



**Available  
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## Nanobubble Ozone Technology

Water treatment with an innovative, chemical-free solution that effectively eliminates contaminants at scale.

Patented ozone-infused nanobubble technology eliminates harmful contaminants - algae, bacteria, viruses, PFAS, TCE, and others - without filters or toxic chemicals.

Developed and tested in partnership with the National Oceanic & Atmospheric Administration (NOAA), ensures cleaner, safer water for industrial, agricultural, and municipal use, improving health, ecosystems, and water sustainability.

Scalable, configurable, and eco-friendly – all that's leftover after treatment is an increased level of oxygen.

### How It Works

Generates ultra-fine nanobubbles infused with ozone, producing hydroxyl radicals - oxidants over 100,000 times stronger than chlorine. These nanobubbles:

- Break down contaminants at the molecular level
- Remain suspended in water for up to 10 days, ensuring long-lasting treatment
- Eliminate pollutants at a scale unmatched by traditional methods like chemical dosing, filtration, or UV sterilization

### Proven Results

NBOT technology has been rigorously tested in real-world applications, demonstrating unmatched contaminant reduction:

- **Algae Blooms:** Achieved 90% reduction in toxic algae at Lake Newport, Ohio, preventing dangerous algal toxins from entering drinking water supplies.
- **Bacteria & Viruses:** Eliminated 98% of bacteria at a North Carolina hog lagoon, providing a safer, more efficient alternative to traditional wastewater treatments.
- **Antibiotics & Organic Pollutants:** Demonstrated rapid breakdown of pharmaceutical residues and harmful organic compounds in agricultural and industrial wastewater.
- **Heavy Metals:** Reduced concentrations by >90% within 24 hours at Port Mayaca Lock, Lake Okeechobee, improving overall water quality.

### Applications

- **Lakes, Rivers, and Reservoirs** - Restores ecosystems and prevents harmful algal blooms
- **Agriculture and Aquaculture** - Reduces bacterial contamination and antibiotic residues
- **Municipal and Industrial Water** - Provides a cost-effective, chemical-free alternative for drinking water, cooling towers, and wastewater treatment
- **Livestock and Poultry Processing** - Enhances water reuse efficiency & eliminates pathogens

# Case Studies

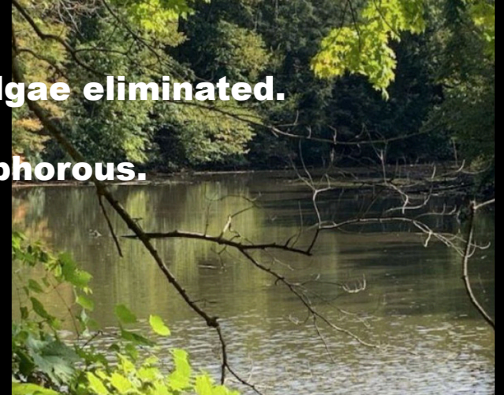


## Lake Šylvan, OH

- Surface and suspended algae eliminated.
- Decrease nitrogen / phosphorous.



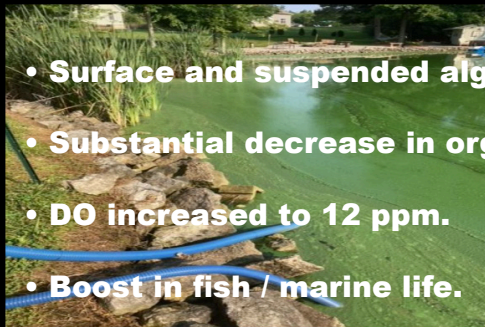
Before



After  
(5 days)

## Lake Newport, OH

- Surface and suspended algae eliminated.
- Substantial decrease in organic contaminants.
- DO increased to 12 ppm.
- Boost in fish / marine life.



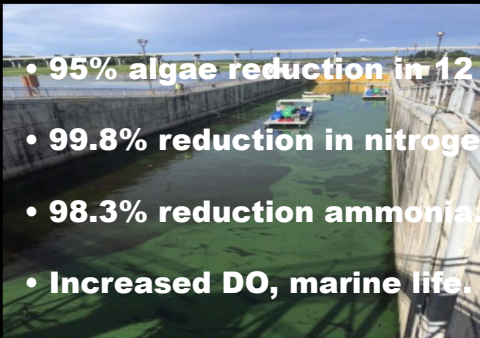
Before



After  
(10 days)

## Lake Okeechobee, FL

- 95% algae reduction in 12 hours.
- 99.8% reduction in nitrogen.
- 98.3% reduction ammonia.
- Increased DO, marine life.



Before



After  
(2 days)

# The Science

## Nanobubbles

### Long Lasting Effectiveness

- Acts like a gas, diffusing throughout the entire water column for full coverage.
- No rising or bursting - controlled, efficient ozone delivery
- Release hydroxyl radicals upon implosion - supercharging breakdown of contaminants
- Active for up to 10 days.
- Continuously neutralizes harmful bacteria and toxins, keeping water cleaner for longer.



## Hydroxyl Radicals

- One of the most powerful oxidants known to science - 100,000x stronger than chlorine.
- Indiscriminately destroys contaminants.
- Works exponentially faster and more cost-effectively than traditional chemical treatments.

Hydroxyl OH Radicals	<b>180x</b> stronger than <i>UV Light</i> <b>2,000x</b> stronger than <i>Ozone</i> Environmentally Friendly
Ozone (O3)	<b>50x</b> stronger than <i>chlorine</i> Environmentally Friendly
Chlorine	<b>Chlorine: Present Sterilizer</b> Damage to Ecosystem Unhealthy for Humans

## Metals, Phosphorous, Nitrogen

### Lake Okeechobee

	Pre-Treatment	12h	24h	36h
Arsenic	.0064	.0043	.0021	.0004
Lead	.0078	.0078	.0011	.0011
Nitrogen	410	110	3.4	1.0
Phosphorous	28	6.8	0.48	0.48

## PFAs

