

AWS Water Use in Oregon

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Agenda: AWS in Oregon

- Water Use in Oregon – Key Metrics
- Investments in Water Infrastructure
- Utility Partnership and Innovation

AWS in Oregon

AWS Approach

AWS works with public utilities to invest in infrastructure that benefits the communities where we operate, not just our operations.

We are relentlessly focused on efficiency, using sustainable sources, and we're committed to returning more water to communities and the environment than we use in our operations by the year 2030.

Commitment to Community Partnership and Sustainability

AWS is helping City of Umatilla's goal to shift their supply source to surface water with a new AWS-funded Water Treatment Facility.

Water supply from Port of Morrow will shift to surface water with two new AWS-funded Treatment Facilities coming online in 2027.

AWS is partnering with the City of Hermiston on a new Aquifer Storage and Recovery system using excess winter Columbia River flows

AWS Water Use in Oregon

2024 Water Use in Oregon: 284MG

11% City of Umatilla — 59 MG out of 560 MG annual utility production



4% Port of Morrow — 136 MG out of 3,200 MG annual utility production



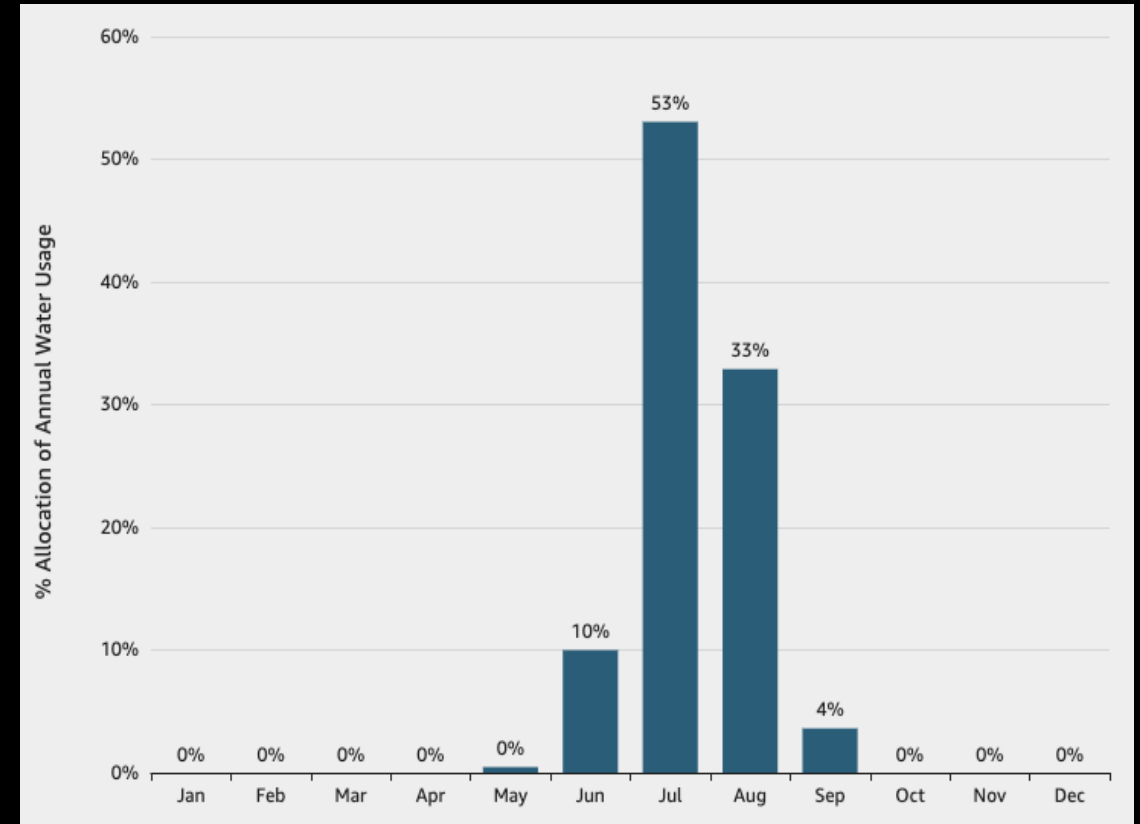
3% Hermiston/RWS — 48 MG of 1,500 MG annual utility production



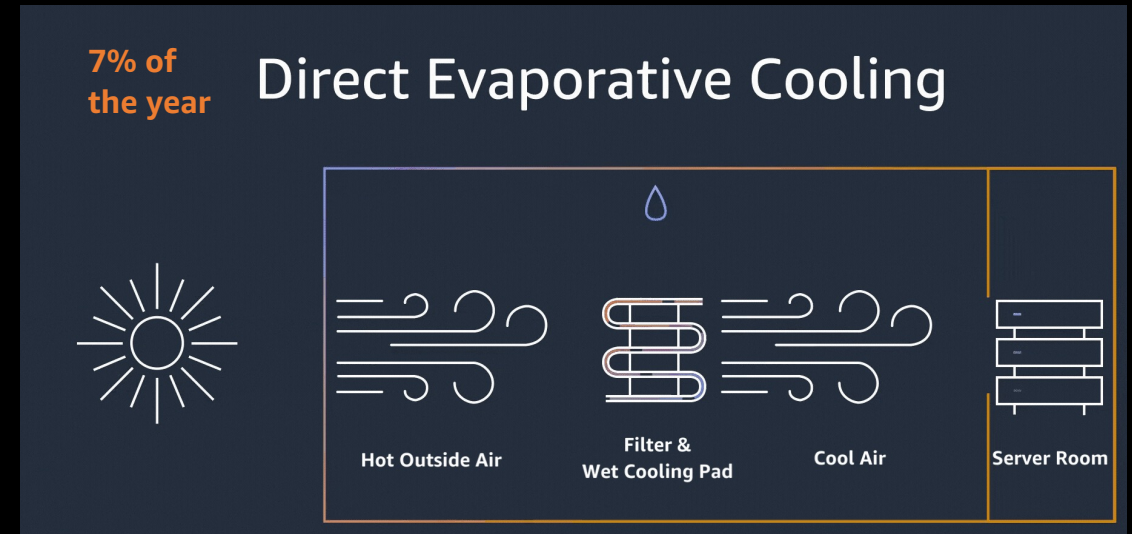
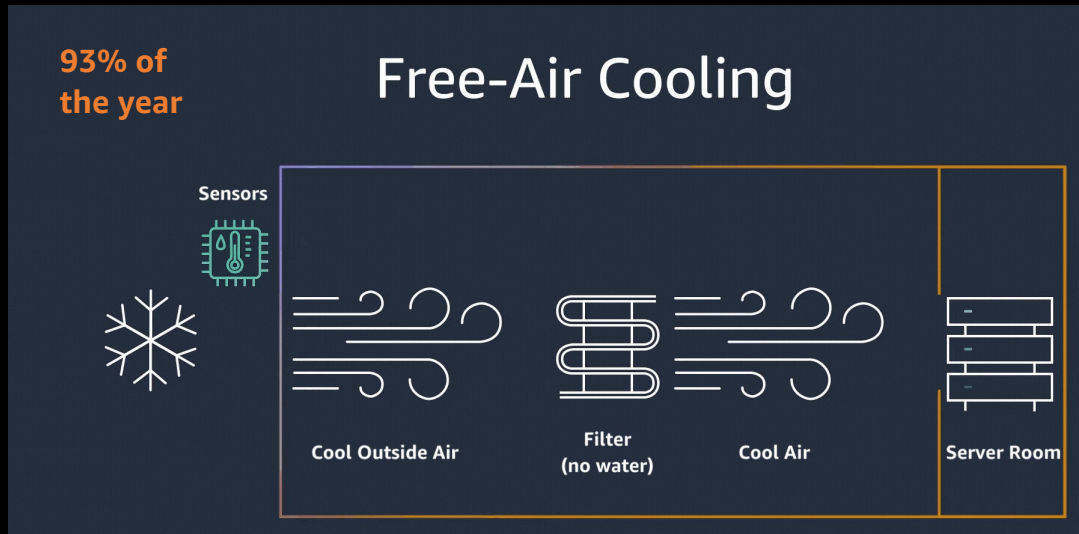
A fully developed AWS data center campus with our latest design uses ~22 MG/year — less than 23%¹ of a 125-acre crop circle in Eastern Oregon or about 200 US Households.

1. Per <https://www.dri.edu/project/owrd-et/>, consumption per crop circle assumes 2.25 feet per acre

Typical Allocation of Water by Month



Water Use Efficiency - Key Metrics



AWS Oregon WUE in 2024 was 0.16 L/kWh - 70% lower than North America's data center industry average of 0.54 L/kWh²

Why Use Water?

Using water improves power efficiency during the hottest days of the year, reducing peak power loads by 25-35%.

2. Lawrence Berkley National Lab Publication LBNL-2001637 - <https://escholarship.org/uc/item/32d6m0d1>

Investment in Water Infrastructure

\$256M Spent + \$140M Committed = Nearly \$400M

\$146M

City of Umatilla

\$168M

Port of Morrow

\$51.3M

Hermiston/RWS

\$27.7M

Umatilla County

Water Supply Treatment Plants and River Intake Stations

- 3.2 MGD Treatment Plant Expandable to 7.8 MGD Potable in City of Umatilla – May 2026
- New Columbia River Intake Station – up to 31 CFS capacity, 23 CFS starting April 2028
- 28 MGD capacity, 10BG per year capacity Potable water in Port of Morrow – April 2027



Umatilla County Ordinance Project

- Ordinance Pipeline and Pump Station Project – April 2025
- Flexible Design to support future Aquifer Recharge



Innovation in Water Management and Utility Partnership

IoT and Cloud Services

Utility Partnerships

- Real-time potable water use data across Port of Morrow
- Supports the Port's efforts to reduce system leakage
- Scalable model for all utilities that currently read meters manually

Water Quality Monitoring Assistance

- Cloud-based analytics and alarming capabilities
- pH, conductivity, temperature are examples
- Provides actionable insights

Umatilla River Replenishment

- 1,000 acre feet (325MG) of restored instream flow to Birch Creek starting 2026
- Restores endangered salmon habitat
- Partnership with Confederated Tribes of Umatilla Indian Reservation (CTUIR), Trout Unlimited, and National Fish and Wildlife Foundation



Cooling Water Reuse

- Reduces burden on wastewater treatment infrastructure
- Protects biological balance in treatment systems
- Reduces new supply requirements for irrigation customers



Key Takeaways

- Some DCs use a balance of Power and Water for High Efficiency
- Data Centers Bring Investments in Water Infrastructure
 - \$400M from AWS in Eastern Oregon the last 10 years
- The Cloud and AI can help with Water Management
- AWS is Focused on Community and Regional Water Benefits
 - 425 MG of restored water to streams and the community by 2030



Thank you!

