Brymbo Heritage Trust

Stori Brymbo

Planning Conditions Reference P/2024/1578

CONDITION 10

No development shall take place until a Method Statement detailing the mitigation measures to ensure the integrity of the remediation works (as detailed in Section 7 of the May 2007 Contamination Certification Report for The Wonder Bank for Brymbo Developments Limited by Smith Grant LLP) during the construction phase of the development has been submitted to and approved in writing by the Local Planning Authority. The development shall thereafter take place in accordance with the approved scheme.

Detailed works were carried out on the Wonderbank commencing May 2004 and were completed by February 2006.

The principal activity being the capping of the plateau between 11th May and 1st June 2005.

The works involved

- *Removal of vegetation on eastern slopes*
- *Construction of access ramp to plateau*
- *Buttressing of the eastern slopes using compacted coal measures rock and mudstones*
- *Construction of domed low permeability cap (1-2m depth of material) over the plateau. This cap was carefully excavated on the main site from the mudstones overlying the coal seams. These works were detailed in the Scott Wilson Kirkpatrick report "Wonderbank Capping Construction Certification Report D101082/GEO/1531A, Nov 2005".(It should be noted that the cap was designed to be 1m thick compacted to 10^{-9} the works achieved 2m of clay at $10^{-10.}$)*
- *Construction of a perimeter drain and pipework down the slope to the main site drainage area*
- *Surface covered with suitable materials to prevent the cap drying out*
- *0.5m replacement soil cover to eastern slopes with planting of shrubs and trees.*

The principal purposes of the work were to minimise the ingress of water and air into the Wonderbank.

1. *Water would potentially dissolve the heavy metals that were present in the liquid wastes that were deposited in the colliery spoil heap by the steel works operation. If permitted over time these heavy metals would enter the ground water.*

2. *Air would potentially cause the heating of the coal within the colliery spoil heap causing spontaneous combustion and the bank catching fire with all the associated problems.*

All of these works were reported in Section 7 of the May 2007 Contamination Certification Report for The Wonder Bank for Brymbo Developments Limited by Smith Grant LLP The Smith Grant

Sections 8 and 9. of this report summarise the testing taken before during and after the works and allowed Smith Grant Partnership to summarise the conclusions and recommendations in Chapter 10.

10.4 SGP concludes that the appropriate and necessary remedial works have been substantially completed and that the Wonder Bank will be suitable in due course for the use as informal public open space.

10.5 On-going management of the Module will be necessary to ensure maintenance of the integrity of the remediation works. This should comprise management of the site drainage, maintenance of the low permeability cap and enhancing / maintenance of the vegetation on the side slopes.

The slopes have re-established mature tree and shrub growth with dense vegetation prevent any erosion or instability.

The cap has been regularly cleared of tree / shrub growth preventing tree routes penetrating the cap. The dome has remained free draining and the ditches maintained taking any water away safely down the slopes to the drainage lagoons at the foot of the eastern slopes.

The cap has not been disturbed over the last 20 years and remains to the line and level it was laid down in May / June 2005. . There has been no plant or equipment on site other than that used as part of keeping the vegetation short and managed. There was one incident of trespass when the linesmen carrying out replacement of the HV cables to the west of the cap left lengths of discarded cables on the site.

The design and construction of the new solar farm have been carefully designed and detailed to ensure that the integrity of the cap is not breached in any way.

There is a NO DIG rule. The panels will be fixed to a surface mounted frame that sits on the surface. The frame will be weighted (with concrete blocks) preventing movement and ensuring that the cap is not penetrated. The orientation of the ground engaging frame and the weights at any point will be placed so they are parallel to the true dip of the cap at this point. This will ensure that any surface water will flow around any

structures on the surface and away to the surround ditch that is then piped down the hill to the base of the wonder back into the newt ponds at the lower level.

All Panels, control equipment, battery packs and cabling will be fixed to the supporting steel work ensuring that nothing touches the ground and is kept clear of any water run off, with in the area of the clay cap.

The supply and control cable will be above ground until it leaves the fenced cap area. At the fence it will be buried below ground in a trench that will carry the cable on th route shown down to the Machine shop in the heritage area. This will carry the generated electrical supply to the heritage area and provide the green energy to operate the visitors centre and reduce the amount of power that has to be bought from the grid.

The ducting around the Machine shop have already been installed as part of the main Heritage project to accommodate this cabling etc.

The solar farm will require annual maintenance, but this will have no effect on the integrity of the cap and will help to ensure that growth on site is kept to a minimum preventing trees potentially breaching the clay seal with penetrating routes etc