

# 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) <sup>1</sup>	Peak Use (gpd) <sup>4</sup>	Units Rate (gpd/unit)	Average Daily Use (gpd)	Annual Use (ac-ft/yr) <sup>1</sup>	Peak Use (gpd) <sup>3</sup>
4 Bedroom	SFD <sup>(2)</sup>	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
<b>Total</b>				<b>11,086</b>	<b>12.42</b>	<b>33,258</b>		<b>7,335</b>	<b>8.22</b>	<b>22,005</b>

**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 System<sup>1</sup>

Amended 7.18.17

Use Type	Water		Wastewater	
	Acre feet per year	Gallons per day	Acre feet per year	Gallons per day
<b>Residential</b>				
Single-family dwelling <sup>2</sup>				
1 - 3 bedrooms	.428	382	.224	200
4 bedrooms <sup>3</sup>	.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
<b>Transient lodging - Hotel, motel, resort, B&amp;B – per living or rental unit</b>				
	.170	152	.150	134
<b>Commercial - Retail, office, personal service – per 1000 sq. ft. of gross floor area</b>				
	.110	98	.099	88
<b>Bar – per 1000 square feet of gross floor area</b>				
	.220	196	.198	177
<b>Restaurant - per 1000 square feet of gross floor area</b>				
	.580	518	.524	468

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

<sup>2</sup> 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.

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