

1. Introduction

The Scottish Coal Company Limited (Scottish Coal) is applying for planning permission to extract coal by opencast methods, on land known as Mainshill (Figure 1.1). The site is approximately 1 km north-east of Douglas in South Lanarkshire. The location of the site is shown on Figure NTS 1, an aerial photograph in Figure NTS 2 and photographs taken of the site and its surroundings in Figure NTS 3. The project is described in Section 2 of this report

Scottish Coal is the largest coal producer in Scotland and the largest opencast coal mining company in the UK. The Company produces approximately 3-4 million tonnes of coal per year from 7 sites throughout Scotland, which serves power generation, industrial and domestic markets. Scottish Coal provides direct employment for over 600 people within Scotland, with an additional 500 jobs indirectly created from coal transport and the supply of goods and services.

The proposed Opencast Coal Site (OCCS) at Mainshill would provide a much-needed coal resource, ensuring continuity of supply for coal users, and ensuring the mineral resource in South Lanarkshire is used to benefit the local economy, by providing jobs and income into the area. Restoration of the site will provide increased public access and improve the biodiversity of the site.

This Non Technical Summary (NTS) is submitted to South Lanarkshire Council with the Environmental Statement, as required by the *Environmental Impact Assessment (Scotland) Regulations 1999* (EIA Regulations). It summarises the key points and recommendations arising from the Environmental Impact Assessment (EIA).

The key stages for the EIA have been:

- **scoping and consultation** with South Lanarkshire Council, SNH, SEPA, the local community and all other relevant authorities – issues raised during this scoping and consultation phase have been taken on board in the preparation of the EIA ;
- **baseline studies/review** – to determine what the environment is like prior to development;
- **assessment** – to predict any impacts on the environment arising from the development and determine how significant these impacts will be;
- **mitigation** – suggesting ways of avoiding or reducing any impacts identified; and
- **production of reports** – including the Environmental Statement and this NTS.

2. Project Description

The proposal is to extract approximately 1.7 million tonnes of coal from an extraction area of 63 hectares of land on a site covering an area of approximately 136 ha in total. Up to 160,000 tonnes of fireclay will also be extracted if present in marketable quantities.

The development will involve a 3.5 year coaling period, with 6 months start-up, and a 1 year final restoration period. Blasting may be required to fracture the rock to allow its removal.

The South Lanarkshire Minerals Local Plan acknowledges that remaining coal deposits underlie large parts of the Douglas Valley, including the Mainshill site.

Site Description

Mainshill is approximately 1 km north-east of Douglas in South Lanarkshire. The site and surrounding land forms part of the Douglas & Angus Estate. The site is bounded by the A70, the former A70 and the B7078, and by woodland to the west and open moorland to the south. The M74 runs to the east of the site. There are no residential dwellings within the site. Nearby residences include Newmains Home Farm and South Lodge to the west; Coalgill, Castlemains and Millbank to the east, and Parkhead Cottage to the south. Lady Home Hospital represents the eastern-most point of Douglas.

Mainshill lies within the Douglas Valley Area of Great Landscape Value (AGLV), which influences the character of the area. The mining operations have been designed to minimise adverse effect on the landscape, and retain its strong character, including retention of Mainshill Wood boundary, which has been established for over 200 years.

The site is primarily Sitka spruce plantation and grazed agricultural fields. A number of man made ditches drain the site. Broad swathes of conifer plantation will be retained on the eastern (M74) boundary, the southern boundary and on the western (Douglas) boundary. Watercourses near the site include the Eggerton Burn, the Parkhead Burn and the Douglas Water

Project Description

Mining operations will progress across the site in 5 phases, each comprising:

- progressive removal of soils to storage bunds or for restoration of previously excavated and backfilled areas;
- progressive removal of overburden to the above-ground storage mound or into previously excavated areas;
- extraction of coal and its processing within the site support area; and
- extraction of fireclay (where available in suitable quantity and quality).

Restoration, re-vegetation and aftercare will be carried out following completion of each phase of extraction. A plan showing the site layout and progression of mining phases is shown in Figure NTS 4. Overburden and soil mounds will be hydroseeded as soon as possible to reduce their visual impact. The overburden mound in the north of the site has been reduced in height, and comes into operation at a later stage in the operations as a result of scoping responses.

Water Treatment Areas will receive surface water run-off from the site, before this water is discharged to nearby watercourses. This will prevent pollutants entering watercourses or groundwater. Fuel on site will be stored according to SEPA's Guidance Notes on Good Practice and relevant regulations.

The site will be worked from 06.00 – 22.00 hours Monday to Friday and 07.00 – 13.00 hours on Saturdays, requiring up to 93 directly employed site staff which includes plant operatives, plant maintenance operatives and site management. Coal dispatch will take place between 07.00 – 19.00 hours Monday – Friday and 07.00 – 13.00 hours on Saturdays.

Access to the site will initially be from the A70, but a new access from the B7078 will be formed as the principal site access. Transport of coal from Mainhill will largely follow on from the cessation of coal haulage from Glentaggart, although there may be some limited overlap as Glentaggart winds down. Some coal is likely to be transported to customers via the M74 although some will travel along the established coal haulage route to the Ravenstruther rail terminal near Lanark. No coal carrying traffic from the site will pass through Douglas.

Restoration

Final contours will restore the site close to the existing ground levels. The final restoration scheme will:

- develop and enhance the appearance and setting of the site and the surrounding area;
- restore the landscape to a character appropriate to its setting;
- create a diversity of habitats and encourage wildlife;
- mitigate any negative impacts of site working and achieve successful rehabilitation of the site; and
- improve the overall woodland character by replacing the conifer plantation with mixed native woodland species.

Habitats and features to be created and improved include:

- native woodland, including a new footpath route;
- heathland, to be established at woodland canopy openings;
- creation of 2 riparian corridors which will replace and improve the existing drainage channels;
- provision of ponds and habitats associated with the riparian corridors;
- new hedgerows with improved and restored hedgerow along A70; and
- restoration of agricultural land.

The restoration plan is shown in Figure NTS5.

3. Landscape and Visual Impact Assessment

It is not considered that the development would give rise to any unacceptable landscape effects. The proposed OCCS would be in an area that has been subject to mining in the past, and the landform has been influenced by operational and restored opencast mines and quarries. In the longer term, there are opportunities to create a beneficial landscape effect on the site once the proposed restoration scheme has established.

Effects of the development on landscape features relate to changes to landform, land use, trees, hedgerow and loss of pasture. These effects are temporary, being limited to the duration of the scheme. The most significant effects are considered to be loss of woodland, and impacts on the landform due to the presence of soil and overburden mounds.

The Douglas Valley Area of Great Landscape Value would be slightly adversely affected for the period of working, but this would be a temporary impact. The main characteristic of the landscape, the valley-side landform, will be partially altered during operations, though this is a temporary effect and the retention of woodland on the edge of the site would screen views of the landform alterations from within much of the character area.

It is not considered that the development would cause any unacceptable visual effects and in the longer term, a small number of visual receptors would experience a small beneficial effect due to the enhancement of the site.

The visual impacts of the operational phase of the scheme are generally temporary. The most prominent features affecting views are the overburden mounds. Visibility of the development from the surrounding area would be limited by the retained coniferous woodland on the edge of much of the site. Topography of the local area also shields the site, and views of the development from the south and west are minimal.

Proposed mitigation of the development would have a positive effect on the landscape of the site by introducing more natural elements and increasing biodiversity.

The key elements of the restoration proposals are the levelling of the landform to that in existence prior to the commencement of operations, the re-planting of woodland felled during operations, including the re-instatement of the historically recorded Mainshill Wood boundary and the re-instatement of pastoral fields.

4. Ecology

At present, two-thirds of the site is covered by coniferous plantation and a further third is agricultural land. The only habitat of nature conservation interest is semi-natural broadleaved woodland, mainly stands of silver and downy birch; these cover some 1.4 ha.

No protected species were breeding on the site although badger, bats and otter are in the area. There are some bird species of local importance breeding on the site, including song thrush and crossbill.

There is no statutory designation for nature conservation at the site and none within 4.5 km. However, most of the afforested area is recorded as having been woodland from 1750 and therefore listed as an ancient and long-established woodland site. However, having been planted with coniferous species for some 20-30 years (from 1975-1996), the soil is unlikely to hold seed of plant species indicative of ancient woodland ground flora.

Following restoration, the site will be improved to enhance biodiversity value as follows:

- existing hedgerows along the A70 will be improved and will include trees;
- mature woodland along the northern and eastern edge of the site will be retained. This will favour foraging bats and breeding birds;
- the area cleared of coniferous plantation will be planted with a semi-natural woodland community typical of the area. This will include species such as oak, downy and silver birch, ash and hazel;
- the new woodland stands will reflect the distribution of the new soil types and geomorphology, and will also include open canopy ("glade") areas to increase habitat diversity and therefore the number of species using the site. This will also provide further habitat in the area for black grouse;
- the artificial drainage system will be replaced with watercourses emulating the natural characteristics of other watercourses in the area; and
- stockproof, mixed-species hedgerows that connect to the new woodlands will be placed along existing fence lines within the agricultural area in order to provide natural corridor routes for species movements.

Reducing the area covered by coniferous plantation and replacing by a greater diversity of habitats, and including more broadleaved and mixed woodland communities native to the area, will provide a great opportunity for more species (and more individuals of target species) to use the site and therefore enhance the biodiversity value of the site. As a result, over a number of decades, it is possible that the characteristics of the former ancient woodland may return.

5. Noise

The results of the assessment indicate that noise effects would not be significant at any of the Noise Sensitive Properties (NSPs) assessed, with appropriate mitigation built into the site working scheme. These NSPs included the residential receptors noted in Section 2 of this NTS, and Lady Home Hospital.

Working during daytime hours (07.00 to 19.00 hours) is not predicted to exceed permitted levels at any NSP at any stage in the life of the OCCS. Working in the early morning (06.00 to 07.00 hours) and evening (19.00 to 22.00 hours) could be carried out within acceptable noise limits with additional mitigation, including restricting some activities to the less sensitive daytime period

Noise levels would be greatest during the restoration phase at Newmains Home Farm and South Lodge. Without mitigation, these noise levels would exceed those permitted in the early morning and evening. For both of these periods and phases, the dominant noise source is the restoration dozers. It is considered that appropriate mitigation would be for the restoration dozers not to operate after 19.00 or before 07.00 hours. This measure would reduce noise levels at the affected NSPs to acceptable levels.

Noise from road haulage may arise in the local area. However, this will replace haulage noise from Glentaggart OCCS, though haulage will be at a slightly lower rate, so noise from road traffic would not increase and a significant noise effect would not occur.

A noise monitoring and management scheme will be produced as part of the site management. This will be based on Scottish Government guidelines with regard to controlling the environmental effects of surface mineral workings, as included in noise management strategies for all Scottish Coal sites.

6. Vibration

To facilitate the removal of overburden at Mainhill OCCS, there is likely to be a requirement to use explosives to fracture the rock lying above and between the coal seams. Disturbance from vibration, caused by blasting, can be effectively controlled through the use of up-to-date site practices and by strict site management.

Predicted levels of vibration are such that no cosmetic damage should result in any of the buildings around the site including the standing remains of Douglas Castle to the north. The levels will comply with Scottish Government vibration limits. It is considered that the site can be worked without complaints from nearby residents over “nuisance” vibration.

Safe vibration criteria have been recommended for the other vibration sensitive receptors in the area (electricity pylon bases and major water mains). Where necessary the instantaneous explosive charge weights will be reduced to comply with specified upper limits.

A vibration management scheme will be put in place at Mainhill, which will cover the relevant aspects of operational practice such as initiation technique and the use of adequate stemming. Regular monitoring will be carried out and results used to update the blast designs.

7. Air Quality

Effects on air quality in the area around any OCCS may comprise “nuisance” effects of dust, and effects arising from vehicle emissions – primarily nitrogen dioxide (NO₂) and particulates (PM₁₀). Vehicle emissions from on-site operations are considered to be negligible compared to the numbers of HGVs transporting minerals off-site.

Potential dust sensitive receptors include residential receptors within 500m of the site – the distance over which dust emissions may be at their greatest if not mitigated – and Lady Home Hospital, approximately 1 km from the site chosen as a highly sensitive receptor.

The proposed development is unlikely to lead to significant dust nuisance impacts at the potential receptors identified. This is due to the distances involved, topography and vegetation between the site and receptors, and prevailing wind direction and weather conditions.

Designated ecological receptors (i.e. SSSIs, SPAs, SACs etc) were considered to be at too great a distance to be affected by any adverse effects.

The vehicle emission assessment compared emissions from predicted levels of traffic in 2008 and 2010 with and without the proposed OCCS. It predicted that the