

WaterNO_xTM Denite BAF



Ontario's Own Wastewater Treatment System Manufacturer

Is Yours a Waterloo?

- ✓ Thorough Denitrification
- ✓ Easy Set-up & Servicing
- ✓ Very Low Energy
- ✓ No Backwashing
- ✓ No Aerobic Sludge
- ✓ Permanent Filter Media
- ✓ Safe Carbon Source
- ✓ Quick Recovery if Disturbed
- ✓ New or Retrofit



P.O. Box 400
143 Dennis St.
Rockwood ON N0B 2K0

Phone: 519-856-0757
Fax: 519-856-0759

Email: info@waterloo-biofilter.com
www.waterloo-biofilter.com

**Tested at Two Commercial
Sites for Over 1 Year**

Please call for more details

Introducing the latest
innovation in onsite
wastewater treatment from
Waterloo Biofilter Systems



WaterNO_xTM

Biological Anoxic Filter

thorough & complete
denitrification

The patent pending WaterNOx™ Biological Anoxic Filter (BAF) was developed to service smaller flows with less maintenance and energy consumption than is typically required. Given enough initial alkalinity for thorough nitrification, a constant source of labile carbon, a polishing filter to remove excess carbon, and regular maintenance, expectations are that total nitrogen concentrations of <math><5\text{ mg/L}</math> can be consistently achieved in the final effluent.

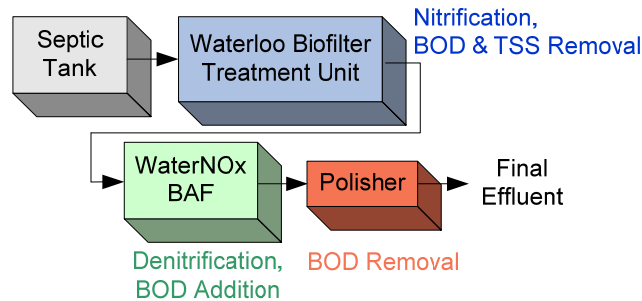
Designed for ease-of-use, the WaterNOx is ideal for applications such as campgrounds, truck stops, restaurants, subdivisions, schools and offices where nitrogen removal is required but constant or complex maintenance is not possible.

Testing at two commercial sites for over 1 year shows that the WaterNOx removes effectively 100% of nitrate from the influent it receives.

The WaterNOx produces alkalinity that when directed upstream allows for increased nitrification efficiency further improving treatment.

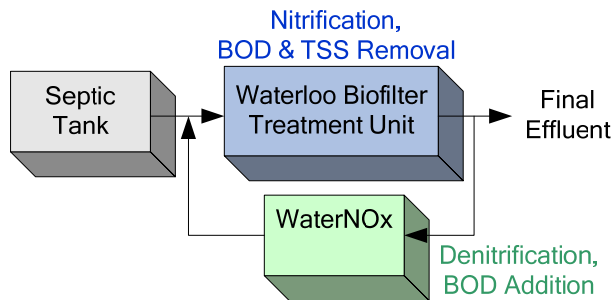
New Installations

In designs for TN <math><5\text{ mg/L}</math> and 15 mg/L cBOD and TSS objectives, WaterNOx effluent is directed to a small polishing filter to remove the easily digested excess carbon.

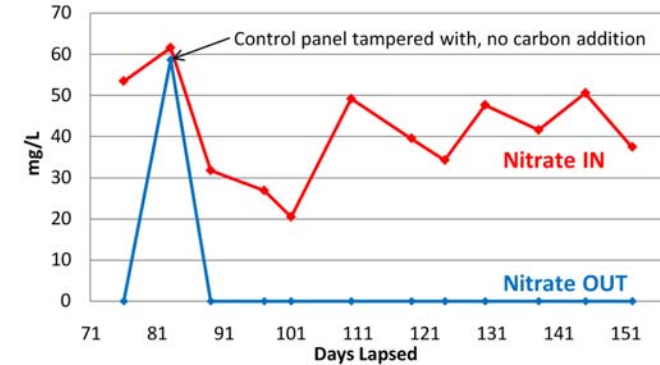


Retrofits

The WaterNOx operates on a closed feedback loop with an existing wastewater treatment unit in retrofit applications. A WaterNOx retrofitted at a light industrial factory was sized to receive only 25-30% of the flow and reduced TN by an additional 50% (70-80% total removal).



Site 1 - Light Industrial Factory, Carbon Source 2



At both test sites the WaterNOx continues to remove all incoming nitrates. Recovery from anomalous events such as carbon source depletion is less than 1 week, making for a robust and dependable system.

This on-going study has been accepted for WEAO, NOWRA, and WEFTEC publications, and is available on our website at www.waterloo-biofilter.com.

Site 2 - Truck Stop, Carbon Source 3

