AMAZON WEB SERVICES (AWS) COMMITS TO BEING WATER POSITIVE BY 2030'

"Water scarcity is a major issue around the world and with today's water positive announcement we are committing to do our part to help solve this rapidly growing challenge. In just a few years half of the world's population is projected to live in water-stressed areas, so to ensure all people have access to water, we all need to innovate new ways to help conserve and reuse this precious resource. While we are proud of the progress we have made, we know there is more we can do. We are committed to leading on water stewardship in our cloud operations, and returning more water than we use in the communities where we operate. We know this is the right thing to do for the environment and our customers." **Adam Selipsky, CEO of AWS**

Amazon Web Services (AWS), the world's most extensive and widely embraced cloud platform, recognizes the significance of water as a precious resource. They are dedicated to achieving water positive by the year 2030 and to increasing water accessibility in the communities where their facilities are located. Efforts to conserve and recycle water are being implemented throughout AWS's on-site operations and in the communities where they operate. This involves collaboration with both nonprofit organizations and with public partners to bolster water availability initiatives.

In 2022, AWS announced a commitment to achieving water positive by the year 2030, aiming to replenish more water to communities than it directly consumes. AWS highlighted its 2021 global water use efficiency (WUE) metric of 0.25 liters of water per kilowatt-hour, showcasing their leadership in water efficiency within the cloud provider industry. AWS has already made significant progress towards water positive and, as part of this commitment, will provide annual reports on its WUE metric, as well as updates on new water reuse and recycling initiatives, efforts to reduce water consumption in its facilities, and advancements in both new and existing replenishment projects.

In its journey towards achieving water positive, AWS has been focusing on four main strategies:

- **Water efficiency**: AWS continually innovates throughout its infrastructure to decrease water usage. It achieves its top-tier water efficiency through the utilization of cutting-edge cloud services, including Internet of Things (IoT) technologies, to analyze real-time water consumption and detect and rectify leaks promptly. Moreover, AWS enhances operational efficiency by eliminating the need for cooling water in many of its facilities. opting instead for outside air. Additionally, AWS invests in on-site water treatment systems, enabling the reuse of water multiple times and thereby minimizing water consumption for cooling purposes.
- **Sustainable sources**: AWS employs sustainable water sources, including recycled water and rainwater harvesting, whenever feasible. By utilizing recycled water, which is primarily suitable for specific applications like irrigation and industrial use, AWS helps conserve precious drinking water for communities. Currently, AWS utilizes recycled water for cooling in 20 data centers globally and intends to extend its use of recycled water in additional facilities as it progresses towards achieving water positive (water+).
- **Community water reuse**: Once AWS has maximized water usage within its data centers, the leftover liquid remains suitable for various other purposes, prompting AWS to explore additional avenues for returning it to communities. For instance, in Oregon, AWS allocates up to 96% of the cooling water from its data centers to local farmers, free of charge, to support irrigation of crops such as corn, soybeans, and wheat.
- **Water replenishment**: In pursuit of its water positive goal, AWS is actively investing in water replenishment initiatives within the regions it operates. These projects aim to enhance water access, availability, and quality by restoring watersheds and delivering clean water, sanitation, and hygiene services to communities facing water scarcity. AWS has successfully implemented replenishment projects in various locations including Brazil, India, Indonesia, and South Africa, resulting in an annual provision of 1.6 billion liters of freshwater to local populations.

For instance, in areas like Maharashtra and Hyderabad in India, as well as West Java in Indonesia, AWS has partnered with the global clean water nonprofit Water.org to grant 250,000 individuals access to safe water and sanitation facilities. These efforts build upon AWS's existing range of water replenishment initiatives.

AWS today announced several new projects, which, once completed, will provide more than 823 million liters of water to communities each year, including:

- **India**: AWS is extending its ongoing assistance to WaterAid for the fulfillment of projects in Hyderabad and Andhra Pradesh initiated in March 2022. Since their inception, WaterAid has successfully finalized the construction of five piped water systems and introduced new groundwater recharge initiatives. These endeavors are set to benefit approximately 500 households, constituting around 2,100 individuals, with an estimated annual provision of 47 million liters of water. Additionally, WaterAid has conducted educational campaigns on water conservation within these communities, aiming to enlighten residents about practical methods for preserving clean water, implementing rainwater harvesting techniques, and conducting water audits.
- **United Kingdom**: AWS is collaborating with The Rivers Trust and Action for the River Kennet to establish two wetlands along a tributary of the River Thames, recognized as a crucial water catchment area in the United Kingdom. These wetlands are poised to replenish over 587 million liters of groundwater annually and enhance water quality. They will accomplish this by intercepting and treating contaminated runoff from agricultural lands and road networks, thereby tackling the escalating issue of water scarcity and enhancing water quality within the Thames River basin.
- **United States (California)**: AWS, alongside the conservation organization Freshwater Trust and the Omochumne Hartnell Water District, aims to replenish 189 million liters of groundwater annually by utilizing winter surface water flows from the Cosumnes River. This initiative will facilitate the gradual seepage of water through the groundwater table, eventually returning it to the Sacramento River watershed. Consequently, it will bolster water levels during the parched summer months. Moreover, this endeavor will help in cooling the river, enhancing salmon habitats, and augmenting summer flows into the San Francisco Bay Delta, a vital water source for the local communities.

In alignment with Amazon's existing pledges, AWS unveiled a contribution of $10 million to Water.org. This funding will aid in the establishment of the Water & Climate Fund, aimed at delivering climate-resilient water and sanitation solutions to 100 million individuals across Asia, Africa, and Latin America. By 2025, this donation is expected to directly benefit 1 million people with access to water, supplying 3 billion liters annually to those residing in regions facing water scarcity.

Matt Damon and Gary White, co-founders of Water.Org, commented on this by stating that their work with Amazon is "supported by the shared belief that solving the global water crisis is possible. We commend AWS for committing to return more water than it uses by announcing Water+ by 2030. Our collaboration with Amazon and AWS already brings over 805 million liters of safe water to communities around the world every year, and we are excited to continue to work with Amazon to bring even more safe water to families in need."

In the realm of water stewardship, Amazon Web Services (AWS) stands as a beacon of commitment and innovation. Recognizing the critical importance of water as a precious resource, AWS has embarked on a journey towards achieving water positive by 2030, with a steadfast dedication to enhancing water accessibility in the communities it serves. Through a multifaceted approach encompassing conservation, recycling, and replenishment efforts, AWS is actively addressing the global water crisis. AWS's water positive commitment is underscored by tangible actions and partnerships aimed at making a meaningful impact on water sustainability. From investing in water replenishment projects across various regions to collaborating with nonprofit organizations and public partners, AWS is pioneering solutions to conserve and recycle water resources. By leveraging its technological prowess and global reach, AWS is not only reducing its own water footprint but also empowering communities to thrive amidst water scarcity challenges.

To learn more about AWS's water+ commitment visit: https://sustainability.aboutamazon.com/water
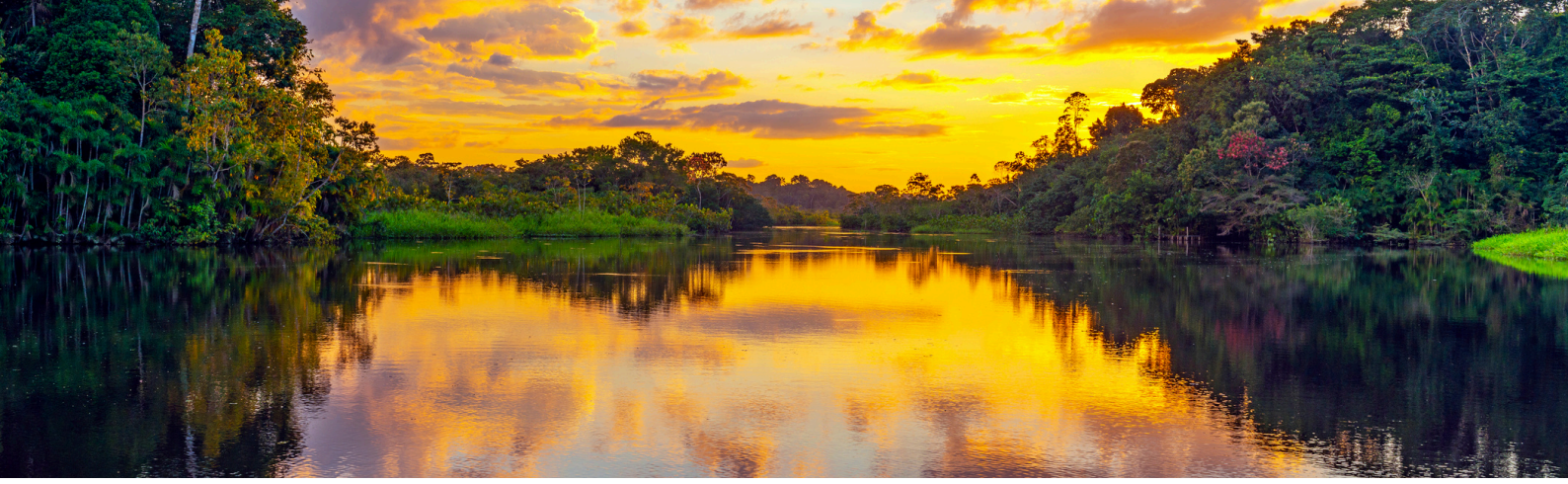
The International Desalination and Reuse Association (IDRA)

The IDRA and its global membership have promoted water reuse and desalination solutions for over fifty years to meet water scarcity needs for both industry and municipalities. In June 2022, IDRA began its quest to advocate for a Be Water Positive + Initiative to share knowledge and spotlight actions on water stewardship, where action is being taken. The IDRA objective is to encourage industries and utilities to implement best practices for environmental stewardship and energy efficiency in all desalination and water reuse projects by using the best available and most appropriate technologies according to the location of the plants. The IDRA facilitates discussion of environmental issues associated with desalination and water reuse and advocates for recycling of water to lower the water footprint, increased decarbonization of operational facilities, implementation of increased renewable power in plant operations, and reduced chemical consumption. In addition to advocating for overall sustainability that balances activities cohesively and collaboratively with the local water resource, it emphasizes the "Value of Fresh Water Resources" and the importance of water and environmental stewardship to protect them.

To learn more about the IDRA, our approach, and our commitment to channeling water stewardship, , please click here.

SOURCES

- https://www.aboutamazon.com/news/aws/aws-water-positive-by-2030
- https://sustainability.aboutamazon.com/natural-resources/water
- https://www.businesswire.com/news/home/20221128005256/en
- https://aws.amazon.com/what-is-aws/