



## CASE STUDY

### PROJECT NAME

Middlesex County High School

### DESIGN FLOW

6,000 Gallons Per Day

### PROCESS USED

Fixed Film Media

### DEGREE OF TREATMENT

Primary  
Flow Equalization  
Treatment  
Drip Disposal

### WASTE TYPE

Domestic

### LOCATION

Middlesex, Virginia

## ECOPOD and Drip Disposal System to Equalize Varied Daily Flow Rates

### SUMMARY

The treatment system at this site consisted of (2) E450 ECOPOD units installed in poured in place concrete tanks. It is designed for a flow rate of 12,000 GPD of 300 mg/L BOD and 300 mg/L TSS domestic waste, treating down to 30/30 mg/L. The facility is a rural high school in the middle peninsula off the coast of Virginia. Because schools provide certain hours of peak flows and other hours of little to no flow, a flow equalization tank was installed before the treatment reactor tanks at a volume of 12,000 gallons to ensure the peaks will not reduce the efficiency of the treatment system. The purpose of the flow equalization system is to store the peak flow rate and process it to the ECOPOD treatment system throughout a 24 hr period, given the biology is most efficient when being “fed” consistently throughout the day. The flow equalization tank was preceded by (2) 7,676 gallon primary tanks. A drip disposal system was also supplied by Delta Environmental, complete with effluent pump chamber, headworks, tubing, controls and all necessary valves and fittings. Concrete tanks supplied by others.

