



**OPERATION AND MAINTENANCE OF
MUNICIPAL WATER & WASTEWATER
SYSTEMS**

Visit veolianorthamerica.com



TO HELP MUNICIPALITIES EFFICIENTLY AND SAFELY MANAGE THEIR WATER UTILITIES, VEOLIA DEVELOPS COMPREHENSIVE OPERATION & MAINTENANCE (O&M) PROGRAMS

Municipalities today grapple with maintaining and enhancing water systems amid budget constraints and evolving regulations. Our game-changing solution empowers local governments to **transform water services while retaining control**.

Here's the essence: **Partner with skilled third-party operators** to optimize your water infrastructure. By tapping into economies of scale, **municipalities relieve financial burdens and focus resources where they matter most**.



PICTURE A TRANSFORMED WORLD

What if your water utility could lead the way in the US by **pioneering** a comprehensive, **innovative** and evolving approach for water management?

Imagine being equipped with **cutting-edge technology** and a highly resilient and qualified workforce, ensuring **uninterrupted access** to water?

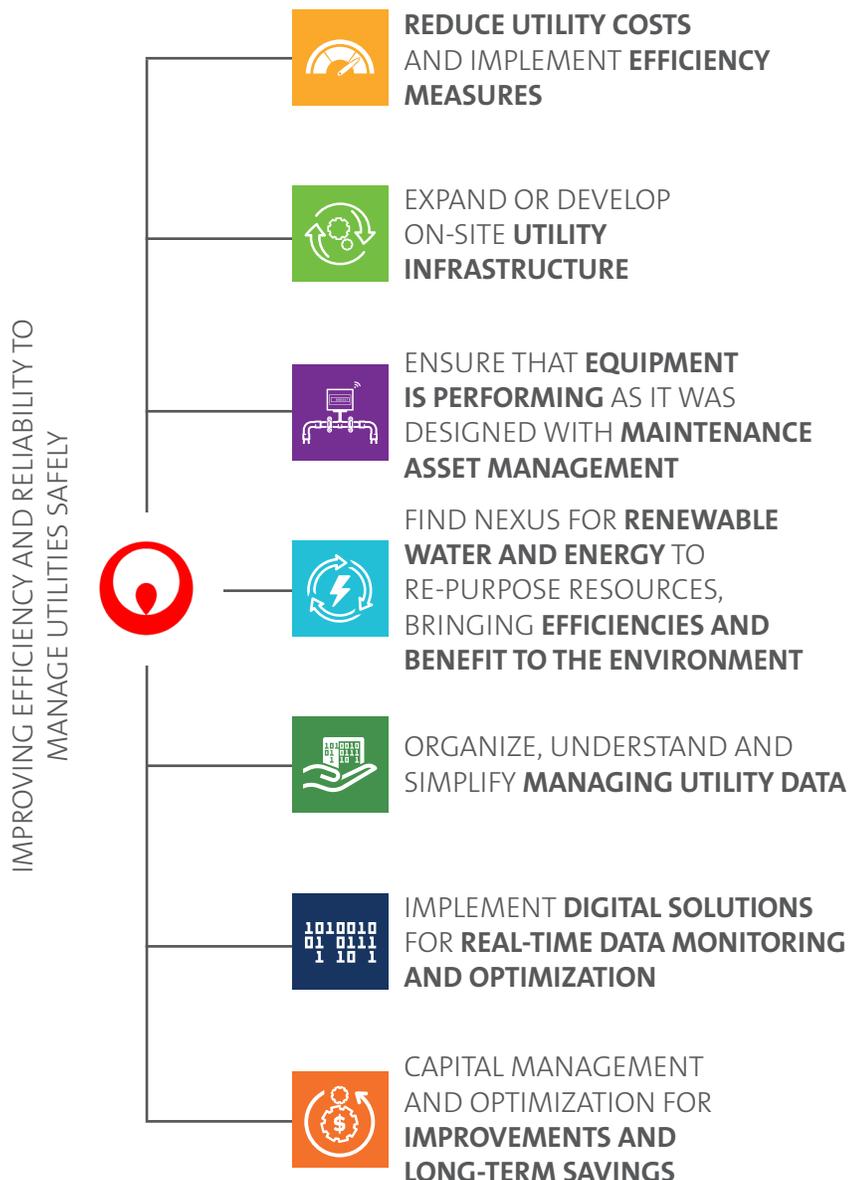
Imagine being the driving force behind a **remarkable** success story - a story, that will define your **legacy**.

WHY PARTNER WITH VEOLIA?

- **Shift operational responsibility and risk to Veolia**, enabling municipalities to focus on core functions
- Maintain **asset ownership and control** while benefiting from tailored water and wastewater solutions
- Ensure **compliance** with federal and local environmental standards
- Enhance **operational efficiency**, reduce costs, and extend asset lifespan
- Benefit from a **skilled workforce** including more than 10,000 experts in North America
- Build **strong community relationships** through our long-term investment

Our distinction? Our unwavering dedication to your goals. A flexible approach, tailored to your objectives, aligns with performance metrics for exceptional results.

AN INTEGRATED APPROACH WITH OPERATIONAL EXCELLENCE AT ITS CORE



Our expertise covers:

- Water and wastewater treatment and O&M
- Collection, distribution and stormwater systems
- Water reuse and reclamation systems
- Biosolids and bionergy
- Water and energy nexus
- Desalination facilities
- Pollutants treatment and management such as PFAS, Lead and Copper
- Industrial Pretreatment Program management
- FOG/Food waste program management
- Network asset management
- Digital solutions
- Clear strategies and solutions towards Net Zero
- Biodiversity enhancement
- Nature-based solutions



FORTIFY YOUR UTILITY WITH AN UNMATCHED FOOTPRINT

VEOLIA NORTH AMERICA:



615
Communities
Served



10,800
Employees



240
Municipal
Clients

MUNICIPAL WATER:



19,400 Miles
Underground Assets
Managed

8,845 Miles Water Lines
9,820 Miles Sewer Lines
735 Miles Stormwater Lines
15 Storm Pump Stations
195 Water Pump Stations
1,616 Sewer Pump Stations



416
Water & Wastewater
Facilities Managed

115 Municipal Water
210 Municipal Wastewater
29 Industrial/
Commercial Water
62 Industrial/
Commercial Wastewater



18.4 M
Population Served



1.3 BGD
Water Treatment
Capacity Managed



2.2 BGD
Wastewater
Treatment Capacity
Managed



381,500 DTPY
Biosolids Processed
(Dry Tons per Year)



CENTERED ON VALUE: ENHANCING COMMUNITIES THROUGH WATER CYCLE INNOVATION

It all starts with pumping water. This is done either from groundwater, a lake, a river or a stream. We always choose protected sites, with no human or agricultural activity nearby, in order to obtain quality water. Extraction is carried out in a controlled manner, so as not to exhaust the resource.

To become drinkable, the water we take is then treated. It is filtered, screened, undergoes polishing treatment with activated carbon, disinfected with ozone or UV, etc. It goes through a whole series of tests, without losing its mineral content, and receives only one drop of chlorine for the equivalent of 5 baths.

Then it is time to distribute the water to our customers and individuals. From production to tap, it passes through a complex system of pipes. In some locations, its quality is checked more than 3 million times a year, making it the most controlled food product. We take a holistic approach to water management.

Finally, once used, the water can be returned to nature or reused. We pass it through a wastewater treatment plant where it is extensively treated and cleaned. This produces sludge with a high nitrogen and phosphorus content, which can be reused as fertilizer or as a source of energy.

We have a holistic and unique approach to water management.

Veolia embraces the circularity of water management, addressing technical, regulatory, societal, and environmental aspects. We promote resource regeneration, reuse, and fight pollution to achieve decarbonization. Water is not just a commodity; it necessitates comprehensive and sustainable management.

Owner Mind, Service Heart

Drawing from firsthand experience as utility owners across six states - NY, NJ, PA, RI, ID, and DE - we offer a perspective that transcends ownership, guided by both entrepreneurial vision and a commitment to service excellence.

VEOLIA OWNS UTILITIES IN 6 STATES

New York, New Jersey, Pennsylvania, Rhode Island, Idaho and Delaware

VEOLIA PROVIDES O&M IN 36 STATES

From coast-to-coast in North America

WHERE SERVICE MEETS INNOVATION, VALUE EMERGES



Collaborating with us unlocks a suite of distinctive benefits, fostering community improvement, cost reduction, and active contributions to a sustainable future. Together, we pave the way for progress while enhancing your surroundings and bottom line.



PROTECTING THE PLANET AND WATER RESOURCES

Water Solutions that matter: Veolia is committed to ecological transformation by providing radical, meaningful solutions to major problems, with and for ALL stakeholders: local residents and authorities, manufacturers, civil society, and employees.



ENGAGED WITH COMMUNITIES

The local teams place significant importance on upholding communication, support and engagement with various local stakeholders through community events and partnerships. Veolia's commitment is reflected in our diverse and inclusive initiatives and industry-leading M/WBE relationships that foster the economic development of the municipality.



SKILLED WATER WORKFORCE

We prioritize the growth and development of our employees by offering training, internships, and support to enhance their skills. Veolia values the responsibility and independence of our employees, fostering a culture of professional equality, diversity, and inclusion. We are committed to providing a safe and supportive workplace that offers continuous career growth opportunities. In 2023, Veolia NA was named Best of the Best Employer by Black EOE Journal, reflecting our commitment to fostering an organization of unique skills, diversity, and by being champions of ecological transformation.



Ecofactory™



Commitment to UN's Sustainable Development Goals



Extensive M/WBE Relationships



Job and Wealth Creation in Territories



Inclusion of Neighborhood Association in our Governance



96% Retention Rate



Our 1st and Main Investors are our Employees



Internal Training



Internship Opportunities



Diversity, Equity & Inclusion



- Circular Economy
- Biodiversity Focus on our Sites
- Cyber Security
- GIS, CMMS & SCADA
- Sewer Inspection Drones
- Smart Manhole Covers
- PFAS Management
- Leak Detection Monitoring
- Hubgrade
- Public-Private Partnerships
- Water, Waste & Energy Expertise
- Investment Capacity
- Return on Capital Employed



BOLD INNOVATION

We work every day to challenge the conventional thinking and constantly innovate in both large and small ways, using innovative technology and processes to support the delivery of a superior customer experience. Veolia utilizes our modular tool Hubgrade to sync CMMS, GIS, hardware and other forms of real-time data through a digital and custom platform, providing full transparency for our clients.



SUSTAINABLE AND INTEGRATED VALUE

We believe in the power of synergy to drive better and faster progress. We create interconnected solutions that seamlessly bridge the realms of Water, Energy and Waste, recognizing these resources as invaluable assets to a sustainable future, bringing a unique set of capabilities to the market.



EMPOWERING YOUR TOMORROW: VEOLIA BESPOKE SOLUTIONS TAILORED TO YOUR CHALLENGES

Unleashing a symphony of **risk mitigation, operational excellence, cost efficiency, and natural resource protection**. Your distinct needs don't just guide us; they **define the innovation we bring to life**.

AGING INFRASTRUCTURE

VEOLIA'S UNIQUE SOLUTION

Capital Program Management (CPM) is a refreshing solution to a utility infrastructure project that optimizes capital budgets, reduces risk, and avoids schedule delays. The delivery is a **collaborative process and solution** between the municipality, Veolia and its large proportion of subcontractors to find the right partners based on the facility specificities and that will implement capital improvement for optimal future O&M by Veolia's operators. This approach also provides a **progressive solution** in two phases (Design and Construction) to understand the risks, the levers and ultimately generate increased value to the municipality.

SUCCESS STORY

In **Smithfield, RI**, the Town achieved \$100,000 in savings on a small disinfection system project.

Meanwhile, the **Town of Danbury, CT** achieved in excess of \$40 million savings on a major facility upgrade after receiving bids via traditional design-bid-build. It is an approach that works for projects of any size and scale.



SMITHFIELD, RI



DANBURY, CT

SKILLED LABOR SHORTFALL

VEOLIA'S UNIQUE SOLUTION

Our online water and wastewater **career training program** is a comprehensive, cost-free resource designed to develop the necessary workforce in the industry. We offer courses for individuals to acquire technical skills and knowledge from top certified operators and experts, preparing them for the state certifications required for a career in water and wastewater management.

SUCCESS STORY

"The training helped me prepare for and pass the Distribution Class II exam, which allowed me to get my license. My teacher was very knowledgeable of the subject matter and had a unique skill set that allowed her to deliver the training in a way we could grasp easily. Also, the online content allowed me to study at my own pace and brush up on content I was having difficulty with."

Testimony from career training graduate,
Jerome McCall



CAREER TRAINING

BUDGETARY REQUIREMENTS AND NEED TO GENERATE SAVINGS

VEOLIA'S UNIQUE SOLUTION

Optimization solutions through digital, water, waste and energy interconnections

Municipal clients benefit from Veolia's holistic approach to water, energy and waste. The interconnections between these sectors coupled with digital proficiency, enable clients to save significant costs and optimize processes through data driven synergies.



RICHMOND, CA

SUCCESS STORY

In **Richmond, California**, Veolia partnered with the City to implement comprehensive upgrades to the wastewater treatment plant and collection system. Key projects included:

- Installing **smart monitoring systems** across the sewer network to detect issues early and prevent overflows
- Upgrading the plant's electrical infrastructure and exploring renewable energy options
- Rehabilitating critical infrastructure like clarifiers and sedimentation basins to improve treatment reliability and efficiency
- Implementing advanced odor control measures

Through these integrated improvements, Richmond was able to reduce sewer overflows by over 50%, cut odor complaints by 35%, and save approximately \$500,000 annually in energy and operating costs. The upgrades also enhanced environmental protection for San Francisco Bay.

REGULATORY REQUIREMENTS NECESSITATING COMPLIANCE AND RESILIENCY OF SERVICES FOR MANAGING EMERGING POLLUTANTS

VEOLIA'S UNIQUE SOLUTION

PFAS Treatment End-to-End Solutions*

Veolia provides services to secure available funds, manage PFAS removal in contaminated water, and provide safe disposal options.

Lead Service Lines Inventory and Replacement Integrated Approach*

Veolia takes advantage of its high degree internal expertise, its understanding of the client system and its relations with the communities to be a trusted partner and single point of accountability for the client.

*as part of the O&M contract

SUCCESS STORY

In **New York State**, in anticipation of the **2020 PFAS regulations** and a requirement for immediate compliance, Veolia facilities **began sampling and testing in 2019**. Sample results showed levels of PFOA up to 19 ppt, above the New York limit at 10 ppt. As a treatment facility was not viable for immediate PFAS treatment, Veolia bench-tested multiple Granular Activated Carbon (GAC) options at each site to find the optimal solution for the client. The design-build approach used, bundling the sites in each bid package made the process more manageable for the operation and our regulators.

In **Buffalo, NY**, Veolia successfully developed:

- The initial service line inventory and established data management tools that enable tracking changes to the inventory
- The coordination of partnerships with multiple vendors to identify more than 5000 customer side service lines.
- Sampling management practices for Lead Service Line Replacement program along with post replacement sampling and filter distribution
- Customer communication and educational materials

BUFFALO, NY



CHALLENGES IN MANAGING SLUDGES FROM WASTEWATER PLANTS RESULTING IN RISING COSTS/CHANGES IN REGULATION

VEOLIA'S UNIQUE SOLUTION

Biosolids Management Solutions

Veolia capitalizes upon its long standing expertise on beneficial use treatment solutions, energy production and PFAS treatment technologies to create value stream resources for sustainability.

SUCCESS STORY

In **Milwaukee, WI**, Veolia converts the sewage sludges into recognized EQ/Class A fertilizer (Milorganite®) distributed throughout the U.S, while producing 1.37 million cubic feet equivalent of biogas per day that fuel the treatment process. The solution therefore generates new revenue streams for the municipality while saving on energy consumption and avoiding sludges haul-away to landfills.



MILWAUKEE, WI

CLIMATE STRESS: WATER SCARCITY, OVERFLOWS, GHG EMISSIONS

VEOLIA'S UNIQUE SOLUTION

Water Reuse

Veolia provides world class water reuse and purification services in multiple locations across the US, for various purposes including potable, agricultural, irrigation and industrial uses

Ecofactories™

An Ecofactory™ is a wastewater treatment plant that works according to the principles of circular economy. It becomes a center that produces bio-resources & green energy, with minimal environmental impact. This process enables the plant to become energy-positive with the ultimate goal of achieving energy self-sufficiency and zero waste.

Sewer and Stormwater Management

Veolia provides monitoring & data integration solutions that allow analysis in real time and forecasting of rainfall vs flow to prevent overflows during abnormal situations.

Biodiversity through Nature-based Solutions

Green infrastructure like wetlands and vegetated buffers can help replenish water resources, reduce stormwater overflows, and sequester carbon, all while promoting biodiversity by creating natural habitats and ecosystems that support a resilient and sustainable water management system.

SUCCESS STORY

As recurring droughts in **Southern California** resulted in demand exceeding local water supplies and uncertain limitations of imported water supplies, **West Basin Municipal Water District** has worked with Veolia since 1995 to preserve drinking water and ensure water supplies for local industries by recycling wastewater. As the largest recycling facility in the nation, it uses 5 different customer tailored processes to treat 65.5 million gallons a day of recycled water for potable and industrial purposes.

In a landmark partnership, Veolia and **Nassau County** are transforming wastewater treatment in the USA:

- Water Conservation: Effluent reuse initiatives saved 360 million gallons of groundwater annually.
- Emissions Cut: Biogas from sewage sludges curbed 8,200 tons of CO2 release yearly.
- Nitrogen Reduction: Introduced innovative BNR system, leading to a 40% decrease in nitrogen discharge.

This collaboration drives Nassau County reclamation facilities towards self-sufficiency with zero energy, water, GHG, and waste.

In **Auburn, AL**, Veolia, the City and the local university collaborated to install beehive colonies at the wastewater plants in a safe environment that would limit the presence of parasites and environmental stressors. As a result, many initiatives, visits and research opportunities have emerged.



WEST BASIN, CA



NASSAU COUNTY, NY

DATA AND OPERATIONS MONITORING

VEOLIA'S UNIQUE SOLUTION

Digital Solutions for Real-time Data

Veolia utilizes a modular tool called **Hubgrade** to sync CMMS, GIS, SCADA, remote sensors, hardware and other forms of real-time data through a digital and custom platform. Dashboards are tailored to the needs of the municipality to facilitate information sharing.

HUBGRADE
MONITORING

SUCCESS STORY

In 2022, Veolia implemented the **Veolia Asset Management System (VAMS)** program at multiple wastewater plants across the US. The VAMS technology is an intuitive and user-friendly solution that helps the teams to plan & track all maintenance activities through mobile field viewing of assigned work, scheduled updates throughout the day, mobile purchasing approvals, better data capture for field photos, etc. Exposition of dynamic KPIs to users driver performance while live data quality checks allow them to see where review or revision is needed. This technology has enhanced work order management and transparency in overall asset management.

AS A DECISION MAKER,
WHAT ARE THE BENEFITS TO YOU?

- YOU CATALYZE ECONOMIC AND SOCIAL PROGRESS
- YOU PRESERVE NATURAL RESOURCES
- YOU COMMAND COST EFFICIENCY

Our distinction lies in our steadfast commitment to your objectives. We offer a nimble, personalized approach, meticulously tailored to your specific goals. By aligning our strategies with performance metrics and embracing cutting-edge technology, sustainability initiatives, and community engagement, we deliver not just results but exceptional, forward-looking solutions that redefine water utility management.





Resourcing the world

COMMERCIAL CONTACT

© 2023 Veolia North America
53 State Street, 14th Floor • Boston, MA 02109
tel 617-849-6600
twitter: @veolia_na
veolianorthamerica.com

