



SewerWorks

Green Redevelopment Reduces Combined Sewer Overflow in New Haven

Since the early 1960's the City of New Haven, and now the GNHWPCA, have separated 1,850 acres (45 percent) of combined sewer area in New Haven by constructing new drains and rehabilitating existing combined sewers (55 miles) at a cost of well over \$250 million. Our approved CT Department of Energy and Environmental Protection (DEEP) CSO Long Term Control Plan recommends separation of an additional 450 acres of combined sewer area, expansion of our wastewater treatment plant, upgrade of our three major pump stations, and construction of CSO storage tanks, as required, at an additional cost of \$580 million.

Requiring developers in the combined sewer area to install green infrastructure (GI) to retain the post development total runoff volume for the two- year six-hour design storm (the approved DEEP CSO level of service) has proven to be an effective mechanism to reduce CSO volumes and improve water quality at no cost to the GNHWPCA. Since 2008, we have approved over 30 redevelopment projects within the combined sewer areas of the City of New Haven. These projects have included GI components such as infiltrators, bioswales, tree wells and storage tanks for irrigation and water features. Over 50 acres of combined sewer area have been separated under this program saving our ratepayers an estimated \$10 million in CSO abatement costs.

The Authority's Director of Engineering Tom Sgroi made a recent presentation at the New England Water Environment Associations 2013 Integrated Wet Weather Issues Specialty Seminar held in Providence, Rhode Island, on October 23rd and 24th. Mr. Sgroi's presentation highlighted efficiencies of our regional authority along with quantifying benefits that GI has had on our combined sewer system. The presentation draws cost saving comparisons to CSO and GI programs in Hartford, Philadelphia and New York City. A complete copy of the powerpoint presentation is available to view on our website www.gnhwpca.com.

MEET ONE OF OUR BOARD MEMBERS



Although I've lived in New Haven for almost 40 years, I grew up in Milford, where my father and his brother were the third generation in the family septic tank business. We learned about water conservation at an early age. In the 8th grade, I built a non-working scale model of a local treatment plant that won me Honorable Mention at a University of Bridgeport science fair.

Times changed, however, with Milford and surrounding towns installing sanitary sewers, replacing most cesspools and septic tanks. I was encouraged to look beyond the family business and, with much support from family and community, received a degree in Finance from the University of Connecticut. I went on to become a local banker, providing loans and related financial services to businesses and individuals in my hometown and throughout Connecticut. I soon learned that my forte was working with small, local businesses and developing new entrepreneurs. I left the banking industry in the mid-1990s to become the Senior Loan Officer at a statewide non-bank business lending organization, located in Hartford. In the fall of 2006, I was given an opportunity to take a similar position with the City of New Haven's Office of Economic Development. I expanded the position by taking responsibility for several programs that provide incentives for new and existing businesses and provide resource information and guidance for new and existing businesses in New Haven.

My family background and career experiences give me a unique perspective on the functions and operations of the GNHWPCA. I am particularly impressed at the capabilities of management and staff, particularly the planning and implementation of projects that deal with the realities of climate change. I am proud of New Haven with its diverse, caring population and, as a GNHWPCA Board member, I wish to continue supporting projects and programs that encourage good health and quality of life.

—Clayton M. Williams, Jr.

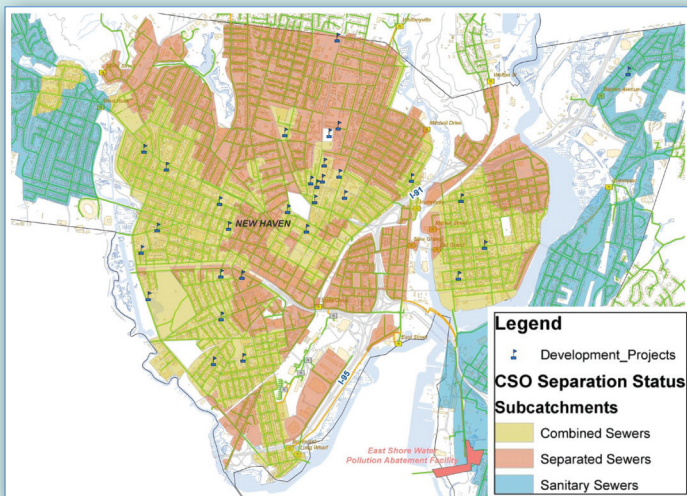
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STUDY TO REDUCE CSOS TO THE WEST RIVER APPROVED

Based on flow metering data from the Authority's ongoing combined sewer overflow (CSO) Flow Monitoring Program, the Authority's Engineering Department identified some potential improvements to the sewer system that will reduce CSOs to the West River during rain events. In November, the GNHWPCA Board and the Connecticut Department of Energy and Environmental Protection approved hiring the engineering firm CH2M Hill to conduct the study. The engineering report will develop a Recommended Plan to:

- Reduce CSOs to the West River by modifying or constructing new regulators
- Maximize use of the existing five million gallon Truman CSO storage tank
- Maximize pumping from the Boulevard pump station
- Maximize conveyance and storage in the Boulevard trunk sewer
- Balance CSO flows to West River and New Haven Harbor
- Evaluate green infrastructure alternatives within the Boulevard trunk sewer tributary areas

The six month study is expected to start in December. A meeting will be scheduled in the spring of 2014 to present the draft Recommended Plan and implementation schedule to the public.



Location map depicting successful green redevelopment projects throughout the City of New Haven since 2008. To date more than 50 acres of runoff have been removed from the Authority's combined sewer system. These projects have reduced annual CSO's by an estimated 3.3MG per year.



One of eight Secondary Clarifier Tanks at the East Shore Plant, this equipment will be replaced as part of the \$46M Treatment Plant Upgrade Project starting this spring.

Wet Weather Capacity Improvements and Nitrogen Reduction at ESWPAF—Phase 1

The Greater New Haven Water Pollution Control Authority has awarded a \$47 million construction contract to Connecticut based CH Nickerson & Co., Inc. The 3 year construction project will break ground in the spring 2014. The project will fortify the backbone of the East Shore Water Pollution Abatement Facility and reduce nitrogen discharged into Long Island Sound. The Phase 1 Wet Weather Capacity Improvements (Phase I) upgrades existing systems such as Odor Control, Electrical, Electrical Controls, and Solids Handling to be more reliable and allow the facility to remain fully operational during a power outage. Phase I also improves the secondary treatment process to reduce nitrogen discharged to Long Island Sound. In addition, this phase prepares the plant for future construction phases that will ultimately increase the treatment capacity during wet weather (rainfall) events.

2014 MEETING SCHEDULE

The GNHWPCA will hold its' regular monthly meetings on the second Tuesday of the month, at 6:00 PM, at the Administrative Offices, 260 East Street, New Haven, CT. The meeting dates are:

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| January 14, 2014 | July 8, 2014 |
| February 11, 2014 | August 12, 2014 |
| March 11, 2014 | September 9, 2014 |
| April 8, 2014 | October 14, 2014 |
| May 13, 2014 | November 18, 2014* |
| June 10, 2014 | December 9, 2014 |

* NOTE: due to Holiday on second Tuesday November 11, 2014, Veterans Day, the GNHWPCA meeting will be held on the third Tuesday November 18, 2014.