

WAIV®

Wind-Aided Intensified eVaporation

A Revolutionary Approach to Industrial Wastewater Disposal

Originally developed for the evaporation of high TDS brine in the global desalination industry, Wind-Aided Intensified eVaporation, or WAIV®, is an innovative technology that strategically increases the ability to evaporate large amounts of industrial wastewater and landfill leachate.

As a GREEN and sustainable system, WAIV® keeps your liquid waste disposal on-site and helps reduce your carbon footprint and corporate liability.

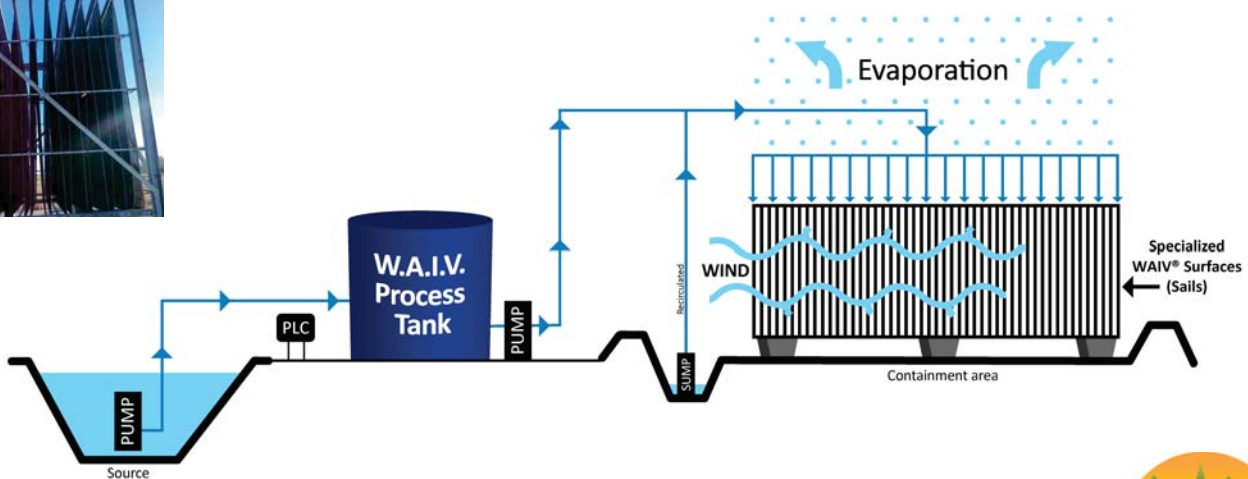


HOW IT WORKS

WAIV® creates a high density of wetted surface area within a very small footprint. The surface area consists of vertically mounted 'sails' which are made up of a specialized netting-like material designed to effectively create wetted surface. Wind naturally passing through the sails causes rapid evaporation. The evaporation rate is closely tied to pan evaporation and local wind speed, making it viable across a large portion of North America, including humid and cold climates.

A WAIV® system typically includes a framed structure to support the specialized sails, a process tank, pumps and piping, containment, and a control system. The wastewater is distributed through perforated piping across the top of each sail where natural forces act on the liquid: 1) gravity naturally pulls the liquid downward onto the sails, 2) capillary action generated by the hydrophilic nature of the sail spreads the liquid across the surface area, and 3) wind (even at slow speeds) naturally passing through the open gaps in the sails causes intensified evaporation.

- ▶ No Fuel
- ▶ No Mist
- ▶ No Drift
- ▶ No Blowers
- ▶ No Aerosols
- ▶ No Spray



BENEFITS & FEATURES

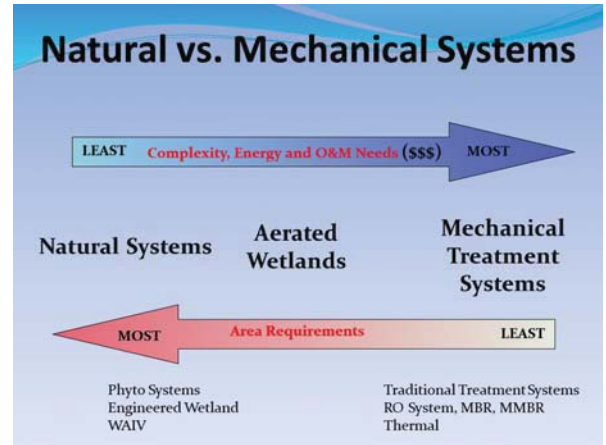
WAIV® is modular, with each unit consisting of more than 62,000 sf (1.4 ac) of evaporative surface area while only covering a ground footprint of 65 ft x 25 ft.

Each unit can evaporate between 1,500 and 5,000 gallons per day, or 500,000 to 1.8 million gallons per year, depending on climate, and multiple units can be installed to match disposal needs at your facility.

It is not dependent on tanker trucks or WWTPs (i.e. changing discharge limits, price increases, and possibility of getting cut off because of UV disinfection or other reasons).

WAIV® can handle many contaminants including dissolved solids up to at least 150,000 mg/L.

Driving force is wind, not fuel. WAIV® does not create a mist, spray, aerosol, or drift.



WAIV® is a “Natural System” that can trade space for “energy” (i.e. electricity, chemicals, man power, transport trucks, mechanical complexity, and O&M).

WAIV® is effective at reducing liquid waste from a wide variety of industries, including:

- Energy Sector
- Chemical Manufacturing
- Pharmaceuticals
- Metal Plating & Finishing
- Hazardous Liquids
- Product Manufacturing
- Groundwater Remediation
- Textiles & Dyes
- Food & Beverage
- Agricultural Operations
- Landfill Leachate
- Coal Ash Ponds & Landfills
- Governmental Projects
- Point / Non-Point Sources

LOW to NO-COST Installation Options Available. Low Cost Per Gallon.

Clear Creek Environmental Solutions is a consulting and engineering firm dedicated to finding the most effective and innovative solutions for industrial wastewater management and site remediation. We specialize in Natural Systems including Phyto-Utilization™, Phyto-Cell™, WAIV®, and constructed wetlands. Visit our website and contact us today to see how we can improve your facility operations.