

Malabar Wastewater Treatment Plant Report

Name of wastewater treatment plant	Malabar Wastewater Treatment Plant

System Summary				
System Summary	2026	2031	2046	2056
Malabar WWTP ADWF (ML/d)	519.4	537.9	549.5	553.5
Malabar WWTP load (EP _{COD})	3,168,518	3,291,919	3,369,261	3,395,890

Treatment capacity constraints for 2022 – 2036	Estimated year of exceedance	
Biosolids digestion capacity exceeded - trigger on retention time requirement for biosolids quality.	2026	
Hydraulic capacity constraints (inlet works; screening; grit removal; and pumping) associated with future amplification of wastewater trunks leading to higher instantaneous peaks.	2028	

Summary of servicing strategy for 2022 - 2036

Need to amplify Malabar system to service growth in the catchment, leading to hydraulic amplifications at both Liverpool WRP and Malabar WTTP.

Growth servicing strategy (current understanding) assumes amplification of the trunk carriers to Malabar WWTP including NGRS initially, followed by the SWOOS.

Assumed continued effluent disposal via the lap and no change in required level of treatment at Malabar WWTP prior to 2030.

Anticipated augmentation and upgrades for 2022 – 2036						
Year commissioned	Description	Approximate capital cost (\$M)	Impact on servicing capacity			
2026	Augmentation to primary treatment, grit and screening and digester capacity	50.2**	Capacity and reliability improvement. For primary and preliminary treatment and biosolids processing			
2036	Plantwide upgrade	108	Significant upgrade across plant to service beyond 2036 demands			

^{**}Remaining project spending

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. Significant upgrade required by 2036 may be avoided if Liverpool and Glenfield catchments are taken off the system

Inlet works and preliminary treatment capacity constraints to be reviewed following Malabar System outcomes and further wastewater catchment modelling to define maximum instantaneous peak flows.

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