



# Water Restoration 2023 Progress Report

March 2024

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## Introduction

Semiconductor fabrication is water intensive. By responsibly managing our water use, guided by our [Global Water Policy](#), we can meet our business needs, as well as those of our communities. Our water strategy has three main objectives:

- **reduce** the water used in our operations through innovative water conservation projects,
- **reclaim** water within our operations through large investments in state-of-the-art water treatment facilities, and
- **restore** water to our watersheds in collaboration with local communities.

This report provides a summary of our watershed restoration efforts during 2023, including new projects funded and the amount of water restored for all projects funded to date. Information about our progress toward our overall net positive water goal and water conservation efforts within our operations can be found in our annual [Corporate Responsibility report](#).

### Our Net Positive Water Commitment

As a part of our corporate responsibility [strategy](#), Intel has committed to achieve net positive water by 2030, through onsite water conservation efforts aimed at reducing our freshwater use, and funding watershed restoration projects that will restore more fresh water than we consume. This report summarizes the progress toward the commitment to restore more than 100% of our freshwater consumption – a key component to achieving net positive water.

### Project Selection Methodology

Intel considers a range of project types and evaluates them based on a set of criteria, including:

- Credible organization with proven project development record and capacity.
- Located in source watershed, tied to water supply, or connected to the local community.
- Feasible project timeline that includes project initiation and completion in the relative near-term.
- Potential for long-term or permanent benefit (i.e., able to deliver water benefit for multiple years) or short-term benefit (typically one year) that addresses a critical water challenge and aligns with our other project objectives.

Other criteria used to assess the overall value of projects include:

- Potential to catalyze and/or scale up water solutions
- Community and employee engagement
- Ability to leverage additional funding through matching grants or other sources
- Favorable project cost benefit ratio

## Water Restoration Progress in 2023

During 2023, we continued to fund water restoration projects benefiting the watersheds that we impact and the communities where we operate, including new projects benefitting Belen, Costa Rica and Hồ Chí Minh City, Vietnam. Projects that Intel has funded through the end of 2023 returned and restored more than three billion gallons of water to our local watersheds during 2023.

These projects, in addition to our efficient water management, water reuse, and collaboration with municipalities, have enabled Intel to achieve net positive water in four countries – US, India, Costa Rica, and Mexico.

Intel Location (by watershed)	Total Number of Projects Funded, to Date	Restore Benefit Achieved in 2023 (Million Gallons, MGY)
Arizona, USA	21	1,167
California, USA	3	562
New Mexico, USA	4	137
Oregon, USA	7	940
Texas, USA	1	0.2
Bangalore, India	2	98
Belen, Costa Rica	2	120
Guadalajara, Mexico	1	73
Ho Chi Minh City, Vietnam	1	0
Leixlip, Ireland	1	0
Penang & Kulim, Malaysia	1	44
<b>Global Total</b>	<b>44</b>	<b>3,141</b>

Table 1. All water restoration projects funded through December 31, 2023.

### Project Summaries

During 2023, Intel funded 2 new projects:

- **Costa Rica:** Agua Tica Forest Protection Phase II – Fundecor, 71.3 million gallons per year (MGY) expected volume benefit
- **Vietnam:** Rainwater Harvesting in Schools – CLEAN International, 17.2 MGY expected volume benefit

Information on these projects are included below, and information on all projects funded from 2017 through 2022 can be found in our prior [Annual Water Restore Reports](#).

<sup>1</sup>Net positive water % represents the total volume of water returned and restored globally. Some locations have returned and restored significantly more than their target, resulting in a global total greater than 100%. Net positive water is achieved when each region achieves their specific target.

## Project Locations

The locations of the projects funded to date are shown in Figure 1. This map includes projects that achieved 2023 restore benefits, and projects expected to have volume benefits in future years.

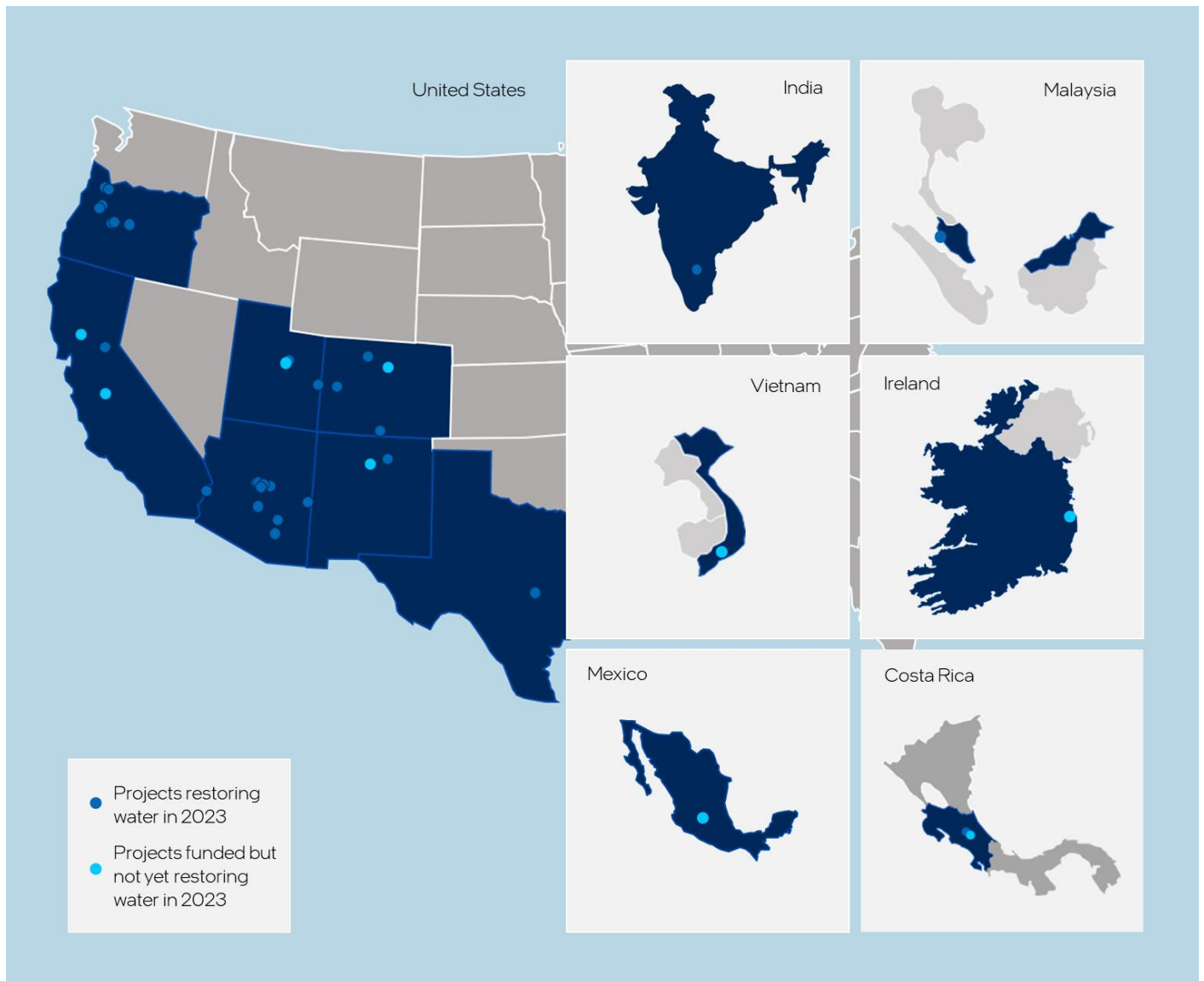


Figure 1. Locations of Intel's 44 water restoration projects funded through December 31, 2023.

## Agua Tica Forest Protection – Phase II

Pressures on water resources near San Jose, Costa Rica, are increasing due to high population growth, urban planning challenges, and changing land uses.

To protect water resources in the Grande and Virilla River subwatersheds, Fundecor and other stakeholders established Agua Tica, the first public-private water fund in Costa Rica to promote water replenishment through protection agreements that prevent forest conversion to grassland, agriculture and residential development. Although forest conversion is forbidden under Costa Rican law, this practice still occurs with activities such as agriculture and cattle production near the forest borders.

Phase I of this project was funded in 2020, with the first benefits achieved in 2021. This project, or Phase II of this effort, expands the total area covered by identifying additional property to be protected near the San Isidro de Coronado (Patio de Agua-Cascajal) area. To accomplish this, Fundecor has established contracts with landowners to protect approximately 218 hectares of mature and/or secondary forest from degradation for an 8-year period, avoiding increased runoff by preserving forest and preventing conversion. This portion of the forest will be secured and regularly monitored to ensure it remains protected.

The estimated restore benefit is calculated as avoided runoff volume as a result of protecting existing forest from conversion to a more degraded condition. The restore benefit is expected to be 71.3 MGY.



## Agua Tica Forest Protection – Phase II

**Location:**  
San Jose, Costa Rica

**Implementing organization:**  
Fundecor

**Estimated restore benefit:**  
71.3 million gallons per year

**Project timeline:**  
Initiated in 2023

## Rainwater Harvesting in Schools

Hồ Chí Minh City is the largest city in Vietnam, situated in the Saigon River watershed in the southeastern region of Vietnam. Although the country receives high annual rainfall, the Saigon River watershed has experienced declining groundwater levels over the past two decades due to increased development, population growth, and over-extraction for domestic, industrial, and agricultural uses. Furthermore, Hồ Chí Minh City and other communities within the Saigon River watershed experience seasonal flooding due to the monsoon climate, water pollution, and saltwater intrusion into the local groundwater supply.

Rainwater harvesting can help mitigate these risks in the Saigon River watershed by capturing excess runoff and using it to decrease the use of local groundwater supplies. Harvested rainwater can serve as a source of water for local schools in Vietnam, making it available for use throughout the schools, creating a more resilient and sustainable water supply. CLEAN International will implement rainwater harvesting systems at 86 schools in and around Hồ Chí Minh City over the course of 2024.

The rainwater harvesting technology includes multiple tanks for water collection, as well as a filtration system to provide students and staff with access to water for different purposes.

The estimated volumetric benefit is calculated as the volume of water captured and provided to students and teachers at 86 schools by constructing rainwater harvesting systems. The volumetric benefit is expected to be 17.2 MGY once the project is completed.



## Rainwater Harvesting in Schools

**Location:**  
Saigon River Watershed,  
Vietnam

**Implementing organization:**  
CLEAN International

**Estimated restore benefit:**  
17.2 million gallons per year

**Project timeline:**  
Initiated in 2024

## Benefit Quantification Approach

Intel's water restoration commitment is based on restoring a cumulative annual volume of water to the environment. The anticipated restore benefits are assessed by our external consultant, LimnoTech, for each project based on an estimated volume of water that is saved, protected, treated, or returned to the environment through funding and project implementation.

Benefits are calculated and based on a comparison between a pre-project condition and the expected improved condition once the project is completed. Upon completion of each project, the restore benefit is quantified based on project results reported by implementing organizations.

Restore water benefits are based on peer-reviewed quantification methodologies (Rozza et al., 2013) previously developed by LimnoTech in collaboration with The Nature Conservancy (TNC) (LimnoTech, 2017), and documented by the World Resources Institute (WRI) (Reig et al., 2019).

The restore water benefit indicator calculated and the quantification methodology applied varies by project type and depends on the project objectives, the activities implemented, and the information and data available to support the calculation. It is recognized that the estimated benefits have some uncertainty. To reduce this uncertainty, scientifically defensible methodologies and conservative assumptions are employed in the quantification process, in combination with available data and project information.

Consistent with the established quantification methodologies, restore water benefits are counted in the year the project is completed or partially completed if actual benefits are achieved during the year, and in each subsequent year, provided that the project is maintained and continues to function as intended. Ongoing project performance verification is provided to Intel annually by the implementing organizations.

In situations where there are multiple project funders and Intel funds cover less than 100% of the project cost, the restore water benefit is adjusted to reflect the Intel-funded portion of the total project cost (i.e., cost share). For projects where investments were made before Intel's involvement (e.g., land acquisition), the total project cost is estimated based only on investments that pertain specifically to creating measurable water benefits achieved as a result of Intel's financial support of the project.



The background of the entire page is a high-magnification, top-down view of a microchip. The intricate circuitry is illuminated with a color gradient, transitioning from deep blue on the left to purple and then to a golden-brown on the right. The patterns consist of a dense grid of fine lines and larger, more complex geometric structures.

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