

# Wastewater

## Conveyance, Treatment, Disposal

The management of wastewater discharges from residential, commercial, institutional, and industrial sources through effective collection, treatment, and disposal is essential to the protection of the public health and the environment.

Marble Valley Engineering, PC is well versed in the Federal and State regulations governing the discharge of wastewater to the sub-surface and surface waters. Our planning, design, and construction experience ranges from municipal wastewater collection and treatment facilities to onsite sewage disposal systems for single family residences.



**PROCTOR BACKWASH EFFLUENT TREATMENT**

*Planning, design, permitting, and construction of a treatment system for the wastewater stream generated by a municipal rapid sand filter drinking water plant. ACEC Engineering Excellence Merit Award, 2006*

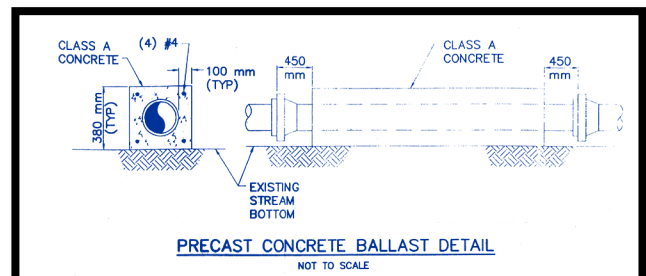
Our services include:

- Infiltration/Inflow (I/I) Analysis
- Combined Sewer Overflow (CSO) Monitoring and Abatement
- Collection System Mapping
- Design of New Facilities
- Collection and Treatment Facility Evaluations
- Collection System Rehabilitation
- Treatment Facility Upgrades and Expansion
- Test Pits; Percolation Testing; Preliminary Wetland Delineation
- Permitting for Direct and Indirect Discharges
- Financial Planning including Grant Procurement

We offer services through construction. Those staff most familiar with the design intent provide resident representation, shop drawing review, construction change review, and oversee acceptance testing.

The challenges facing communities with undersized, leaking, and /or deteriorated sewers are increasing daily. The alternatives and costs associated with replacing sewers, requires careful and thorough planning. We explore innovative alternatives or combinations of alternative technologies to provide the most cost-effective solution. Our experience with sewer system evaluations, rehabilitation methods, and replacement has resulted in numerous successful improvements.

*Structural, civil, and hydraulic design of 6" force main installed on the stream bed of Otter Creek. Unique concrete ballast installation to protect pipe from ice and debris impact, heighten stability against drag, and provide beam action over irregular bed surfaces.*



**SANITARY SEWER FORCE MAIN CROSSING OTTER CREEK**

