

Press release

Doha, Qatar - 21 September, 2020

Water Technologies - Middle East

Veolia designs water reuse process for Baladna, Qatar's major dairy producer



Veolia Water Technologies Qatar was contracted by Baladna, Qatar's leading dairy producer, to upgrade the existing wastewater treatment facility at its cow farm located in Al Khor, north of Doha. Veolia proprietary technologies will allow an increase in the treatment capacity of the plant and enable the treated wastewater to be reused for agricultural irrigation purposes.

With a capacity of up to 24,000 cows and a superficies of 2.4 million m², Baladna's cow farm is the biggest cow farm in Qatar and one of the biggest in the Gulf Cooperation Council (GCC) countries. The barn and milk parlor flushing area of the cow farm generates around 6,000 m³/day of wastewater.

As part of the wastewater treatment plant upgrade, Veolia modified and optimized the treatment performance of the existing lagoons and provided a complementary biological process to meet the treated effluent quality necessary for reuse. The treated water can now be reused for irrigation within the farm and, following further treatment by reverse osmosis, to spray and cool the cows during hot summer months.

Mr. Ramez Al-Khayyat, Managing Director of Baladna, expressed his keenness on the partnership with Veolia: *"Baladna's commitment to sustainability is to create a long-lasting difference in Qatar. The holistic approach to reuse treated wastewater is a key development for our company's sustainable goals, and we are enthusiastic to be at the tip of technological breakthrough for the best interest of our products and consumers."*

An upgrade of the existing lagoon system allowed Veolia to optimize its process performance to meet Chemical Oxygen Demand (COD) and Total Suspended Solids (TSS) removal between 80% to 92%.

To further treat the effluent, a two-stage [AnoxKaldnes™ Moving Bed Biofilm Reactor \(MBBR\)](#) process was provided with complete sieve and aeration grid arrangement. The MBBR process uses microorganisms for biological treatment of wastewater and allows for high treatment capacity in a very small footprint.

The effluent is then treated with coagulants and flocculants before tertiary treatment through a two-stage filtration made of [Hydrotech™ Discfilters and Drumfilters](#). These high-quality, swedish-manufactured filters are cost effective, have low energy consumption and an automatic control to optimize capacity. Finally, disinfection is performed using a sodium hypochlorite solution pumped to the new chlorine contact tank.

“Baladna is actively participating in the Qatar National Food Security Program (QNFSP). We are very proud to assist them in achieving their ambition to grow their business, and help them do so in a more sustainable way through water reuse” said Thierry Froment, CEO Veolia Water Technologies Middle East.

About Baladna Food Industries

Established in 2014, Baladna Food Industries has grown to be Qatar’s largest locally owned food and dairy supplier, and the only fresh milk supplier providing over 95% of the country’s fresh milk. The rapidly expanding Baladna Farm is located an hour north of Doha on Shamal Road. It spans over 40 hectares of land and is home to nearly 20,000 Holstein cows. Baladna’s fast-growing product line includes dairy products, oriental sweets, and frozen foods. Baladna is also a local leader in animal feed and fertilizer production.

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Veolia group is the global leader in optimized resource management. With nearly 179,000 employees worldwide, the Group designs and provides water, waste and energy management solutions which contribute to the sustainable development of communities and industries. Through its three complementary business activities, Veolia helps to develop access to resources, preserve available resources, and to replenish them.

In 2019, the Veolia group supplied 98 million people with drinking water and 67 million people with wastewater service, produced nearly 45 million megawatt hours of energy and treated 50 million metric tons of waste. Veolia Environnement (listed on Paris Euronext: VIE) recorded consolidated revenue of €27.189 billion in 2019 (USD 29.9 billion). www.veolia.com

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