

Glenfield Water Reclamation Plant Report

Name of wastewater treatment plant	Glenfield Water Reclamation Plant

System Summary		Projected			
	2026	2031	2046	2056	
Glenfield WRP ADWF (ML/d)	52.8	48.8	49.4	49.7	
Glenfield load (EP _{COD})	351,164	324,331	328,361	330,264	

Treatment capacity constraints for 2022 – 2036	Estimated year of exceedance	
Upgrades to preliminary treatment triggered by the amplifications to the Malabar		
System.	Current	
Constraints to solids stream (digestion) capacity	Current	

Summary of servicing strategy for 2022 - 2036

The planned SWGA diversion to new dedicated treatment facilities at Upper South Creek from 2026 has been adopted in the development of the demand profiles for Liverpool, Glenfield, and Malabar WWTP's for both the network and treatment GSIP assessments. Furthermore, another dedicated plant (Upper Nepean) for growth in the GMAC area will also be needed to take further load off the Glenfield catchment and is assumed within this report. Continued treatment of flows for reduction in organic and solids loads, followed by disposal to the Malabar wastewater system with eventual disposal via the Malabar Deep Ocean Outfall.

Interim servicing of some Southwest growth catchments assumed to cease in 2026 and to be diverted to other dedicated treatment (thus drop in flows and loads from 2026 to 2036 in above table).

The amplification of the Malabar System will necessitate upgrades to the preliminary treatment at all three plants, even with the above flow diversions. In addition to the preliminary treatment upgrades, all three plants are constrained in the solids stream and upgrades are required to increase biosolids processing capacity.

Anticipated augmentation and upgrades for 2020 – 2030						
Year commissioned	Description	Approximate capital cost (\$M)	Impact on servicing capacity			
2024	Stage 1A Plant-wide Upgrades- Full Secondary	44.5**	Full secondary treatment and effluent transfer via proposed LAP extension-			
2032	Additional 2 anaerobic digesters to increase biosolids processing capacity	19.9	Provide digestion capacity beyond 2036			

^{**} Project in progress, remaining expenditure to complete

Further investigations

Malabar System Plan exercise underway – outcomes of the system plan and further detailed investigations will determine the required investments for growth servicing based on the identified preferred system configuration. Thus, may significantly change the above noted demand profiles and augmentation required.

Biosolids upgrade in detailed design.

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