

Name of wastewater treatment plant	Riverstone Wastewater Treatment Plant
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System Summary	Projected				
	2026	2031	2036	2046	2056
Riverstone catchment ADWF (ML/d)	24.0	31.3	35.9	37.7	38.7
Riverstone catchment load (EP _{COD})	160,203	208,514	239,166	251,473	257,811

Treatment capacity constraints for 20220 – 2036	Estimated year of exceedance
Biosolids treatment capacity (stabilisation, dewatering, storage, out loading)	2024/25
Treatment capacity for growth servicing (liquid and solids stream)	2024/25

Summary of servicing strategy for 2022 – 2036
<p>Conventional amplification with centralised biosolids facility and sludge transfer from Rouse Hill.</p> <p>Stage 1 amplification (tertiary filtration capacity increase by UF) is completed and will provide capacity to 2024/25 From 2020 to 2024, 4 ML/d of Rouse Hill WRP influent flows (untreated) to be diverted to Riverstone WWTP. From 2024, Rouse Hill WRP biosolids to be transferred to Riverstone WWTP for centralised biosolids stabilisation, dewatering and disposal. Stage 2 amplification will be required beyond 2024/25 and stage 3 around 2035</p>

Anticipated augmentation and upgrades for 2022 – 2036			
Year commissioned	Description	Approximate capital cost (\$M)	Impact on servicing capacity
2025	Stage 2- upgrade: Centralised biosolids facility for treatment of all Riverstone, Rouse Hill and Castle Hill biosolids, plant capacity addition to 36 ML/d. Tertiary Filtration capacity addition.	39.2**	Biosolids capacity for growth servicing beyond 2030 for Riverstone, Rouse Hill and Castle Hill (via Rouse Hill) , growth servicing Riverstone to 2030
2035	Stage 3 Upgrade – full plant upgrade to increase capacity to 42ML/d	336.8	28 ML/d plant total capacity addition with stages 2 and 3– facilitates growth servicing beyond 2030.

** Remaining expenditure for the project

Further investigations
Optimisation of load management between subzones under the Hawkesbury Nepean framework may require higher or lower investment at Riverstone than the forecasted.