

Technical Memorandum

12/06/2019

To: David Keyon
Department of Planning, Building and Code Enforcement
City of San José

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RE: Downtown West Mixed-Use Project Water Demands

Mr. Keyon:

As part of the entitlement process for the Downtown West Mixed-Use Project (Project), a Water Supply Assessment (WSA) will be conducted by San José Water Company (SJ Water). As part of the City's request for SJ Water to complete a WSA study for the Project, Sherwood Design Engineers, Inc. (SDE) has prepared this technical memorandum to provide additional information to the City of San José and SJ Water.

In preparation for the Downtown West WSA, the Project team reviewed several recent WSAs prepared by SJ Water to determine typical demand factors that have been utilized in the City of San José. The anticipated water consumption for the proposed development has been developed from similar, high density urban developments and from applicable building certification programs, such as LEED, and the CalGreen code. Through these studies, the Project team identified discrepancies between the typical demand factors for the City of San José and the anticipated water consumption for the Project. To ensure that the Downtown West WSA accurately reflects the Project's impacts on regional water supplies, the Project team is proposing that SJ Water review the demand factors proposed in Table 1.

The Project team is available to meet and discuss this information with the City and SJ Water staff should any questions arise or should any additional information be required. Thank you for the opportunity to present this information to City of San José and to San José Water Company.

TABLE 1: Comparison of SJ Water typical demand factors and Project proposed demand factors.
Demand factors include both potable and non-potable water demands.

SJ Water Typical Land Use Types	Units	SJ Water Typical Demand Factors ¹	Proposed Demand Factors for the Project				Proposed Land Use Types
			Total Demand	Non-Potable		Potable	
				Cooling Demand	Interior (toilet flushing)		
Office Space	gal/sf-d	0.1	0.055	0.010	0.010	0.035	Office
Residential/ Apartment	gal/unit-d	340 ²	71.8	7.00	8.64	56.2	Residential
Hotel	gal/room-d	100	64.1	4.27	9.60	50.3	Hotel
Hotel	gal/room-d	100	35.0	4.27	4.80	26.0	Corporate Accommodations
Retail/ Commercial	gal/sf-d	0.2 ³	0.10⁴	0.01	0.05	0.04	Retail
Retail/ Commercial	gal/sf-d	0.2 ³	0.25⁵	0.01	0.00	0.24	Restaurant
Movie Theater	gal/sf-d	0.1	0.035	0.010	0.010	0.015	Events
Light Industrial	gal/sf-d	0.18	0.07	0.01	0.05	0.01	Logistics/ Warehouse
Open Space/Park (Native Plants)	AFY/acre	2.6	2.6⁶	n/a			Irrigation

Notes:

1. Project demand factors estimated based on the average of values presented in previous WSAs in San José including: Samaritan Medical Center (2015), Downtown Strategy 2040 (2018), Santana Row Expansion (2014), 1410 South Bascom Avenue (2019), Envision San José 2040 (2010), and 237 Industrial Center (2017).
2. A range of 300-400 gal/unit-d was presented for Residential/Apartments in the WSAs.
3. A range of 0.10-0.25 gal/sf-d was presented for Retail/Commercial in the WSAs.
4. The lower value presented in the Retail/Commercial values in the WSA range is appropriate for proposed retail.
5. The higher value presented for the Retail/Commercial land type in the WSAs is appropriate for proposed restaurant.
6. Irrigation demand will be met with recycled water.