

Ecolab's Cuautitlán Izcalli, Mexico Plant Certifying as Water Stewardship Leader

Implementation of Alliance for Water Stewardship (AWS) Standard Case Study



BACKGROUND

Ecolab's manufacturing facility located in Cuautitlán Izcalli, Mexico near Mexico City, Mexico is a blend plant that primarily produces industrial cleaning and sanitizing chemicals. The Cuautitlán Izcalli facility sources water from the Cuautitlán-Pachuca Aquifer. Wastewater is discharged into municipal drains that feed into the Río Cuautitlán after treatment. In alignment with Ecolab's commitment to a holistic approach to water management approach across its high-risk manufacturing facilities, the company implemented the Alliance for Water Stewardship (AWS) International Water Standard at its Cuautitlán Izcalli plant.

SITUATION

The team at Ecolab's Cuautitlán Izcalli plant assessed the facility for opportunities to decrease water use across operations to meet the team's objective to reduce water use per ton of product by 7% from its 2020 baseline.

Water reduction opportunities were identified in the following areas: washout optimization in hold tanks and production tanks and rainwater collection. Prioritization of these opportunities involved collaboration across the Corporate Sustainability and Cuautitlán Izcalli Engineering and Safety, Health and Environment teams.

A comprehensive risk assessment was performed leveraging insights from Ecolab's [Smart Water Navigator](#), the World Resources Institute (WRI) Aqueduct Atlas and the WWF Water Risk Filter to identify shared and site-level water challenges. Implementation of water withdrawal reduction projects was prioritized based on risk probability and impact to site-level and community stakeholders. Of the five water outcomes of the AWS Standard, Cuautitlán Izcalli focused on sustainable water balance, good water quality status and good water governance balancing relevancy and risk to the site.

ANNUAL SAVINGS



WATER

760,000

gallons (2,900 m³) of water reduced

TOTAL VALUE DELIVERED

\$74,000

USD risk-adjusted cost savings

With the aim to improve overall health of local watersheds, and as part of Ecolab's 2030 Impact Goals, we have prioritized AWS certification in high-risk watersheds in which we operate.



**ALLIANCE FOR
WATER STEWARDSHIP**

SOLUTIONS

The following projects help improve the facility's water balance and have been completed to reduce overall water use:

- Implementation of a rainwater collection and purification system for use throughout operations
- Replacement of spray balls for optimized washout efficiency
- Optimization of process equipment washout processes
- Reduction in water use for reverse osmosis and deionization system regeneration
- Installation of high-efficiency bathroom fixtures

The following projects are considered for future enhancements:

- Replacement of additional spray balls to reduce wash water consumption
- Wastewater treatment improvements to allow the facility to recycle wastewater and reuse it in site applications

These combined efforts contribute to the Cuautitlán Izcalli plant's progress towards their 7% water reduction goal year over year.

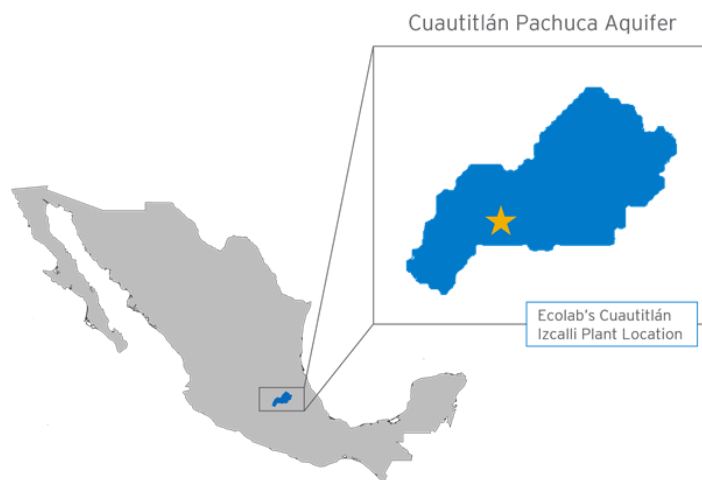
PERFORMANCE

Impact | Total annual water reduction of 760,000 gallons (2,900 cubic meters) equivalent to \$74,000 USD in risk-adjusted cost savings

Economic Results | 20% reduction of water use per ton of product from a 2020 baseline

WATER GOVERNANCE

At the plant level, the safety, health and environment manager is responsible for wastewater testing and compliance and account for effluent discharge. The site's maintenance supervisor is responsible for sewage discharge, water consumption control and water savings projects and accountable for the operation of the wastewater treatment plant, soft and deionized water and the rain collection system.



To maintain good water quality of both process water and wastewater, internal daily water testing is carried out in addition to third-party wastewater testing every three months. The water is treated to remove colloids, sediment and hazards from the wastewater. If a spill or water-related issue were to occur, the site has a robust incident response plan that includes a root cause analysis of the original incident, a review by the leadership team, documentation in an internal reporting platform and communication of mitigation strategies during monthly site meetings. The site has not had any water related violations in the past year.

The Sustainability Team is guided and advised by the Sustainability Executive Advisory Team, which is made up of the company's senior business and divisional leaders. In addition, Ecolab's [Water Stewardship position](#) and [Safety, Health and Environment \(SHE\) position](#) are publicly available and serve as commitments to and guidance on water-related issues and compliance. Ecolab's Water Stewardship position formalizes Ecolab's global commitment to responsible water stewardship by identifying opportunities for the company and its customers to use water resources in a manner that benefits business, communities and nature. Ecolab's SHE position outlines the company's commitment to excellence in safety, health and environmental practices and performance across global operations.

WATER STEWARDSHIP JOURNEY

In addition to internal operational improvements, Ecolab's Cuautitlán Izcalli facility's external water stewardship activities are ongoing. Shared challenges between the plant and relevant, local stakeholders include water scarcity, infrastructure and finance for water-related projects and water quality. To address these shared issues, Ecolab collaborates with other water users in the basin. The Cuautitlán Izcalli site team has shared its AWS certification journey with over 30 businesses, non-governmental organizations and government institutions in the watershed. Additionally, Ecolab is a part of a coalition of businesses in Cuautitlán that addresses safety events in the area. To contribute to the health of important water-related areas, 100 volunteers from Ecolab's Cuautitlán Izcalli and Lerma, Mexico sites partnered with The Nature Conservancy (TNC) and ProNatura to plant 2,000 trees in the community of San Andres Totoltepec in Mexico City in 2019.

On top of local water stewardship efforts, Ecolab's global giving program, Solutions for Life, enhances the company's mission to conserve and protect fresh water through partnership with two global NGOs: TNC and Project WET Foundation.

This case study was created to comply with AWS indicators 5.1.1, 5.2.1, 5.3.1, 5.4.1, 5.4.2, 5.5.1, 5.5.2 and 5.5.3. For more information, please contact sustainability@ecolab.com.

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