

Memo

DATE 21/11/2022
General Manager
Norther Beaches Council
PO BOX 82 Manly
TO NSW 1655 Australia
ATTN Nick Keeler
PROJECT S210157 Glenaeon Retirement Living - SPS Upgrade Project

The following letter has been prepared in response to a Council referral relating to the Development Application for Glenaeon Retirement Village at 207 Forest Way, Belrose

Currently installed pump set is a dual pump set arranged as Duty/Standby and have a flow of ~30l/s. The system ~30years old, and generates excessive noise.

Newly designed pump set has the same arrangement, but flow of ~18l/s. This was achieved by increasing wet well. These pumps will generate significantly less noise due to lower duty and newer pump make. The pump substitution will be "like for like" as pumps will be same type and brand. This allows to retain any existing agreement that exists with Sydney Water for pumpstations in excess of 2l/s.

The pumpstation is located at the end of sloped road, that may be difficult to deliver spare parts to. Due to this issue, 8 hours of Emergency Storage (ES) was allowed for to provide enough time for any kind of maintenance, and therefore minimal ES volume will comprise 48,480 litres.

The total expected wastewater volume for the proposed development based on following inputs:

- Glenaeon RV buildings, will have 252 ILA units and 51 SA unit. 303 units in total.
- Allowance of 2 Equivalent Persons (EP) per dwelling was made. 606EP was allowed for in further calculations.
- The ILA and SA waste will discharge at rate of 150litres/person/day.

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- At a rate 150l/p/d, 606 EPs will generate 90,900litres of effluent.
- Due to operating hours limitations, 90,900litres of effluent will be pumped out within 15 hours, which brings the flow rate to 6,060litres/hour.

Yours faithfully
SCP Consulting Pty Ltd

Vadym Pavlenko
Senior Hydraulic Designer