"**	**11**
Madison	10:12	Y	1"	**12"**	**20"**	**12**
Ferry	10:24	Y	1"	**8"**	**7"**	**13**
Arch				*****	*****	**14**
4-4A	****	****	****	*****	*****	****
Rennselaer	10:36	N		**174"**	**18"**	**15**
Schyler	10:48	N		**23"**	**9"**	**16**
Gansvort	11:00	y	3"	**22"**	**10"**	**17**
Bouch	11:12	N		**90"**	**5"**	**18**
S. Swan	11:24	N		**35"**	**12"**	**19**
Hamilton	11:36	N		**26"**	**7"**	**20**
Saratoga	11:48	N		**18"**	**4"**	**21**
Duncan (012)	12:00	N		**24"**	**18"**	**22**
Mohawk (007)	12:12	N		**49"**	**14"**	**23**
Little C (008)	12:24	N		**122"**	**20"**	**24**
14th	12:36	N		**34"**	**6"**	**25**
7th	12:48	N		**36"**	**5"**	**26**
6th	1:00	N		**23"**	**5"**	**27**
3rd	1:12	N		**23"**	**5"**	**28**

Albany
Green Island
Cohoes
Watervliet

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Date: **12/07/07 - 12/11/07** Precipitation Reported by NOAA at UAlbany **.40 inches** Inspector Initials Tmarsolais

Regulator/Dam	Time	Block Dislodged? (Y/N)	Estimated Maximum Depth of Flow Over Weir (based on chalk mark)	Width of Dam	Height of Dam	Picture Number
Tivoli	8:00	N		**61"**	**28"**	**1**
Thatcher	8:12	N		**10"**	**5"**	**2**
Livingston	8:24	N		**18"**	**14"**	**3**
Jackson	8:36	N		**68"**	**4"**	**4**
Quackenbush	8:48	N		**56"**	**20"**	**5**
Orange	9:00	N		**32"**	**10"**	**6**
Steuben	9:12	N		**16"**	**7"**	**7**
Maiden	9:24	N		**16"**	**6"**	**8**
State	9:36	N		**34"**	**7"**	**9**
Division	9:48	N		**10"**	**5"**	**10**
Liberty	10:00	N		**14"**	**10"**	**11**
Madison	10:12	N		**12"**	**20"**	**12**
Ferry	10:24	N		**8"**	**7"**	**13**
Arch				*****	*****	**14**
4-4A	****	****	****	*****	*****	****
Rennselaer	10:36	N		**174"**	**18"**	**15**
Schyler	10:48	N		**23"**	**9"**	**16**
Gansvort	11:00	N		**22"**	**10"**	**17**
Bouch	11:12	N		**90"**	**5"**	**18**
S. Swan	11:24	N		**35"**	**12"**	**19**
Hamilton	11:36	N		**26"**	**7"**	**20**
Saratoga	11:48	N		**18"**	**4"**	**21**
Duncan (012)	12:00	N		**24"**	**18"**	**22**
Mohawk (007)	12:12	N		**49"**	**14"**	**23**
Little C (008)	12:24	N		**122"**	**20"**	**24**
14th	12:36	N		**34"**	**6"**	**25**
7th	12:48	N		**36"**	**5"**	**26**
6th	1:00	N		**23"**	**5"**	**27**
3rd	1:12	N		**23"**	**5"**	**28**

Albany
Green Island
Cohoes
Watervliet

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Date: **12/12/07 - 12/19/07** Precipitation Reported by NOAA at UAlbany **2.13 inches** Inspector Initials Tmarsolais

Regulator/Dam	Time	Block Dislodged? (Y/N)	Estimated Maximum Depth of Flow Over Weir (based on chalk mark)	Width of Dam	Height of Dam	Picture Number
Tivoli	8:00	N		**61"**	**28"**	**1**
Thatcher	8:12	N		**10"**	**5"**	**2**
Livingston	8:24	N		**18"**	**14"**	**3**
Jackson	8:36	N		**68"**	**4"**	**4**
Quackenbush	8:48	N		**56"**	**20"**	**5**
Orange	9:00	N		**32"**	**10"**	**6**
Steuben	9:12	N		**16"**	**7"**	**7**
Maiden	9:24	N		**16"**	**6"**	**8**
State	9:36	N		**34"**	**7"**	**9**
Division	9:48	N		**10"**	**5"**	**10**
Liberty	10:00	N		**14"**	**10"**	**11**
Madison	10:12	N		**12"**	**20"**	**12**
Ferry	10:24	N		**8"**	**7"**	**13**
Arch				*****	*****	**14**
4-4A	****	****	****	*****	*****	****
Rennselaer	10:36	N		**174"**	**18"**	**15**
Schyler	10:48	N		**23"**	**9"**	**16**
Gansvort	11:00	N		**22"**	**10"**	**17**
Bouch	11:12	N		**90"**	**5"**	**18**
S. Swan	11:24	N		**35"**	**12"**	**19**
Hamilton	11:36	N		**26"**	**7"**	**20**
Saratoga	11:48	N		**18"**	**4"**	**21**
Duncan (012)	12:00	N		**24"**	**18"**	**22**
Mohawk (007)	12:12	N		**49"**	**14"**	**23**
Little C (008)	12:24	N		**122"**	**20"**	**24**
14th	12:36	N		**34"**	**6"**	**25**
7th	12:48	N		**36"**	**5"**	**26**
6th	1:00	N		**23"**	**5"**	**27**
3rd	1:12	N		**23"**	**5"**	**28**

Albany
Green Island
Cohoes
Watervliet

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Date: **12/20/07 - 12/26/07** Precipitation Reported by NOAA at UAlbany **.52 inches** Inspector Initials Tmarsolais

Regulator/Dam	Time	Block Dislodged? (Y/N)	Estimated Maximum Depth of Flow Over Weir (based on chalk mark)	Width of Dam	Height of Dam	Picture Number
Tivoli	8:00	Y	3"	**61"**	**28"**	**1**
Thatcher	8:12	Y	32"	**10"**	**5"**	**2**
Livingston	8:24	Y	2"	**18"**	**14"**	**3**
Jackson	8:36	Y	17"	**68"**	**4"**	**4**
Quackenbush	8:48	Y	11"	**56"**	**20"**	**5**
Orange	9:00	Y	15"	**32"**	**10"**	**6**
Steuben	9:12	Y	26"	**16"**	**7"**	**7**
Maiden	9:24	Y	24"	**16"**	**6"**	**8**
State	9:36	Y	22"	**34"**	**7"**	**9**
Division	9:48	Y	20"	**10"**	**5"**	**10**
Liberty	10:00	Y	28"	**14"**	**10"**	**11**
Madison	10:12	Y	13"	**12"**	**20"**	**12**
Ferry	10:24	Y	16"	**8"**	**7"**	**13**
Arch				*****	*****	**14**
4-4A	****	****	****	*****	*****	****
Rennselaer	10:36	Y	20"	**174"**	**18"**	**15**
Schyler	10:48	Y	25"	**23"**	**9"**	**16**
Gansvort	11:00	Y	11"	**22"**	**10"**	**17**
Bouch	11:12	Y	21"	**90"**	**5"**	**18**
S. Swan	11:24	Y	4"	**35"**	**12"**	**19**
Hamilton	11:36	Y	4"	**26"**	**7"**	**20**
Saratoga	11:48	Y	4"	**18"**	**4"**	**21**
Duncan (012)	12:00	Y	15"	**24"**	**18"**	**22**
Mohawk (007)	12:12	Y	10"	**49"**	**14"**	**23**
Little C (008)	12:24	Y	14"	**122"**	**20"**	**24**
14th	12:36	Y	4"	**34"**	**6"**	**25**
7th	12:48	Y	3"	**36"**	**5"**	**26**
6th	1:00	Y	15"	**23"**	**5"**	**27**
3rd	1:12	Y	14"	**23"**	**5"**	**28**

Albany
Green Island
Cohoes
Watervliet

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Date: **12/27/07 - 1/4/08** Precipitation Reported by NOAA at UAlbany **1.0 inches** Inspector Initials Tmarsolais

Regulator/Dam	Time	Block Dislodged? (Y/N)	Estimated Maximum Depth of Flow Over Weir (based on chalk mark)	Width of Dam	Height of Dam	Picture Number
Tivoli	8:00	N		**61"**	**28"**	**1**
Thatcher	8:12	N		**10"**	**5"**	**2**
Livingston	8:24	N		**18"**	**14"**	**3**
Jackson	8:36	N		**68"**	**4"**	**4**
Quackenbush	8:48	N		**56"**	**20"**	**5**
Orange	9:00	N		**32"**	**10"**	**6**
Steuben	9:12	N		**16"**	**7"**	**7**
Maiden	9:24	N		**16"**	**6"**	**8**
State	9:36	N		**34"**	**7"**	**9**
Division	9:48	N		**10"**	**5"**	**10**
Liberty	10:00	N		**14"**	**10"**	**11**
Madison	10:12	N		**12"**	**20"**	**12**
Ferry	10:24	N		**8"**	**7"**	**13**
Arch				*****	*****	**14**
4-4A	****	****	****	*****	*****	****
Rennselaer	10:36	N		**174"**	**18"**	**15**
Schyler	10:48	N		**23"**	**9"**	**16**
Gansvort	11:00	N		**22"**	**10"**	**17**
Bouch	11:12	N		**90"**	**5"**	**18**
S. Swan	11:24	N		**35"**	**12"**	**19**
Hamilton	11:36	N		**26"**	**7"**	**20**
Saratoga	11:48	N		**18"**	**4"**	**21**
Duncan (012)	12:00	N		**24"**	**18"**	**22**
Mohawk (007)	12:12	N		**49"**	**14"**	**23**
Little C (008)	12:24	N		**122"**	**20"**	**24**
14th	12:36	N		**34"**	**6"**	**25**
7th	12:48	N		**36"**	**5"**	**26**
6th	1:00	N		**23"**	**5"**	**27**
3rd	1:12	N		**23"**	**5"**	**28**

Albany
Green Island
Cohoes
Watervliet

Albany Pool Combioned Sewer Overflow Long Term Control Plan
Block testing Inspection Log

City of Watervliet
Outfall # 1
Avenue A and Clinton St.

Date	Time	Blocked Yor N	Estimated Depth of Flow Over Weir	Comments
5-Nov	9:30	N		
13-Nov	8:30	N		
19-Nov	8:30	Y	4"	Heavy rains on 11-16
26-Nov	8:30	N		

Albany Pool Combioned Sewer Overflow Long Term Control Plan
Block testing Inspection Log

City of Watervliet
Outfall # 2
25th Street and Railroad Ave

Date	Time	Blocked Yor N	Estimated Depth of Flow Over Weir	Comments
5-Nov	8:30	N		
13-Nov	9:30	N		
19-Nov	10:00	N		
26-Nov	9:30	N		

Albany Pool Combioned Sewer Overflow Long Term Control Plan
Block testing Inspection Log

City of Watervliet
Outfall # 1
Avenue A and Clinton St.

Date	Time	Blocked Yor N	Estimated Depth of Flow Over Weir	Comments
3-Dec	12:30pm	n		
11-Dec	10:00am	n		
18-Dec	9:30am	n		
24-Dec	10:00am	n		
31-Dec	10:00am	n		

Albany Pool Combioned Sewer Overflow Long Term Control Plan
Block testing Inspection Log

City of Watervliet
Outfall # 2
25th Street and Railroad Ave

Date	Time	Blocked Yor N	Estimated Depth of Flow Over Weir	Comments
3-Dec	1:15pm	n		
11-Dec	9:00am	n		
18-Dec	8:30am	n		
24-Dec	9:00am	n		
31-Dec	9:00am	n		

Albany Pool Combioned Sewer Overflow Long Term Control Plan
Block testing Inspection Log

City of Watervliet
Outfall # 1
Avenue A and Clinton St.

Date	Time	Blocked Yor N	Estimated Depth of Flow Over Weir	Comments
7-Jan	9:OOAM	N		
14-Jan	9:30AM	N		
22-Jan	9:30AM	N		
28-Jan	9:00AM	N		

Albany Pool Combioned Sewer Overflow Long Term Control Plan
Block testing Inspection Log

City of Watervliet
Outfall # 2
25th Street and Railroad Ave

Date	Time	Blocked Yor N	Estimated Depth of Flow Over Weir	Comments
7-Jan	10:00AM	N		
14-Jan	8:30AM	N		
22-Jan	10:30AM	N		
28-Jan	10:00AM	N		

Albany Pool Combioned Sewer Overflow Long Term Control Plan
Block testing Inspection Log

City of Watervliet
Outfall # 1
Avenue A and Clinton St.

Date	Time	Blocked Yor N	Estimated Depth of Flow Over Weir	Comments
4-Feb	8:30AM	N		
11-Feb	9:00AM	N		
19-Feb	10:00AM	N		
25-Feb	1:00PM	N		

Albany Pool Combioned Sewer Overflow Long Term Control Plan
Block testing Inspection Log

City of Watervliet
Outfall # 2
25th Street and Railroad Ave

Date	Time	Blocked Yor N	Estimated Depth of Flow Over Weir	Comments
4-Feb	9:30AM	N		
11-Feb	10:00AM	N		
19-Feb	9:00AM	N		
25-Feb	2:00PM	N		Replaced block of wood Chalk O.K. Have no idea what
				happened.

Albany Pool Combioned Sewer Overflow Long Term Control Plan
Block testing Inspection Log

City of Watervliet
Outfall # 1
Avenue A and Clinton St.

Date	Time	Blocked Yor N	Estimated Depth of Flow Over Weir	Comments
3-Mar	8:30AM	N		
10-Mar	8:30AM	N		
17-Mar	9:00AM	N		
24-Mar	8:30AM	N		
31-Mar	9:00AM	N		

Albany Pool Combioned Sewer Overflow Long Term Control Plan
Block testing Inspection Log

City of Watervliet
Outfall # 2
25th Street and Railroad Ave

Date	Time	Blocked Yor N	Estimated Depth of Flow Over Weir	Comments
3-Mar	9:30AM	N		
10-Mar	9:30AM	N		
17-Mar	10:00AM	N		
24-Mar	9:30AM	N		
31-Mar	10:00AM	N		

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: A17R Photograph T - 1
Location: 116th Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-14-08		Y	N/A	No Discharge High river level retrieved Block from Reg Gate reset

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: A18R Photograph T - 2
Location: 117th Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-14-08		Y	N/A	No Discharge High River level (Cannot) Retrieve Block From Rag Gate. No reset

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: A19R Photograph T - 3
Location: 118th Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-14-09		N	N/A	Block in Place No Discharge High River level

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: A20R Photograph T - 4
Location: 119th Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-14-08		Y	N/A	NO DISCHARGE HIGH river level retrieved Block From Reg GATE

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: A21R Photograph T - 5
Location: 120th Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-16-09		Y	N/A	No Discharge High river level could NOT retrieve Block From Reg GATE

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: A23R Photograph T - 6
Location: 121st Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-16-08		Y	N/A	Could NOT retrieve Block From Tide Gate river level To High

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: A24R Photograph T - 7
Location: 122nd Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-16-08		Y	N/A	Discharged Reset Blocks

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: A25R Photograph T - 8
Location: 123rd Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-16-08		Y	N/A	Discharged UNAble To retreive Block From Tide GATe

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: A26R Photograph T - 9
Location: North of 123rd Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-16-08		Y	N/A	Discharged reset Block

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: A36R Photograph T - 10
Location: River Road

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-16-08		Y	N/A	Discharged reset Block

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: A16R Photograph T - 11
Location: 115th Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-16-08		Y	N/A	retreived Block From Beg Gate No reset to muck leakage From Tide Gate

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: A14R Photograph T - 12
Location: 114th Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-16-08		N	N/A	

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: A13R1 Photograph T - 13
Location: 113th Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-16-09		Y	N/A	reset Block

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: A13R2 Photograph T - 14
Location: 113th Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-16-08			Creek over Flow	NOT INSTAlled Flow To High

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: A12R Photograph T - 15
Location: 112th Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-16-08		Y	N/A	reset Block

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: A10R Photograph T - 16
Location: 111th Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-16-08		Y	3 inchs	reset Block

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: A7R Photograph T - 17
Location: 109th Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-16-08		Y	N/A	never went out gate reset

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: A6R Photograph T - 18
Location: 108th Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-16-08		Y	N/A	Never went out Gate reset

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: A4R Photograph T - 19
Location: 107th Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-16-08		Y	N/A	Never went out gate

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: A1R Photograph T - 20
Location: 106th Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-16-08		Y	N/A	NEVER WENT OUT GATE RESET

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: B2R Photograph T - 21
Location: 105th Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-16-08		Y	N/A	Never went out gate

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: D37RD Photograph T - 22
Location: Rensselaer Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-23-08	12:35	Y	14 inches	Reset Block

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: D29R Photograph T - 23
Location: Vanderheyden Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-23-08	12:43	Y	12 inches	Reset Block

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: D28R Photograph T - 24
Location: Hoosick Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-23-08	12:51	Yes	5 inches	BLOCK AND ROPE GONE

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: D26R Photograph T - 25
Location: Hutton Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-23-08	12:56	Yes	N/A chalk marks gone moisture	Retreived Black from Reg GATE Reset

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: D24R Photograph T - 26
Location: Jacob Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-23-08	1:05	Y	6 inches	Reset Block

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: D20R Photograph T - 27
Location: Federal Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
				NOT INSAlled Flow Problem

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: D18R Photograph T - 28
Location: Grand Street / Third Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-23-08	1:11	Y	2 inches	Reset Block

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: D17AR Photograph T - 29
Location: Fulton Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-23-08	1:17	Y	8' inches	Reset Block

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: D16AR Photograph T - 30
Location: Broadway

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-23-08	1:21	Y	3 INCHES	RESET BLOCK

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: D13R Photograph T - 31
Location: State Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-23-08	1:31	Y	3 inches	Block & Rope are Gone

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: D12AR Photograph T - 32
Location: Congress Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-23-08	1:48	Y	5 inches	Block cut from rope installed new rope

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: D11R Photograph T - 33
Location: Ferry Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-23-08	1:55	Y	5 inchs	Retreived Block From Reg GATE Reset

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: D10R Photograph T - 34
Location: Division Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-23-08	2:02	N	3	BLOCK DIDN'T DISCHARGE GATE didn't open enough to drop BLOCK

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: D9R Photograph T - 35
Location: Liberty Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-24-08	12:55	Y	29 inch	Reset Block

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: D8R Photograph T - 36
Location: Washington Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-24-08	1:02	?	?	CAN'T get To cover All ice

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: D7R Photograph T - 37
Location: Adams Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-24	1:12	Y	16 IN	RESET BLOCK

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: D6R Photograph T - 38
Location: Jefferson Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-24-08	1:18	Y	13 INCH	RESET BLOCK

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: D2R Photograph T - 39
Location: Madison Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-24-08	1:24	Y	29 inch	Reset Block

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: D1R Photograph T - 40
Location: Monroe Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-24-08	1:28	Y	5 inch	Reset Block

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: E3R Photograph T - 41
Location: Van Buren Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: E6R Photograph T - 42
Location: Harrison Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-24-03	1:45	Y	12 INCH	Reset Block

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: E9R Photograph T - 43
Location: Tyler Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-24-08	1:49	Y	4 inch	Reset Block

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: E13R Photograph T - 44
Location: Polk Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-24-08	1:54	Y	3 INCH	Reset Block

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: E22R Photograph T - 45
Location: Cross Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-24-08	2:01	Y	27 inch	Reset BLOCK

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: W1R Photograph T - 46
Location: Water Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-24	2:15	Y	N/A	CAN'T retreive BLOCK From Bes GATE

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Troy
Outfall #: Q1R Photograph T - 47
Location: Hudson Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-24-08	2:40	Y	6 inch	Reset Block

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Rensselaer
Outfall #: H3R Photograph R - 1
Location: Central Avenue

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-17-08	1:15	Y	8 inches	Reset Block
2-21-08	1:05	Y	32 inches	Reset Block

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Rensselaer
Outfall #: H3R1 Photograph R - 2
Location: Central Avenue

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-17-08	1:20	Y	4 inches	Reset Block
1-21-08	1:16	Y	6 inches	Reset Block

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Rensselaer
Outfall #: H2R Photograph R - 3
Location: Tracy Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-17-08	1:00	Y	8 inches	Reset Block
2-21-08	1:23	Y	6 inches	Block Through Reg Gate unable to remove at this time

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Rensselaer
Outfall #: HJR Photograph R - 4
Location: Fowler Avenue

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-17-08	1:10	Y	3 inches	Reset Block
2-21-08	1:30	Y	3 inches	Reset Block

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Rensselaer
Outfall #: J9R Photograph R - 5
Location: Partition Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-17-08	1:30	Y	13 inches	Reset Block
2-21-08	1:48	Y	12 inches	Reset Block

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Rensselaer
Outfall #: L5R Photograph R - 6
Location: Second Avenue

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-17-08	1:35	GONE	?	Rope hanging in channel Block Gone
2-21-08	1:56	Gone	?	Have to install new Block

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Rensselaer
Outfall #: L4R Photograph R - 7
Location: Columbia Street

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-17-08	2:00	Y	?	HAD TO RETREIVE BLOCK FROM REG GATE
2-21-08	2:08	Y	6 INCHES	HAD TO RETREIVE BLOCK FROM REG GATE

Albany Pool Combined Sewer Overflow Long-Term Control Plan
Block Testing Inspection Log

Municipality: City of Rensselaer
Outfall #: M2R Photograph R - 8
Location: Belmore Place

Date	Time	Block dislodged? (Y/N)	Estimated Maximum Depth Of Flow Over the Weir (Through Gate) (based on chalk mark)	Comments
1-17-08	1:45	Gone	29 inches	Rope Hanging in channel Block Gone
2-21-08	2:01	Y	28 inches	Reset Block

ATTACHMENT 7

Correspondence

DEC COMMENTS ON THE COMBINED SEWER SYSTEM MONITORING PLAN
February 2008

Page 1-1: There is mention of supplementing available CSS monitoring and water quality data. Please define the scope of this data in the report.

Figure 2-3: Please correct the figure so that the metering locations correspond to Table 2-2.

Page 2-3: Please provide the block and chalk testing results.

Page 2-8: Will 4 rain gauges be enough to sufficiently characterize rainfall on the sewersheds?

Page 2-8: Will ADS Environmental Service be available for all of the 12 week monitoring period or just one or two days a week?

Page 2-9: The report states that the flow and rainfall program will need to be extended if a sufficient number of events are not available. Please provide the criteria for making the determination.

Page 3-1: Has any consideration been given to industry locations while selecting outfall locations? Since the number of sampling locations has been reduced from 18 to 4 based on discussions with DEC regarding the use of national average pollutant loading data - and the CSO Policy requires that the characterization and monitoring consider metals and, when site-specific concerns dictate it, toxics - DEC strongly suggests that industrial discharges be considered. Perhaps influent WWTP data could be assessed?

Page 3-1: DEC suggests supplementing the 4 CSS monitoring locations with influent WWTP locations. When will the final locations be chosen?

Page 3-1: Are sampling locations at dams, regulating chambers, or outfall locations? If at the dams, will staff observe the outfall conditions? Do these outfalls have tide-gates, i.e., are they submerged at high tide?

Page 3-2: The report says that typical pollutant loadings from the 2004 EPA Report to Congress and other recognized sources will be used. What other sources?

Page 3-3: Have the municipalities committed 12 employees? When will the field station and staging areas be chosen?

Page 3-4: The sampling procedures appear to be the same as receiving water sampling procedures and do not seem practical for use in the sewer. So fecal coliform and e-coli analyses come from the same sample?

Page 3-5: Please provide a status of the laboratory selection.

Page 3-5: Fecal coliform, E-coli, TSS, BOD, phosphorus, ammonia, and nitrate samples will be

collected at each time interval for each site. Will the same be done for D.O., pH, temperature and conductivity?

Page 3-6: The field documentation should include noting the presence or absence of a sheen or globules of grease and/or floatables - or is this addressed by the receiving water sampling teams?

Page 3-7 (and Attachment 3): The sampling procedure discusses VOA vials and plastic bags. Please modify the procedure to be specific for the CSS sampling.

Page 4-3: Please explain the purpose of pre- and post-storm samples.

March 12, 2008

Ms. Andrea J. Dzierwa, P.E.
New York State Department of Environmental Conservation
Region IV
1150 North Westcott Road
Schenectady, NY12306

Re: Preliminary Response to NYS DEC Comments
SPDES Permit No. NY-002 5747 (City of Albany)
SPDES Permit No. NY-002 6026 (City of Rensselaer)
SPDES Permit No. NY-009 9309 (City of Troy)
SPDES Permit No. NY-003 0899 (City of Watervliet)
SPDES Permit No. NY-003 1046 (City of Cohoes)
SPDES Permit No. NY-003 3031 (Village of Green Island)

Dear Andrea:

The Capital District Regional Planning Commission (CDRPC), the Albany Pool Communities (SPDES Permit holders referenced above), and the Albany Pool Joint Venture Team (APJVT) have received a correspondence from Cheryle Webber of the New York State Department of Environmental Conservation's (NYSDEC) Central Office detailing "DEC Comments on the Combined Sewer System Monitoring Plan, February 2008."

Preliminary responses to these comments have been prepared for your consideration. For clarity we have numbered and restated the specific comments in the sequence in which they were received.

The following items directly address your comments.

Comment 1 – Page 1-1: There is mention of supplementing available CSS monitoring and water quality data. Please define the scope of this data in the report.

Response 1 – The data referenced was the Malcolm Pirnie data collected in the summer of 2003 and the more recent data collected by Chandler Raou of the NYSDEC.

Comment 2 – Figure 2-3: Please correct the figure so that the metering locations correspond to Table 2-2.

Response 2 – The Figure will be corrected and resubmitted.

Comment 3 – Page 2-3: Please provide the block and chalk testing results.

Response 3 – The most current block and chalk test data that has been received from the communities as of March 7, 2008 will be attached as an appendix to the CSS Monitoring Plan.

Comment 4 – Page 2-8: Will 4 rain gauges be enough to sufficiently characterize rainfall on the sewersheds?

Response 4 – The APJVT believes four rain gauges will be sufficient to characterize the rainfall. This quantity provides a rain gage within each of the four major tributary areas (and one for each CSS modeled area).

Comment 5 – Page 2-8: Will ADS Environmental Service be available for all of the 12 week monitoring period or just one or two days a week?

Response 5 – Although contract terms are not yet final, the intent of subcontracting with a specialty flow monitoring firm is to provide the communities and the APJVT with the highest quality of continuous flow monitoring data possible. This requires that the flow monitoring subcontractor maintain a continued presence in the event of a flow monitor malfunction. Contractually, ADS will be required to visit each installation site weekly at which time the flow monitors will be checked, flow data uploaded, calibration data checked, required maintenance performed, and proper operation confirmed. Weekly inspections are the typical standard or protocol used within the industry for the type of monitoring equipment to be utilized for the study.

Comment 6 – Page 2-9: The report states that the flow and rainfall program will need to be extended if a sufficient number of events are not available. Please provide the criteria for making the determination.

Response 6 – The targeted rainfall criteria was defined in Section 4.1 of the CSS Monitoring Plan. With regard to the flow monitoring data, the intent is to collect sufficient flow monitoring data to calibrate the Combined Sewer System model using three rainfall/runoff events and verify the model using a fourth rainfall/runoff event. To the extent practical, each of the three CSS models will use the same storm events for calibration. Because of the complexities involved in modeling the combined sewer systems and measuring the rainfall and flow, specific flow monitoring criteria cannot be developed in advance. In addition, specific criteria would need to be sensitive to the differences in the behavior of the four modeled areas (Albany North, Albany South, Troy/Rensselaer), the frequency of CSO activation, and system response times. Because of this variability, the flow and rainfall data will be reviewed weekly to identify representative events and data sets to which the CSS model can be calibrated. A meeting will be held after nine weeks of monitoring to assess the quality and completeness of the data. The necessity to extend the monitoring period will be determined at that time.

Comment 7 – Page 3-1: Has any consideration been given to industry locations while selecting outfall locations? Since the number of sampling locations has been reduced from 18 to 4 based on discussions with DEC regarding the use of the national average pollutant loading data – and the CSO Policy requires that the characterization and monitoring consider metals and, when site-specific concerns dictate it, toxics – DEC strongly suggests that industrial discharges be considered. Perhaps influent WWTP data could be assessed?

Response 7 – The CSS sampling locations have been selected to capture the representative wastewater characteristics of each of the four combined sewer systems tributary to their respective county wastewater treatment plant. This data will be used to develop "Event Mean Concentrations" (EMCs) for each combined sewer system that will then be applied to the CSO volumes from that system. EMCs will be developed for fecal coliform, e-coli, TSS, BOD5, Total Phosphorous, Ammonia and TKN (modified from Nitrate). Because the potential for metals and other toxics are site specific they were not considered in selecting the CSS Sampling locations.

Moving forward (and as we had discussed previously), a map showing the locations of Significant Industrial Users (SIUs) will be provided for the Departments review. In addition, 24-hour composite sampling will be performed at both the ACSD WWTPs and the RCSD WWTP to supplement the CSS sampling data collected for the four wet weather sampling events. The data that will be collected at the ACSD plants include pH, COD, NH3, TON, TKN, SS, TS, and PO4. The Data that will be collected at he RCSD plant will include suspended solids, CBOD, pH, temperature and settleable solids.

Comment 8 - Page 3-1: DEC suggests supplementing the 4 CSS monitoring locations with influent WWTP locations. When will the final locations be chosen?

Response 8 – 24-hour composite sampling will be performed at both the ACSD WWTPs and the RCSD WWTP to supplement the four wet weather sampling events. The specific parameters were defined under Response 7. The locations identified in the CSS Monitoring Plan are final with respect to the sewer sheds that will be sampled. Specific (exact) sampling locations will be chosen during the field investigations that will be performed to site each of the flow monitors.

Comment 9 - Page 3-1: Are sampling locations at dams, regulating chambers, or outfall locations? If at the dams, will staff observe the outfall conditions? Do these outfalls have tide-gates, i.e., are they submerged at high tide?

Response 9 – The four sampling locations will be within the CSS upstream of the County regulator and upstream of the dam. To the extent practicable, staff will view the overflow and collect samples during active CSOs at these locations. The table below identifies the need for and/or status of the tide gates at each of the four sampling locations.

Sampling Location Identification Number	Sample Collection Location	Comments
ACSDN-1	Cohoes – Little C (008) CSO	Tide gate not required due to elevation differences between the regulator and the river
ACSDS-1	Albany – Big C	Tide gate exists that can be submerged during high tide
RCSDTroy-1	Regulator for Troy CSO 045	Tide gate not required due to elevation differences between the regulator and the river
RCSDRen-1	Regulator for Rensselaer CSO 006	Tide gate exists, but it's not believed to be submerged during normal high tide

Comment 10 – Page3-2: The report says the typical pollutant loadings from the 2004 EPA Report to Congress and other recognized sources will be used. What other sources?

Response 10 – In addition to the 2004 EPA Report to Congress we will use the WEF CSO control manual as well as EMCs for similar Northeast communities developed by the team on other projects.

Comment 11 - Page 3-3: Have the municipalities committed 12 employees? When will the field station and staging areas be chosen?

Response 11 – There have been numerous discussions between the APJVT and the municipalities with respect to staffing the dry and wet weather sampling activities. The APJVT is in the process of detailing specific requirements for the required municipal staff. The communities remain committed to fulfilling their in-kind contribution by providing staff during these activities.

Comment 12 - Page 3-4: The sampling procedures appear to be the same as receiving water sampling procedures and do not seem practical for use in the sewer. So fecal coliform and e-coli analyses come from the same sample?

Response 12 – The procedures are quite similar for collecting a grab sample within the receiving water or for collecting a grab sample from within a CSS. We recognize that specific access requirements may necessitate collecting grab samples using a sampling extension. Collecting samples in a Whirl Pack may also be recommended once the exact sampling locations are identified.

Comment 13 – Page 3-5: Please provide a status of the laboratory selection.

Response 13 – St. Peters Bender Analytical Laboratory has been selected to perform the analyses for Fecal Coliform and E-coli. Based on extensive communications with this facility including a tour and a description of work flow, the APJVT is confident that they can adequately process the numbers of samples required while maintaining a high technical quality and quality assurance and control measures. Laboratory selection for the remaining analytical work is still outstanding.

Comment 14 – Page 3-5: Fecal coliform, E-coli, TSS, BOD, phosphorus, ammonia, and nitrate samples will be collected at each time interval for each site. Will the same be done for D.O., pH, temperature and conductivity?

Response 14 – The CSS Monitoring Plan indicated that Fecal coliform, E-coli, TSS, BOD, phosphorus, ammonia, and nitrate samples will be collected at the time interval specified in

the Section 4.2.4 of the CSS Monitoring Plan. At this time we are proposing to replace nitrate with TKN. For the receiving water samples (as detailed in the Receiving Water Collection Plan) D.O., pH, temperature, and conductivity will be collected at each time interval for the each site along with photographs for an assessment of floatables during daylight hours. For the CSS sampling locations, the sampling for D.O., pH, temperature, and conductivity will collected according to the time interval specified in the Receiving Water Quality Sampling Plan, Section 3.3.4.

Comment 15 – Page 3-6: The field documentation should include noting the presence or absence of a sheen or globules of grease and/or floatables – or is this addressed by the receiving water sampling teams?

Response 15 – No documentation of the presence or absence of a sheen or globules of grease and/or floatables will be recorded at the four CSS sampling locations. These four sampling location are within the CSS where these characteristics are expected. However, photographs will be taken and used for an assessment of floatables at all the receiving water sampling locations.

Comment 16 – Page 3-7: (and Attachment 3): The sampling procedure discusses VOA vials and plastic bags. Please modify the procedure to be specific for the CSS sampling.

Response 16 – The information pertaining to VOA vials was included in error and will be removed.

Comment 17 – Page 4-3: Please explain the purpose of pre- and post-storm samples.

Response 17 – Both the dry and wet weather sampling require 72 hours of preceding dry weather. When sampling teams mobilize for a wet weather event a complete circuit of sampling data will be collected. Should the wet weather event fail to materialize the data will be utilized as one of the dry weather samples. If the wet weather event does materialize, the pre-storm samples will better characterize the baseline conditions for that storm.

It is our intention to provide the NYSDEC with a revised CSS Monitoring Plan following resolution of these issues.

In addition, as we advance toward the initiation of the sampling and monitoring activities, the APJVT has continued to refine the details of our planned activities. The CDRPC, the Albany Pool Communities, and the APJVT anticipated providing the NYSDEC with additional written details

to clarify specific elements of the Receiving Water Sampling Plan and CSS Monitoring Plan which heretofore have been expressed in general terms. In particular, we will provide more defined roles for the municipal participation, specific CSS sampling locations, specific receiving water sampling locations, and specific flow monitoring locations. It is anticipated that these details will be provided on or about April 23, 2008.

Very truly yours,

MALCOLM PIRNIE, INC.

Gregory J. Daviero Ph.D., P.E.
Associate

de

F:\PROJECT\0241003\DOC\Task B4\Monitoring Plan\Response to NYSDEC Comments 031208.doc

c: C. Webber, NYSDEC
F. Sievers, NYS DEC
R. Ferraro, CDRPC
L. Engstrom, CDRPC
D. Loewenstein, Malcolm Pirnie-ALB
J. Kleyman, Malcolm Pirnie-BUF
D. Durfee, CDM – ALB
R. Rudolph, CHA
M. Miller, CHA
W. Lavery, City of Albany
Mayor John McDonald, City of Cohoes
N. Ostapkovich, City of Watervliet
S. Ward, Village of Green Island
N. Bonesteel, City of Troy
M. Pettit, City of Rensselaer
R. Lyons, ACSD
G. Moscinski, RCSD