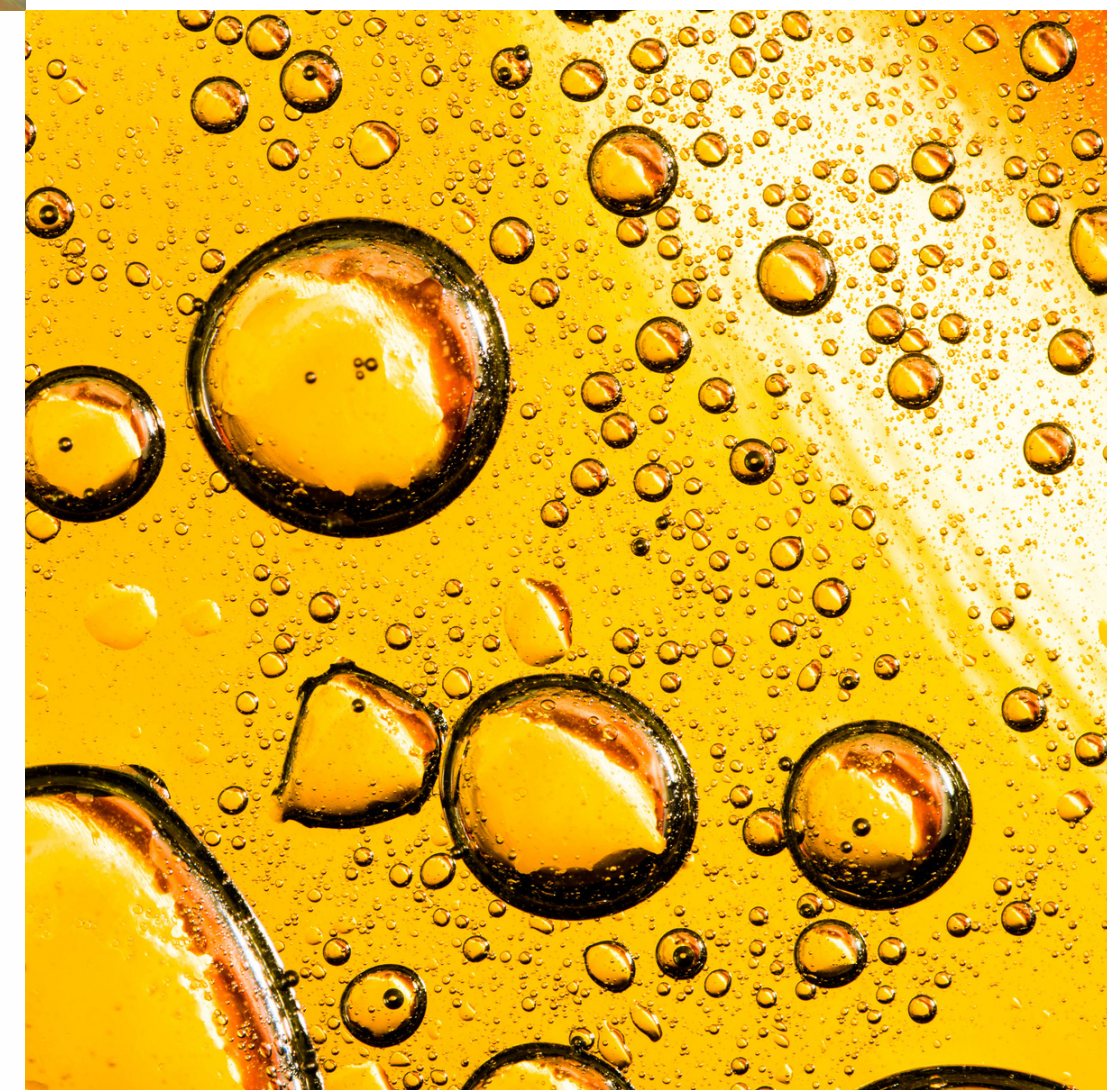
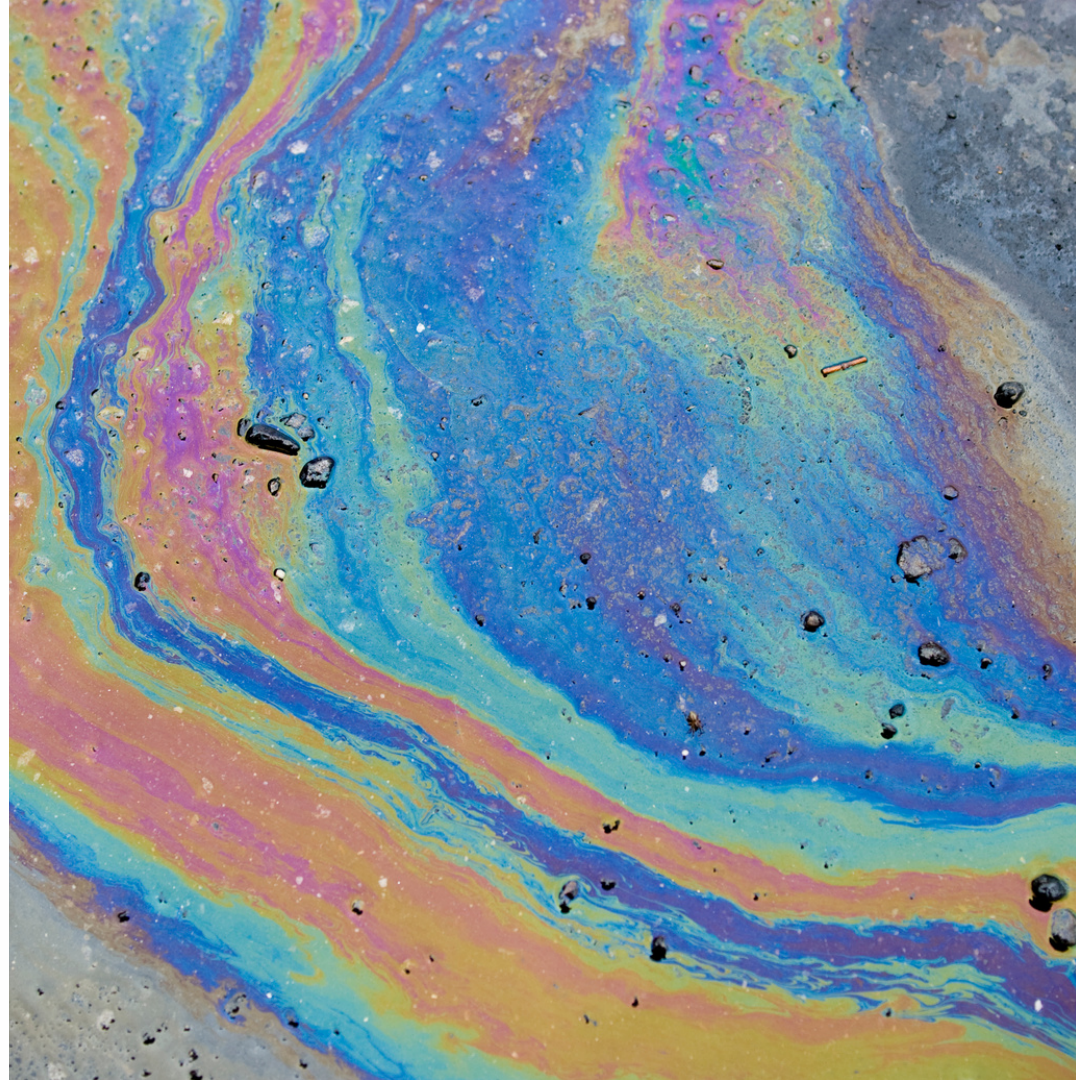


BIO DEPOLLUTION

For a healthier
environment



Who are we

Bio Dépollution is a Quebec company offering innovative, 100% natural environmental solutions in the field of decontamination of water, wastewater, soil and municipal sludge.

Within a circular economy framework, Bio Dépollution specializes in the development and implementation of technologies dedicated to the purification of trace contaminants (TrOCs) in municipal wastewater and biosolids.

These treatments are essential in order to reduce the environmental footprint and facilitate the recovery of these resources.



Issues and opportunities

- Municipal wastewater contains a wide range of trace contaminants (TrOCs)* that conventional processes cannot adequately treat.
- As a result: Municipal wastewater returns to the effluent still largely contaminated.
- Municipal sludge contaminates soils when spread on agricultural land and contaminates groundwater and runoff.
- Everyday products such as pharmaceuticals, chemicals, industrial products, household products, personal care products, pesticides, etc. are the main sources of contamination.
- Even at low concentrations, TrOCs are known to have significant adverse effects on aquatic organisms and human health.
- To completely divert sludge from landfill and possibly reduce the amount of sludge incinerated, it is necessary to significantly increase the amount of sludge recovered, which means developing and adapting technologies.

** Definition: Trace organic contaminants (TrOCs) refer to organic compounds generally detected at concentrations ranging from ng/L to µg/L in wastewater.*

3RV-E Standards and Principles

(Reduction, Reuse, Recycling, Recovery and Disposal)

Municipalities are increasingly restricted in their standards for the release of contaminants into the environment and it is sometimes difficult for them to comply with the standards, which requires continuous efforts on the part of municipalities and government agencies.

- Several contaminants that are not yet standardized and are not controlled by conventional treatment and purification methods but are very polluting, such as pesticides, herbicides, fungicides, fertilizers, pharmaceutical molecules.
- Contaminant management is a challenge for all cities whose wastewater treatment plants are becoming unable to handle the increasing water flow generated by growing populations and urban development.
 - The increase in contaminant concentrations and volumes of water to be treated is catching some municipalities off guard, as their treatment plants use ineffective treatment methods.
- Solutions are all the more imperative since the Government of Quebec, in its Quebec Policy on Residual Materials Management, wishes to ban in the short term the burial of residual organic materials such as municipal biosolids.

Our environmental solutions

- We use bioremediation as a technology to decontaminate water, wastewater and soil.
- This technology significantly reduces contaminants and sludge accumulated in municipal ponds.
- Our solutions contain 100% natural microorganisms that have proven their effectiveness in various environments.
- This approach helps stimulate the circular economy in terms of the recovery of wastewater and biosolids.
- Our interventions help reduce the costs of environmental impacts on health as well as maintenance operation costs for cities.

Our studies

Our studies have demonstrated that our solutions allow us to:

- Eliminate more than 70 emerging contaminants (TrOCS)
- Remove certain contaminants such as aromatic organic compounds, chlorinated compounds, phenolic compounds and even cyanide compounds
- Denitrify and reduce the volume of sludge
- Remove metal residues in aerated ponds such as cadmium, chromium, copper and lead
- Reduce ammonia and phosphorus.

Benefits of our solutions

The advantage of our solutions is to lower the pollutant loads released into the environment as well as to reduce the biosolids accumulated at the bottom of the ponds.

They also serve to:

- Decontaminate over 70 trace contaminants
- Reduce suspended solids (SS), phosphorus, nitrogen, BOD5 and fecal coliforms
- Reduce the volume of sludge
- Reduce maintenance costs associated with biosolids emptying
- Reduce the use of chemicals (coagulants)
- Eliminate foul odors
- Increase network efficiency
- Provide continuous network cleaning
- Increase the life of pipes
- Reduce the frequency of network maintenance
- Increasing the fertilizing value of municipal sludge

Our treatments are:

100% natural and ecological

- Resistant to extreme conditions
- Easy to use and integrate into operational processes
- Help reduce the use of chemical coagulants
- Economical and sustainable
- Conducive to reducing greenhouse gases and part of the adoption of circular economy programs
- Adapted to current and future standards and regulations



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**Let's act now for the
future of our planet and
invest for future
generations**

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