

ENVIRONMENTAL PERMIT (EPR/BW0584IL) VARIATION APPLICATION

POPLARS LANDFILL FACILITY LICHFIELD ROAD, CANNOCK

NON-TECHNICAL SUMMARY

Biffa Waste Services Limited ('Biffa') currently possess Environmental Permits to operate a non-hazardous degradable waste landfill site ('Main Landfill') (Permit Ref.: EPR/BW0584IL) and the Pulverised Fuel Ash (PFA) Landfill site (EPR/BP3436VS), at a former opencast colliery site located off Lichfield Road, Cannock, Staffordshire, (National Grid Reference SJ 99415 09340), approximately 1.3km east-southeast of Cannock, Staffordshire.

The Main Landfill site accepts non-hazardous biodegradable wastes, in which the permit also incorporates the operation of an Anaerobic Digestion Facility installation. The PFA landfill at Poplars waste management facility operates as a standalone landfill installation with engineered 'external separation' between the adjacent landfill facilities, in accordance with the requirements of the Landfill Directive. The Environmental Permit for the PFA site was determined in October 2014. The Poplars PFA Landfill Site comprises of a single engineered cell for the deposit of locally derived, source segregated Pulverised Fuel Ash (PFA). The site access, weighbridge, wheel-wash facilities and site management are all shared with the rest of the Poplars Landfill Site and Anaerobic Digestion Facility installation. Previously, the site operated as one main landfill site, but following the determination of an application by the Environment Agency, the PFA landfill commenced operation in 2015 as a separately permitted facility. It is worth noting that although the PFA was separately permitted, the footprint of the main landfill site has never been formally reduced by application to exclude the area comprising the PFA cell. Biffa are now seeking to consolidate the Environmental Permits for the main landfill and PFA landfill facilities in line with Regulation 18 of the EPR2016.

Biffa are also seeking to redefine the main landfill development layout to include development proposals for the Phase C2 area in line with the original PPC application. Due to the proposals to extend the operational life of the AD facility, the void currently defined as Phase J will be sterilised, until the AD facility is decommissioned at the very least.

The development of Phase C2 also requires the variation to the pre- and post-settlement contours currently approved for the site due to land ownership restrictions. This includes for the steepening of the waste flanks on a section of the southern flank of the Phase C2 area. A review of the stability of the cap for this section has determined that the factors of safety remain appropriate.

The pre- and post-settlement contours being proposed also present a consolidated set of contours for the main landfill and PFA landfill areas, although no changes are considered necessary to the final landform previously approved for the PFA landfill.

The deposits of ash in the PFA landfill ceased in 2016 owing to a change in local market conditions. At present it is not anticipated that further ash deposits will be received at the site. To achieve final levels at the PFA landfill, it is proposed to utilise site won materials generated from the development of the Phase C2 void.

Given the proposed changes to the Environmental Permit, a consolidated review of the Hydrogeological Risk Assessment has been prepared, in which the footprint for Phase C2 is included and the Phase J footprint removed in line with the current development proposals for

the site. The review also accounts for updates to the Conceptual Site Model following the collation of datasets from groundwater monitoring infrastructure installed within the Etruria Marl and Middle Coal Measures in recent years. These changes account for the identification of a potentiometric head in the bedrock geology, although further monitoring installations are proposed to further refine the updated CSM. The updated assessment demonstrates that the engineered lining systems and leachate management systems will continue to provide effective protection of soil and water for the life of the landfill developments.

For the avoidance of doubt, the proposed changes to the landfill development proposals do not result in a net increase in the overall landfill void previously assessed for the site. Phase C2 was included in the original PPC Permit application of the facility, with the permitted void capacity based on all containment cells within the eastern development area being formed at the maximum allowable level of excavation of 132mAOD (top of liner at 133mAOD). However, all containment cells are formed above this level, with the lowest at 134mAOD.

For the avoidance of doubt, there are no changes to the current approved basal and sidewall lining systems as a result of the aforementioned variations. That is, the engineering design for the base and sidewalls of cells within the Phase C2 development area will mirror that already in place across the wider Main Poplars Landfill site i.e. 1m Compacted Clay Liner with a maximum permeability of $1 \times 10^{-9} \text{m/s}$. Based on the results of the updated HRA the operator is therefore seeking to discharge Pre-operational Measure 4 listed in Table S1.4 of Environmental Permit EPR/BW0584IL, with specific reference to confirming the engineering requirements of Phase C2. Note, as the stability and integrity of these measures have already been assessed on this basal and sidewall engineered liner design option for other cells constructed at the site the previous assessments remain valid and have not been revisited for this application.

This application also seeks to extend the current permanent capping design options available for the site to include a geomembrane (plastic) cap. Currently the approved design only includes for a Geosynthetic Clay Liner (GCL) design option to be implemented. Reviews of the potential impacts to the risk to hydrogeological environment and stability of the final landform have been carried out, in which no significant risk has been determined.