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Land at Common Bank Works, Common Bank Lane, Chorley

Application: LCC/2020/0052

Erection of recycling wash plant to process selected wastes

Additional surface water drainage information

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sa/pks/4942 rev D

1. This planning application is supported by a drainage management strategy statement by Betts Hydro Consulting Engineers. That statement assesses the consequence of the impermeable surfaces that would be created by the washing plant subject to this planning application and assesses that an additional 64.5m³ storm water storage is required on site in addition to the 108.5m³ required for the site without the development.
2. At present, on-site storage is achieved through two lagoons, one allowing for settlement of fines prior to discharge into the second lagoon, from which there is a 7.0 litre/second limit to discharge into the River Yarrow. These lagoons are shown diagrammatically in the statement. The attached drawing ref 305-2 amends this to show the area of the two lagoons, the first the settlement lagoon, being 15m x 15m and the second, the clean water lagoon from which the discharge is made, being 22m x 13m. The top 0.5m of the settlement lagoon can drain through a pipe into the clean water lagoon, giving a storage volume, taking account of the internal batter of the lagoon sides, of 98m³. (14m x 14m x 0.5m).
3. The second lagoon can outfall at a rate of 7 litres/second into the River Yarrow through a pipe located 1m below the lagoon surface and having an orifice plate of 58mm calculated as shown in the appended letter from Betts Hydro.. The storage volume above the pipe in that lagoon is 200m³. The total storage capacity of the lagoons is therefore 298m³.
4. The on-site surface water storage is substantially larger than required for the 1 in 100yr plus 20% Climate Change scenario. The 173m³ total surface water storage requirement, which includes the 64.5m³ arising from the application proposals, can be accommodated in the existing lagoons with a capacity of 125m³ in reserve.

The reason why the lagoons are over-capacity is that they provide a source of water used by the washer. Whilst no water is discharged from the plant, the reclaimed materials are damp as a result of the process and the water lost in this way is expected to amount to some 1,000m³ a day. The surface water collected during wet weather in the clean water lagoon is harvested for use within the washing plant.