

# New Brighton & Billinudgel Embrace Pressure Sewers

Byron Shire Council were looking to provide a sewerage system for the beachside community of New Brighton and the adjacent township of Billinudgel. Both areas consisted of mostly residential customers with the inclusion of typical commercial properties including hotels, childcare centres and various retail outlets.

New Brighton is located between the Pacific Ocean and Marshalls Creek in the Northern Rivers Region of New South Wales, with Billinudgel occupying the region on the western side of the freeway bordering on the Billinudgel Nature Reserve.

Both communities are low lying and very susceptible to flooding with the MSL high water mark less than 1m below ground level.

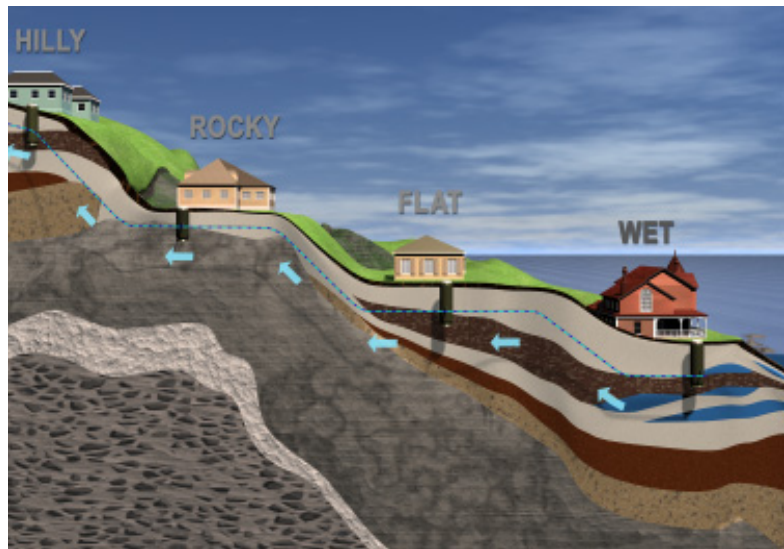
“We had concerns about the system being installed in a flood-prone area, however, we have recently come through a major storm event with virtually no cause for alarm,” says Peter Rees, Manager Operations Water – Byron Shire Council.

In addition, the majority of residences are holiday homes and are populated on a seasonal basis with the population swelling from 350 in normal periods to in excess of 750 in peak summer holiday periods, this created a problem in designing a system that would handle the maximum flows and provide a scouring velocity in the non peak periods.

The final aspect to be considered was the acid sulfate soil conditions lying immediately under the loose sandy topsoil.

“The use of Horizontal Directional Drilling in this application ensured only minimal disturbance to the environment, resulting in greater satisfaction

*E/One Sewer systems are easily installed in land that is flat, wet, rocky or hilly. Small-diameter pipes are laid at a level suitable for mechanical protection; often, horizontal drilling can be used to eliminate any trenching.*



for the homeowner's in our community, and that is what it is all about," Rees said.

Council tendered the project, receiving various reticulation options including a vacuum sewer system and various pressure sewer alternatives. Council chose the E/One solution based on various parameters, including best value to Council on a whole-of-life cost basis, track record of the tenderer, quality of equipment provided and service capabilities of tenderer.

"Council went with a pressure sewer solution as it represented the best value on a whole of life cost basis, to date our costs associated with the upkeep of the system are significantly lower than what we had estimated," Rees said.

The pressure sewer system is made up of 204 E/One simplex Gatorgrinder style units (GGSi 710\*2000) and E/One duplex Gatorgrinder style units (GGDi 1000\*2000) and includes approximately 13 km of polyethylene PN 16 pressure pipe. The installation was completed and commissioned in 2004. To date, the system has been in operation for two years and has required only a handful of service calls, which have resulted in the cores being pulled and repaired.

Council have been very impressed with the performance of the E/One pressure sewer

system and the level of service received.

"To date, the system in place has performed extremely well and above Council's expectations; you could count the number of genuine service calls on one hand," said Peter Rees.



*E/One grinder pumps are inconspicuous when installed in the yard; the station's lid blends in with its surroundings.*



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