



Data Centers and Water



Summary for Decisionmakers

Depending on the source, there are anywhere from 123 to 136 data centers currently operational in Oregon, and those data centers can be large, industrial water users. There has also been significant growth in data centers over the last five years. A data center campus with 11 buildings (4.6 million square feet and using 1.7 MWh/year in Central Oregon) consumed about 70 million gallons in 2024.^{1,2} This is close to the 50 million gallons the Intel Aloha manufacturing campuses used in 2023,³ and equivalent to about the amount of water one half of a center pivot in Central Oregon growing alfalfa consumed in the same year (about 128 acres),⁴ or about as much water as 420 Prineville households in 2021.⁵ Data centers can vary greatly in the number of servers from small to hyperscale, the cooling technology used, their source of energy, and other factors that determine different water use requirements.

¹ Meta. (2025). Environmental Data Index. Accessed at https://sustainability.atmeta.com/wp-content/uploads/2025/10/Meta_2025-Environmental-Data-Index.pdf.

² This estimate assumes 80% of water withdrawn is consumed via evaporative cooling. From Li, P., Yang, J., Islam, M. A., & Ren, S. (2023). *Making AI Less "Thirsty": Uncovering and Addressing the Secret Water Footprint of AI Models*. Accessed at <https://doi.org/10.48550/arxiv.2304.03271>.

³ Intel. (2024). 2023-24 Corporate Responsibility Report. Accessed at <https://csrreportbuilder.intel.com/pdfbuilder/pdfs/CSR-2023-24-Full-Report.pdf>.

⁴ Open ET. (2025). Filling the Biggest Data Gap in Water Management. Accessed at <https://etdata.org/>.

⁵ City of Prineville, (2023). City of Prineville, Oregon Water System Master Plan. Accessed at https://cityofprineville.com/sites/default/files/fileattachments/city_council/page/18554/2023_water_master_plan_-_volume_1_reduced.pdf.

Data centers can provide significant economic benefits to the cities that house them, including investment in municipal water infrastructure, but also pose risks to long-term water availability or stress infrastructure if there is not adequate water or wastewater capacity. The Oregon Water Policy and Innovation Service was asked by the Statewide Data Center Advisory Committee (representing conservation, energy and climate, local government, and academic perspectives) to research policy options for managing data center water gathered from similar state and local policies used for data centers and other large-scale industrial users.

Water Policy and Innovation Service

The Water Policy and Innovation Service (Service)⁶ is an offering of Portland State University's National Policy Consensus Center (NPCC), Eastern Oregon University (EOU), and Southern Oregon University (SOU). The Service completes analysis, designed to be third-party, objective, and useful, at the request of at least two parties with different perspectives of a statewide water policy issue that's of interest to both the state and Oregon communities.

Findings

If data centers are located where there is plentiful water now and into the future, many of the existing Oregon water quantity and quality policies may be adequate to address potential risks. Data centers are often providing community water benefits to Oregon cities that house them. There may be ways to ensure cities have the information and capacity to negotiate those community benefits with companies in a consistent, fair manner. Data centers are an attractive economic opportunity because they require relatively few municipal services relative to local tax revenue generated.

However, data centers can be large water users, and present the most risk where there is rapid data center growth in water basins where A) water availability information is missing or outdated, B) there are not adequate protections for instream, agriculture, and other non-municipal and industrial uses, and C) the municipality or local water utility does not have adequate long-range plans or capacity to best expand water and wastewater service to meet data center and other demands. Therefore, some of the options for Oregon to consider include:

- Encourage siting data centers where there is enough water now, and expected into the future.
- Generate and update on a regular basis good information on current and long-range water and municipal revenue needs to meet immediate and growing water and infrastructure demands.

⁶ Water Policy and Innovation Service. (2026). Accessed at <https://www.pdx.edu/policy-consensus-center/water-policy-and-innovation-service>.

- Provide municipal leaders with the information to understand the effect any large incremental increases in water demand or wastewater discharge (not just data centers) may have on the capacity of public water and wastewater systems.
- Encourage the most efficient water use at data centers.
- Ensure community water benefits for the cities that house data centers, and encourage net positive water for the watersheds that house data centers.

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