

Managing Water

Costco understands the importance of water conservation and has adopted Sustainable Development Goal (SDG) 6 — Clean Water and Sanitation— as one of our SDG goals. We have implemented comprehensive water management programs to help us reduce operational water waste and improve the quality of both our wastewater and stormwater discharges. We are also taking steps to use less water overall.



Our Water Management Systems

Making sure we do whatever we can to avoid wasting water in our global operations is critical to our sustainability efforts, from both environmental and economical viewpoints. From an environmental perspective, water is a precious and limited resource that cannot be wasted. With rising temperatures, water use is also rising, causing shortage concerns throughout the world. Economically for us, minimizing water waste lowers overall operating costs — specifically, sewer, energy and maintenance costs. Our goal worldwide is to use only what we need, and to reduce waste.

Water monitoring systems are currently in use in our warehouses in the U.S., Canada, Mexico, Korea, the UK and Japan. We intend to expand monitoring systems to our other locations worldwide. These systems enable our warehouse operators to:

- Detect mechanical failures in real-time for quick fixes.
- Identify operational water waste so that behaviors can be modified through education and training.
- Consume less water to lower the amount of energy and cost necessary to run mechanical equipment and systems, which in turn reduces Costco's carbon footprint, expenses and environmental impact.

Our STAR Program

- Create an enhanced awareness of water use and stewardship throughout all facets of our operations.

Meanwhile, we are assessing our water management systems to consider new and emerging technologies that will enable us to manage water even more efficiently in our operations. We recognize water management is a top priority when considering operational waste controls, in establishing baseline performance, in targeting efficiencies and in considering innovative ways to drive improved performance by site.

In 2020, we rolled out a program called STAR—the Sustainability Technical Assistance Review. This program features five focus areas that warehouse operators strive to meet in their daily operations:

- Ensure environmental compliance.
- Govern water use inside and outside our facilities.
- Minimize energy consumption.
- Increase waste diversion.
- Reduce carbon emissions.

The STAR program is promoted in employee break rooms and supported by regional specialists who visit the buildings, and best practices are shared through the *STAR News* bulletin. For more information on STAR, see this story in the [Costco Connection](#) magazine. STAR is a critical part of our water management efforts.

While we haven't finalized our water usage data systems, we are able to estimate our global water usage for the past three years. See below for a summary of our global operational water usage.



Costco's Estimated Global Operational Water Usage Summary

	Sales (\$MM)	Gallons ('000s)	Water Use Increase (YoY)	Water Intensity ('000 gal / \$MM sales)
FY20	\$163,022	3,745,971*	N/A	22.98
FY21	\$192,052	4,027,322*	7.5%	20.97
FY22	\$222,730	4,349,676	8.0%**	19.53

*Gallons for FY20 and FY21 have been restated due to improved information on usage. This reflects an 8.5% and 9.8% increase, respectively, from previous reports.

**We attribute a portion of our increased usage in FY22 to better data collection, opening and operating new locations, and including in our calculations Costco Logistics and our Chicken Plant operating at full capacity. Despite these usage increases, our water intensity continues to decrease year over year.

New Approaches in Landscaping

Landscaping around our facilities is important for the beauty it provides, and for preserving natural habitat. When we build new warehouses, we seek to include effective landscaping that uses the least amount of water possible. This entails integrating native, drought-resistant and artificial landscaping materials to minimize irrigation. Irrigation systems that use smart technologies and subsurface irrigation complement landscaping.

Our irrigation systems are monitored through meters that enable our operators to identify issues immediately and avoid expensive repairs later. Thanks to these systems, we are able to reduce water waste and protect assets such as parking lot surfaces, retaining walls and building foundations.

We are also finding these measures to be helpful:

- Using smart technologies and subsurface irrigation to improve efficiency and reduce water waste in irrigation systems.
- Installing bioswales to preserve groundwater and prevent runoff in select locations.

Before & After: An Example

We are replacing landscaping in some warehouses with surfaces and features that use much less water. We are finding significant reductions in water usage — and consequently our water bills — through simple and relatively inexpensive options. For example, in 17 Bay Area Costcos, grass was replaced with landscaping that uses much less water, and drip irrigation systems were installed. With less water needed for irrigation, we are seeing annual water reductions of 6 million gallons or more, depending on the warehouse.



Before



After

Wastewater & Stormwater Plans

Each U.S. Costco location has wastewater and stormwater plans and procedures to ensure that we remain in compliance with local and federal regulations. We have a team of Environmental Sustainability and Compliance Managers throughout the U.S. who, in partnership with our corporate water systems team, work directly with all locations to track and respond to water waste or quality concerns. International locations are also focusing on waste and stormwater management.

Examples of Water Savings

We are constantly seeking new ways to save water in our operations, in both small and large ways. Here are some recent examples:

- In 20 Mexico locations, all water used in the warehouses (bathrooms, fresh food areas and so on) go from the drains to on-site small treatment plants, instead of the sewer. This treated water is then used for site irrigation. This not only reduces the impact on local sewer systems, but saves us money on irrigation costs (more than \$450,000 in FY22).



- Locations throughout the U.S. are reducing water usage by changing the way they clean the breezeway at the location entrance. They switched from pressure washing to using the ride-on floor scrubber. Annual water usage was reduced from 75,000 gallons per year to less than 9,000 gallons based on a three-times-per-week schedule.
- In Australia, rainwater is captured and stored onsite for use in toilets, cooling refrigeration systems and irrigation.
- In the Los Angeles region, we are using a water capture system to catch rainwater and refrigeration condensate, which is stored on site in large, underground cisterns. This water is used for irrigation. If the tanks are ever completely full the location issues the water back to the city.

Water Savings in Our Chicken Plant

In 2019, Costco began selling chicken in our vertically integrated facility in Fremont, Nebraska, which was designed with water preservation, re-use, efficiency and treatment in mind.

Costco worked with the city of Fremont to expand its wastewater treatment plant to ensure that the wastewater generated is treated before returning to the municipal wastewater treatment plant. In addition, through a process of air chilling, we save a substantial amount of water in comparison to typical water chill processing.



Car Washes

Costco is a member of WaterSavers®, a designation by the International Car Wash Association awarded to car washes that meet strict water usage criteria. Wastewater in our on-site car washes is reduced in the following ways:

- Digital water metering identifies spikes in usage that indicate a potential leak or equipment malfunction. With real-time monitoring, these spikes can be addressed immediately.
- Every wash has a reclaim system to filter and recycle water to be used for everything that does not require fresh water. This cuts fresh water use by more than 50%.
- Water main shut-off valves are utilized when the car wash is not in use.
- All car washes strictly follow water usage permits and requirements.