



CONSERVING OUR WATER RESOURCES WHILE ADVANCING THE TECHNOLOGY OF TOMORROW

The Concern

Energy-intensive data centers for enterprises like artificial intelligence and cryptocurrency are rapidly expanding. A single data center can use more than 5 million gallons of water per day. Water is used to cool the server systems on site as well as in energy creation to power the centers.

The Alternatives

Innovative technologies such as dry and hybrid cooling may greatly reduce the water demand at these facilities without compromising feasibility. Operational costs can also be saved through permitting incentives. The successes of alternatives have been demonstrated in multiple power plants within the Susquehanna River Basin (see below).

The Incentives

- Potential avoidance of SRBC permitting entirely
- Decreased fees for lower usage brackets and/or the use of lesser quality waters
- Quicker permitting through prioritized reviews
- Increased siting flexibility (i.e. minimizing transmission extensions, KOZ, brownfield development, co-location)
- Environmental Resiliency (i.e. one less utility to fail, drought impact avoidance)
- Decreased consumptive use liability and mitigation requirements
- Lower operational costs

The Success Stories

In the Susquehanna River Basin, 4 dry cooling power plants are in operation:

- Through 2024, more than 45 billion gallons of water use avoided
- Since 2018, each facility saved an average of \$0.5 million/year in mitigation fees
- One significantly reduced their public water supply demand, which helped meet the NPDES/discharge requirements
- One was sited at the intersection of transmission & gas lines, avoiding electrical transmission line extensions