



Water Quality & Contamination

Data center water concerns are not only about how many gallons a facility uses. Residents also need to know what chemicals, bacteria, heat, or other contaminants could enter wastewater, stormwater, wells, or local waterways.

KEY FACTS

1. **Construction runoff can carry sediment, debris, chemicals, metals, organic compounds, and nutrients into nearby waters before the facility is even up and running.** The [EPA](#) says stormwater flowing over construction sites can pick up **sediment** and **chemicals**, and that pollutants like **metals**, **organic compounds**, and **nutrients** can attach to fine sediment and be discharged into nearby waterways.
2. **Cooling wastewater can contain concentrated chemicals and pollutants.** A [peer-reviewed study](#) of cooling-water blowdown found that wastewater from cooling systems can contain high concentrations of treatment chemicals, including **biocides** and **scale** and **corrosion inhibitors**, that may be unsuitable for discharge into surface waters or some wastewater treatment plants without proper pre-treatment.
3. **Heat can be a wastewater pollutant, too.** [EPA pretreatment rules](#) prohibit industrial discharges with enough heat to interfere with biological treatment at a public wastewater plant, including discharges that raise plant temperatures above **104°F**, unless specifically approved.
4. **Public wastewater plants are not designed to accept unlimited industrial discharge.** [EPA's pretreatment rules](#) also prohibit industrial users from sending wastewater to public treatment plants

if it can cause “**pass through**” or “**interference**,” meaning pollutants either escape into waterways or disrupt the treatment plant’s operations.

5. **Solutions exist, but they have to be required up front.** [EPA guidance](#) identifies practical controls that can reduce water waste and chemical discharge, including **flow meters**, **filtration**, **automated chemical systems**, and **better blowdown management**. If these protections are not required before approval, the community may be left reacting to contamination, overuse, or treatment problems after the damage is already done.



QUESTIONS FOR LOCAL OFFICIALS

- What chemicals will be used onsite, and will the full chemical list be public before approval?
- Where will wastewater go, and has the receiving treatment plant confirmed it can safely handle the volume, heat, and chemicals?
- Will nearby wells, groundwater, surface water, and discharge points be tested before construction begins?
- What permits are required for wastewater, stormwater, and construction runoff, and will they include public reporting?
- Who has authority to stop the discharge immediately if contamination, treatment problems, or violations occur?
- Who pays for testing, treatment upgrades, emergency response, cleanup, and long-term monitoring if something goes wrong?

Cautionary Example

In **Cheyenne, Wyoming**, a rare bacterium was found in the city's wastewater system after an industrial discharge later traced to a data center-related user. Cheyenne's Board of Public Utilities said the contaminant disrupted both wastewater reclamation facilities, forced the reuse water system offline, and required draining, disinfecting, monitoring, and temporary conversion of affected irrigation systems to potable water.



Community Win

After a temporary moratorium and public review process, **Aurora, Illinois** adopted new data center rules requiring a public hearing, City Council approval, a water study and plan, water-use limits, annual water-use reporting, and a ban on evaporative cooling for new data centers.

Recommended Call To Action

No data center approval should move forward without proof of water safety: full chemical disclosure, baseline testing, public wastewater reporting, enforceable permits, and a binding agreement that the developer pays for any contamination or cleanup.