



Treatment Plant Footprint: 10 ft X 40 ft

INSTITUTIONAL		
	Influent	Effluent
<b>FLOW</b>	8,000 gpd	8,000 gpd
<b>BOD<sub>5</sub></b>	250 mg/l	<30 mg/l
<b>TSS</b>	300 mg/l	<30 mg/l
<b>TKN</b>	50 mg/l	
<b>TN</b>		<10mg/l

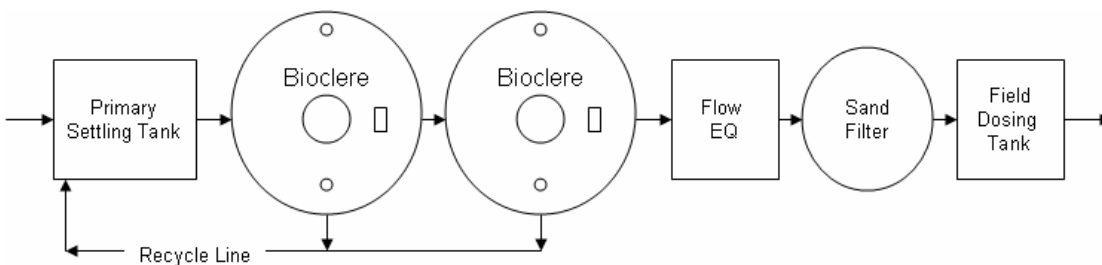
## Aquidneck Place Portsmouth, RI

The Aquapoint Bioclere™ wastewater treatment system at this assisted living facility in Rhode Island is the first phase of a project that will include treatment for a commercial plaza upon the completion of phase two. The second phase will increase the flow from 8,000 gpd to 20,000 gpd and will replicate the design of the current system. The treatment plant is being built in phases to balance the infrastructure costs with build out. The engineers selected an Aquapoint denitrification system because its modularity allowed for phased construction at a low cost.

Because of the porous nature of the local soils and the site's close proximity to nitrogen sensitive coastal waters, the permit discharge standards required secondary treatment and a substantial reduction in nitrogen.

### Treatment Components & Processes:

- Grease trap and 8,000 gal primary settling tank.
- Two Aquapoint Bioclere trickling filters in series.
- First Bioclere performs secondary treatment to reduce BOD<sub>5</sub> and TSS concentrations.
- Second Bioclere is designed to nitrify the waste stream to <2 mg/l ammonia.
- The nitrified Bioclere effluent is re-circulated to the primary settling tank where there is sufficient carbon to initiate denitrification and restore alkalinity.
- Final effluent from the second Bioclere flows to an equalization chamber that feeds a continuous flow, anoxic sand filter.
- The denitrifying sand filter is dosed with methanol to sustain anoxic conditions and a denitrifying biomass.
- Sand filter effluent is distributed under pressure to a soil absorption field.



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