

# AMPHIDROME<sup>®</sup> FACILITY REPORT

**Plant & Location:** The Shoppes at 10.5, Nags Head, NC

**NCDENR: DWQ Certificate:** #94, **DLS Certificate:** #37729

**Facility type:** Shopping plaza with grocery store.

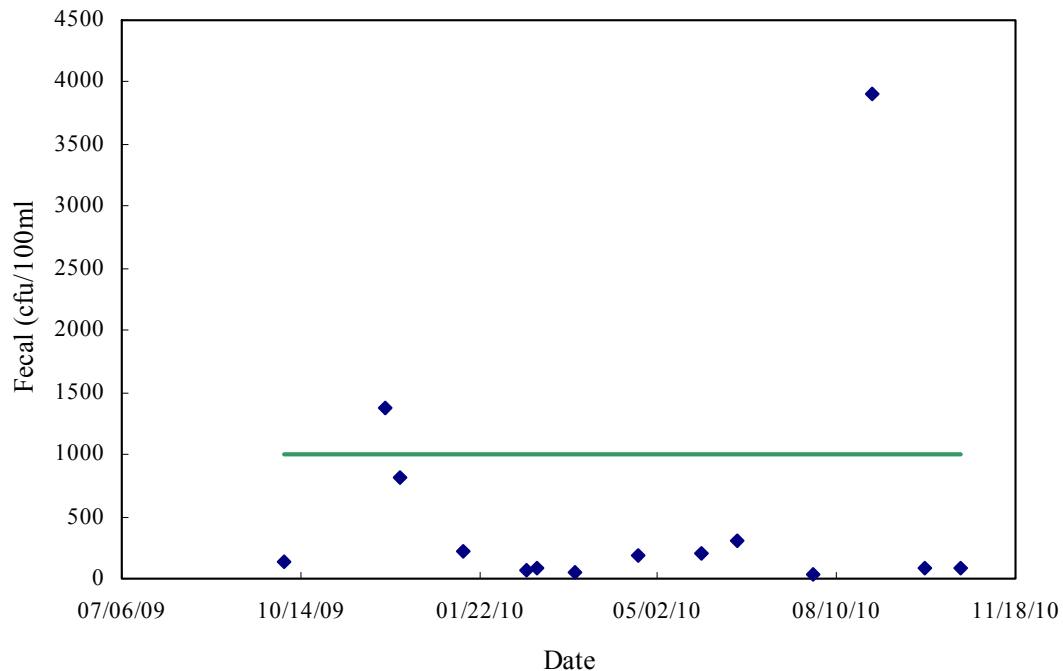
**Chemical Feeds:** Carbon & alkalinity

**Design Flow:** 8,000 gpd

**Design:** This plant was designed to meet groundwater discharge limits including total nitrogen of  $\leq 20$  mg/L and a fecal limit of  $\leq 1,000$  cfu/100ml. The UV unit is an Aquionics model InLine 40+ unit designed to disinfect 40gpm at 65% UV Transmittance (UVT).

**Summary:** This Amphidrome<sup>®</sup> system has been in operation since 2009. The average effluent results for the most recent 12 months of the plant operation are shown in the table below.

|                     | <b>BOD<sub>5</sub></b> | <b>TSS</b>     | <b>Total N</b> | <b>Fecal</b>           |
|---------------------|------------------------|----------------|----------------|------------------------|
| <b>Permit Limit</b> | <i>15 mg/L</i>         | <i>15 mg/L</i> | <i>20 mg/L</i> | <i>1,000 cfu/100ml</i> |
| <b>Average</b>      | 5.4 mg/L               | 5.3 mg/L       | 4.2 mg/L       | 538.9 cfu/100m         |



**Figure 1. The Shoppes at 10.5 Total Fecal**