

QUESTIONS TO EVALUATE TECHNOLOGY SELECTION FOR LEWES WWTF

DESIGN PARAMETERS

Average Daily Flow: 1.75 mgd

Existing Site: 6 acres, MBR Process

Discharge: Lewes-Rehoboth Canal?

Influent: Primarily household

Parameter	Existing WWTF Performance [Sep '20 to Sep '21]			Permit Limit
	Min.	Ave.	Max.	
pH	7.1	7.3	7.5	6 - 9
Total Nitrogen (mg/L)	3.5	5.6	7.7	8 (daily av.)
Total Phosphorous (mg/L)	0.05	0.59	1.66	2 (daily av.)
Enterococcus (cfu/100 mL)	0.50	0.89	2.0	10 (daily av.); 104 (daily max)
Total Suspended Solids (TSS, mg/L)	0.25	0.33	0.40	15 (daily av.); 23 (daily max)
Biochemical Oxygen Demand (BOD, mg/L)	1.2	1.2	1.3	15 (daily av.); 23 (daily max)
Average Daily Flow (mgd)	0.39	0.89	1.69	-

QUESTIONS

Nereda Technology:

1. To meet or exceed these parameters consistently, what components besides the Nereda technology would be recommended?
2. Minimum space requirement / lot size - for full system
3. Lead time on design and build
4. Chemicals used – for full process train
5. Number of operators to run the for all the above
6. Cost to build, including control systems
7. Cost to operate
8. Headworks design (vs, e.g., for MBR system)
9. Number, configuration and size of tanks recommended
10. Disinfection system
11. Sludge management recommendations / options
12. Energy use
13. Loading of reactors: must we grow our own AGS? Pros and cons
14. Polishing steps
15. Odour

Advantages and disadvantages / compare to Sequencing Batch Reactor System for all the above