Appendix F

Stormwater management

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Stormwater Management

As referred to in Section 6.4, no detailed flood modelling has been undertaken; however it is likely that the site will experience flooding in a Q100 flood event due to the proximity of the site to the creek.

Table F.1 Stormwater management

Collection, treatment and reuse component	Safety system	Stormwater management
Gravity collection system	• Designed to relevant standards	• Single sewer line collecting wastewater from construction site office • As the system will be closed and small, stormwater ingression may be considered negligible
Rising main	• Designed to relevant standards	• Single rising main discharging wastewater from the construction camp to the WWTP • As the system will be closed and small, there will be no stormwater ingress may be considered negligible
Construction camp pumping station	• High-level Alarm • Water tight fibreglass reinforced plastic wet well with sealed lid • External monitoring system • Duty and standby pumps to be provided	• Wet well will be covered to minimise stormwater ingress into the system • 4 kL of storage provided
Package WWTP and pumping station	• High-level alarms • Series of poly plastic tanks with sealed lids • External monitoring system • Duty and standby pumps to be provided within pumping station	• Above ground tanks will be sealed to a minimum of 1 m above ground level • Tanks will be located on a hard stand • The risk of stormwater ingress and subsequent overtopping is considered minimal as tanks will be raised and sealed • 3 kL of storage provided within pump station wet well
Effluent storage pond	• Pond will be fully lined with a HDPE liner or similar • Freeboard of 500 mm	• Pond liner will minimise the risk of groundwater contamination • Freeboard will reduce the risk of overtopping • It is proposed to use the treated effluent for dust suppression and irrigation to (where possible) provide an effective full 5 days of storage during wet weather • Any overflows will be released in a controlled process to minimise erosion and sediment impact

Collection, treatment and reuse component	Safety system	Stormwater management
Effluent irrigation area	• A drain should be used to collect effluent if the irrigation application rates result in surface flow along the full length of the irrigation furrow.	• To minimise the risk of runoff it is proposed to incorporate a "dry period" of 12 hours after the last rainfall (event > 10 mm) prior to applying any effluent. This is intended to allow the surface soil to drain to the point where a further effluent can be applied without causing runoff. • Effluent should not be applied under conditions that will result in runoff or ponding of effluent. • Routine monitoring of soil and water quality will be required. A monitoring schedule has been outlined in the CEMP.