

Joliet Technology Center

Water and Sanitary Sewer Service

Potable Water Consumption

Many large-scale data centers utilize water evaporation to provide cooling for technology operations. However, the current industry trend is moving away from evaporative cooling and is now utilizing “closed loop” cooling systems to conserve water.

The Joliet Technology Center will utilize closed loop cooling methods exclusively. The total water consumption is projected to be considerably less than residential and manufacturing uses of a similar size. The following table provides typical water consumption levels for various land uses in gallons per day (GPD).

Water Consumption by Land Use

Land Use Description	Water Consumption (GPD per acre)	Daily Water Consumption for 795 Acres (GPD)
low-density single-family residential (R2)	1,558	1,238,213
low-density multi-family residential (R4 PUD)	2,820	2,241,900
high-density multi-family residential (R5)	1,500	1,192,500
high-rise residential	4,450	3,537,750
industrial / distribution	62	49,290
industrial / manufacturing	3,542	2,815,890
data center campus	159	126,405

The Annexation Agreement and PUD, if approved, will limit average daily water consumption to 150,000 gallons per day (measured annually) and peak consumption to 300,000 gallons per day (monitored in real time). The following potable water uses would be permitted:

- Fire suppression
- Domestic (e.g. toilets and sinks)
- Humidification for climate control purposes
- Flushing and filling of closed loop cooling system (once every 10 to 15 years)
- Limited maintenance of the closed loop cooling system
- Irrigation of landscaped areas

The Annexation Agreement and PUD would prohibit using potable water for evaporative cooling or other manufacturing processing.

Sanitary Sewer Service

The Annexation Agreement and PUD would limit average daily sanitary sewer flow to 50,000 gallons per day, and peak daily flow would be limited to 300,000 gallons per day.

Only domestic wastewater is expected to be generated by data center operations. Any non-domestic wastewater would require a separate permit from the City as well as on-site treatment prior to discharging to the City’s sanitary sewer system.