

The Vernon Water Pollution Control Facility (WPCF) treats wastewater from the Towns of Vernon, Ellington, Manchester, South Windsor, and Tolland. Following treatment, the treated water is discharged into the Hockanum River, a small stream tributary to the Connecticut River which flows into the Long Island Sound.

Vernon has been providing wastewater treatment at this site since 1895, and as treatment standards have changed over the years, so has the Vernon facility. Last upgraded 25 years ago, the plant cannot meet today's water quality standards.

To determine what must be done to address both water quality standards and aging infrastructure nearing the end of its normal service life, the Town completed a study in August 2017 which presented a cost-effective plan to meet the current and projected needs of the WPCF over the next 25 year period, including the following:

#### **Phosphorous Removal**

Vernon's WPCF discharge permit issued by the Department of Energy and Environmental Protection (CT DEEP) and EPA requires the removal of phosphorous to a very low level. The study recommends upgrading the WPCF to include both biological and physical removal of this nutrient to ensure its permit limits are consistently met.

#### **Nitrogen Removal**

CT DEEP has established strict annual nitrogen removal limits for the state's WPCFs to improve the water quality of Long Island Sound. Currently Vernon's WPCF cannot remove nitrogen from its wastewater, but purchases nitrogen credits to maintain compliance. These costs will be rising significantly, and the credit program may not be available in the future, requiring Vernon to undertake another costly upgrade project.

Excessive phosphorous and nitrogen has been found to adversely affect water quality and fish habitats.

## **THE CLEAN WATER FUND**

The Clean Water Fund has been established to help communities pay for wastewater facility upgrades. This assistance is offered to qualifying projects through grants and 2% interest loans. It is estimated that the Vernon WPCF upgrade will receive a grant of approximately 30% of the total project cost. The portion of the project related to phosphorus removal is eligible for a grant of 50% of the cost, provided the Town enters into a construction contract with a general contractor by July 2019.

In addition, the communities of Ellington, Manchester, South Windsor and Tolland will contribute to the cost of the upgrade as defined in their Intermunicipal Agreements with Vernon.



If you would like additional information, contact

**WPCA Director Robert Grasis**

**860-870-3699**

or visit the Town of Vernon's website

[www.vernon-ct.gov](http://www.vernon-ct.gov)

**Town of Vernon, Connecticut  
Water Pollution Control Authority**  
100 Windsorville Road  
Vernon, Connecticut 06066



# **VERNON WATER POLLUTION CONTROL FACILITY UPGRADE**





# VERNON WATER POLLUTION CONTROL FACILITY UPGRADE

## UPGRADES INCLUDE:

1. Provide screening and grit removal equipment to protect downstream equipment
2. Upgrade aeration system to biologically reduce harmful pollutants, including nitrogen
3. Retrofit Filter Building to house new cloth media filters needed to reduce phosphorus
4. Switch from bleach disinfection to UV disinfection to provide safer, cost-effective treatment
5. Convert abandoned tanks to covered storage tanks needed for sludge processing
6. Install sludge thickening equipment to reduce sludge hauling and disposal costs
7. Replace 1970's vintage electrical equipment to improve system safety and reliability



## Benefits of the Facility Improvements include:

- Meets or exceeds all environmental standards
- Protects the quality of the Hockanum River and Long Island Sound
- Assures reliable, cost-effective service
- Reduces nitrogen and phosphorous, major pollutants affecting fish habitats