CASE STUDY

Saving Water in the Workplace

At Facebook, we aim to minimize our energy, emissions, and water impact, while embracing the responsibility and opportunity to impact the world beyond our operations.

The opportunity

Water is a crucial resource for both our operations and for the health of the ecosystems around us. As such, water stewardship has always been a key focus of Facebook's sustainability program.

At Facebook, we are transparent about how much water we consume and are focused on finding new and innovative ways to use and reuse water more efficiently. This is especially true for facilities that are located in water-stressed regions, such as our headquarters in Menlo Park, California, where we frequently experience droughts.

While we already minimize water use in our buildings by installing efficient restroom and kitchen fixtures and investing in drought-resistant landscaping, we wanted to do more to reduce overall water consumption. That's why we collaborated with public and private sector partners to install our first blackwater treatment system at our headquarters.

The solution

We chose a Membrane Bioreactor (MBR), due to its small footprint and self-contained system. With the help of our partners at Aquacell, we began designing and developing the MBR System. At the same time, we also reached out to the state agencies, local health department, sanitary district, local building department, and county supervisors to begin the approval process and garner support for the project.

Over the next two years, the team worked closely with the agencies to design a system that met local and regional safety standards using biological treatment, ultrafiltration, ultraviolet light, reverse osmosis, and chlorination. The blackwater system collects water from onsite toilets, showers, kitchen and bathroom sinks, and air-conditioning operations. Simply put, any water that goes down any sort of drain is ultimately harvested by the blackwater system.

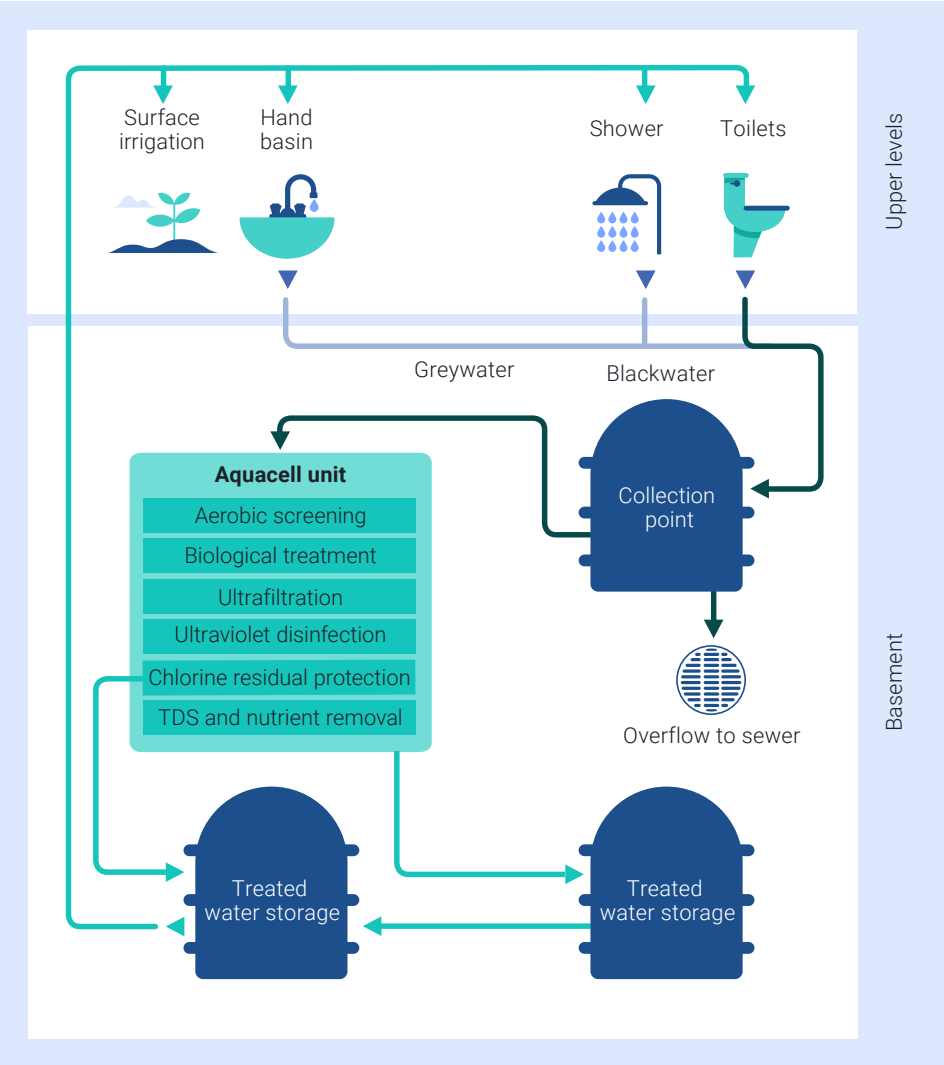
Between the two

500k+ sq ft.

buildings, the MBR system is estimated to save over 16 million gallons annually once it becomes fully operational.

We've installed a blackwater treatment system at our California headquarters that will recycle water from operations for further use on our campus and give us more from every drop. The reclaimed water will be run through a purple pipe system.

Blackwater treatment process



← *The efficient blackwater treatment system collects used water from different parts of our operations before running it through several processes that make it safe for reuse.*

The impact

Thanks to the hard work of architects, engineers, and state and local agencies, we received approval to install a "district scale" system that will operate in two buildings.

Our first blackwater system will become operational in late 2019 and we will introduce a second in the future. Between the two 500k+ sq ft. buildings, the MBR system is estimated to save over 16 million gallons annually once it becomes fully operational.

When we initially began designing the system, few companies had attempted onsite water reuse in commercial buildings and no water recycling system like this had been permitted by the state agencies in our region. Since then, state government agencies have begun working to improve codes and streamline processes to reduce barriers to recycling water in California. By working with local and regional stakeholders, we're proud to say that Facebook has helped establish a precedent that is now paving the way for others to introduce similar innovations in the district.

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More information
For more information visit our Sustainability site at sustainability.fb.com