Wastewater Solution for two commercial developments in Port Augusta South Australia

Fluid Environmental provided an on-site wastewater treatment and disposal solution for a new commercial development containing two separate businesses in Port Augusta, South Australia.

A new Bunnings warehouse plus a Liberty petrol station have been planned on Daw Street in Port Augusta, SA. Fluid Environmental proposed a wastewater design to cater for the wastewater from both business.

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Fluid Environmental conducted a land capability assessment to inform the design of a ‘fit for purpose’ wastewater treatment and disposal solution on limited land and soils also presenting limitations for wastewater application.

A new Bunnings warehouse plus a Liberty petrol station are to be built in the South Australian city of Port Augusta, requiring on-site wastewater management due to the lack of community sewer connection available at the site.

Furthermore, this development has limited land for wastewater treatment and disposal.

Fluid Environmental conducted a land capability assessment on site and identified the soil to be a weakly structured Category 3 loam. A design loading rate (DLR) of 20mm/d has been applied considering potential limitation from a rock layer.

Fluid Environmental proposed two separate unlined ABSORBS™ systems that met all regulatory requirements, catering for the wastewater from each business.

Wastewater from both businesses receives advanced primary treatment through an Anaerobic Baffled Reactor (ABR) prior to advanced secondary treatment in the ABSORBS™ beds.

The on-site wastewater treatment and dispersal solution for Bunnings warehouse consisted of a 245m^2 ABSORBS™ unlined sand filter and for the Liberty petrol station, two 163m^2 ABSORBS™ unlined sand filters were constructed – all in accordance with the SA Health product approval.

Snapshot

Client	Port Augusta Enterprises Pty Ltd
Location	Port Augusta, South Australia
Job category	Commercial Wastewater system design
Site limitation	Limited land area; possible rock
Technology	Unlined ABSORBS™ Advanced Secondary Treatment System
Design capacity	10,930L/d

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