GREENWATER
SERVICES

**Greenwater Services** is a water technology company based in Brookfield, Ohio, specializing in Nano Bubble Ozone Technology (NBOT), an environmentally responsible approach to improving water quality. NBOT combines the powerful oxidation capabilities of ozone with the stability and extended treatment potential of nanobubbles, allowing ozone to remain active and effective longer than traditional ozone applications. This innovative technology has been third-party verified for both efficacy and safety and is designed to address algae, bacteria, odors, and other water-quality concerns without leaving harsh chemical residues. Scalable to the needs of the water body being treated, NBOT can be deployed through mobile systems for targeted treatment or installed as a permanent solution for ongoing water-quality management.

## How NBOT works

**NBOT** uses a patented nanobubble generator to inject ozone-infused nano-bubbles into water. Key features include:

1. **Nano-bubble generation:** Research shows that NBOT produces approximately 256 million nano-bubbles per milliliter of water. The bubbles are neutrally buoyant; rather than rising to the surface and bursting, they remain suspended and diffuse throughout the water column.

2. **Time-released ozone:** Dissolved ozone typically has a short half-life (≈20 minutes), limiting its efficacy. Within a nanobubble, ozone persists for days. As the bubbles circulate, ozone is released, providing extended contact with contaminants.

3. **Oxidative reaction:** When an ozonated nanobubble collapses, it produces heat and energy that react with surrounding water molecules to generate hydroxyl radicals. These oxidants “shred” organic molecules, effectively denaturing algae, bacteria, cyanobacteria, and toxins.

4. **Safe by-products:** After the reaction, the oxidants break down into oxygen, increasing dissolved oxygen levels and improving aquatic habitat.

## NBOT Advantages

- **High absorption and efficiency:** NBOT’s nano-bubbles are buoyancy-neutral, ensuring 95–98 % absorption of ozone and treatment at all depths.
- **Environmentally friendly:** No harmful legacy chemicals are added; NBOT leaves behind oxygenated water and has no reported long-term harmful effects on fish or wildlife.
- **Powerful disinfection:** Hydroxyl radicals generated are much stronger than chlorine; NBOT is effective against algae, bacteria (including coliforms and E. coli), cyanobacteria, viruses, and organic toxins.
- **Improved water quality:** Treatment often increases dissolved oxygen and reduces turbidity, a benefit for aquatic life.

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