

Whilst Provectus is of the view that the previously submitted information relating to the potential for flood risk is adequate the following comments are submitted for clarification purposes.

Watercourse in Centre of Site

The identified watercourse 3 is shown to lie within the area of the coal processing area and Cut 9. Recent visits to site and inclusions in the previously submitted FRA information based on those visits have identified that this part of the watercourse is formed of a shallow ditch with significant hedgerow growth falling to a small diameter pipe (see photo). This pipe passes under the old railway embankment and into the ditch on the northern side. All flow from the southern part of the ditch is governed by the pipe diameter and ponding is regularly experienced on the southern side of the embankment where significant weed and plant growth has been observed.

As part of the works the entire head of this drainage ditch will be cut, up to the pipe entrance under the railway embankment. At no point will the ditch be 'temporarily filled' or 'blocked off'. The majority of the cut ditch will be within the coal processing area with the remaining southern section falling within Cut 9.

The coal processing area will be constructed as a standalone zone with regard to drainage and any accumulating water will be pumped through into the controlled-flow lagoon discharge system. This is to ensure that no surface water impacted with coal dust enters into any watercourse without first passing through the settlement lagoon. Any surface water which falls to the head of the ditch (watercourse 3) will either be captured in the processing area drainage or fall into Cut 9, again where it will be pumped through the discharge system allowing any waters impacted with coal solids to pass through the settlement lagoon and discharged into the approved watercourse.

The lagoons will be designed to accommodate all of the surface water falling onto any worked areas and the coal processing area at any one time. Any discharge will be via an approved EA licence and the lagoons will be designed to have appropriate redundancy to accommodate site discharge water during any potential times of flood where the discharge from site will need to be turned off.

On completion of all works all contours will be replaced in line with existing contours and surface water catchments will be restored to their approximate original condition.

Sough

Anecdotal evidence suggests that there is a sough/pipe along the eastern edge of the northern part of the site, adjacent to Cuts 1 to 3. There is some concern that if there is a sough and it is damaged it could cause surface flooding in this area. An error was made in the previous FRA whereby it was discussed that GPR was undertaken in this area. As part of the archaeological works an EM survey was undertaken and no significant features were found. However, it is also concluded that it is unlikely any alternative form of geophysics would identify such a feature.

A sough is a type of adit that is created to drain mine workings under a hillside (historically associated mainly with lead mines) by allowing water from those workings to flow more easily away from the mineral deposit. As such the entrances are generally at a low point and they progress into a hillside where the cover increases significantly. The magnetic survey was undertaken in order to inform the archaeological investigation and would only have identified a sough if it was shallow and contained metal/ metallic deposits and was within the effective range of the equipment. The survey has proven neither the existence nor the absence of such a feature.

It is assumed that from the term sough the general concern is the potential for mine drainage under the site and what potential risk any interference on this would have for the possibility of surface flooding. Review of the mining records for the northern part of the site undertaken during the due diligence has identified that the shallowest workings in this part of the site would be encountered at a depth of 20m below ground level. This means that any sough or mine drainage ditches/adits, which are not shown on those records, would be within the zone of the seam at the same depth and following the course of the seam.

As part of the excavation works any such drainage channels would be carefully diverted to avoid any blockage in identified flow with the inlet and outlet carefully maintained and controlled. This would be a requirement under the coal licence as it would be classified as mine water and its existing status would need to be maintained. On completion of the excavation and prior to backfill the adit/channel would be reinstated to the Coal Authority requirements to ensure any identified flow is maintained and mine water does not accumulate.

With this borne in mind it is not considered that any soughs (if identified) will have any long term impact on surface water and surface flooding.

Yorkshire Water

It is understood that there is a pumped foul main along the north west boundary of the site. This was identified during the original services search and does appear on the previously submitted Provectus services drawing. However, we can also confirm that any detailed design and workings will incorporate a 5m standoff from any such service once the exact location is traced on commencement of works (rather than using the supplied drawings which are always provided for information only and always requested that they are not used to identified detailed locations). Given that the approximate location of the main is known it is possible to state that there will be no substantial change, and certainly no increase, to the footprint of the working area as shown on the submitted drawings.



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