



MILWAUKEE ECOFACTORY

TRANSFORMING THE
JONES ISLAND AND SOUTH SHORE
WATER RECLAMATION FACILITIES

Earth Day 2024 Press Event



WORKING IN PARTNERSHIP

ECOFACTORY



WELCOME TO THE FUTURE OF WASTEWATER TREATMENT

Veolia Ecofactory is a new way to approach municipal wastewater treatment plants, transforming them from conventional public utility infrastructure into productive and even profitable local sustainability hubs that generate renewable energy, recover and reuse resources, and foster inclusive economic growth — boosting your community's resilience, efficiency, environmental awareness, and green job creation.

Ecofactory combines proven technologies with new management skills to transform your community's wastewater treatment plant from blight to benefit.

The journey to Ecofactory is based on a framework of five key pillars:



Green Energy & Efficiency

Deep efficiency + predictive maintenance via digital innovation + smart / AI technologies

Renewable energy + biogas generation, waste heat capture + electrification – Solar PV, wind power, geothermal, effluent hydropower, sewer + effluent heat recovery, fuel cells + cogeneration



Resource Recovery

Beneficial use of biosolids, scum, grit, residuals, food waste, high-strength waste + source-separated organics co-digestion (minimize landfilling)

Phosphorus, struvite + other micro-nutrient recovery

Bioplastic + biodiesel production from fats, oils, grease + biogas



Water Reuse & Recycling

Treated effluent reuse + recycling on-site at the Ecofactory

Industrial, urban + agricultural reuse

Groundwater recharge + saltwater intrusion barriers

Tertiary + quaternary treatment

Direct + indirect potable reuse



Decarbonization

Fugitive emissions monitoring + controls

CO₂ capture + sequestration or beneficial use

Carbon sinks + offsets, Scope 3 value chain emission reductions, Scope 4 avoided emissions, green infrastructure

Fleet electrification



Community & Environmental Stewardship

Biodiversity positivity + nature-based solutions

Climate resilience, power microgrids, emergency preparedness + response

Veolia Academy + workforce development

Youth + community engagement

Ecofactory is not theoretical—Communities around the world that have partnered with Veolia are already on their individual journeys, from Chile, Mexico, and Spain; to Morocco, Algeria, and Kuwait; to Namibia, Australia, and Romania; to Singapore, Germany, Hungary, and France; and right here in Milwaukee, Wisconsin.

Imagine the possibilities that an Ecofactory can enable for your community: Driving progress toward a green and circular economy, generating new revenue streams while saving operational costs, becoming a catalyst for ecological transformation, uplifting local youth and workforces, leading the way toward a more resilient and equitable society, and creating a brighter future for all.

MILWAUKEE METROPOLITAN SEWERAGE DISTRICT

LEADING THE WAY FOR NEARLY A CENTURY

Veolia is proud to launch the Ecofactory framework in the United States this Earth Day, in partnership with the Milwaukee Metropolitan Sewerage District.

Milwaukee and MMSD are already leaders in **treating wastewater as a resource**, going back almost a century to the first production of what is now known as **Milorganite® fertilizer**— keeping more than 5 million tons of waste from landfills, as well as the untold thousands of tons of fugitive landfill methane that would have been produced from it, while offsetting the production of energy- and carbon-intensive synthetic fertilizers.

Under decades of forward thinking by MMSD leadership, the District now **generates its own power and heat** from biogenic anaerobic digester gas and landfill gas; **co-digests high-strength wastes** to divert them from landfills and produce even more biogas to be used toward energy independence; and plans to deploy **solar PV, wind power, battery storage, and/or waste heat recovery systems** to achieve its goal of 100 percent renewable energy and a 90% reduction in its carbon footprint by 2035. MMSD **reuses its treated clean effluent** for on-site cooling water and cleaning purposes, avoiding the associated energy consumption and greenhouse gas emissions for the City to treat and distribute that volume of fresh water. Already, 27% of MMSD's energy consumption comes from renewable resources, and the District has reduced its GHG emissions by 18% since 2005.

MMSD is a **biodiversity champion**, undertaking pro-pollinator and anti-pesticide campaigns, providing a home for the widely-beloved nest box installation for the protected peregrine falcons that live on-site, plus establishing partnerships to restore local wetlands and natural habitats and to reforest and clean up the greater Milwaukee River waterways. MMSD's **stormwater management** and green infrastructure practices have mitigated over 145 billion gallons of combined sewer pollution from entering Lake Michigan, and the District plans to acquire thousands of acres of land, and to plant thousands of trees, for further **environmental stewardship**.



MMSD and Veolia remain **integral members of the local community**, from hosting thousands of visitors annually, to committing to purchasing goods and services from **small women- and minority-owned businesses and enterprises**. Together, MMSD and Veolia aim to deliver **public educational programming** to increase local support and understanding of the District's operations and goals. Collectively each year, the **workforce training programs** run by MMSD and Veolia offer over 40 paid internship opportunities seasonally for local students and residents.

Finally, MMSD's **impeccable record of environmental compliance** and **state-of-the-art asset management practices** have led its partnership with Veolia to be recognized with various prestigious honors from the Clean Water Alliance, the National Association of Clean Water Agencies, and the National Council for Public-Private Partnerships.

Today, MMSD is recognized as a global example for the next century of wastewater treatment, positioning the City of Milwaukee as a model for sustainable development to inspire other communities around the world.

Resourcing the world

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