

Water Demand Calculations

Kortum Ranch Subdivision

April 28, 2022

23 Residences - 4 Bedroom Homes

Area Designation	Use Type	Units (ea)	Water Demand				Wastewater			
			Units Rate (gpd/unit)	Average Daily Use (gpd)	Annual Use (ac-ft/yr) ¹	Peak Use (gpd) ⁴	Units Rate (gpd/unit)	Average Daily Use (gpd)	Annual Use (ac-ft/yr) ¹	Peak Use (gpd) ³
4 Bedroom	SFD ⁽²⁾	23	482	11,086	12.42	33,258	285	6,555	7.34	19,665
Contingency	Contingency	6	147	882	0.99	2,646	130	780	0.87	2,340
Total				11,086	12.42	33,258		7,335	8.22	22,005

Notes:

1. 1 gallon per day = 0.00112 acre-feet per year

2. SFD = Single Family Dwelling

3. Peak Use is 3 times the Average Daily Use as obtained from City of Santa Rosa 'Sewage Peak Load Factor vs Population'

Standardized Use Table for Resource Management System¹

Amended 7.18.17

Use Type	Water		Wastewater	
	Acre feet per year	Gallons per day	Acre feet per year	Gallons per day
Residential				
Single-family dwelling ²				
1 - 3 bedrooms	.428	382	.224	200
4 bedrooms ³	.540	482	.319	285
Apartment, condominium				
1 bedroom	.124	-----	.073	-----
2 bedrooms	.249	-----	.146	-----
3 bedrooms	.373	-----	.220	-----
Mobile home	.149	133	.125	112
Accessory dwelling unit	.165	147	.146	130
Transient lodging - Hotel, motel, resort, B&B – per living or rental unit				
	.170	152	.150	134
Commercial - Retail, office, personal service – per 1000 sq. ft. of gross floor area				
	.110	98	.099	88
Bar – per 1000 square feet of gross floor area				
	.220	196	.198	177
Restaurant - per 1000 square feet of gross floor area				
	.580	518	.524	468

¹ The Department of Public Works may reduce the expected demand upon approval of an engineered water study demonstrating/ quantifying the site-specific water usage.

² The adoption of Resolution No. 2017-083 amending the Standardized Use Table is not intended to affect the number of bedrooms purchased through the now-defunct Leak Detection Program. All projects that purchased leak detection water shall only be vested for the original number of bedrooms purchased.

³ Each additional bedroom, add 100 gallons of water and 85 gallons of wastewater per day.