

<b>Name of water treatment plant</b>	Prospect Water Filtration Plant
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System Summary	Projected					
	2026	2031	2036	2041	2046	2056
Total Equivalent Population (EP)	6,346,534	7,033,532	7,508,015	7,818,875	8,074,577	8,449,451
Average day demand (ADD) ML/d	1,413	1,507	1,570	1,609	1,640	1,692
Max day demand (MDD) ML/d	2,052	2,190	2,285	2,342	2,389	2466

Current treatment capacity	(ML/d)
Treatment / filtration - high raw water quality	2,500
Treatment / filtration - good raw water quality	2500
Treatment / filtration - poor raw water quality	1,500

Treatment capacity constraints for 2022 – 2036	Estimated year of exceedance
The plant will not have capacity for the MDD beyond 2029 even though it can meet the ADD up to 2046. Additional reliability and derated capacity exist with poor raw water quality.	Beyond 2029

Anticipated augmentation and upgrades			
Year commissioned	Description	Approximate capital cost (\$M)	Impact on servicing capacity
2026	Additional screening capacity of 400 ML/d. Additional 8 filters for 860 ML/d filtration capacity. New production capacity will be increased to 3,300 ML/d.	58.5	Ensure reliability of supply and increase production capacity under poor raw water quality to ensure servicing of growth beyond 2029.

Further investigations
Further capital spending beyond 2036 will be required for increasing filtration capacity.