



This Management Plan identifies some basic requirements for proper operation and maintenance of the Amphidrome and Amphidrome Plus biological nutrient removal (BNR) system operated in batch mode for residential use. Refer to the manufacturer’s Operation and Maintenance Manual for the Amphidrome wastewater treatment products for detailed instructions on proper system operation and maintenance. Refer to your soil treatment system management plan (below or above-grade) for additional management requirements.

The Amphidrome manual, submitted by the manufacturer as part of the registration of this product in Minnesota, can be found at the Minnesota Pollution Control Agency’s website <http://www.pca.state.mn.us/programs/ists/productregistration.html>.

SYSTEM COMPONENT	TASK	FREQUENCY	RESPONSIBLE PARTY
Amphidrome and Amphidrome Plus	Monitor control center alarms.	On-going	User & Service Provider
	Keep vented lid free from obstruction.	On-going	User & Service Provider
	Record equipment run times and calculate flows.	Bi-Annually <1,500 gpd  Quarterly >1,500 gpd <5,000 gpd  Monthly >5,000 gpd <10,000 gpd	Service Provider and/or Maintainer
	Check mechanical and electrical components to ensure proper operation.		
	Monitor flow and perform operational field tests on influent/effluent quality including odor, color, turbidity, temperature, dissolved oxygen ammonia and nitrate and pH as appropriate.		
	Check sludge level in all sewage tanks; follow manufacturer’s recommendations for solids removal and sludge wasting.		
	For plants with chemical feed systems the chemical storage containers may need to be refilled.		
	Sample effluent as required in the local Operating Permit.	See Operating Permit and Table on following page	
	For seasonal use, follow manufacturer’s guidelines.	As required based on seasonal usage	Service Provider

At the time of each service visit, Form 7-2: Aerobic Treatment Unit should be completed. See <http://www.onsiteconsortium.org/omspchecklists.html>



**Items not permitted** in the Amphidrome wastewater systems are specified in the Amphidrome Manual for Minnesota. The protocol for collection of wastewater samples is specified in the Amphidrome Manual for Minnesota.

**Minimum sampling frequencies\***

**Amphidrome**

Treatment Goal	Design Flow (gpd)	Parameter	Minimum Sampling Requirement*
A2	< 1,500	BOD and TSS	Bi-annually
A2	> 1,500 – <5,000	BOD and TSS	Quarterly
A2	>5,000 – < 10,000	BOD and TSS	Monthly

**Amphidrome Plus**

Treatment Goal	Design Flow (gpd)	Parameter	Minimum Sampling Requirement*
TN	< 1,500	BOD and TSS Total Nitrogen = TKN + NO <sub>3</sub> <sup>-</sup> + NO <sub>2</sub> <sup>-</sup>	Bi-annually
TN	> 1,500 – <5,000	BOD and TSS Total Nitrogen = TKN + NO <sub>3</sub> <sup>-</sup> + NO <sub>2</sub> <sup>-</sup>	Quarterly
TN	>5,000 – < 10,000	BOD and TSS Total Nitrogen = TKN + NO <sub>3</sub> <sup>-</sup> + NO <sub>2</sub> <sup>-</sup>	Monthly

\*These minimum sampling requirements assume a system that is operated year round. These values may be reduced if the system is not used year round.