

Ecolab's Lerma, Mexico Plant Certifying as Water Stewardship Leader

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



BACKGROUND

Ecolab's manufacturing facility located in Lerma, Mexico near Mexico City, Mexico is a blend plant that primarily produces water treatment solutions and products. The Lerma facility sources water from the Valle de Toluca Aquifer. Wastewater is treated by a third-party wastewater treatment facility and ultimately discharged to the Lerma River. In alignment with Ecolab's commitment to a holistic approach to water management across its high-risk manufacturing facilities, the company implemented the Alliance for Water Stewardship (AWS) International Water Standard at its Lerma plant.

SITUATION

The team at Ecolab's Lerma 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 by 2021. Water reduction opportunities were identified in the following areas: rainwater collection, restroom upgrades and

condensate recovery. Prioritization of these opportunities involved collaboration across the Corporate Sustainability and Lerma Engineering and Safety, Health and Environment teams.

A comprehensive risk assessment was performed leveraging insights from Ecolab's [Smart Water Navigator](#) 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, Lerma focused on sustainable water balance and good water quality status balancing relevancy and risk to the site.

ANNUAL SAVINGS



950,000

gallons (3,600 m³) of water reduced

TOTAL VALUE DELIVERED

\$110,000

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 system for use in the emergency sprinkler system
- Installation of high-efficiency bathroom fixtures
- Installation of a condensate recovery system
- Optimization of process equipment washout processes
- Improvement in deionized water system efficiency
- Enhanced automation of the boiler system

The following projects are considered for future enhancements:

- Expansion of the rainwater collection system
- Expansion of the condensate recovery process into additional areas of the facility
- Cooling tower optimization

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

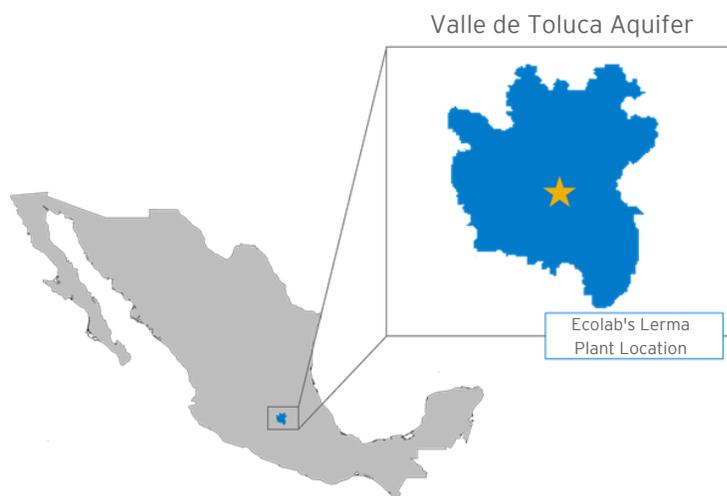
PERFORMANCE

Impact | Total annual water reduction of 950,000 gallons (3,600 cubic meters) equivalent to \$110,000 USD in risk-adjusted cost savings

Economic Results | 20% reduction of water use per ton of product realized from a 2017 baseline

WATER GOVERNANCE

At the plant level, the maintenance supervisor is responsible for wastewater testing, water consumption control and water-related projects. The site's safety, health and environment manager is responsible for water compliance and the quality department is responsible for incoming water quality.



To maintain good water quality of incoming water, internal daily water testing is carried out in addition to third-party wastewater testing every year. Wastewater is tested by the third-party treatment facility and reported monthly. 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 most 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 Lerma facility's external water stewardship activities are ongoing. Shared challenges between the plant and relevant, local stakeholders include water scarcity and water quality. To address these shared issues, Ecolab collaborates with other water users in the basin and shares its AWS certification journey with stakeholders in the local watershed. Ecolab is collaborating with H2O Lerma, a community project to improve the water quality of the Lerma River. Through this project, the site collects eggshells that are used to create water filters. And, to contribute to the health of important water-related areas, 100 volunteers from Ecolab's Lerma and Cuautitlán Izcalli, 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 non-governmental organizations: 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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