

THE VILLAGES @ LIMERICK, GA WASTEWATER TREATMENT PLANT

Subsurface Irrigation Community System Irrigates Open Space

October 6, 2016



DESIGN CHARACTERISTICS

| | Influent | Effluent |
|-------------------|----------|----------|
| DESIGN FLOW (MGD) | 0.1 | 0.1 |
| DESIGN TEMP (C) | 13 | – |
| BOD5 (mg/l) | 250 | < 30 |
| TSS (mg/l) | 250 | < 30 |
| TKN (mg/l) | 65 | – |
| AMMONIA?N (mg/l) | 50 | – |
| FECAL (MPN/100ml) | – | < 200 |

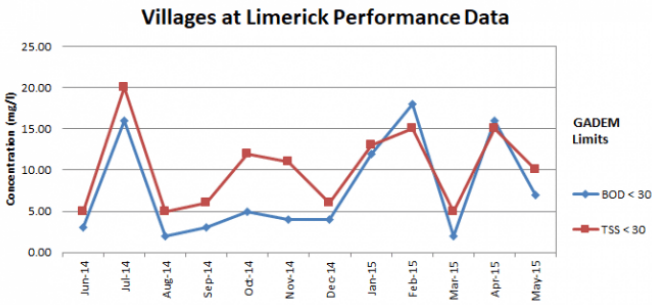
OVERVIEW

The Villages At Limerick Subdivision is located outside Hinesville, Georgia about forty?five miles southwest of Savannah.

In 2007, the developer of was faced with a decision to either connect the 400 home community collection system to the city of Hinesville municipal sewer over 8 miles from the site or to build a community wastewater treatment plant. On?lot septic systems were not an option because they would have compromised the desired development density. In the end, the initial and long term capital costs to build a community wastewater treatment and disposal system were far low than connecting to city sewer.

The developer’s Engineer selected an AquaPoint AquaCELL™ moving bed biofilm reactor (MBBR) treatment system for its proven performance capability, ease of operation and small footprint. The system incorporates primary screening, flow equalization, dual stage MBBRs, secondary clarifiers, sludge digestion, UV disinfection and state of the art PLC controls. Effluent from the plant is discharged through a drip irrigation system.

PERFORMANCE DATA



- System Commissioned: December, 2008
- Detectable Limit for BOD & TSS: = 2 mg/l
- Data Source: GA DEM Records

| DATE | BOD5 (mg/l) | TSS (mg/l) |
|-------------|-------------|--------------|
| JUN. 2014 | 3.00 | 5.00 |
| JUL. 2014 | 16.00 | 20.00 |
| AUG. 2014 | 2.00 | 5.00 |
| SEP. 2014 | 3.00 | 6.00 |
| OCT. 2014 | 5.00 | 12.00 |
| NOV. 2014 | 4.00 | 11.00 |
| DEC. 2014 | 4.00 | 6.00 |
| JAN. 2015 | 12.00 | 13.00 |
| FEB. 2015 | 18.00 | 15.00 |
| MAR. 2015 | 2.00 | 5.00 |
| APR. 2015 | 16.00 | 15.00 |
| MAY 2015 | 7.00 | 10.00 |
| AVG. | 7.67 | 10.25 |

SYSTEM DIAGRAM

