

Distributed Sewer: The Demand Side

The Municipal Advantage



This wastewater treatment system in a suburb south of Boston serves three commercial shopping plazas.

The town required the developer to build a treatment system to accommodate an existing supermarket strip mall and a variety of restaurants and retail outlets across the street. The combined flow is 40,000 GPD high strength wastewater.

Essentially, the towns need to eliminate failed septic systems was exchanged for zoning variances that enabled Lowe's to build a new store.

This exemplifies the potential of a distributed infrastructure.

Essentially to be infrastructure it must service the broad range of activities that occur in a vibrant and growing community. It must also meet environmental results or "beyond compliance standards. Finally, to be sustainable, it must be affordable.

A distributed infrastructure is flexible and adaptive. It can be performance based, modular, scaleable, readily deployable and designed and piped for redundancy and seasonal efficiency.

It creates the opportunity to implement community preservation and watershed principles. It facilitates zoning for smart and green growth. It allows planning to be incremental, continuous, adaptive and reflective. It encourages private investment, and provides for long term self-sustaining sources of revenue for a community.

Structured properly it may enable property owners to take advantage of the tax codes while increasing the value of their property.

Design Approach

The system layout includes 3 parallel flow trains of Aquapoint preconditioning followed by sequential Biocleres and a tertiary anoxic sand filter. The influent wastewater characteristics are (600 mg/l BOD₅, 250 mg/l TSS & 70 mg/l TKN) The final discharge effluent standard is less than 10 mg/l (ppm) total nitrogen. We anticipate that properly managed this treatment system will produce approximately <5 mg/l BOD, <5 mg/l TSS and <5mg/l Total Nitrogen.

Market Momentum and Environmental results

A range of options that include local self interest, tax incentives, limited partnerships, municipal sewer ordinances and environmental results permitting may be combined to accelerate watershed compliant infrastructure development

Absent federal funding there are few if any ways to advance the watershed agenda and integrated water resource management than to practice sustainable hydrology and coastal zone nutrient management at the site or transaction level.

In the "new world of water" all water issues are inter-related. It is often easier and more cost effective to find a common solution to a number of issues than it is to reduce the issues to individual to problems for resolution.

The value propositions and environmental issues at the site level are the result of prior policy decisions. Change a postulate and new perspectives and value propositions emerge. Change several and an entirely new set of possibilities may reveal themselves.

With this in mind there are environmental as well as economic and community values that may be advanced simultaneously with projects like this suburban shared system.

Aquapoint is a wastewater treatment company. We design affordable, modular scalable and readily deployable treatment solutions. We have 600 installations in 22 states. We oversee all our installations and we warrant what we do.

Craig Lindell, CEO
Aquapoint Inc.
508-998-7577
<chlindell@aquapoint.com>