

Water Quality Trading in Connecticut

October 2017

CT has been very successful in achieving the 2014 TMDL (9,148 equalized pounds). From January 2017 to August 2017, the state discharged 8,160 equalized pounds.

Major accomplishments and activities relative to the 2016 program operations include:

- One of the Department of Energy and Environmental Protection's (DEEP) management strategies to reduce nitrogen loading was to implement an innovative nitrogen-trading program among the Water Pollution Control Facilities (WPCFs) located throughout the State which are covered under the General Permit for Nitrogen Discharges (NGP). The goal was to cost-effectively reduce the nitrogen load from those sources by about 65% by the end of 2014 through:
 - Encouraging denitrification at WPCFs with increased Clean Water Fund (CWF) grants,
 - Spreading nitrogen removal upgrades over thirteen years, thereby reducing the financial impact on the CWF,
 - Providing a fiscal alternative to the immediate expenditure of capital funds.
- The Total Maximum Daily Load (TMDL) allocation for the State of CT is 9,148 equalized pounds of nitrogen per day (eq. lbs N/day). In 2016, the state as a whole complied with the TMDL and discharged only 7,583 eq. lbs N/day to the Long Island Sound (LIS). The warm weather aided the State in complying with the NGP. During this time, three WPCFs became "project facilities" by completing nitrogen removal upgrades to their treatment plants. The three WPCFs are New Haven (GNHWPCF), Manchester, and Plymouth.
- The trading program moved to a self-sufficiency scenario in trading year 2016, in which the State achieved a revenue-neutral state in the following manner: The WPCF not meeting the NGP goals ("the buyers") will continue to buy credits and the WPCFs meeting the NGP goals ("the sellers") will divide the funds paid by the buyers proportionally, based on the seller's relative performance. Most sellers should receive a reduction in the amount received as the State will no longer be subsidizing credits and the number of buyers is decreasing.
- The Nitrogen Credit Advisory Board formally submitted recommendations to the DEEP Commissioner that he establish the value of an equalized nitrogen credit for buyers at \$6.70 for trading in 2016 and for sellers at \$2.65971.
- In 2016, twenty-five facilities were required to purchase credits equivalent to 1024.3 eq. lbs in order to remain in compliance with the NGP. Those payments totaled \$2,511,788 and were shared amongst the fifty-four facilities selling 2580.28 eq. lbs.

The Nitrogen Credit Advisory Board highlights:

- The Clean Water Fund Project Priority List for Fiscal Years (FY) 2014 and 2015 was approved on July 18, 2014 and provided a plan for the expenditure of \$67M in general obligation bonds and \$318M in revenue bonds in FY 2014 and \$218M in general obligation bonds and \$261M revenue bonds in FY 2015. A portion of those funds for FY 2014 and FY 2015 were expended for nitrogen removal projects in Mattabassett, Hartford, New Haven, Plymouth, Manchester, and the Middletown WPCF abandonment project. Nitrogen removal projects that are currently under construction include Rocky Hill, Farmington, and Middletown.

- Fifty-six (56) WPCFs have become project facilities completing construction for nitrogen removal through 2016, with an expected total of fifty-eight (58) project facilities completing construction by 2019. The cost to the Clean Water Fund for project facilities to remove 16,381 eq. lbs of N/day is \$452M to date with an expected cost of \$97M for projects in process through 2022. It is estimated that between \$200M to \$300M has been saved by not requiring all WPCFs to upgrade their treatment plants for nitrogen removal.
- DEEP and the NCAB proposed legislation to move the nitrogen trading program to self-sufficiency ("State subsidy neutral") for the 2016 trading calendar year, with credit exchange transactions to be completed by August 2017. To address the unsustainable State subsidization of the program, and to avoid discontinuing the program, on June 5, 2015, [Public Act 15-38](#), *An Act Concerning the Sustainability of the Nitrogen Credit Exchange Program* was signed by the Governor. For 2016, the self-sufficient scenario was implemented and the State did not subsidize the Nitrogen Credit Exchange program, thereby saving the state \$3,798,286.74 dollars.