Intel Arizona: Sustainability

At Intel, we continually strive to improve our operations and minimize our impact on the environment. In our view, a commitment to sustainability requires a broad portfolio of efforts. As part of our RISE strategy and 2030 goals, we pursue new ways to reduce emissions, conserve energy, reduce and recycle waste, and invest in renewable energy, efficient building design, water conservation and restoration, and more.

Our Sustainability Goals

- Net positive water by 2030. Net positive water use is defined as returning and restoring more freshwater than we use.
- One hundred percent renewable energy use across our global operations.
- Ten percent reduction in our absolute Scope 1 and 2 carbon emissions.
- Zero total waste to landfills and circular economy strategies for 60% of our manufacturing waste streams in collaboration with our suppliers.

WATR treatment facility in Ocotillo

Our Progress in Arizona

Globally, Intel is on track to achieve net positive water use by 2030. Today, in Arizona, we're already at 95%. How are we doing it? We call these **the three C's**:

1. **Conserve** 60 billion gallons of water each year in our operations and through partnerships with our municipalities to reduce our use of incoming freshwater. In 2020, we conserved approximately 2 billion gallons of water at our Intel Arizona campus and manufacturing site. We also run a WATR treatment facility in Ocotillo, which is able to treat more than 9 million gallons of water each day.
2. **Collaborate** to restore more freshwater than we consume globally by investing in water restoration projects that support the water environment where we operate. To date, we've funded 16 water restoration projects in Arizona, in collaboration with our community partners. These projects restored 622 million gallons of water during 2020, supporting Arizona's water resources.

   Examples:

   - In partnership with the Nature Conservancy, the Eureka Ditch Pipeline Project installed a pipeline to enclose a half-mile stretch of the ditch to minimize seepage and evaporation. This project restored more than 100 million gallons of water in 2020.
   - In 2012, invasive and noxious weed infestations were estimated to cover more than 500,000 acres of the Tonto National Forest, threatening native plant species, increasing susceptibility to wildfire, and impacting water flowing to the Salt River, a key water source for Phoenix. Expanding on a project funded in 2018, Phase III aims to restore an additional 70 acres of habitat by replacing invasive Arundo and Tamarix with native species and revegetating an area burned in a 2017 wildfire.
3. **Create** technology solutions to benefit how others use and conserve water.

In support of our renewable energy goal, Intel purchases green power from utility suppliers and green attributes from multiple sources to meet 100% of our energy use in Arizona. Starting in December 2020, Intel began receiving clean energy from the new East Line Solar Plant in Coolidge at our Ocotillo campus.

How Water is Used

Water has two main purposes in a fab environment:

1. To clean the wafers between steps. Each time a wafer is etched, it needs to be polished and rinsed.
2. As a critical element of general fab operations. As a great heat conductor, water helps regulate the environment inside of a fab. A lot of heat is generated in the manufacturing process, and cooling towers help bring the temperature down. Water is also used in scrubbers, giant mazes of pipes that clean the air before it is circulated from a fab back into the atmosphere.

Ultra pure water (UPW) is required for chip manufacturing. UPW is water that has been run through five to ten purification steps to remove nearly all its impurities. Purification removes minerals and salts that, while good for your body in drinking water, can cause imperfections in the manufacturing process.

Inside Fab 42