

Shellharbour Wastewater Treatment Plant Report

Name of wastewater treatment plant	Shellharbour Wastewater Treatment Plant
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System Summary	Projected					
System Summary	2026	2031	2036	2046	2056	
Shellharbour WWTP ADWF (ML/d)	19.8	20.6	20.9	21.6	22.0	
Shellharbour WWTP load (EP _{COD})	119,650	125,150	127,830	133,700	136,350	

Treatment capacity constraints for 2022 – 2036	Estimated year of exceedance
Biosolids dewatering, Bioreactor, odour control reliability risks	2021

Summary of servicing strategy for 2022 - 2036

Continued treatment of wastewater for discharge to ocean as per the current EPL. Continued biosolids stabilisation by anaerobic digestion, followed by dewatering and beneficial land application.

Plant bioreactor capacity increase and several reliability and risk related projects (blower upgrade, new inlet works, odour control upgrade) will be required by 20230.

Biosolids reliability upgrade project in delivery phase, estimated to be commissioned by 2022 and will provide capacity up to 2043.

Anaerobic digestors upgrade will be commissioned be required beyond 2043.

Anticipated augmentation and upgrades for 2022 – 2036						
Year commissioned	Description	Approximate capital cost (\$M)	Impact on servicing capacity			
2021	Biosolids Dewatering Upgrade R&R project including: thickening renewal, installation of recuperative thickening, dewatering and out loading renewal.	Funded and in completion stage	Address reliability constraints and increase biosolids stabilisation capacity for servicing beyond 2030.			
2027	Reliability upgrade to the following treatment areas as identified by process capability assessment: Preliminary and primary treatment Secondary treatment amplification and disinfection Effluent management Solids treatment Corrosion and odour control	46	Bioreactor 3 rd stage, Reliability improvement works to ensure capacity to 2056			

Further investigations

Upgrades are currently underway at Shellharbour WWTP as part of a Reliability and Renewals (R&R) Project. These upgrades will not address growth servicing and thus future augmentations to secondary treatment and anaerobic digestion is required.

Additional capital needs may be identified with current capability assessment and other planning work underway

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