

ALBANY WATER BOARD
MINUTES OF REGULAR MEETING
July 22, 2016

A regular meeting of the Albany Water Board was officially convened at 9:30 AM, local time, in the Conference Room at the Albany Water Board, 10 North Enterprise Drive, Albany, New York Friday, July 22, 2016.

PRESENT: Charles Houghton, Secretary; Rachel Johnson, Member.

EXCUSED: David McGuire, Chairman; William Clay, Vice Chairman; Daniel Ranellone, Treasurer;

STAFF PRESENT: Joseph E. Coffey, Jr. PE, Commissioner, AWB; William Simcoe, P.E., Deputy Commissioner; Christopher Quirk, Chief Fiscal Officer, AWB;

BOARD ADVISORS PRESENT: Anne Letterio, Assistant Corporation Counsel; William Kahn, UHY Advisors; Kevin Hogan, P.E., ARCADIS;

ALSO PRESENT: Honorable Kathy Sheehan, Mayor, City of Albany; Mike Miller, P.E., CHA; Robert Ostapczuk, P.E., ARCADIS

Board Secretary Houghton called the meeting to order at 9:30 AM and announced, in the absence of a quorum, the Board will not take any formal action or vote on any Resolutions or other matters at this meeting.

Public Comment Period

No public comments were made.

Presentation of the 2016 Annual Report of the Rate Consultant

Bill Kahn provided a report with his recommendation for no rate increase at this time (rate report attached, including current rate schedule). He discussed the primary factors that supported his recommendation, including the current debt coverage ratio of 2.44, exceeding the required ratio of 1.15.

Big "C" Design Report Update

Mike Miller, P.E., and Rob Ostapczuk, P.E., presented a summary of the draft Big "C" design Report, the major component of the City of Albany's compliance with the Long Term Control Plan Consent Order. The milestone date for submittal of this Design report is August 1, 2016 and this presentation to the Board provided a summary of the draft design recommendations that will be submitted to the NYSDEC. It was noted that after the report is submitted to the

NYSDEC, there will be substantial opportunities for public engagement, public review and comment.

The presentation provided the history and background of the Big "C" regulator and highlighted that 70% of all of the CSO from the City passes thru Big "C". The presentation discussed the disinfection goals for the project and the disinfection technologies evaluated; the alternative locations for the disinfection facility; and summarized the capital and life cycle costs, along with the pros and cons of each alternate technology and location. (A copy of the presentation is attached).

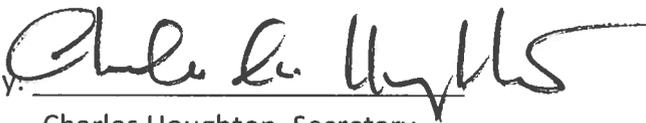
Executive Session

No Executive Session took place.

Commissioner Coffey noted the Board had several time sensitive matters to consider and act upon and requested a Special Meeting of the Board be scheduled for Friday July 29th. Secretary Houghton concurred and a Special Meeting of the Albany Water Board will be held at 9:00 AM on Friday July 29, 2016 in the AWB Conference Room at 10 North Enterprise Dr.

Being no further business, Secretary Houghton called for a motion to adjourn the meeting. A motion was made by Ms. Johnson, seconded by Mr. Houghton and passed.. The meeting was adjourned at 10:45 AM.

Approved by:



Charles Houghton, Secretary

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Approved by: _____
Charles Houghton, Secretary

Report of Rate Consultant

4 Tower Place, Executive Park
7th Floor
Albany, NY 12203

Main 518 449 3166
Fax 518 449 5832
Web www.uhy-us.com

July 22, 2016

David R. McGuire, Chairman
and the Members
Albany Water Board
10 North Enterprise Drive
Albany, New York 12207

Members of the Board:

Pursuant to Section 6.2(b)(3) of the Financing Agreement between the City of Albany, the Albany Municipal Water Finance Authority (the "Authority"), and the Albany Water Board (the "Board"), dated October 1, 1987, and in our capacity as rate consultant pursuant to Section 709 of the Albany Municipal Water Finance Authority Water and Sewer System General Revenue Bond Resolution (as amended), we have completed a study of the Board's current rate structure for the purpose of providing recommendations as to any necessary or advisable revisions of rates, fees, and charges, as required under the Financing Agreement, and for the purpose of determining the Board's requirements as to system cash flow and compliance with its minimum debt service coverage ratio of 115%.

Our recommendation as to the system's rate structure is principally based on current cash flow and certain historical and estimated future trends which may effect revenues and operating expenses. We have considered in our recommendation the debt service requirements under the Authority's current outstanding bond obligations and the effect of the issuance of certain additional bond obligations which are planned to occur later in 2016 and in future years. The recommended rate structure contemplates the continued cash flow funding of planned capital projects (including those relating to federal and state governmental mandates) and, in addition, continued enhancements to billing efficiencies and practices. The recommended rate structure also takes into account the conclusions of an independent engineering firm regarding the adequacy of funding levels for planned capital projects.

In connection with our study, and as more fully detailed in the attached *Schedule of Proposed Rate Structure*, we recommend no current increases to the system's rate structure (which was last modified on September 15, 2012). However, our study contemplates the likelihood that rate increases and/or other increases in revenues may be required in future years to either sustain the operations of the system or ensure debt service coverage ratio compliance. The need for any such increases will be evaluated and quantified in future years.

Very truly yours,

UHY ADVISORS NY, INC.



William M. Kahn

ALBANY WATER BOARD
SCHEDULE OF PROPOSED RATE STRUCTURE
EFFECTIVE SEPTEMBER 15, 2012

	RESIDENTIAL/ COMMERCIAL RATE (A) <u>(per 100 cf)</u>	TIER I LARGE USER RATE (C) <u>(per 100 cf)</u>	TIER II LARGE USER RATE (C) <u>(per 100 cf)</u>	UNMETERED RATE (G) <u>(per unit, per cycle)</u>	VACANT PROPERTY <u>(per front foot, per year)</u>
Rates Prior to July 1, 2010	\$2.45	\$4.44	\$5.33	\$355.00	\$2.21
Rates through September 15, 2012 ^(B)	\$2.57	\$4.66	\$5.60	\$355.00	\$2.32
Rates Effective September 15, 2012	\$2.67	\$4.85	\$5.82	\$355.00	\$2.41

----- SEWER CHARGE IS BILLED AT 100% OF ABOVE WATER RATES -----

- (A) *The minimum water charge for residential customers is \$34.91 (per 4 month billing cycle). The minimum amount includes 1,300 cubic feet of water per billing cycle.*
- (B) *Prior rates were effective July 1, 2010.*
- (C) *Tier I customers are defined as those customers who utilize in excess of 120,000 cubic feet of water per billing cycle. Tier II customers are defined as those customers who utilize in excess of 600,000 cubic feet of water per billing cycle. Tier I and Tier II large user rates apply to all water usage for those customers who meet the user definition.*
- (D) *A 1% monthly finance charge (or 12% annually) is currently charged on any unpaid accounts (those not paid within 30 days of the date billed) based on the average monthly balance of the account.*
- (E) *A one time penalty of 5% is currently charged to all accounts not paid within 30 days of the initial date of billing. An additional penalty of 5% is currently charged to all accounts delinquent as of November 15 of each year and, as such, subject to rollover and collection by the City of Albany on the City's general taxes.*
- (F) *Albany's water measurements, billings and rates are expressed in units of 100 cubic feet (cf). Approximately 1 cf is equivalent to 7.48 gallons; approximately 100 cf is equivalent to 748 gallons.*
- (G) *Beginning in 2016, the unmetered rate was no longer utilized for customer billing purposes.*

ALBANY WATER BOARD
SCHEDULE OF COST RECOVERY AND OTHER COMMERCIAL RATES
EFFECTIVE SEPTEMBER 15, 2012

Air Conditioning (Annual)

Recirculating	\$19.00/H.P.
Non-recirculating	\$92.00/H.P.

Refrigeration (applies to existing services only)

Recirculating	\$19.00/Ton
Non-recirculating	\$92.00/H.P.

Fire Service/Sprinklers (Annual)

3" service or less	\$181.00
4" service	\$296.00
6" service	\$539.00
8" service	\$718.00
Over 8" service	\$1,076.00

Fire Hydrant Charges

Base permit charge for up to 5,000 gallons (Up to 10 calendar days)	\$475.00
Charge for each additional day (beyond 10 days)	\$42.00
Charge for each 1,000 gallons (Over 5,000 gallons)	\$7.15
Fire hydrant meter deposit	\$500.00
Fire hydrant meter back flow valve (city owned) deposit	\$200.00
Daily use fee (up to 10 calendar days)	\$10.00
Charge for each additional day beyond (10 calendar days)	\$20.00
Fire hydrant meter back flow valve (private owned) inspection only	\$25.00
Unauthorized hydrant use fee/penalty	\$1,000.00

Closing Meter Reading Charge

A charge of \$50.00 will be made for each closing reading taken by Water Department personnel.

Fire Flow Charges

\$330.00 each test.

Turn On/Shut Off Charges

Curb box \$40.00; branch valve \$55.00 (4" or larger).

Missed Appointment Charge

A charge of \$50 will be assessed for any missed appointment/no show (after the second attempt).

Other

Charges for labor and materials, for work performed on private property pursuant to a signed consent form, will be billed on a flat basis.

**ALBANY WATER BOARD
SCHEDULE OF MATERIAL AND LABOR FEES
EFFECTIVE SEPTEMBER 15, 2012**

Tapping Charges

¾"	\$389.00
1"	\$486.00
1 ½"	\$584.00
2"	\$683.00
4"	\$879.00
6"	\$1,073.00
8"	\$1,268.00
12"	\$1,455.00

All tapping rates include material and equipment charges.

Fees on Water Meters

Meter with Orion Head 5/8"	\$211.00
Meter with Orion Head 1"	\$321.00
Meter with Orion Head 1-1/2"	\$645.00
Meter with Orion Head 2"	\$810.00
Meter only: 5/8"	\$66.00
Meter only: 1"	\$190.00
Meter only: 1-1/2"	\$504.00
Meter only: 2"	\$728.00
Orion Head only: 5/8" through 2"	\$160.00

Fees on water meters are based upon current market conditions and are subject to change. Please call for current prices of meters or heads in excess of 2".

Due to uncertain freight costs, the Albany Water Board reserves the right to adjust the costs for meters and heads.

**ALBANY WATER BOARD
SCHEDULE OF MATERIAL AND LABOR FEES
EFFECTIVE SEPTEMBER 15, 2012**

Frozen meter replacements

Customer will be charged for the cost of a new meter, for the size currently in place, plus labor and materials:

- Labor charge during working hours: \$170.00 (Plus cost of meter)
- Labor charge during non-working hours: \$255.00 (Plus cost of meter)

Water Service Repair Charges/Termination

¾" up to 1" service repair	\$4,673.00
1 ¼" up to 2" service repair	\$5,102.00

Fire Branch and Private Water Main Repair Charges

4"	\$4,736.00
6"	\$4,873.00
8"	\$4,983.00

Other Fees/Charges

Base permit fee on all water and sewer applications: \$55.00

New sewer connection fees:

Residential	\$155.00
Commercial	\$365.00
Industrial	\$675.00

Hydrant Repair/Replacement Fees:

Repair	\$520.00 (plus materials)
Replacement	\$4,673.00

PRIMARY FACTORS

✓ Compliance with Debt Coverage Ratio

→ DCR must exceed 1.15:1

12/31/15 2.44:1

12/31/14 2.29:1

12/31/06 .34:1

✓ Liquidity

→ Availability of cash and reserve funds
at 12/31/15

→ Board funds only (Authority funds are
restricted under bond indenture)

Cash / reserve funds	\$ 4.9M	
Capital project funds	16.6M	First Backstop
City receivable	<u>9.6M</u>	Second Backstop
	<u>\$31.1M</u>	

OTHER FACTORS AND CONSIDERATIONS

- ✓ Stability of current cash flow
- ✓ Ability to sustain and increase cash flow funding of capital plan
- ✓ Relative stability in overall cost structure, including property taxes and county sewer contract costs
- ✓ Substantial resolution of unmetered rate (thus allowing for full rollover of unpaid receivables)
- ✓ Positive trends on LTCP bond issuance
- ✓ Scheduled step-down of annual debt service costs under 2011 bond issue
- ✓ Continuing enhancements to Department's operational activities, billing practices, and financial reporting

Big C Disinfection and Floatable Controls

Albany Water Board Project Overview

July 22, 2016



Agenda

- Disinfection Technologies
- Screening Technologies
- Site Evaluations and Considerations
- Capital Cost Comparison
- Next Steps

Disinfection Technologies Evaluated

- Chemical Addition:
 - Sodium Hypochlorite (NaOCl) and Sodium Bisulfate (NaHSO₄)
 - Peracetic Acid (PAA) and NaHSO₄
- Ultraviolet Disinfection (UV)
- Goal of Disinfection:
 - E. Coli and Enterococcus inactivation to meet Water Quality Standards (WQS)

Disinfection Technology Comparison

	NaOCl	PAA	UV
CSO Satellite Treatment Applications	Widespread Nationally and NY	Limited Nationally (none in NY)	Limited Nationally (one in NY)
Storage / Footprint Requirements	Large	Medium	Small
Chemical Degradation	High	Small	None
Climate Considerations	NaOCl 21°F NAHSO ₄ 45°F	PAA -59°F NAHSO ₄ 45°F	Control Systems
NYSDEC CSO Acceptance	High	None	Limited
Pretreatment Requirements	Low	Low	Medium
Relative Costs	Medium	Medium	High

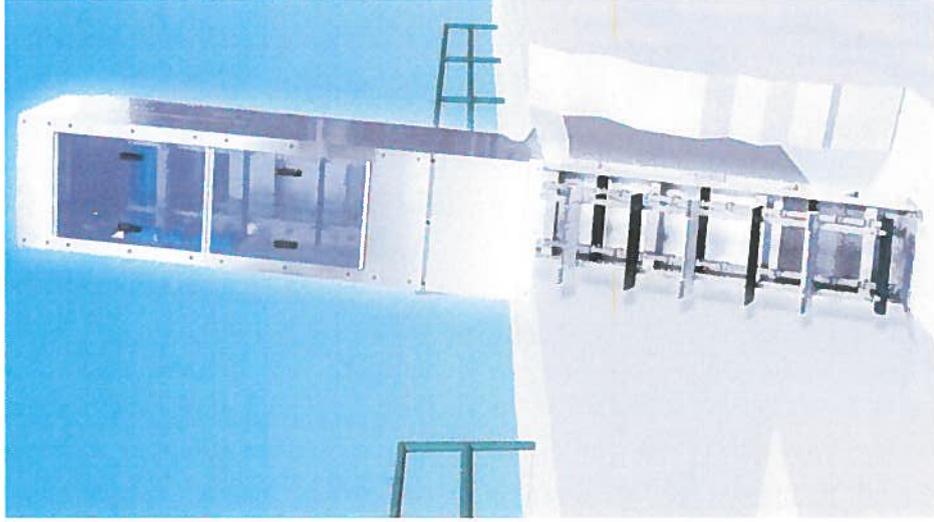
Screening Evaluation

- **Goals:**
 - Protect downstream equipment for:
 - Chemical disinfection
 - UV disinfection
 - Capture floatables
- **Capture ranges between 80% to 95% for floatables based on technology**
 - Vertical bar with ¼-inch (6 mm) spacing +/- 80%
 - Horizontal bars with ¼-inch (6 mm) spacing +/-90%
 - Mesh screen with 4 mm openings +/- 95%

Mechanically Raked CSO Bar Screens



Mechanically Cleaned Bar Screen



Flex Rake

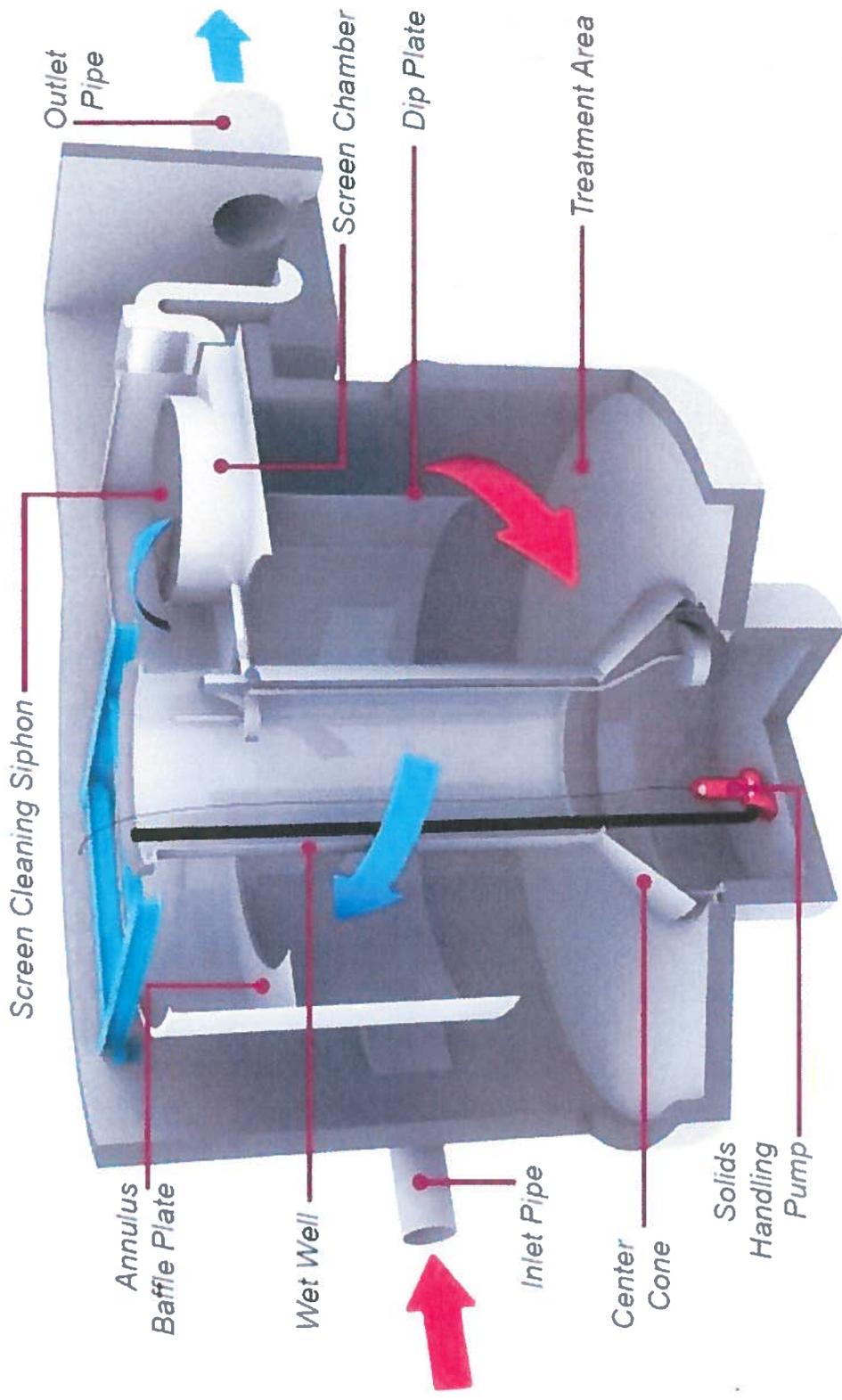


Climbing Screen

Vertical Band Screen

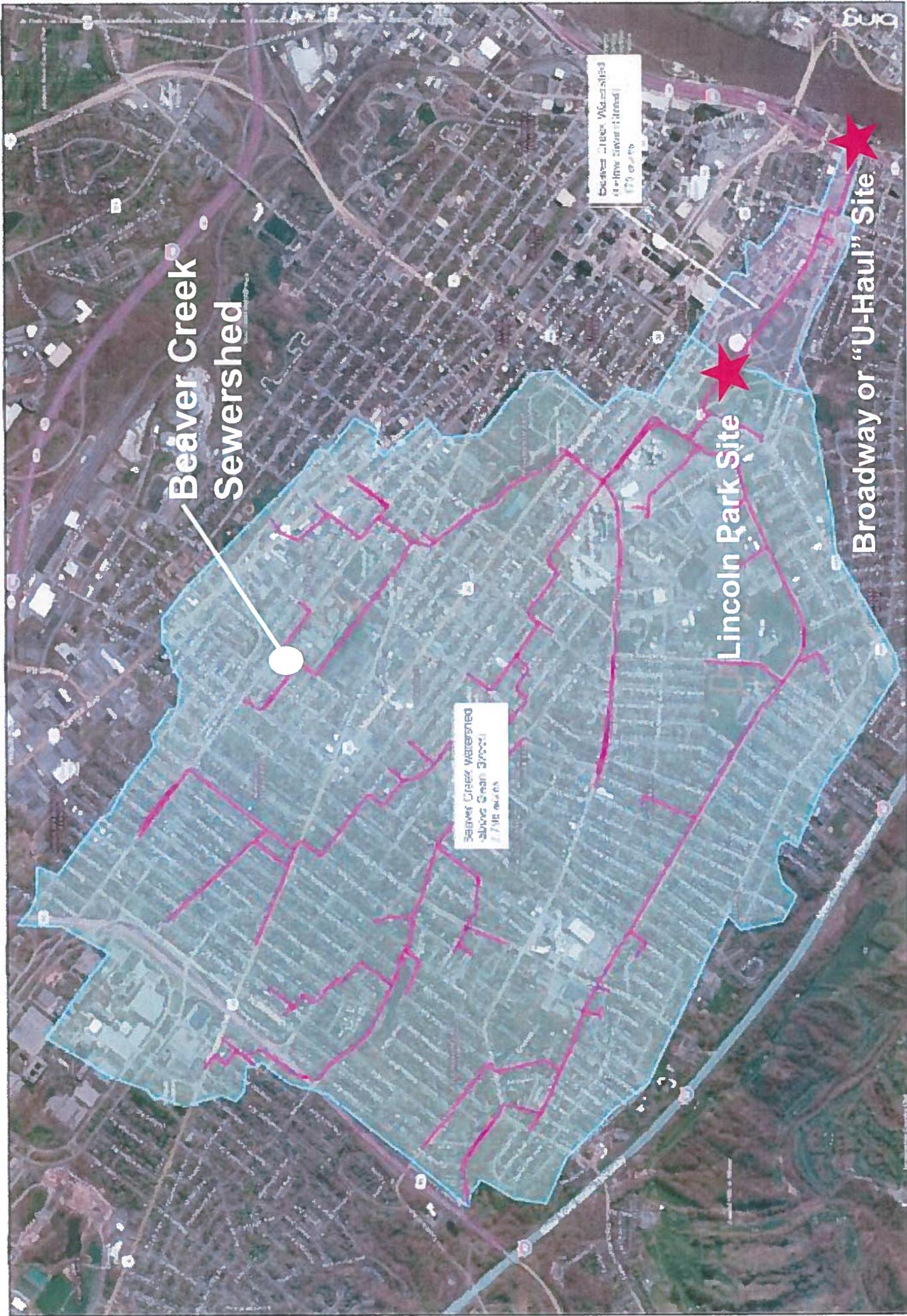


Hydrodynamic Vortex Separation



Screening Technology Comparison

	CSO Screen	Bar Screen	Band Screen	Hydrodynamic Vortex Separator
Upstream Coarse Screen Required	No	No	Yes	Yes
Footprint Requirements	Small	Medium	Large	Large
Floatables Control to River	No	Yes	Yes	Yes
Relative Costs	Medium	Medium	High	High
Suitable for Chemical Disinfection	Yes	Yes	Yes	Yes
Suitable for UV Disinfection	No	No	Yes	Yes





PROJECT NO.
2015
DATE 09/27/16
PAGE 1-1

H.I. C. BUSINESS DEVELOPMENT
CATERING CONTROL PROJECT
BROWNSVILLE PARCELS



ALBANY INDUSTRIAL CENTER
1500' STREET
1000' STREET
500' STREET
100' STREET
150' STREET
200' STREET
250' STREET
300' STREET
350' STREET
400' STREET
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1700' STREET
1750' STREET
1800' STREET
1850' STREET
1900' STREET
1950' STREET
2000' STREET

Broadway or “U-Haul” Site

Advantages

- Full capture and treatment of Big C overflows (up to 75 mgd peak flow rate)
- Industrial site location on east-side of I-787
- Site has early DEC acceptance

Disadvantages

- Acquisition of property will likely require eminent domain process
- Protection of critical equipment will be required (i.e., 100-Year Elevation + Climate Change)
- Requires 75 MGD pumping facility w/long-term maintenance and operational costs
- Constructability and risk issues due to floodplain/tidal zone



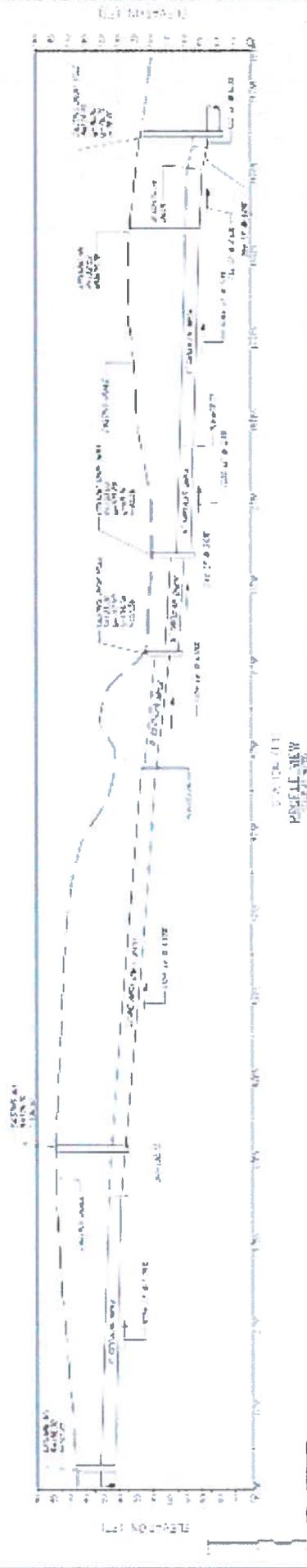
PROJECT NO.
PAR 5
DATE 09/27/16
FIGURE 1-2

HIGH DENSITY RESIDENTIAL
LOCATABLES CONTROL PROJECT
LINCOLN PARK SITE PARCELS





PLAN VIEW



CROSS SECTION
PROFILE VIEW

	H.S. C. IMPROVEMENT AND FLOATABLE CONTROL PROJECT LINCOLN PARK SITE	PROJECT NO. 2015
		DATE 07/21/16
		FIGURE NO. 22



PLAN VIEW
1:100



PROFILE VIEW
1:20

	BIG C DINKER-TOUR AHEAD FACILITIES CONTROL PROJECT LINCOLN MARK SITE	PROJECT NO. 14015
		DATE 07/27/16 SHEET 2-2

Lincoln Park Site

Advantages

- Does not require pumping facilities
- Alternative will provide for redundancy or replacement of the existing trunk sewer
- Mitigation of existing surcharging in the park
- Will allow for improved monitoring and maintenance of the existing trunk sewer

Disadvantages

- Deep excavation and tunnel construction in rock
- Potential for the perception of impacts to the neighborhood, park and school (i.e., EJ Issues)
- Conveyance of treated flows to the South Plant requires treatment of higher flow rates
- Potential park land alienation legislation

Facility Capital Cost Comparison

U-Haul Site

Item	Costs
Screening	\$8,430,000
Disinfection	\$4,610,000
Odor Control	\$1,070,000
Site Work	\$7,200,000
Electric Work	\$650,000
I&C Work	\$650,000
Plumbing	\$280,000
Indirect Costs	\$13,400,000
Contingency	\$7,370,000
Escalation	\$2,700,000
Total	\$46,400,000

Lincoln Park Site

Item	Costs
Screening	\$6,500,000
Disinfection	\$5,100,000
Odor Control	\$1,170,000
Site Work	\$8,170,000
Electric Work	\$540,000
I&C Work	\$540,000
Plumbing	\$270,000
Indirect Costs	\$13,150,000
Contingency	\$7,170,000
Escalation	\$2,600,000
Total	\$45,200,000

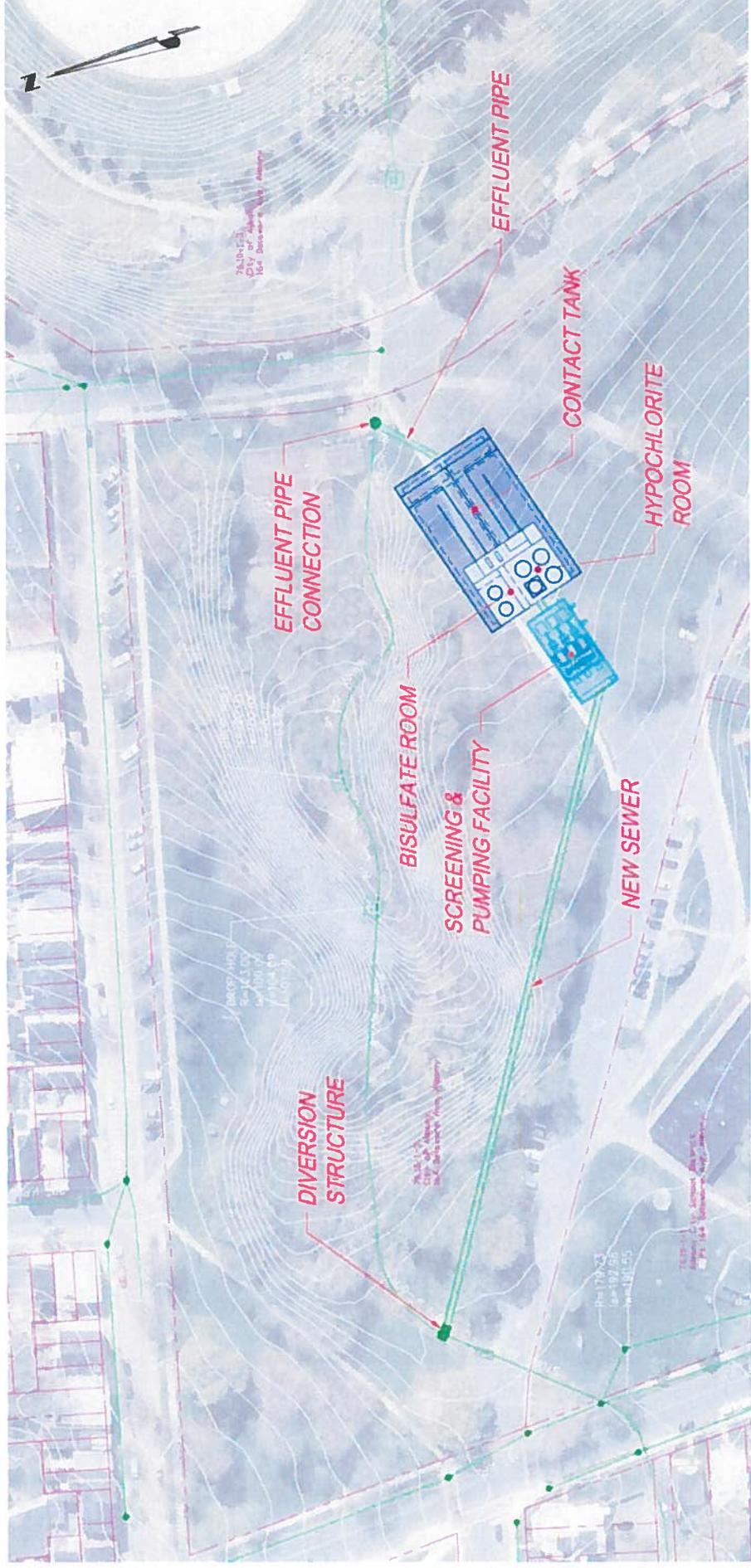
Facility Capital Cost Comparison

U-Haul Site

• \$50,300,000

Lincoln Park Site

• \$48,200,000



Next Steps

- August 1, 2016: Submittal of the Preliminary Engineering Report
- 2016: Reach consensus in regards to technology and site selection with DEC
- 2016: Complete Basis of Design Criteria
- 2017: Public Education and Outreach
- 2017: Advance Preliminary Design

Questions

ALBANY CITY WATER BOARD
CAPITAL IMPROVEMENTS
7/22/2016 Summary

Project	2016 Proposed Budget	Status	Vendor	Asset	Invoice Date	Amount Spent to Date	Description of Project
Supply Reservoir	\$ 325,000						
Supply Conduit	\$ 90,000	Open	General Controls	Pinebush Pump Station	4/13/2016	\$ 11,750	
Fuera Bush Filtration Plant	\$ 310,000	Open	Ryan-Biggs	FB Plant	4/4/2016	\$ 10,356	
		Open	Ryan-Biggs	FB Plant	5/17/2016	\$ 11,117	
		Open	Ryan-Biggs	FB Plant	5/26/2016	\$ 2,654	
		Open	Ryan-Biggs	FB Plant	6/24/2016	\$ 2,706	
Distribution System	\$ 400,000	Open	CHA	Distribution	4/1/2016	\$ 26,833	
			CHA	Distribution	6/16/2016	\$ 96,890	
Loudonville Reservoir	\$ 365,000						
Pumping Stations - Water	\$ 130,000						
Engineering Fees-Water	\$ 100,000	Open	Arcadis	Engineering Service	3/28/2016	\$ 6,311	Engineering Services Water
		Open	O'Brien	Engineering Service	3/9/2016	\$ 2,729	Engineering Services Water
		Open	Arcadis	Engineering Service	4/28/2016	\$ 11,461	Engineering Services Water
		Open	O'Brien	Engineering Service	5/20/2016	\$ 23,862	Engineering Services Water
		Open	Arcadis	Engineering Service	6/3/2016	\$ 10,991	Engineering Services Water
		Open	O'Brien	Engineering Service	6/27/2016	\$ 7,789	Engineering Services Water
Erie Blvd Facility	\$ 100,000					\$ 63,143	
Contingency - Water	\$ 75,000						
Computers/ Meters	\$ 400,000	Complete	Badger	Software V7 Migration	3/8/2016	\$ 1,500	
		Complete	Accela	Woodville Pumpstations	4/1/2016	\$ 6,703	
		Complete	General Controls	Office	4/30/2016	\$ 16,900	
		Complete	ABS Solutions	Office Computers	5/9/2016	\$ 453	
		Complete	Hewlett Packard	Printers	5/18/2016	\$ 6,708	
		Complete	B&H			\$ 292	
Sewer Separation	\$ 50,000	Open	CHA	Upper Washington Ave Corridor	6/24/2016	\$ 32,556	
Sewer Rehabilitation	\$ 155,000	Complete	Kenyon Pipeliner	Cured in Place Pipe relining		\$ 4,800	
		Open	CHA	Elberon Place Flood Mitigation Study		\$ 395,945	Various Streets
		Open	Barton and Loguidice	N Swan St GJP		\$ 15,873	Elberon Place Flood Mitigation
		Open	Barton L	N Swan St GJP		\$ 1,053	N Swan GJP
		Open	Arcadis	Stormwater credit and Banking feasibility	5/13/2016	\$ 6,000	
		Open	CHA	Elberon Place Flood Mitigation Study	5/18/2016	\$ 12,982	
		Open	CHA	Elberon Place Flood Mitigation Study	5/26/2016	\$ 22,170	
		Open	CHA	Hanson Ryckman	6/17/2016	\$ 112,325	
		Open	CHA	Elberon Place Flood Mitigation Study	6/17/2016	\$ 74,788	
		Open	Barton L	N Swan St GJP	6/10/2016	\$ 13,260	
		Open	Arcadis	Stormwater credit and Banking feasibility	6/10/2016	\$ 5,962	
Pumping Stations	\$ 225,000					\$ 660,368	
Engineering Fees-Sewer	\$ 100,000		Barton and Loguidice	Engineering Services Sewer Plant Line feed	5/18/2016	\$ 7,965	Engineering Services Sewer 14-04
Contingency - Sewer	\$ 100,000	Complete	Aroid Construction	Main Drain Valve	Not yet invoiced	\$ 7,965	
		Complete	JAT Construction	Replace Sanitary Sewer Force Main New Scotland Ave	Not yet invoiced		
		Open	CHA	Engineering Services Sewer	Not yet invoiced		
Overflows	\$ 75,000		CHA	Engineering Services Sewer	4/1/2016	\$ 3,739	

Invoiced \$ 919,709 Total 2016 Capital Improvements
 2016 Budgeted Capital Improvements \$ 3,000,000
 Rolled from 2015 Projects \$ 786,071

Albany Water Board
Arcadis Engineering Report
Date: July 22, 2016

Upcoming LTCP Projects\Dates

- **Big “C” Control Facility** – The project was awarded to the Albany Pool Joint Venture Team. Completed Preliminary Design Report is due 8/1/2016. Project is underway.
- **Performance of a Codes and Local Law Review, & Green Infrastructure Technical Design Guidance** - CDRPC awarded a contract to Barton & Loguidice. Local Law completion date is 8/1/2016, Technical Design Guidance by 8/1/2017.
- **Marietta Place Stormwater Storage Facility** – Awarded to Barton & Loguidice. Completed plans and specifications due by 10/1/2016.
- **Green Infrastructure Banking System Feasibility Assessment**. Awarded to Arcadis. Work must be completed by 8/1/2017.

Arcadis Projects

- **Green Infrastructure Banking System Feasibility Assessment**
- **Feura Bush Filtration Plant – (NYSERDA FlexTech Grant)** – Project will include energy evaluation at the Feura Bush filtration plant (blowers, lighting, windows\doors). The project also includes some condition assessment and treatment system evaluation.
- **CIP Projects** – Sewer condition assessment, erosion problems, Loudonville Reservoir Basin C wall cap replacement.
- **Geographic Information System (GIS) Data Integration (Patroon Creek Sewershed)** - Project included digitizing about 150 sewer system drawings to GIS.
- **Asset Management Program** – First workshop completed July 15th. The second workshop will be the first week of August. Plan will be completed by October. Some components will include establishing levels of service, key performance indicators, and risk.
- **Long Term Control Plan Schedule of Compliance** – Monitoring deadlines and costs