



Resourcing the world



# SUSTAINABILITY PERFORMANCE REPORT 2017

VEOLIA NORTH AMERICA



## Resourcing the world

# Driving Sustainable Business in 2017 Veolia North America

**OUR VISION:** To solve complex challenges in water, waste and energy in order to shape a more sustainable world.

At Veolia North America, we believe that sustainable solutions must deliver economic value to our customers. As the world's largest environmental solutions company, we are uniquely positioned – and committed – to help make great strides on this front. It is who we are.

We are also an operations company. Our operations culture brings unique problem-solving and technical expertise enabling resource recovery and circular economy solutions in water, waste and energy.

We take great pride in what we do – providing circular economy solutions for cities and industries that make the world a cleaner and more resilient place. Whether reducing emissions through combined heat and power or reclaiming and reusing solvents through industrial regeneration, Veolia maximizes the beneficial reuse of complex waste streams creating environmental solutions that also deliver customer value.

Thank you to our customers for their trust and partnership that have helped us meet these sustainability goals.



**Bill DiCroce**  
President and CEO,  
Veolia North America

Veolia has been recognized for its global achievements in sustainability by several renowned global agencies.



Veolia Environnement is notably included in the DJSI World and Europe and FTSE4Good stock market indices as sector leader.



Veolia Environnement is included in RobecoSAM's Sustainability Yearbook 2018 in the "Gold Class" and "Industry Mover" categories. It is ranked first out of the 40 largest companies in its sector.



Veolia Environnement's climate performance received an A-rating for CDP Climate change, CDP supply chain and CDP Water. It is also included in the Euronext Low carbon Europe 100 index.

In its role as a supplier, Veolia was awarded the Gold distinction in 2016 as one of the top 5% of companies appraised by Ecovadis, an agency providing CSR assessment of the supply chain.

## Key Performance Indicators:

### Resourcing the planet



Sustainably manage natural resources by supporting the circular economy.



Reducing and avoiding CO<sub>2</sub>.



Conserve and restore biodiversity.

### Resourcing the regions



Contribute to local development.



Build new models for relations and value creation with our stakeholders.



Supply and maintain services crucial to human health and development.

### Resourcing the women and men we employ



Guarantee a healthy and safe working environment.



Encourage the professional development and commitment of each employee.



Guarantee respect for diversity and human rights.





## Resourcing the planet

Sustainably manage natural resources by supporting the circular economy.



### Recycling Household Hazardous Waste

Starting in 2010, Veolia and the New York City Department of Sanitation (DSNY) have worked together to keep harmful waste products out of the environment.



Through the management of five permanent waste recycling facilities, and close collaboration and planning, Veolia and the DSNY hosted over 50 highly successful NYC SAFE (Solvents, Automotive, Flammables and Electronics) Disposal Events across the five boroughs in New York City. NYC SAFE events are now some of the largest collection events in the world, diverting more than 4.8 million pounds of waste, including pesticides, paint, motor oil, mercury devices, batteries, fluorescent lamps, cleaning products, and electronics from city landfills and wastewater treatment facilities. On average, Veolia reclaims 90% of the material that residents bring in — processing and converting it for beneficial uses and aiding NYC in sustainably

conserving the earth's resources. NYC SAFE Disposal events result in yearly double digit increases in participation and waste volumes.

This immensely successful public private partnership was recognized by the National Council for Public Private Partnerships in 2016 under the Service Project award for superior service and continuous improvements. It is an impressive demonstration of the largest city in America partnering with the private sector to create an effective and mutually beneficial solution in a challenging urban setting.

### Expanded Sulfuric Acid Regeneration Capabilities Help Drive Cleaner Fuel Production

The circular economy reimagines the supply chain from a linear take-make-dispose model to a circular model in which products are reused and treated so that they can re-enter the supply chain. At Veolia's flagship sulfuric regeneration facility in Burnside, Louisiana, Veolia captures spent sulfuric acid from the refining industry and regenerates it for reuse.

In 2017, Veolia North America announced a major investment in its Burnside sulfuric acid regeneration facility. The investment will increase spent acid regeneration capacity delivering a circular solution for growing demand in the refining and manufacturing sectors.

The current regeneration circuit is nearing capacity because of spiking demand for alkylate. Sulfuric acid is used as a catalyst in the production of alkylate, a gasoline additive that helps achieve fuel efficiency standards and low emission ratings. By adding

capacity at Burnside, Veolia will regenerate more of this valuable commodity and help refiners produce cleaner burning fuel.

The regeneration process also produces other sulfur derivatives which are used by many major manufacturers as surfactants in everyday household products. Laundry detergent, dish soap, and shampoo can all be produced with the recycled product, avoiding the extraction and production of virgin sulfur. This expansion will deliver a more sustainable solution to North American consumers.



Reducing and avoiding CO<sub>2</sub>.

### Avoiding Carbon Emissions Through Customized Solutions

Solvents are used in a wide variety of industrial processes to create everyday products for our homes and businesses.



Typically, solvents are not chemically changed in the production process. This creates the opportunity to recover them in their original unmodified state and reuse them in the same or alternate applications. The use of recycled solvents can create environmental advantages over the use of virgin materials, including avoided carbon emissions, reduced water usage and reduced reliance on finite supplies of source material.

In South Hackensack, New Jersey, a customer partnered with Veolia to recycle spent solvent and return reclaimed ethyl acetate to the production process. The reclamation process avoids the use of virgin ethyl acetate, reduces the client's operating costs and supports the circular economy. Distillation and recovery occur at Veolia's Middlesex, New Jersey solvent recycling facility. Having a local recycling solution helps minimize transportation emissions and increase logistical efficiencies. This project has been recognized by the New Jersey Department of Environmental Protection's environmental stewardship program for waste reduction efforts and demonstrates significant avoided carbon emissions.



Reducing and avoiding CO<sub>2</sub>.

### Reducing Carbon Emissions With Biomass Energy

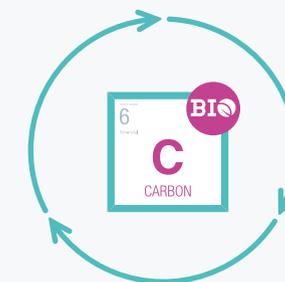
Located in the heart of the "American Broiler Belt," North Carolina is home to a large-scale poultry production industry. And where there are lots of chickens, there is usually a lot of chicken litter.

Historically, poultry growers apply chicken litter to fields as fertilizer, but as the number and size of chicken houses in the region grows, so does excess waste. The increased volume of chicken litter had ended up in landfills, which in turn seeps into lakes and rivers leading to its recent classification as a hazardous waste in North Carolina and several other states.

In 2017, Veolia began operating a waste-to-energy facility for a subsidiary of Georgia Renewable Power (GRP) in Lumberton, N.C., providing an innovative solution to this waste challenge. Veolia manages a cogeneration plant for GRP that converts poultry litter and wood chips into biomass energy. More than 11,000 truckloads of poultry litter — some 285,000 tons — are diverted from land application or landfills and are instead used to generate energy. In addition, the 25 megawatt facility uses waste heat from the plant's combined heat and power process to dry wood chips for export overseas. Finally, the ash containing the original nutrients from the poultry litter is sold for use as a feedstock for fertilizer and soil amendments which creates a nutrient rich soil. This process represents the most efficient use of each former waste stream.



Biogenic sources of carbon like chicken litter and wood chips significantly reduce carbon dioxide emissions associated with energy production because biogenic carbon is produced and consumed within the natural carbon cycle.



500,000 Metric tons of CO<sub>2</sub>e reduced in 2017



## Resourcing the planet

Conserve and restore biodiversity.



### Creating a Resilient Ecosystem by Enhancing Biodiversity

The loss of biodiversity directly contributes to the vulnerability of the communities in which we live, work, and play.

Veolia recognizes the importance of preserving native flora and fauna in order to make our communities more resilient to natural disasters and resource scarcity. In an effort to protect our natural ecosystems, Veolia has implemented a biodiversity plan to assess 28 sites in North America that have the greatest potential to support biodiversity.

In Westborough, Massachusetts, we worked with our customer to host 50 local 5th graders from the Mill Pond School for a Biodiversity Day. The students visited five stations to learn about different aspects of biodiversity consistent with recommendations from the Next Generation Science Standards.

The students got a chance to put their learning into action by building birdhouses and planting a pollinator garden. These annual project-based learning events are now a part of the school district's curriculum and will continue to enrich our partnership with the community while supporting the biodiversity critical to long-term sustainability.

**14 Biodiversity assessments completed since inception of the program**



## Resourcing the regions

Contribute to local development.

### Standing with our Communities in Need

The 2017 hurricane season dramatically impacted the lives of many US citizens, including Veolia employees who are members of affected communities in the U.S. Virgin Islands, Louisiana, Puerto Rico and Texas. In a remarkable effort to show support, Veolia North America employees donated over \$60,000 to their colleagues impacted by the storms. Veolia North America matched the amount, raising more than \$120,000 in total. The funds were then distributed to 234 impacted employees for basic necessities including food, water, cleaning supplies, flashlights and batteries.

Veolia employees did not stop there, though. Local employees chose to devote their time and efforts to help their communities overcome the aftermath of disaster with a response that was uniquely Veolia. In Houston and Port Arthur, team members staffed supply distribution centers, cleared highways, rescued flood victims from their homes, volunteered with local emergency responders, opened their

homes to those in need and consistently went above and beyond to help one another. In Puerto Rico and the U.S. Virgin Islands, our sites served as shelters and safe zones, providing onsite power through our generators and offered reprieve with showers and bottled water. We're proud to be on a team that will go through great lengths to take care of each other.



**\$120,000** raised for disaster relief



Contribute to local development.

### Providing Opportunities and Developing Skills

“For me, success has always been a hard thing to grasp. Being at Veolia, I have come close to realizing this concept by developing my speaking skills to allow me to clearly convey my message to customers. Now, I have progressed in such a way that makes me an exceptional employee in the working environment.”

**Devonte Robinson, Age 23**

Devonte Robinson is one of over 8,000 students to participate in the Baltimore Hire One Youthworks program, an annual Baltimore City-wide summer jobs initiative. For the past decade, Veolia has partnered with the Baltimore Mayor's Office to support the program, helping young local residents acquire essential workplace skills like time management, communication and industry knowledge. As one of the many professional development programs at Veolia, the Baltimore Youthworks program helps to recognize and develop the skills of our workforce, illustrating our commitment to the men and women we employ.



Build new models for relations and value creation with our stakeholders.

## Comprehensive Partnerships for Shared Value

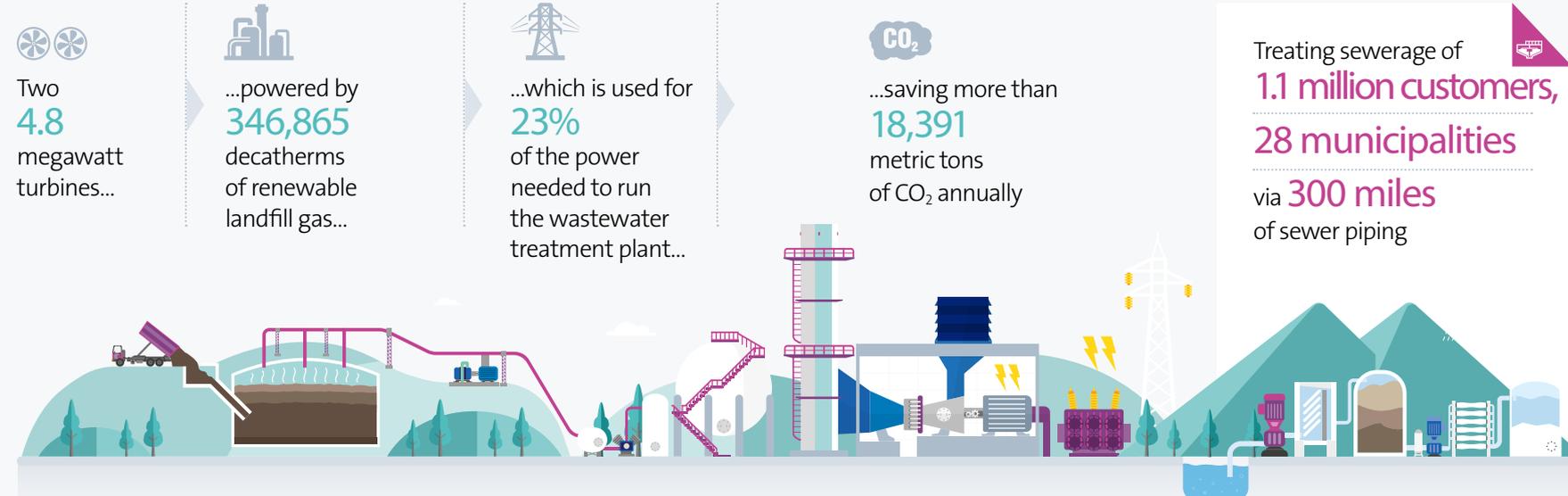
Since 2008, Veolia has operated and maintained the Milwaukee Metropolitan Sewerage District (MMSD) water reclamation facilities and Deep Tunnel conveyance system, protecting one of the community's most valuable resources – Lake Michigan.

In 2008, Veolia pledged to not only safeguard the water quality in the watershed, but to also reduce operational costs and increase engagement with the community. This strong partnership has yielded award-winning results in water quality, \$35 million in cost savings, and a proven commitment to research and development, supplier diversity and community education through the historic Doors Open program.

Over the last 10 years, Veolia has funded 1.5 million dollars in research to advance and improve wastewater treatment and technology. Recently, the 'Rain: Net initiative' launched as a low-cost alternative to monitor and improve sustainable stormwater infrastructure. The research team operates six active sites and pilots a control system that will use NOAA weather forecasts to adjust the amount of water in catchment systems. This will prevent overflows of runoff caused by heavy storms, therefore protecting the infrastructure during disastrous weather. In addition, Veolia has conducted groundbreaking R&D on phosphorus and pharmaceutical removal with The Great Lakes Water Institute at the University of Wisconsin. The project works to determine the pharmaceutical compounds whose removal from the water supply is critical.

Even today, our partnership with MMSD continues to expand. Recently, Veolia and Milwaukee partnered on a resiliency project to evaluate the region's vulnerability to critical risks and develop an action plan to mitigate these risks. Veolia's team set up a methodology to identify critical assets and uses the 100 Resilient Cities framework. The team works with the municipalities served by MMSD to prioritize actions through a Regional Resilience Plan workshop to safeguard infrastructure and the community.

This dynamic joint effort paves the way for this comprehensive public private partnership to evolve, allowing the citizens of Milwaukee to benefit in a variety of ways from Veolia's global expertise.



### Doors Open Program

Historic Milwaukee's annual Doors Open program invites citizens to explore the historic architecture and design of downtown Milwaukee by visiting local sites to showcase its cultural and economic significance to the city. In continuous operation since 1926, one of the two reclamation site's Veolia operates, Jones Island, was designated a National Historic Civil Engineering Landmark in 1974. Chosen by the American Society of Civil Engineers, the facility is recognized for its innovations in providing high-quality wastewater treatment and its participation in the Doors Open program. The annual event continues to grow, welcoming as many as 2,000 visitors in one day to the Jones Island site, and is classified as one of the largest open house-type events worldwide. Every year, Veolia invites Milwaukee citizens to experience the journey of wastewater where attendees can walk through the plant and interactive chalk artwork known as the "Wastewater Maze" to learn how wastewater is treated.



Over **\$4,000,000** spent on Small, Women and Minority Business Enterprises

### Biodiversity protection

In collaboration with the Midwest Peregrine Society, Veolia initiated a nesting box program for Peregrine Falcons that have made the treatment facility their home, helping to nurture over 13 young chicks in support of this endangered species.

Also, with a location right in the heart of the Lake Michigan flyway, the South Shore Water Reclamation facility utilizes a phased mowing approach, which means they delay the "first cut" until late spring, as well as plant native grass, giving ground nesting birds the opportunity to raise their first nestlings of the season.



### Investing in workforce development

Veolia participates in a variety of programs with educational partners to spark interest in careers in the water industry and the skilled trades. In addition to providing tours for the city-wide Milwaukee Association of Commerce career day, Veolia also serves on the Advisory Board for Escuela Verde, a Milwaukee public school focused on experiential education, and provides "Water World" day for the local Girl Scouts that includes an introduction of 'who's who' regarding 'women in wastewater.'





## Resourcing the women and men we employ

Guarantee a healthy and safe working environment.



Encourage the professional development and commitment of each employee.

### Goal Zero - Veolia's Commitment to Safety

Veolia's approach to safety is one of deep commitment and continuous improvement.



Our commitment to safety is clear, with more than

**330** of our North American sites having

**0** lost-time injuries in the past year.

Our commitment to safety is clear, with more than 330 of our North American sites having zero lost-time injuries in the past year. At our facilities across Veolia North America, employees embrace Goal Zero, our strategy to ensure that health and safety is held as a core value and the number one concern at all times. Goal Zero promotes engagement, teamwork and sharing best practices like pre-job safety analyses, where employees carefully dissect potentially dangerous tasks step-by-step to control and eliminate risk.



In 2017, our Canadian sites demonstrated commitment to Goal Zero and continuous improvement, as evidenced by a 59% reduction in their lost-time injury rate.

Much of this improvement can be traced to pre-job safety analysis and participation in "5S: Six Sigma Daily" which engages workers to better organize tasks to keep work areas clean, orderly, and safe. Employee engagement is a cornerstone of Veolia's health and safety program and contributes to a safer working environment, resulting in a 18% overall decrease in 2017 injury rates across the US and Canada.

### Supporting the Modern Utility Workforce

Today's utility jobs have transformed from those of the past, requiring additional training and continued education for advancing technologies.



Recent reports from the industry indicate that almost 40 percent of water utility workers are over the age of 60 and more than half of energy utility workers are over 50. This proves there continues to be a lack of interest among younger talent to join the water and energy industries. Veolia has stepped up its efforts to fill this gap by providing funds for tuition and training, and ensuring that its operators have the opportunity to advance their careers. Veolia has offered over 10,000 training hours and has spent \$5.3 million in training and workforce development in 2017. Employees are encouraged to increase their skill level through programs

like advanced operator certifications and receive financial incentives when they achieve their professional goals. Through the placement of over 100 interns in various field and office positions in 2017 alone, and transitioning several into full time employment, Veolia not only supports the efforts of the industry to grow its talent pool, but even provides the skills and opportunities needed to join the workforce. As technologies advance, and the industry continues to evolve, it's crucial that the workforce grows alongside it. At Veolia, we're proud supporters of our workforce, and advocate for future generations of employees.





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