

Pond & Lake Remediation

—Bio-remediation simplified—



CLEAR LAKES

ALGAE REMOVAL

**REDUCING
PATHOGENS**

**SLUDGE
REDUCTION**

**ODOR
REDUCTION**

What is Bio-remediation ?

Bio-remediation is a process that uses living organisms to remove or detoxify pollutants from the environment. It is a cost-effective and environmentally friendly way to clean up contaminated sites.

Bioremediation contributes to the circular economy by preventing and minimizing the sources of wastes and contaminants while repurposing them to be a part of a healthy ecosystem.

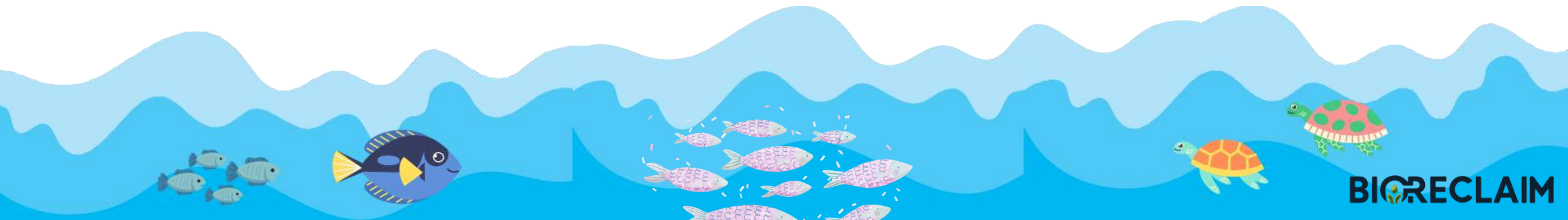


Importance of Lakes & Ponds

Lakes and ponds are important for a variety of reasons. They provide a **habitat** for a wide variety of plants and animals, including fish, amphibians, reptiles, birds, and mammals. They also help to regulate the water cycle, store water for drinking and irrigation, and provide a **recreational outlet** for people.

Natural lakes and ponds are formed by a variety of processes, including glacial activity, volcanic activity, and runoff from rain and snow. Artificial lakes and ponds are created by humans for a variety of purposes, such as flood control, irrigation, and recreation.

No matter how they are formed, lakes and ponds are an important part of the natural world. They provide many benefits to people and wildlife, and they are worth protecting.



Threats to Lakes & Ponds

Pollution is a major threat to lakes and ponds. It can come from a variety of sources, including:

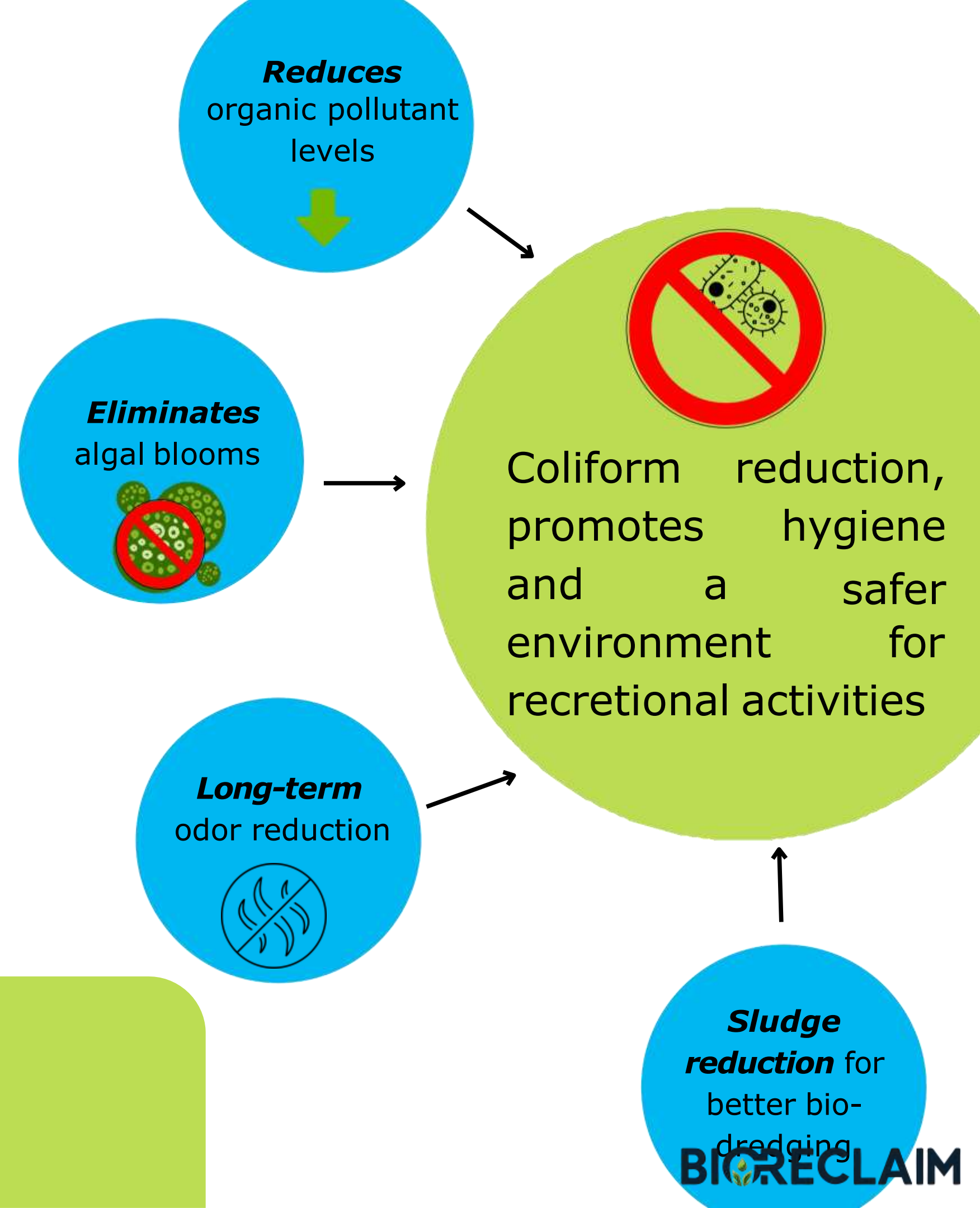
- **Sewage:** Untreated sewage can contain harmful bacteria, viruses, and parasites that can make people sick.
- **Industrial waste:** Industrial waste can contain a variety of pollutants, including heavy metals, chemicals, and petroleum products. These pollutants can harm plants and animals, and they can also make the water unsafe for recreational purposes.
- **Agricultural runoff:** Agricultural runoff can contain fertilizers, pesticides, and other chemicals that can pollute lakes and ponds.



BIORECLAIMclean

It is a diverse blend of potent and robust & biological ingredients that target pollutants & toxins, effectively improving water quality.

- All microbes used are natural and genetically unaltered.
- Only GRAS status (Generally Recognized as Safe) microorganisms are used in our product
- It is an eco-friendly solution and poses no environmental hazard



ADVANTAGES OF BIORECLAIM^{clean}



Bio-dredging



Odor reduction



Promotes cleaner
spaces



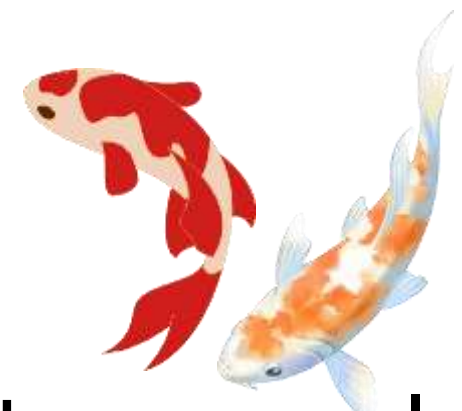
Stable Ecosystem



Improved Water
Parameters

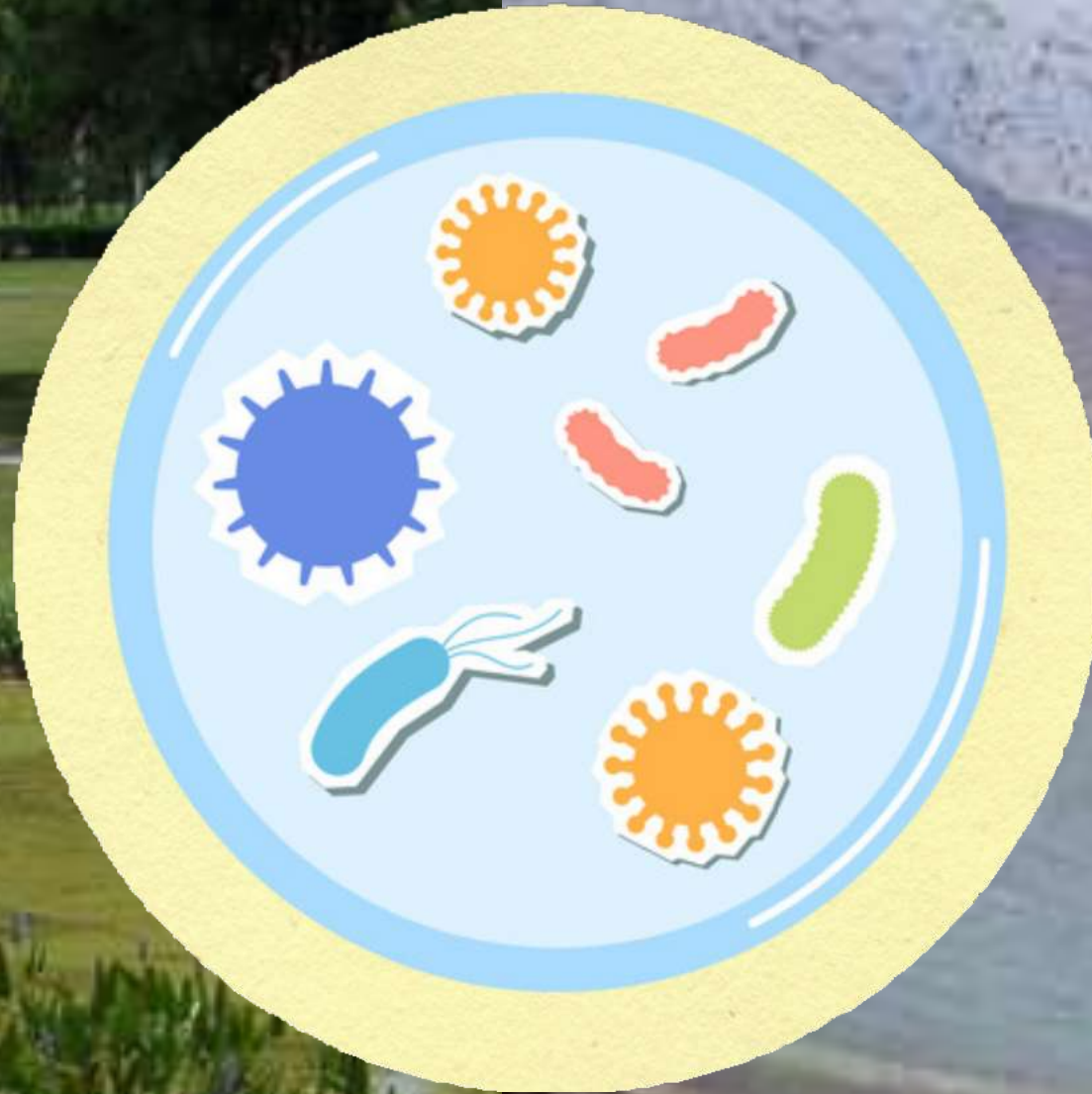


Enhanced water clarity



Restores ecological
balance

Before-----**After**



" Bio-remediation is **revolutionary**"

Bio-dredging: *A unique advantage*

BIORECLAIMclean



- Compaction of sludge over the years, can cause dead zones and give rise to putrefying bacteria
- **BioReclaim Clean** contains special sludge-degrading microbes that break down the sludge into simpler saccharides and amino acids which are metabolized by healthy phytoplankton populations in the water column.
- Over time, **BioReclaim Clean** stimulates the reduction of sludge levels leading to the deepening of lakes by as much as 1foot in the span of a year.

Odor reduction

Reduces odor by controlling population of putrefying microbes

Incorporating metabolic changes to prevent formation of H₂S and ammonia

Prevents the build-up of sludge and hence, reduces chances of sludge compaction. This helps in the long-term maintenance of ecosystems.



Promoting cleaner spaces

Competitive exclusion of pathogenic microbes

Creates conditions unsuitable for proliferation of pathogens

Restores ecosystems for recreational purposes



Case Study: Lake Bank



 Bánk, Nógrád,
Hungary

Area: 4 Hectares

Depth: 4 metres

Solution:
BioReclaim Clean

Before

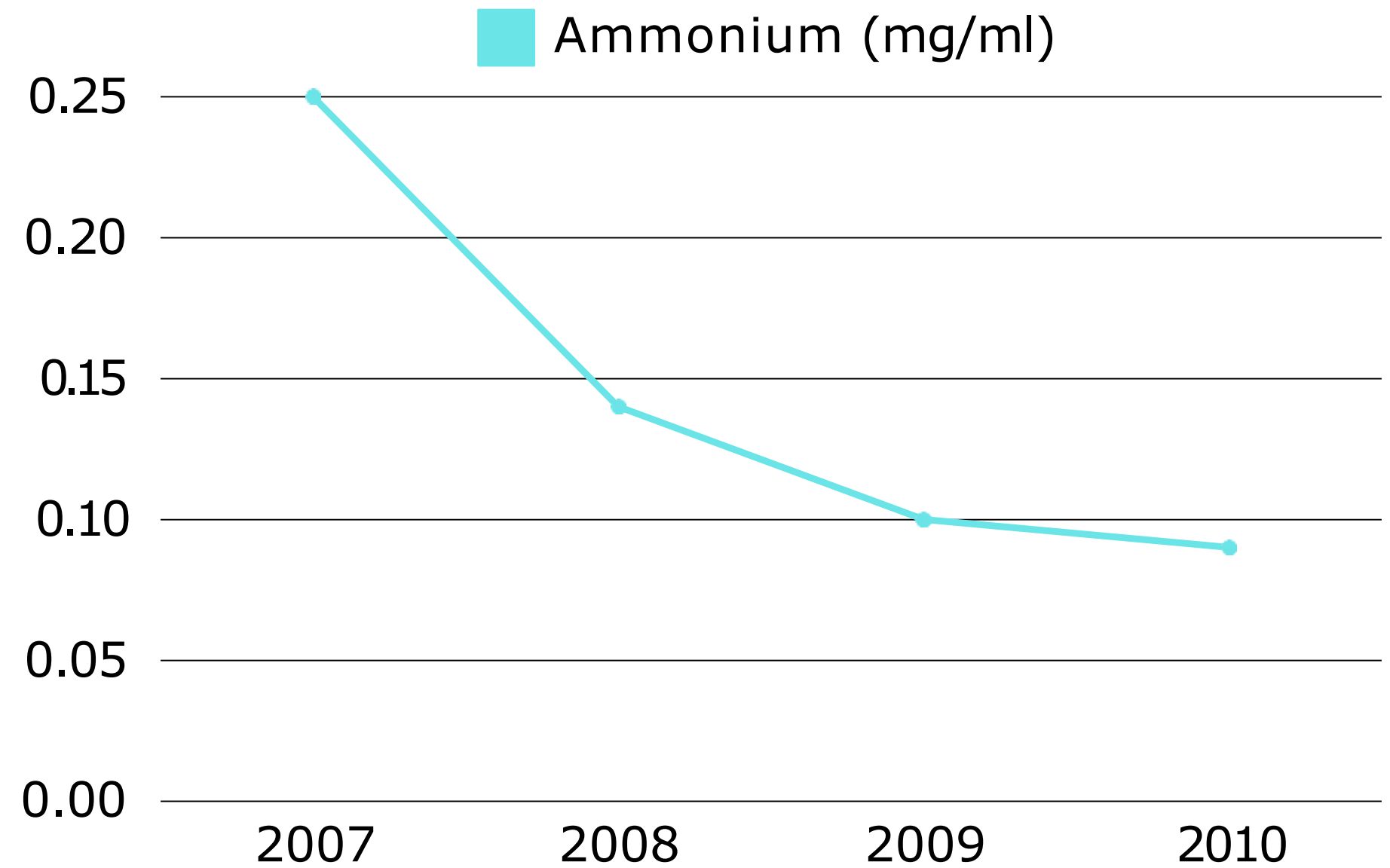
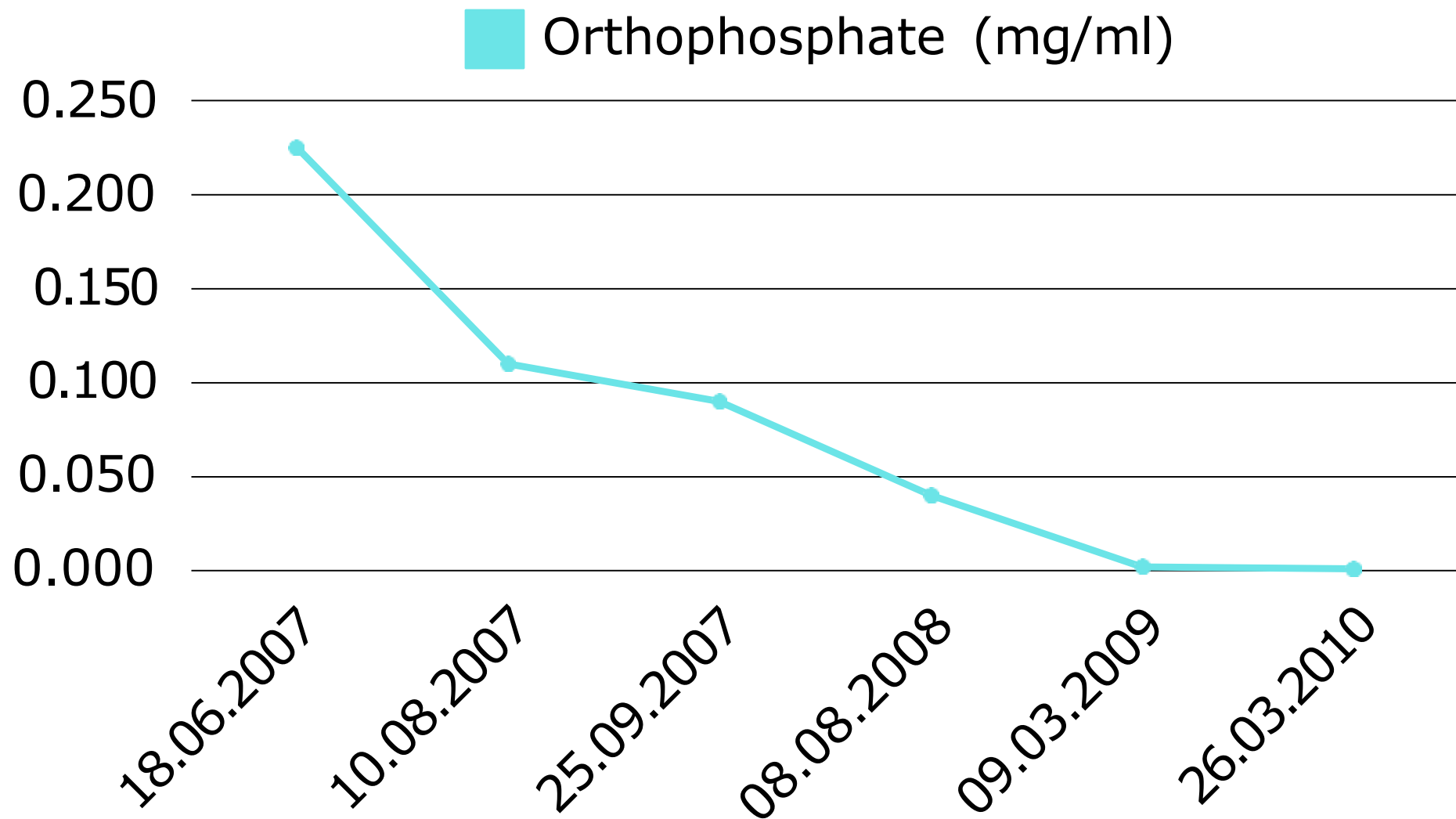
After




Problems:

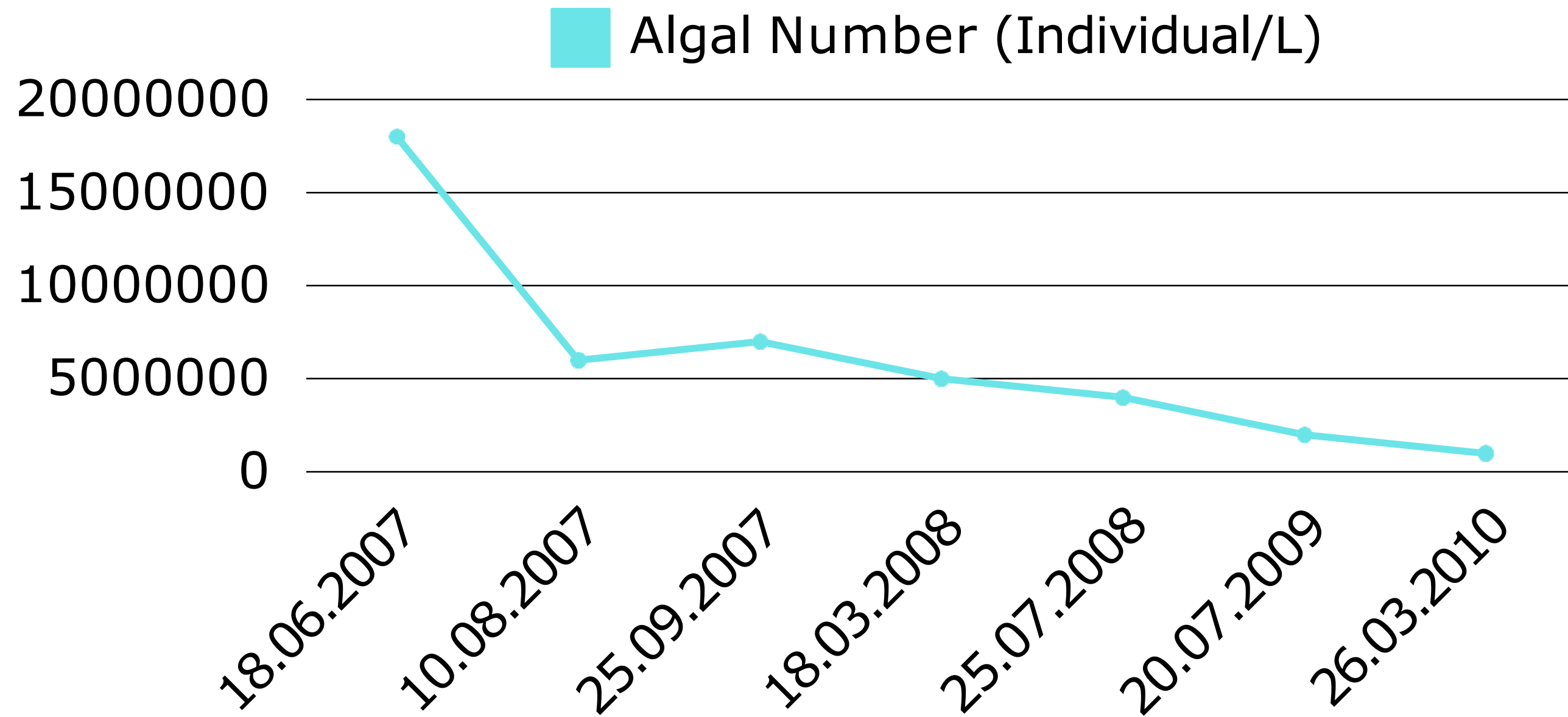
- Highly eutrophic, high phosphates
- Odor
- Blue-Green Algal bloom
- Excess sludge


Results after bio-remediation with **BioReclaim Clean**




 99% reduction of Orthophosphate

 60% Ammonium reduction



 **93 %**reduction in Algae

 **Significantly**
improved water clarity



Case Study: Lake Peca



Lake Gyomro, Hungary

Area: 2.5 Hectares

Depth: Average of 2.5 metres

Solution: Bioclean®

Before

After



Problems:

- Excess Algae
- Excess Nitrate nitrogen
- Excess sludge

Results after bio-remediation with Bioclean

LAKE GYOMRO

	2008	2009	2010
Ammonium (ppm)	0.44	0.28	0.07
Free Ammonia (ppm)	0.0005	-	-
Nitrate (ppm)	9.5	0.09	0.05
Nitrite (ppm)	0.13	6.52	2.8
Orthophosphate (ppm)	0.19	<0.05	<0.05
Total Algal Count /ml	19,402	11,220	3,488
Sludge thickness (cm)	30	14.75	-



 Long-term reduction of Nitrogen levels

 82% reduction of Algae

Bioremediation of Ponds

Bioremediation of Race Club Pond, Hyderabad



Before Bioremediation

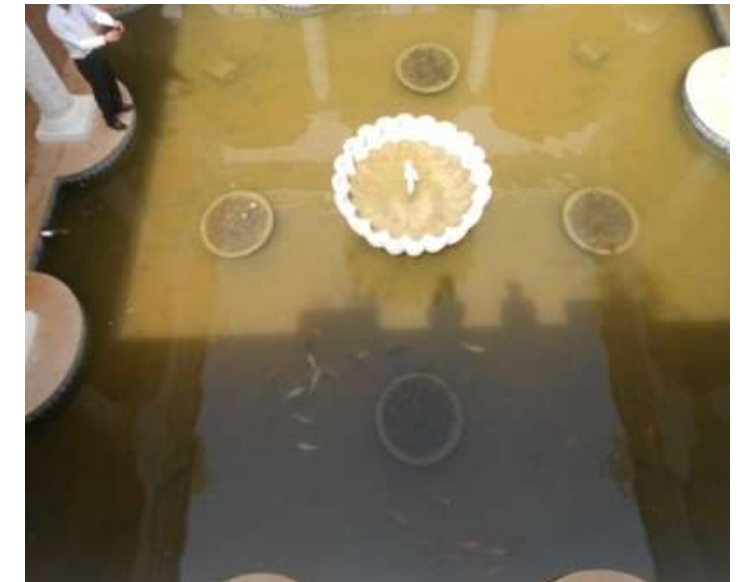


After Bioremediation

Artificial Pond Bioremediation



Before Bioremediation



After Bioremediation

Bioremediation of Pond at Zabeel Park, Dubai

