

MITIGATING GREENHOUSE GASES

Mitigating Scope 1 and 2 emissions

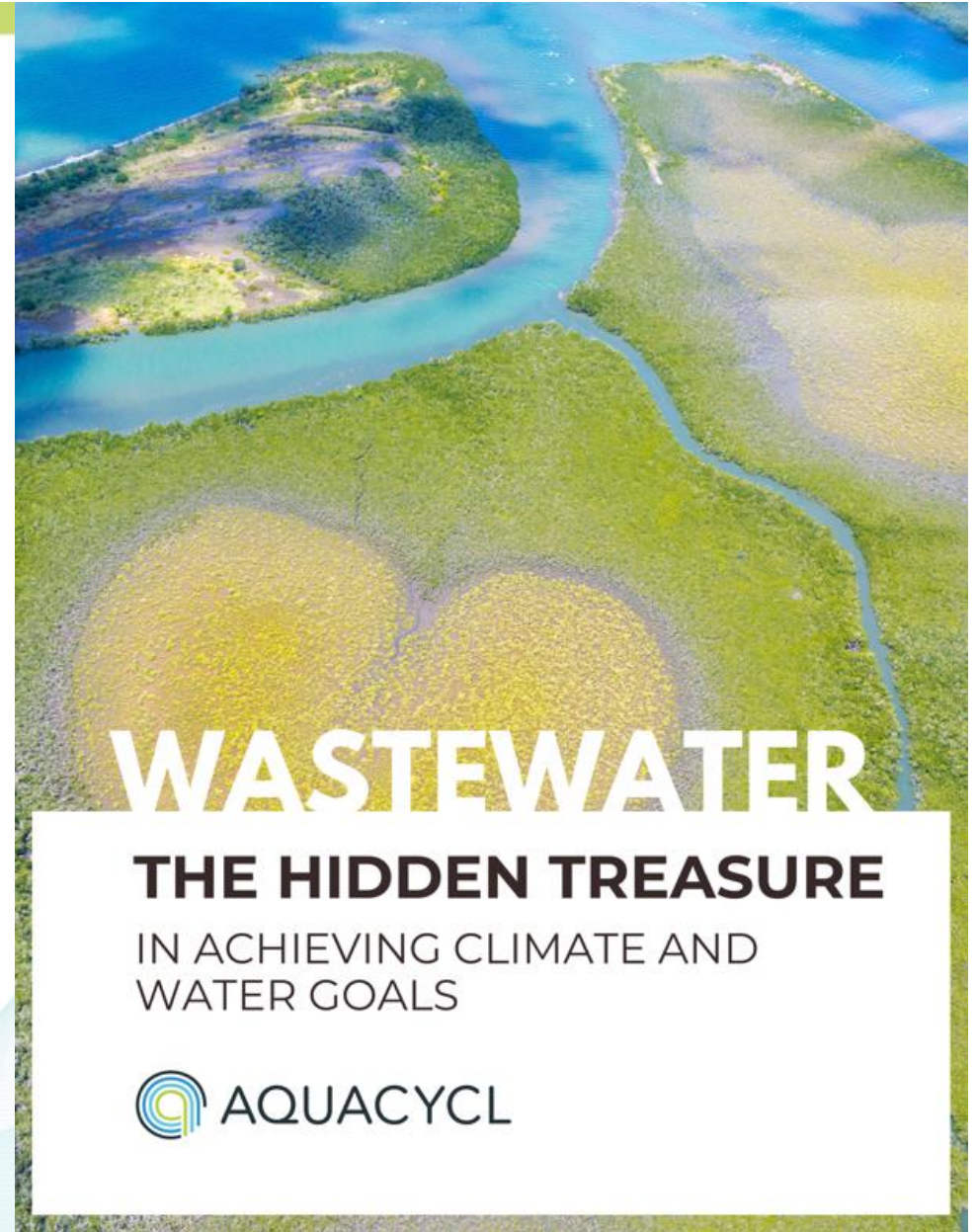
Aquacycl's BETT system generates 90% lower GHG emissions than alternative treatment. By removing the bulk of organics (BOD / COD) in a low-energy way, downstream treatment, whether onsite or at the city utility, will require less

energy and chemicals to operate. In the case where anaerobic digestion is already in place, Aquacycl pretreatment can enable more efficient biogas recovery, which can be used to offset energy demands.

Mitigating Scope 3 emissions

As part of decarbonization and increasing resilience to reduce the vulnerability of supply chain, Aquacycl can partner with companies to provide energy-neutral wastewater treatment within the supply chain, mitigating up to 90% of GHG relative to alternative treatment options. This includes GHG emissions from landfilling (which generates high quantities of methane as it breaks down)

or incinerating sludge, as well as making all downstream treatment more energy and operationally efficient. When high BOD/COD is discharged to sewer, the receiving utilities must use high quantities of electricity to operate blowers for aerobic treatment. Aquacycl reduces the load to the sewer (and consequently the energy required for treatment).



WASTEWATER

THE HIDDEN TREASURE

IN ACHIEVING CLIMATE AND WATER GOALS

 AQUACYCL

A SUSTAINABLE FUTURE

Building a sustainable future for companies means putting the environment and human capital at the center of the business choices that are made. Many companies have committed to aggressive water and climate actions. The effects of climate change with 90% of impact being felt through water and extreme water-related events (scarcity, floods, hurricanes).

The impact and importance of wastewater management cannot be overstated in discussions about climate resilience. As companies continue to transition to sustainable business and drive toward best-in-class water efficiency, GHG reduction and mitigation, having technology that efficiently and cost-effectively treats wastewater, enables water reuse, mitigates GHG emissions and reduces dependence on infrastructure and freshwater is critical.

One of the technologies that helps address both water and climate challenges is Aquacycl's BioElectrochemical Treatment Technology (BETT®), an energy-neutral wastewater treatment as a service which mitigates up to 90% of greenhouse gas (GHG) emissions and supports healthy watersheds.

Aquacycl helps companies improve water discharge quality, reduce water scarcity, mitigates Scope 1, 2 and 3 GHG emissions and guarantees permit compliance. Aquacycl has found that for many companies, wastewater is the overlooked treasure in water strategies.

Aquacycl's core technology, the BioElectrochemical Treatment Technology (BETT®) is the only technology for treatment of high-strength organic wastewater without dilution, treating streams up to 10 times more concentrated than other technologies.

BUILDING A HEALTHY WATERSHED

Reducing water use and becoming net water positive

Close to half of the global population lives in areas facing water stress, and this is projected to increase due to climate change and migration.

For companies with facilities located in high-water risk areas, we help to ensure water quality and reduce dependence on freshwater resources by enabling water reuse (with complementary technologies). Properly treated and managed, recycled wastewater can help reduce the demand for fresh water and replenish watersheds.

Aquacycl's BETT system is the only treatment for ultra-high strength wastewater. Until now, companies have lived by the adage of "the solution to pollution is dilution", adding higher quality water to dilute concentrated flows.

By treating high-strength streams (for example, the first 2 CIP washes) separately from the rest of the flow, companies can reduce water use by minimally treating the low-concentrate for reuse or reducing water used for diluting effluent before discharging.

Improving water discharge quality

80% of wastewater globally is discharged with minimal or no treatment. Water quality from industrial facilities affects watersheds around the world.

Unpermitted discharges are a business and environmental risk, and permit levels can limit plant expansions and production.

As companies continue to increase water use efficiency, the resulting wastewater will become more concentrated and increasingly difficult to meet discharge permit levels. Aquacycl mitigates these risks by providing guaranteed permit compliance and water discharge quality.