

# Piedmont Regional WWTP

With tighter effluent limits imposed by the South Carolina Department of Health and Environmental Control for the Saluda River, the County had to search at alternative options for the treated wastewater which would require new infrastructure.

Several technologies were evaluated, and a Kubota membrane bioreactor (MBR) system was selected. The new Piedmont facility consolidated the existing Grove Creek and Piedmont treatment plants, and also manages flows from surrounding areas including Pelzer, West Pelzer and Williamston. Effluent is discharged into the Saluda River through a river diffuser. The Piedmont Regional WWTP includes grit removal, wet weather equalization, fine screening, biological nutrient removal (BNR), flat-plate submerged membrane units; low-pressure, ultraviolet (UV) disinfection, and a reuse system for on-site irrigation and plant uses. Sludge is thickened using flat-plate submerged membrane units, and stored for off-site anaerobic digestion.

## Outline of the Facility

Location	Piedmont SC
Type of wastewater	Wastewater
Flow	(ADF,MMF,PHF)=(3,4,8)MGD=(11,15,30)MLD
Commissioned	December 14 <sup>th</sup> 2012

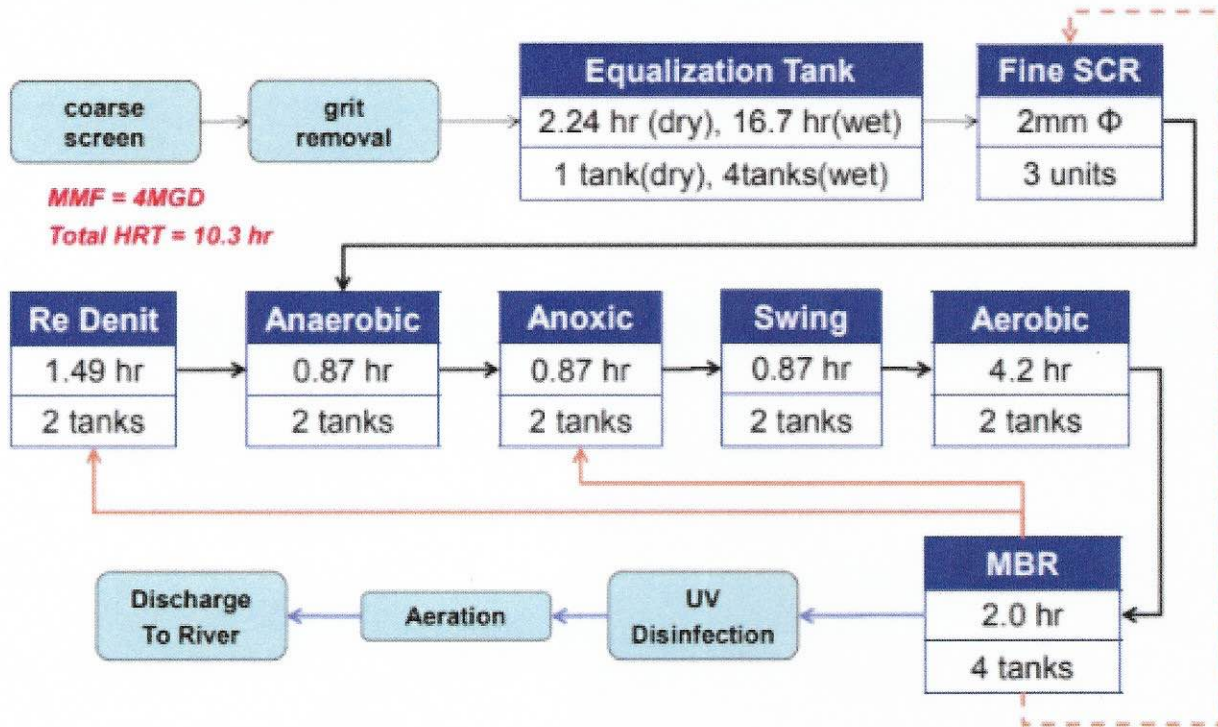


Overview of the plant



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## MBR Process Flow Sheet



## Design Parameter and Actual Data

Parameter	Influent		Effluent	
	Design	Actual	Limit	Actual
BOD5 (mg/L)	263	190~450	10	2~5
TSS (mg/L)	250	170~340	5	1
TN (mg/L)	37	3~23	10	2.8~9.7
TP (mg/L)	6	3~6	6	0.3~1.1
Turp (NTU)	-	-	2	0.1
Temp (°C)	10~25	-		12~17