



Minutes for GNHWPCA CSO Long Term Control Plan Committee
Special Meeting, March 25, 2008

In attendance: Directors Raymond Farina, Joyce Harned, and Russell Cyr, Executive Director Dominick DiGangi, Director of Operations, Gary Zrelak, Manager of Design, Mario Ricozzi and Manager of Coordination and Project Controls, Mike Blake. Directors Ginzberg and Turner were absent. Chairman Mongillo was also in attendance.

1. Meeting comes to order 5:15 P.M.
2. A motion was made by Director Cyr to approve the Minutes of the Committee Meeting of February 25, 2008, seconded by Director Harned to approve the minutes of the meeting of February 25, 2008. The motion was carried unanimously.
3. Fiscal 2009 Annual Capital budget, Update to the Five Year Capital Improvement and Impact on the Annual Operating Budget – CSO LTCP

A presentation was made by staff outlining the projects proposed in the Fiscal Year 2009 Annual Capital Budget to facilitate the reduction and/or elimination of combined sewer overflows in accordance with the Long Term Control Plan. It was noted that all projects involving upgrades to the treatment plant or pump stations would have an odor control component integrated into the project. There was discussion on the effect of the capital budget on the rate structure and methods to minimize the impacts. A copy of the presentation slides is included with the minutes.

4. Adjourn at 7:25 P.M.

Respectfully Submitted:

Mario Ricozzi, P.E., F.ASCE
Manager of Design, CSO, LTCP, OCP

Long Term Control Plan Capital Project Summary



Board of Directors
LTCP Sub-Committee
March 25, 2008

LTCP Sub-Committee Briefings

- › History and Overview (February 25, 2008)
- › Long Term Control Plan
 - Projects, Costs and End Results
- › Where Do We Go From Here



LTCP Capital Projects Locations

- ★ - Programmed Capital Projects
- # - Future Capital Projects

MAXIMIZE WET WEATHER FLOW TO EAST SHORE WPAF

- › Study, Model Update and Preliminary Design
 - Completion Expected April 2008
 - Estimated Cost \$630,000
- › Basis for Upgrades & Flow Modifications to
ESWPAF, East St PS, Boulevard PS, Union PS &
Union FM

Preliminary Wet Weather Flows



WPAF Flow Modifications

Wet Weather Flows

- Increase Flow to 146 /185 MGD
- Add Grit Removal
- Add a Primary Tank
- Relocate Force Main
- Modifications to Plant Piping
- High Flow Diversion Piping
- Odor Control Modifications



Design - 2008 & 2009
Construction - 2009 to 2012
Estimated Cost \$43,340,000

Boulevard Pump Station Flow Upgrades



Design - 2008 to 2009
Construction 2009 to 2011
Estimated Cost \$17,750,000

Upgrade Bar Screens
Upgrade Pumps 35 to 48 MGD
Upgrade Odor Control

East St Pump Station Flow Upgrades



Design - 2008 to 2009
Construction 2009 to 2011
Estimated Cost \$18,500,000

Upgrade Bar Screens
Upgrade Pumps
Upgrade Odor Control

Union Pump Station Flow Upgrades

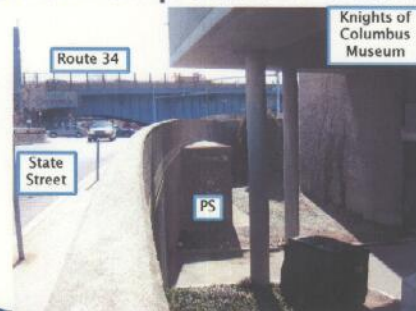


Design 2009 to 2010
Construction 2010 to 2012
Estimated Cost \$22,500,000



Anticipated Relocation
(Existing Unit Under Knights of
Columbus Museum & State Street)
Increase Flow 19 to 56 MGD
Bar Screens, Pumps, & Odor
Control Equipment

Union Pump Station Location



Union Pump Station Force Main Upgrade



Design 2010 to 2011
Construction 2011 to 2012
Estimated Cost \$18,000,000



Force Main Crosses Railroad
Approx 11,000 Linear Feet
Coordination with Q Bridge

Compliance Monitoring

Design 2008
Construction 2008 through 2009
Estimated Cost \$2,000,000
CSO 024 - \$127,500
CSO 003, 004, 005, 006 - \$1,215,000

Installation of Flow Meters in
Combined Sewers to Measure
Overflows

Meter Data Sent to Treatment
Plant to Control Pump Stations

Boulevard Sewershed First to
be Monitored



Tide Gate Replacements



Boulevard/Sea Street

Design 2007, Permitting 2008
Construction 2008 to 2009
Estimated Cost \$250,000



Poplar/River Street

Construction Schedule Set
by Tide & Rainfalls
Replace Iron/Steel Gates
with Rubber

FAIR HAVEN AREA SEWER SEPARATION

- Complete separation of Sanitary Sewer and Storm Sewers
- Installation of New Sanitary Sewers
- Existing Combined Sewer to handle Stormwater only
- Elimination of all Combined Sewer Overflows from Fair Haven (Approximately 68 MG/year)
- Estimated Program Costs \$53,000,000
- Construction over 7 year time frame



Preliminary Design and
Phasing Plan - 2008

Estimated Cost \$450,000



Fair Haven Pump Station

- Design 2008, Construction 2009 & 2010
- Estimated Cost \$6,000,000

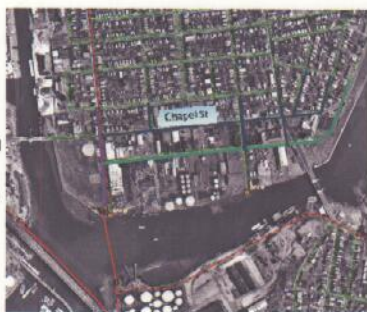


Fair Haven South of Chapel St

Design 2008
Const. 2009 to 2010
Cost \$5,000,000

Project Includes:
•South Interceptor
•Local Sewers
•Private Inflow Removal

Coordination with City
Redevelopment Project



Private Inflow Removal Lombard Pine & State St Area

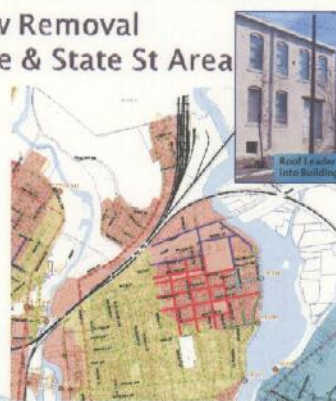
Separation of Roof Leaders
& Sump Pumps into
Drainage System from
Homes & Businesses

Involves Construction on
Private Property

CT DEP Funding Eligibility
to be determined

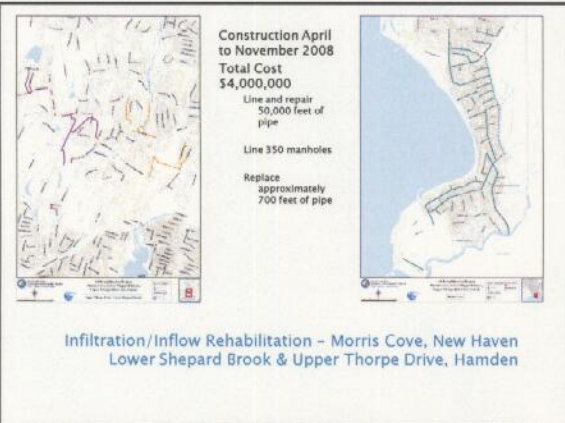
Potential Design 2009

Estimated Cost \$4,000,000



INFILTRATION/INFLOW (I/I) REHABILITATION

- ▶ Infiltration and Inflow Rehabilitation
 - Reduces groundwater and unwanted surface water conveyed and treated at treatment plant
 - Reduces costs to convey and treat
 - "Frees Up" capacity in sewer pipes, pump stations and treatment plant
 - Reduces overflows of untreated sewage

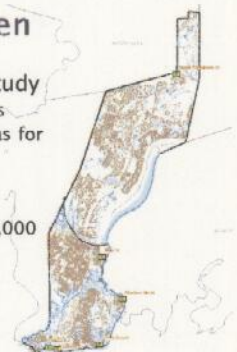


I/I Rehabilitation State Street, Hamden



I/I Study East Haven

- ▶ Phase I Flow Monitoring Study
 - Installation of 28 Flow Meters
 - Determine cost effective areas for Phase II SSES
- Phase I Study during 2008
- Phase I Estimated Cost \$250,000
- ▶ Future
 - Design 2009
 - Construction 2010, 2011



Future Projects

▶ East Street Sewershed

- Study & Design 2010 to 2011
- Construction 2012 to 2013



Future Projects

- ▶ I/I Study and Rehabilitation
 - Woodbridge – Study 2011, Construction 2012
 - East Haven 2 – Design & Rehabilitation
 - Hamden Middle Thorpe Dr Design & Rehabilitation