



**Environmental
Protection**

Newtown Creek WWTP South Battery Upgrade

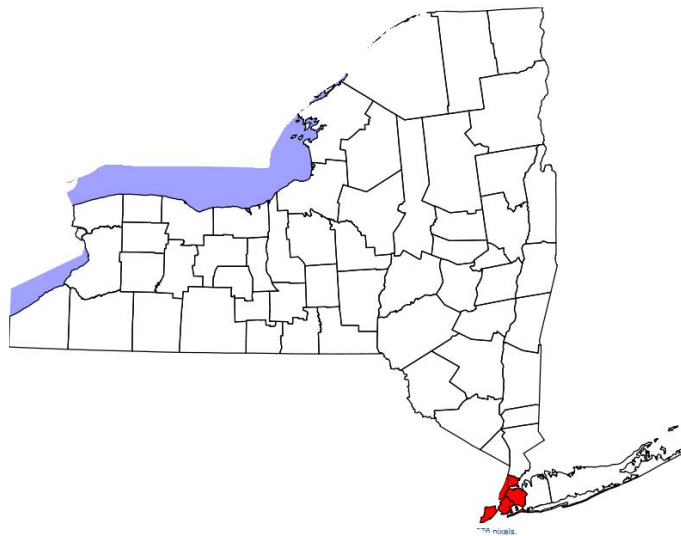
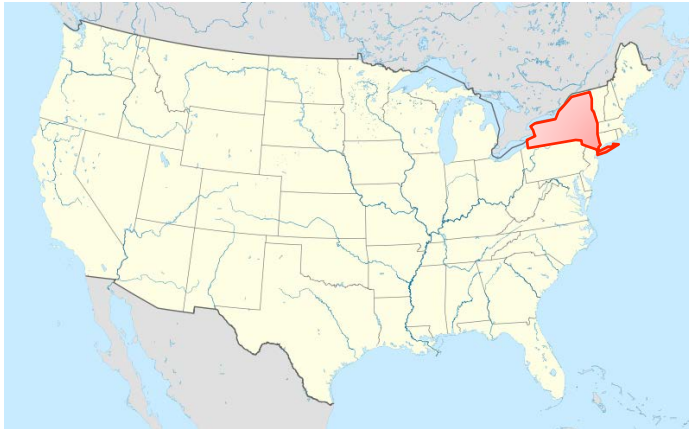
American Academy of Environmental Engineers and Scientists

April 25, 2013

Overview

- Location / Service Area
- History of Newtown Creek WWTP
- “Track 3” Upgrade Plan
- Project Schedule & Costs
- Innovative Design
- Quality Design for Operations
- New Control Building
- Sustainable Design

Location / Service Area



Water Pollution Control Plants		
Area No.	Location (North, South, East)	Capacity
		Mgd
North		
1	Bowery Bay	150
2	Hunts Point	200
3	Tallman Island	80
4	Wards Island	275
South		
5	Newtown Creek	310
6	North River	170
7	Oakwood Beach	40
8	Port Richmond	60
9	Red Hook	60
East		
10	26th Ward	85
11	Coney Island	110
12	Jamaica	100
13	Owls Head	120
14	Rockaway	45
Total		1805

- Legend**
- W.P.C.P
 - Service Area Boundary
 - ① Service Area Number
 - Plant has Dewatering



History of Newtown Creek WWTP

1967
Plant
Built

1967
310 MGD (dry flow)
70% Removal of TSS
60% Removal of BOD

1988
Judgment
on
Consent

1972
Clean
Water
Act

1984

History of Newtown Creek WWTP

1980

Facility Plan
developed to
meet
requirements
of CWA

1988

Judgment
on
Consent

1967

Plant
Built

1972

Clean
Water
Act

**Requires Secondary
Treatment
85% Removal of
BOD and TSS**

History of Newtown Creek WWTP

NYSDEC identifies Newtown Creek as one of 41 non-complying WPCPs. Requires Upgrade Completed by 12/31/1996

1988
Judgment
on
Consent

1972

Clean
Water
Act

1984

EPA "National
Municipal Policy"
requires that all
WPCP comply with
the CWA of 1972

History of Newtown Creek WWTP

- **Recommended Two Alternative Plans:**
 - **Track 1-Step Denitrification**
 - **Track 2-Biofilters**
- **Performed Pilot Test of Biofilters**
- **Track 1 required until June 30, 2010 to achieve Secondary Treatment**

1991

State
Rescinds
Approval of
Facility Plan

1995

Modified
Judgment of
Consent
Facility Plan

History of Newtown Creek WWTP

1998

Final Report
Issued

Track 3
Recommended

**Track 3 Facility Plan
recommended and submitted to
DEC in July 1998.**

**• Less Costly than Track 1 and
Track 2.**

1999

Track 3
Rejected
by DEC

History of Newtown Creek WWTP

Achieved Secondary Treatment Standards Ahead of Schedule 5/31/2011

- TSS removals consistently greater than 85%
- CBOD removals consistently greater than 80%
- Successfully managed Wet Weather Flows.

2011

Achieved
Secondary
Treatment



“Track 3” Upgrade Plan



Project Schedule & Costs



Cost

- Construction Contract Price
\$724,000,000
- Actual Construction Project
Cost \$743,451,000

Schedule

- Notice To Proceed 9/2/2008
- Consent Order Completion
10/31/2012
- Actual Date of Completion
7/31/2012

Innovative Design



Quality Design for Operators



New Control Building



Control Building Interior



Control Building Roof



Control Building Basement



Sustainable Design



Nature Walkway



Acknowledgements

Nat J. Federici, NYCDEP
Ken Moriarty, NYCDEP
Hazen and Sawyer
Malcolm Pirnie
Larry Gillman, Skanska USA

Questions?

