

MANAGING WATER DEMAND IN THE AGE OF DATA CENTERS



Water Demands

- High speed computing generates a lot of heat
- Traditionally, water-based cooling systems (evaporative) are the most convenient/cost effective method but can use millions of gallons per day

Power Demands = More Water Demands

- Hyperscale data centers require a lot of power
- Water can be hit twice as power generation requires large amounts of consumptive water use - power plants are by far the largest users of water in the basin

Water Conserving Incentives

Water use varies greatly based on the cooling technology used - from millions of gallons per day (evaporative) to under SRBC thresholds (dry).

Innovative cooling technologies and water conservation techniques can greatly reduce water demands, while offering benefits such as: increased siting flexibility, lower application fees, decreased consumptive use liability and mitigation requirements, opportunity for the use of lesser quality water, environmental operational resiliency, and lower operational costs. See SRBC Dry Cooling Resolution!

Data Center Water Use in Context

- One SRBC permit issued - Amazon Data Services
 - Approved for 129k gpd consumptive use
 - That's less than average golf course irrigation
 - Using hybrid cooling technology we encourage
- One other application withdrawn/under threshold due to dry cooling technology chosen

Good to Know!

We do not regulate water quality issues like discharges. Our permits have conditions, reporting requirements, time limits & renewals are not automatic.



Who Are We?

The SRBC is an interstate government agency that balances economic development with the conservation of aquatic ecosystems by regulating large water users.

SRBC Regulatory Thresholds

- Withdrawals (ground/surface water)
 - 100k gallons per day (gpd)
- Consumptive use (water not returned to the basin)
 - 20k gpd

A data center, or any industry, that exceeds Commission thresholds in the basin requires approval and reporting of daily withdrawal and consumptive use.



Have Questions?
We want to be a resource!



717-238-0423



srbc@srbc.gov



www.srbc.gov