

Non-Technical Summary – Creswell Colliery lagoons – Tipping and Restoration

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1. Introduction

This non-technical summary sets out the development proposals and places them in a spatial context. It then goes on to describe the ways in which the applicant will reduce the impacts of the proposals.

There is only one main alternative to the current proposals which is the 'do-nothing' option. There are ongoing Health and safety issues with the site and this option does not bring the land back into beneficial use. Therefore, the 'do nothing' option has been discounted.

The purpose of Environmental Impact Assessment is to determine the likelihood and significance of impacts. Where an effect is both likely to occur and likely to be significant then the process should look at how those effects can be reduced using 'mitigation measures'. If there are no significant effects then no mitigation is required.

There are policy aims, outside of the EIA process, which seek to create a better situation than exists and additional works can be undertaken that will make this happen but they are not, strictly speaking, mitigation for the proposed development.

Where there is an effect but there are no possible or practical mitigation measures then the Planning Authority needs to consider, in the Planning determination process, the balance of the 'harm' caused by the development versus the benefits that it will bring.

2. Site and Proposals

The applicant is seeking to import 150,000 tonnes of inert waste over a three year period plus soil making materials for the final cover. The inert waste will be used to fill the remaining lagoons and create a sloped profile with a perimeter drainage ditch. There will be no permanent water body created and the remainder, apart from a few patches will have soils and grasses placed upon it.

Access to the site from the public highway is proposed along Frithwood Lane, an unadopted single width road and bridleway which runs west and south west from the A616 Mansfield Road to the south eastern corner of the disposal site. Prior to the importation of waste the applicant would carry out improvements to the junction of the A616 and the access road, Frithwood Lane, which will have the effect of improving visibility and preventing material from being tracked onto the public highway.

The overall concept is that the waste will arrive at the junction of A616 from both directions (North/South) and turn onto Frithwood Lane. At present the source of the waste is unidentified, although it will be sourced only through specified contracts. The anticipated number of deliveries should not exceed 40 per day. The types of vehicles will vary between dump trucks and artic lorries.

The access road will be improved to allow for six passing bays from the public highway. The passing bays will seek to prevent the conflict between vehicle users of the land and horse riders who are using the land as a bridleway. The improvement to the haul road between the tipping area and the Robin Hood Line will involve the placing of material, from within the site.

The first operation will be to knock down and crush/bury the remaining outfall structures and create internal haul roads. The perimeter drainage would be installed at the earliest opportunity. The filling would take place eastwards from the southwest corner to the southeast corner before moving northwards up the site. Materials would be tipped in layers of less than 1m thickness and then compacted using a vibrating roller.

Depending on the source of the waste it may be necessary to screen the material and this would occur at the reception area in the north east corner of the site. The north-eastern corner of the site would be developed to install the office, welfare facilities and storage area for soil-making materials.

Two areas of scrub and immature trees along the northern boundary of the tipping will be removed in the first and third years of tipping. It is proposed to compensate for this loss initially by planting a visual barrier of willow further up the slope and, in the final restoration planting, by planting shrubs and trees on the gap in the south east corner.

When final levels are reached subsoils and topsoil (where required) will be separately placed in order to achieve a growing medium that is suitable for a grassland mix.

The initial proposals have been modified by the findings and recommendations contained within the Environmental Statement and the applicant is willing to accept the proposed mitigation measures.

The primary purpose of the proposals is to restore the land to a beneficial use.

3. Environmental Impacts

The Environmental Statement that accompanies the application considered the impacts on the ecology of the area, the landscape and visual impacts, drainage and flooding, noise and air quality.

The Environmental Statement also looked at how the predicted impacts might be affected by other projects that could come forward in the area which would produce their own impacts.

Ecology

The starting point is that the site has little value in ecological or landscape terms although there has been a sighting of a woodlark 'family' which is uncommon and there are also some rare grasses and trees (a type of alder) that are present. The current level of interest on the site was established by a series of surveys over several seasons.

It is possible that bats use the site for foraging but there is no evidence of roosting. A single grass snake was the only reptile found during the surveys. Five species of bird of principal importance were observed including a Barn Owl and four Woodlark. The Barn Owl was observed coming out of the lime dosing unit in one of the early visits but following a fire in this building no evidence was found of it having roosted. Given the safety issues involved with this building it was subsequently demolished. The Woodlark family was observed on the site but it is not known if breeding or nesting has taken place on the site itself.

Without the proposed development taking place there is unlikely to be a significant improvement to the wildlife situation. There are some sites of local wildlife interest adjacent to the site and some sites of national importance more than a kilometre away from the application area.

During the development there will not be any significant impacts on wildlife as there is disturbance that is already ongoing through human activity on the site. Such impacts that do arise will come from the disturbance of the ground, the infilling of the ponds and the presence of machinery, personnel and noise. It is considered likely that the wildlife that does use the site will move elsewhere during the operations but will recolonise to a greater extent when the workings are complete.

The impacts will cause an adverse effect on the site in ecological terms during the tipping period. Following the implementation of mitigation measures to relocate the grassland, remove reptiles in advance and the provision of nesting boxes there will only be a residual negative effect on the bat population that may be using the site for foraging, invertebrates and some of the grasses.

Following the completion of the restoration programme which contains a series of mitigation measures there will be positive impacts on several factors including the grassland, woodland, reptiles, bats and several species of birds particularly Barn Owl and Woodlark. All other impacts are considered to be neutral in the long term.

Transport

The source of the waste is currently unknown and so the assessment looks at deliveries approaching the site entrance, off the A616 and along Frithwood Lane, from both the south and the north. The applicant is proposing to require all vehicles leaving the site to turn left (north) out of this junction so that those which are returning to the south will be required to turn right onto the B6042 in order to

rejoin the A60. The physical characteristics of the local highway network have been considered and this information has been supported by traffic surveys that recorded both numbers and speed of vehicles. Accidents data was obtained and has also been used inform the design mitigation measures.

The assessment has looked at how affected communities could be separated by the change in traffic, the delays that are caused to drivers and pedestrians, the 'experience' of the pedestrian as well as the prospect of fear of/intimidation by the vehicles. The critical concerns of safety and accidents were also assessed.

Because the new vehicles will be travelling on major roads with established crossing points and do not significantly increase the level of HGV traffic they will not give to a significant impact on the severance of communities. Whilst there should not be any delay to drivers there is the potential for a minor impact on pedestrians in the form of delay even though the majority of the pedestrian usage is at different times. According to the assessment method there will be no impact on pedestrian amenity, this experience of the individual, other than on Frithwood Lane. Again, there is the potential for a minor rise in the feelings of fear and intimidation based on the increase in traffic.

The intensification of use of the junction of Frithwood Lane with the A616 will require mitigation in order to prevent accidents and to maximise the safety aspect of using it. The measures to be implemented here are the improvement of sight lines by the removal/reduction in height of hedgerows.

The full list of mitigation measures is;

- Delivery vehicles would access and egress the site from the A616, via Frithwood Lane;
- The A616 / Frithwood Lane site access would be appropriately signed;
- A routing strategy would be prepared and drivers advised of this in order to limit the impact of vehicles on the local highway network and in particular Creswell Village. The Traffic Management Plan would be agreed with the Local Highway Authority;
- All contractors would be made aware of the agreed route and would be expected to enforce its use through the implementation of penalties etc;
- Signage would be erected within the site to clearly direct traffic;
- The site working hours are likely to be as follows
 - 8:00am to 6:00pm Monday to Friday;
 - 8:00am to 2:00pm on Saturday; and
- No works would take place on Sundays or Bank Holidays.
- Delivery vehicles, whenever practical, would avoid peak hours to reduce traffic congestion and nuisance on the local highway network;
- Vehicles associated with the development would not park on the local highway network;
- Where works impact on the 'live' public highway, appropriate temporary traffic regulation orders would be put in place;
- On site car parking would be provided for essential contractor vehicles;
- The entrance to the site would be kept clear and clean. Appropriate cleaning/sweeping would be carried out;

- In the interests of environmental and road safety all containers carrying materials would be appropriately covered or secured to prevent soiling of the highway network, causing a hazard to vehicles, pedestrian and cyclists;
- The site would be appropriately secured; and
- A 5-10mph speed limit could also be introduced across the site.

When considered with the mitigation measures, the results of this assessment conclude the overall impact of the proposed scheme would be 'Negligible'.

Hydrology and drainage

The site rests on the Magnesian limestone deposit which is fractured and allows the passage of groundwater.

The assessment is informed by a formal Flood Risk Assessment (FRA) and Drainage Strategy which rely, in turn, upon infiltration tests on the site to determine how quickly water will flow away through the bedrock. The FRA has looked at how water will arrive on the site and then leave it during a rainfall event of a level that would take place once in every hundred years with a margin included for predicted climate change. The FRA concludes that the site is at a low risk of being flooded from external sources and that with mitigation measures to reduce the surface water run-off there is no risk of the proposed development from causing flooding to other locations.

The assessment identifies the two adjacent, undesignated wildlife sites and the two nearest Sites of Special Scientific Interest as potential receptors to ground and surface water flooding from changes made during the development.

The assessment identifies that without mitigation there would be adverse effects upon the receptors during the construction (infilling) period and therefore, a water management strategy during this period with a drainage strategy upon completion will be necessary.

The drainage strategy consists of drainage 'swales' - large ditches that collect the surface water and are allowed some vegetation within them - connecting a drainage depression in the north with three drainage columns in the south. Some standard measures to prevent pollution are also recommended. The assessment concludes that;

“Through the implementation of good site working practices and a suitable drainage strategy, the impact of the development in respect to hydrology and drainage will be negligible during the construction phase and a beneficial impact is anticipated on completion of the works”.

Landscape

The site is part of the way through a transition that, if it had been completed, should have resulted in a landform similar to that which is now being proposed. This means that the current starting point, the 'baseline', is a landform that is alien in the area.

The site lies wholly within Landscape Character Type 5 - Southern Magnesian Limestone: Limestone Farmlands of which the main characteristic features are;

- Gently rolling limestone plateau;
- Fertile soils supporting productive arable farmland;
- Large and medium estate woodlands;
- Amenity trees around small rural villages and isolated farmsteads;
- Large regular fields bounded by hedgerows;
- Straight roads with uniform width verges;
- Nucleated settlement pattern;
- Historic buildings constructed of limestone with red clay pantile roofs;
- Panoramic views across lowland to the west; and
- Long distance views over plateau often ending in a wooded skyline

No significant landscape impacts are expected to occur through the development taking place and any safeguarding measures can be realised through planning conditions.

Visual Impact

A set of seven viewpoints were agreed with the local Authority and these were all deemed to be of a high sensitivity to change. One of them (Viewpoint 2: Creswell Crag) was chosen due to the acknowledged importance of the location but the location has been eliminated from the assessment as there are no views from the Crag to the application site.

The impact from the operations is limited to the vehicles that are delivering to the site and the plant that would be operating on the site.

The remaining viewpoints considered the impacts in the two main phases of development – the infilling phase and the completed immature site. The longer term views also forms part of the consideration.

During the operational periods there would be a low to negligible impact on the remaining six viewpoints with no significant impacts from any location. In the longer term the overall impact is considered to be slightly beneficial. Despite this finding there are a series of mitigation measures that can be employed which involve planting and retaining blocks of woodland, the reuse of the grass substrate to speed up the restoration process and shrub planting.

Noise

The noise Chapter looks at two sources of noise, firstly from the operations on site and secondly from the road traffic that will be required to deliver the waste to the site. The assessment of the noise on the site has been made on the basis of bringing together all of the noise generating sources into a location that is closest to the nearest noise sensitive receptor. The highest sensitivity has been allocated to these receptors as they are residential. The traffic noise receptors are also residential, with the same sensitivity, but are located adjacent to the A616 public highway.

The existing noise levels were established by placing recording equipment on the site and on the A616. These gave background levels which were then compared to the predicted levels when the site is working. Based on this analysis there would be an increase in noise levels at the receptors to the south west of the site but the increase is determined to be negligible and 'not significant'.

There is no predicted increase in the noise generated by the vehicular traffic over that which currently exists.

No mitigation is required but a series of good practice measures are recommended in order to minimise the risk of any impacts from occurring.

Air Quality

The main potential air quality impacts are the generation of dust from on-site activities and increases in nitrogen dioxide and particulate matter concentrations from plant and road vehicles.

The site is not in a designated Air Quality Management Area but there is one at Chesterfield Road, Barlborough. The impact on this area has been assessed within the Chapter as well as on the human receptors which would be the same receptors as for noise impacts.

The distance of the receptor from the dust source and the sensitivity of the receptor are the main factors in determining the risk of an impact occurring. There are no sensitive ecological receptors within 50m of the site or the expected traffic routes. The assessment has determined that the levels of risk of dust impacts are 'negligible' or 'low risk' which is deemed to be not significant. However, standard mitigation measures for a 'low risk' site are recommended which include the monitoring of operations during windy periods and the use of dust suppression for specific tasks.

With these measures in place the assessment acknowledges that individual dust impacts may still occur occasionally but the overall significance, including these rare events would be 'minor adverse' during the operational period. Following the tipping phase, once the site is vegetated, the impact from vehicles associated with the tipping and the dust impact will not occur from this site.

Interaction of impacts

One potential benefit of the drainage strategy is that it will generate a seasonally wet area which will make an ideal location to translocate the rare grasses from within the existing site.

Cumulative Impact

The Environmental Statement has considered the potential for the impacts of the proposed development to join with the impacts of other developments that may take place during the same period. Two local developments have been identified for all of the Chapters and an additional development for the Landscape and Visual Impact assessment. This additional development is the extension of ongoing extraction at Whitwell Quarry which will have an effect on the longer term Landscape in the wider area even though it is currently part of the baseline for other topics and is a temporary use.

In ecological terms, a direct impact on the ecological features associated with the site as a consequence of either development is not anticipated because of geographical separation. Following the restoration there is the potential for an increase in human visitors to the application site due to an increased new population which would be detrimental to the aims of the proposed nature conservation restoration. This is an 'inward' impact which could occur if the current proposals do not go ahead.

The Transport Chapter has considered the two permitted developments and concluded that different routes and junctions would be affected by them which do not impinge on the proposed development.

The drainage and hydrology impacts are contained by the proposed drainage strategy which represents an overall beneficial impact in the long term. The other developments which may take place will be subject to their own drainage requirements that will seek to control their own drainage such that there is no interaction between the sites.

The Landscape impacts are considered to be highly beneficial on the visual outlook of any permitted residential development by the removal of derelict land. The visual impacts on these developments would also be beneficial by creating a locally characteristic landscape at this transitional zone that would improve the context of the residential area.

As there is limited information on these proposals the cumulative noise has been considered based on typical values of the construction industry and traffic levels. Average combined noise levels over the recognised time periods are calculated to remain below the accepted threshold levels and as the tipping operations move further away from the receptors the noise impacts on them from the tipping operations will reduce.

The Air Quality Chapter states that some of the sensitive receptors for the tipping operation will not be sensitive receptors for the other developments because of their distance from those developments and the change in air quality due to transport accumulation should not exceed the thresholds where a significant impact would then occur.

Conclusions

The Environmental Statement contains the information that is needed in order to assess the likely significant effects of the development. The topics to be assessed were defined by a comprehensive Screening opinion issued by the waste Planning Authority.

Those topics have been assessed using standard methods that have been agreed with the relevant regulatory bodies. The assessment process has been undertaken by qualified personnel at appropriate times and represents industry good practice.

The findings are that there will be some short term negative impacts on local receptors and mitigation measures are proposed which will reduce the level of those impacts to either negligible or 'minor adverse'. None of the impacts are regarded as 'significant'. The tipping element of the proposals is temporary and the long term impacts are related to the restored site.

The proposals have been amended to incorporate the mitigation measures and so the return of the site to an amenity and agricultural use, as proposed, will have stronger, permanent, beneficial impacts in terms of wildlife, the landscape fitting in with the surrounding area, the removal of the visual impact of derelict land and improved drainage.