ATH Resources plc

DUNCANZIEMERE SURFACE MINE

NON-TECHNICAL SUMMARY

JUNE 2009

RPS

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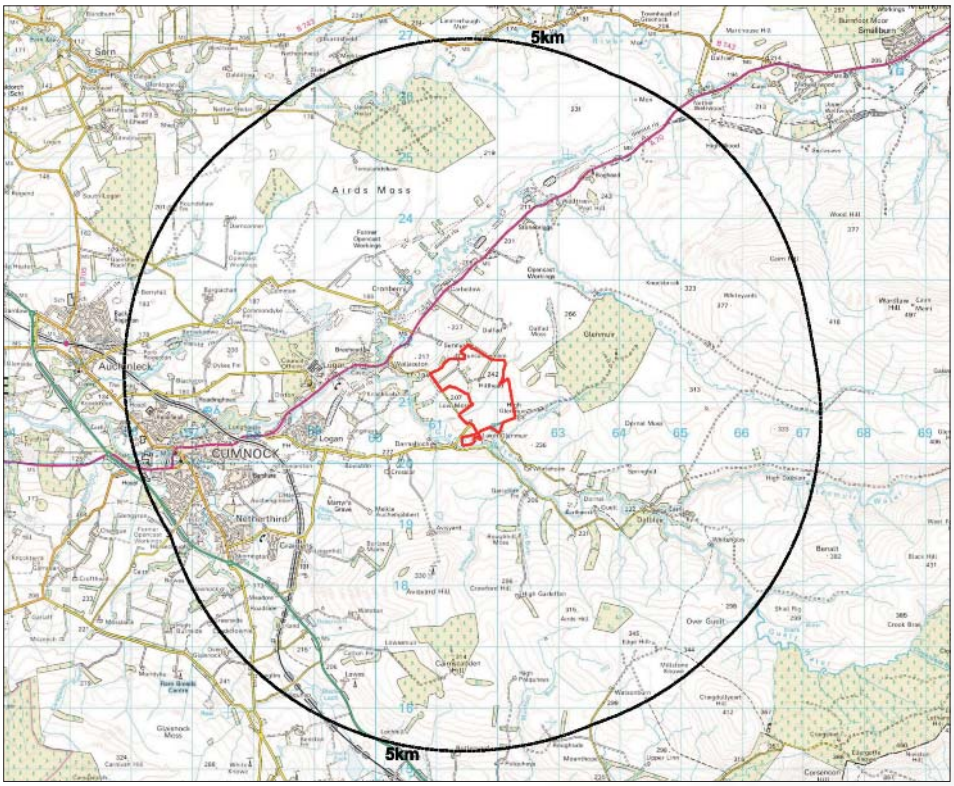
1. PURPOSE OF THE NON TECHNICAL SUMMARY

This document is part of the Application submitted by ATH Resources plc to extend the current surface mine operations at Laigh Glenmuir, near Lugar in East Ayrshire. The new surface mine will be called Duncanziemere, though approximately half will comprise the existing operations at Laigh Glenmuir. The site is shown in the figure below.

This Non Technical Summary (NTS) summarises the findings of the Environmental Impact Assessment (EIA) in non technical language.

The purpose of the EIA is to assess the environmental impacts of the proposed development, and to indicate measures to be put in place to reduce or avoid this impact. East Ayrshire Council will take the findings of the EIA into account in determining the planning application.



Key

Application Boundary

Study Area (5km offset from Application Boundary)

2. ATH RESOURCES

ATH Resources is one of the UK's largest coal producers, producing approximately 2 million tonnes per annum. At present, they have five operational mines in Scotland including three located in East Ayrshire, (Skares Road, Grievehill and Laigh Glenmuir surface mines).

Coal produced from ATH mines is used mainly in the electricity supply industry, but also supplies coal for industry and home use. The Company holds long term coal supply contracts with a number of the UK's main electricity generating companies including ScottishPower.

ATH Resources directly employs over 380 people across its surface mines regeneration projects and at its head office in Doncaster. Around 75% of the workforce on surface mines is drawn from the local population around each site.

ATH is committed to ensuring that the effects of its operations on the environment and local communities are minimised. Within East Ayrshire, they support the 'Cumnock and Doon Valley Minerals Trust Fund' which provides money for community projects, and they are partners in the East Ayrshire Coalfield Environment Initiative. ATH work closely with local authorities, the Scottish Environmental Protection Agency (SEPA) and other organisations to ensure their surface mines are operated according to best practice and meet all environmental requirements.

3. SITE DESCRIPTION

The site is next to ATH's present mine at Laigh Glenmuir - the application boundary includes this existing site to allow for retention of the existing overburden mound and coal preparation area throughout the proposed operations. Coaling at Laigh Glenmuir ceased in April 2009.

The site covers 110 hectares (ha) in total, of which 63 ha is the new area north of the existing Laigh Glenmuir site. Over a third of the new proposed excavation area is within a preferred mineral extraction area.

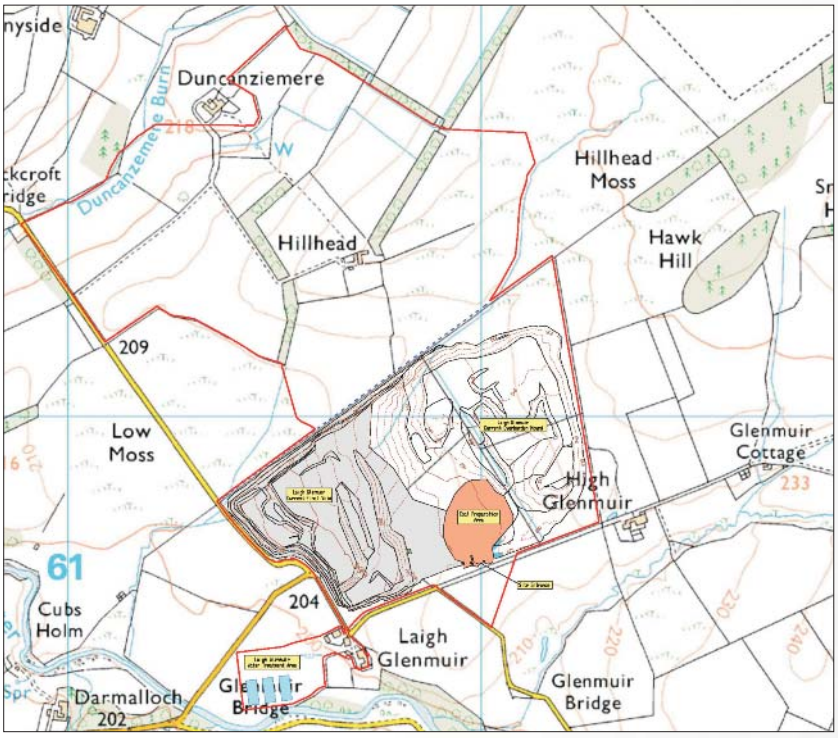
Glenmuir Water

View towards the site from Glenmuir Water Road

The north of the site is currently grassland and woodland and lies between approximately 190 m and 242 m above surface level. The Duncanziemere Burn flows to the north of the site and the Glenmuir Water is to the south. An Unnamed Burn is currently diverted north of the Laigh Glenmuir site, which will require to be rediverted as part of the extension northwards.

Low Moss west of the site is a raised bog with local wildlife importance measures will be put in place to protect this bog during operations.

Hillhead farmhouse and outbuildings are derelict and will be demolished as part of the proposals. All other buildings within and close to the site will be retained.



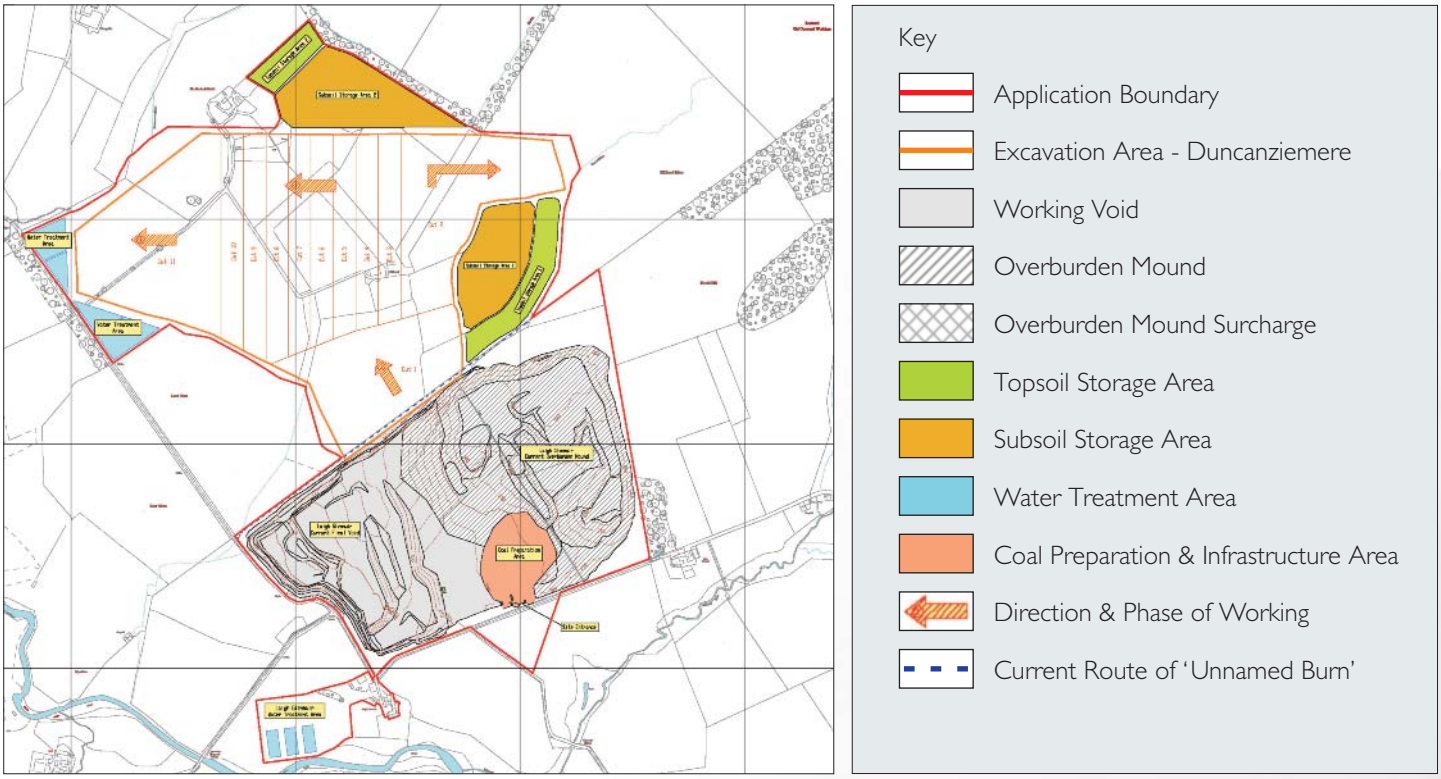
Key

- Application Boundary
- Working Void
- Overburden Mound
- Water Treatment Area
- Coal Preparation & Infrastructure Area
- Current Route of 'Unnamed Burn'
- Contour Levels from OS Mapping

4. PROJECT DESCRIPTION

ATH Resources proposes to extract approximately 800,000 tonnes of coal over an approximate 4 year period (with approximately 18 months start-up and final restoration) approximately 5.5 years in total.

The extension area of Duncanziemere will include an excavation void, overburden storage area, soil mounds, a water treatment area, and an internal haul road linking the existing coal preparation area with the new extraction area at Duncanziemere. The proposed direction of working and layout of the site is shown in the figure below.



The Unnamed Burn will require to be diverted to allow the new area in the north to be excavated. This burn has previously been diverted along the northern boundary of the Laigh Glenmuir site during the operations. The route has been designed with concern to technical and environmental considerations, and agreed in principle with SEPA. The burn will be reinstated along its current route at the end of Phase 2, and will be returned to its original route upon site restoration.

The overburden mound at Laigh Glenmuir will be retained, and overburden from the initial void of the new extraction will be used to fill the void at Laigh Glenmuir. Further overburden will be placed on top of backfilled areas.

Overburden mounds will be formed from the outer faces first, and all further mound development will take place behind these faces. The mounds will be grassed as soon as possible so they blend with the surrounding landscape. Mounds will be built to a maximum of 25m above ground level.

All soil mounds and bunds will be grassed. Topsoil mounds will not exceed 5 m, and subsoil mounds will not exceed 10m in height.

An indication of how the site will look from Sunnyside Farm (north of the site) is shown below. It can be seen that in the main, the mounds will not stand out against the skyline.

Current View towards the site from Sunnyside Farm

The working of Duncanziemere may require use of blasting, though at Laigh Glenmuir excavation was generally achievable without extensive blasting, and the geology at the two sites is considered to be similar. If blasting is to be used, it will be carried out according to guidelines to minimise vibration.

The Laigh Glenmuir Liaison Committee will be retained, to advise on progress on-site and to interact with the local community.

5. OPERATIONS AT DUNCANZIEMERE

Staff numbers will increase by 7 from the employees at Laigh Glenmuir to a total of 36 employees.

Traffic generated by staff and deliveries will use the existing site entrance at Laigh Glenmuir. The existing Laigh Glenmuir farm buildings to the southwest of the existing excavation area (including the settlement lagoons) will continue to be utilised for the site offices, storage and water treatment and will form part of the site compound.

The site will be operated from 7am to 7pm Monday to Friday, and 7am to 12noon on Saturday. There will be no working on Sunday or Bank Holidays. Only essential vehicle and site maintenance will be carried out outside these hours.

Plant used on site will be similar to as at Laigh Glenmuir. The fleet at restoration (when workings are at surface level) will be reduced to minimise noise.

Lighting will only be required during winter mornings and late afternoons as there will be no nighttime working. Lights will be directed downwards and will not be a source of nuisance outside the site.

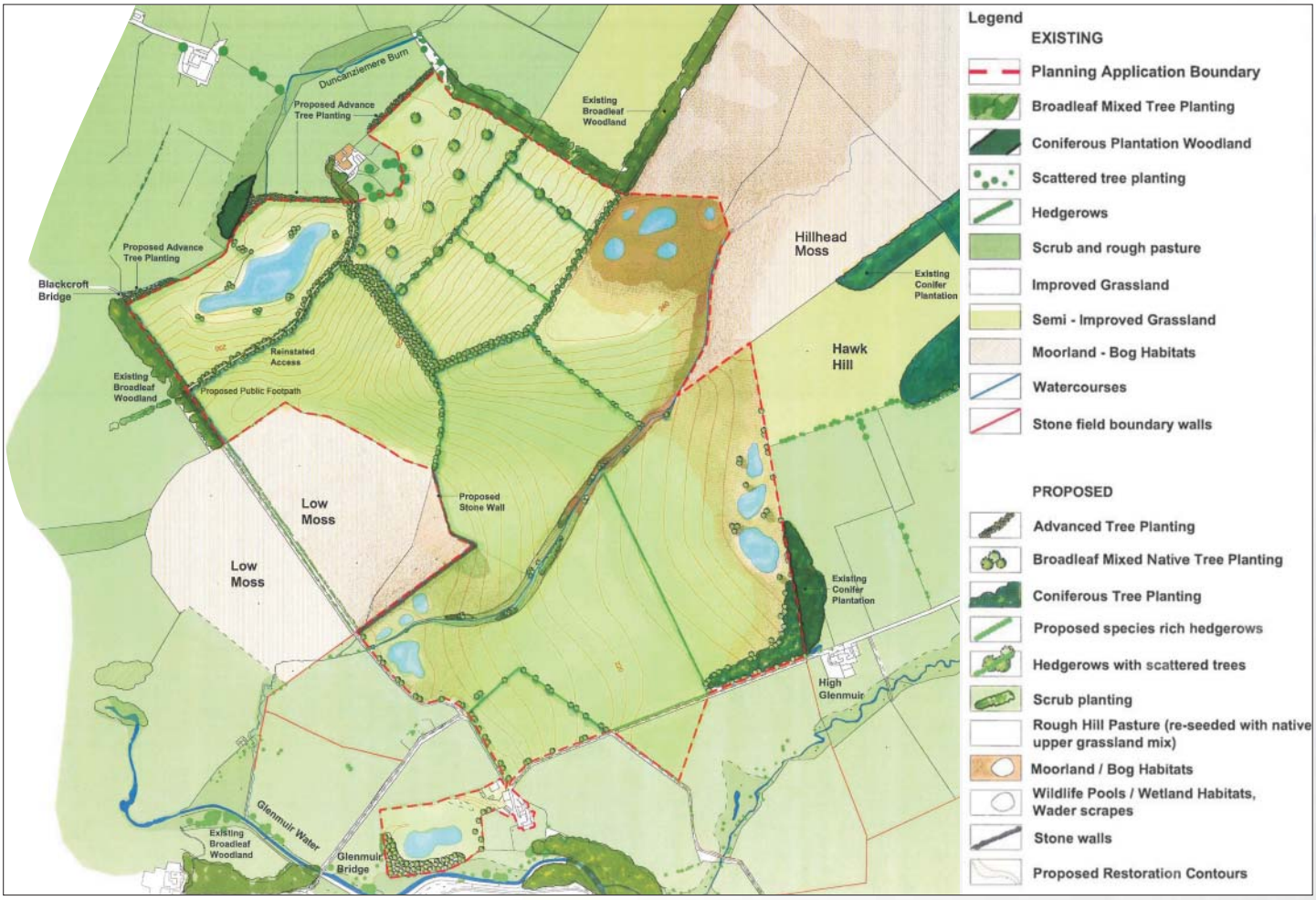
No coal from the site will leave by the local road network. All coal will be transported to the Garleffan surface mine by an existing conveyor. From Garleffan over 70% of coal will be transferred to Crowbandsgate rail facility for onward transport by rail. Up to 30% of coal will travel by road from Garleffan to market. The extraction rate from Duncanziemere is expected to be similar to Laigh Glenmuir.

Operations at Laigh Glenmuir

The operations at Duncanziemere will be undertaken in a carefully controlled manner to ensure that noise, blasting, vibration, dust emissions and water discharges to watercourses will be within required limits.

6. RESTORATION SCHEME

The restoration scheme will restore the landscape to a character appropriate to its setting, and create diverse habitats to encourage wildlife. The restoration scheme will benefit local communities by improving footpath links within the surrounding area. The proposed scheme is shown in the figure below.



The restored site will have a similar landform to the pre-coaling landscape.

The majority of the land will be restored to agricultural and grazing land. The Unnamed Burn will be routed along its original route, allowing for riverside plants and animals to thrive. Wetland areas will extend the nearby Low Moss and Hillhead Moss bog areas, and allow the expansion of wildlife from these areas.

Hedgerows and trees will replace those removed due to the operations.

The site will be managed for 5 years following completion of restoration to allow the proposed habitats to establish.

View towards the site from Duncanziemere Farm

7. KEY ISSUES CONSIDERED IN THE EIA

7.1 - LANDSCAPE

- The Glenmuir Valley landscape is not protected by any statutory landscape designations.
- The western portion of the proposed site (including some of the existing Laigh Glenmuir site) falls within an area of High Visual Amenity (HVA).
- The settlements of Cumnock, Logan and Lugar and the A70 corridor generally will not have views into the site.
- The site is located in a relatively enclosed position, which increases the local capacity of the landscape for change of the sort proposed.
- Wide scale landscape changes will be prevented by local topography and vegetation. The proposed development will however affect the landscape and the character of the site area and its immediate surroundings, for the short extraction period. This includes views from a few properties and minor roads within the Glenmuir Valley.
- Advanced planting outside the site and bunding within the site is proposed to reduce any impacts.
- The restoration scheme will replace landscape features such as the tree belt on site and will restore the land to the current rolling agricultural landscape.
- As there are several other surface mines in the area, some viewers may be able to see both the Garleffan surface mine or the former Gasswater site at the same time as Duncanziemere. However, both of these sites will be under progressive restoration when Duncanziemere is operational, so cumulative visibility will be reduced.
- The major visual benefits of the proposed restoration scheme will be experienced by those with the most prominent views of the proposed development during operations.

7.2 - ECOLOGY

- The proposed site is dominated by low value habitats mainly semi improved grassland with smaller areas of marshy grassland, and scrub.
- Woodland on site is of better quality with several mature trees, though the ground vegetation of these tree belts is of poor quality.
- Low Moss, west of the site, is a lowland raised bog. The proposed development will not damage this habitat which is of ecological importance, either directly, or by dewatering it.
- It is considered that the trees and buildings on site have the potential to act as roost sites for bats. A bat loft and bat boxes will be provided off site before operations commmence to provide permanent alternative roost sites.
- The site is considered to have potential to support otter, red squirrel, badger or reptiles, however, no evidence of these species within the site was recorded during the surveys,.
- The site is not considered to be especially valuable for breeding birds. Habitats and species present within the survey area can be found relatively commonly throughout the surrounding area. Bird boxes will be provided in surrounding woodland to provide alternative nesting sites.
- A pair of barn owls bred within Hillhead farmhouse in the 2007 breeding season, but they did not nest within the site during the 2008 season. Boxes suitable for barn owls will be included in the nest boxes provided.
- All works will be carried out according to best practice, with regard to any potential ecological interest on site. Licences will be obtained to disturb roosts where necessary.

Low Moss

- The restoration scheme will improve the ecological value of the site by expanding valuable bog, mire and wetland habitats, replanting trees and hedgerows, restoring the burn and increasing the value of the site for birds, red squirrel, water vole and otter.

7.3 - SURFACE WATER / HYDROLOGY

- The site drains to the Duncanziemere Burn to the north and the Glenmuir Water (or to a tributary of this) to the south.
- The Glenmuir Water is of particular importance as a salmon fishery - therefore the existing water quality must be maintained. Water quality has not been reduced throughout working at Laigh Glenmuir.
- The proposed diversion of the Unnamed Burn during the first phase of development has been agreed in principle with SEPA this route was chosen as it will not cut off flow to the Glenmuir Water.
- The site does not lie in an area of flood risk, though it is in an area of high rainfall.
- The proposed development will use 2 sets of water treatment areas (WTAs), those currently used at Laigh Glenmuir and further lagoons in the northwest of the site to prevent untreated particles with raised sediment levels from entering these watercourses.
- Cut off ditches will be used around mounds and bunds to channel any runoff from within the site to these WTAs, and to prevent clean water from entering the site.
- Water will be discharged to the surrounding watercourses in a controlled manner, in line with a SEPA consent.
- Site Pollution Prevention Plans, as at Laigh Glenmuir will be developed in collaboration with SEPA to prevent contaminants from entering watercourses.
- On restoration the Unnamed Burn will be restored to its original course and will be improved with the addition of wetland areas and the incorporation of a sinuous channel as shown in the restoration plan.

Water Treatment Areas at Laigh Glenmuir

7.4 - GROUNDWATER / HYDROGEOLOGY

- The groundwater flow at Duncanziemere is complex due to the structure of the geology at the site. The direction of groundwater flow is likely to be to the west/northwest in line with topography.
- Groundwater may be contained within discrete pockets in the rock, as opposed to a continuous groundwater body.
- Groundwater receptors are likely to be watercourses particularly the Duncanziemere Burn, given the flow direction to the north/ northwest. However the connectivity will depend on the thickness and permeability of the geology. The primary source of water to surrounding watercourses is surface runoff.
- There are private water supplies in the vicinity of the site, but as these are either upstream or on the opposite side of the Glenmuir Water to the site, they will not be impacted by the proposed development.
- The proposed excavation may result in a local lowering of groundwater levels in parts of the site.
- The site restoration will create a similar topography to that on the site prior to working. Therefore groundwater flows are anticipated to recover to pre-mining levels.
- Groundwater quality during operations is anticipated to be similar to the groundwater measured at the lagoons at Laigh Glenmuir, and is anticipated to be of acceptable quality for discharge to watercourses following simple treatment.
- Engineering measures are proposed along part of the site boundary adjacent to Low Moss and Hillhead Moss peat bogs. These measures are designed to prevent the dewatering of peat adjacent to the excavation and to maintain stability during site operations.

7.5 - ARCHAEOLOGY & CULTURAL HERITAGE

- There are 6 sites of cultural heritage interest within the proposed site, of which 2 are currently upstanding buildings. All of these 6 sites are considered to be of low importance in terms of national guidance.
- The 2 upstanding sites are:
  - Hillhead farmstead this will be demolished as part of the development; and
  - Laigh Glenmuir Farmstead this is part of the Laigh Glenmuir compound and will not be damaged by the proposed development.

- There are 3 sites of pre-19th century settlements, in the approximate locations of Laigh Glenmuir and Hillhead farmsteads; two of these ('Hillhead' pre improvement farmstead and 'Back of the Hill') are within the proposed extraction boundary and will hence be removed by development. They have not survived above ground.
- Sections of pre-improvement banks and ditches survive within the early 19th century tree shelterbelts. These will be removed as part of the extraction programme.
- A programme of archaeological works including building recording will be undertaken to mitigate these impacts.
- No Scheduled Ancient Monuments lie within 0.5km of the site boundary.
- There is Category B listed structure, Glenmuir Bridge within 0.5km of the site boundary. The setting of this will not be impacted by the proposed development.
- The potential for unrecorded sub-surface archaeological remains surviving within the proposed site boundary is considered to be low given the agricultural nature of the site, and associated soil disturbance.

Hillhead Farmstead

7.6 - NOISE & VIBRATION

- The site can operate within advisory limits provided appropriate mitigation measures are adopted.
- The main noise impact from surface mine operations typically occurs when the mobile plant is working near the surface, or is raised above ground e.g. in the case of the formation of screening bunds or overburden mounds.
- The coal from the workings will be transported using the existing conveyor system. The noise relating to this operation has been approved by the existing consent, and its level and time of conveyor operation will not alter from that at present.
- The main noise impact is likely to occur at High Glenmuir during the removal of the existing overburden, an operation which has previously been consented by East Ayrshire Council.
- Noise levels at Sunnybrae and Sunnyside to the north of the proposed extension in principle will comply with PAN 50 guidelines (and will also comply with the currently consented noise limits at Laigh Glenmuir).
- Measures to reduce noise will include working behind a protective screening bund to limit noise impacts, and reducing plant numbers during the last stages of restoration to reduce noise levels at this time.
- Vibration may be caused if blasting is required to loosen rock at the site. At Laigh Glenmuir blasting has only been required occasionally.
- The environmental effects of blasting are of concern mainly due to the perceived potential for damage to man made structures, and annoyance to local residents.
- The level of blasting and charge for each blast will be far below the lowest level with potential to cause structural damage.
- Over 95% of all blasts at Duncanziemere will be required to be below the level where loss of amenity could occur. The effects of blasting will be monitored to ensure that there are no significant adverse effects.

7.7 - AIR QUALITY

- Research has shown that there is little difference in the frequency of respiratory illnesses in mining areas and control communities.
- Most of the particulate matter emitted from mines (mineral dusts less than a particular diameter) is within the coarser size range. These coarser fractions are less harmful to human health than finer particles, which are more likely to be breathed in.
- Including the effects of the proposed surface mine, levels are predicted to be below future Government targets for air quality at receptors adjacent to the surface mine).
- The main mitigation measures proposed are damping down haul roads, using appropriate plant, reducing areas of bare soil and ensuring staff are trained to recognise when dust is likely to be an

7.8 - TRAFFIC

- All coal from the development will be transported by conveyor to the Garleffan site.
- From Garleffan 70% or more will be transported to Crowbandsgate rail facilities and exported to end users by rail.
- The remaining coal (up to 30%) will be dispatched from the Garleffan site via the trunk road network to market.
- The anticipated impact of HGV and light vehicle traffic on the highway network in the vicinity of the site will be minimal. This could arise from the marginal increase in staff traffic (compared to Laigh Glenmuir), and deliveries to the site
- The accident record in the study area predicts no traffic safety issues associated with the proposed or existing development.
- There are no significant adverse impacts in terms of transportation as a result of the proposed development.

7.9 - COMMUNITY ISSUES

- Surface mining is an important industry in the Cumnock area and there are several operational and recently restored sites in the area. The proposed site will help sustain jobs in the area which will decline as neighbouring surface mining operations are decommissioned.
- The development will ensure 29 jobs are retained and a further 7 (36 in total) added. Temporary and contract jobs will also be retained. The operation of the proposed site has the potential for creating 75 jobs in total, including indirect and induced jobs.
- In line with existing trends, it is envisaged that approximately 70% of direct employees would be East Ayrshire residents. Local contractors will also be used where possible.
- The retention of employment opportunities through the proposed mining operations can also benefit local commerce.
- Local communities may experience temporary changes in views of minor significance. Noise, dust and traffic changes will be minimised by incorporation of mitigation measures into the working scheme.
- A Public Consultation Exhibition was held on 15 April 2009 at Lugar Bowling Club, to allow members of the public to view the proposals, and to provide comment on the development. Meetings with the Lugar and Logan Community Council and Laigh Glenmuir Liaison Committee were also held to gain comments and opinion on the proposals. The final scheme and operational proposals have taken account of these comments.
- The development is expected to support further contributions (estimated at £220,000 to the Minerals Trust Fund).

Public Consultation Exhibition

7.10 - CUMULATIVE EFFECTS

- Environmental and community impacts have the potential to be increased where there are several similar sites in the area around a surface mine.
- Government guidance requires consideration of cumulative impacts where there are already 2 or more sites (surface mines, quarries or landfill sites) within 5km of any nearby community. This is to ensure no community is subject to unacceptable disturbance.
- Thirteen sites were considered to have the potential for cumulative impacts with the proposed Duncanziemere surface mine, ranging from the former Gasswater surface mine approximately 400m from the site boundary, to Rigg surface mine, approximately 10km from Duncanziemere (but with potential transport impacts).
- 9 of the sites will be in their extractive phases when Duncanziemere is operational, and 3 of these will enter restoration during Duncanziemere's lifetime. This will reduce cumulative impacts relating to noise, dust, traffic and visual impacts.
- Cumulative traffic impacts will be negligible as the majority of coal from Duncanziemere will not be exported on the road network.
- Impacts on communities are reduced by local topography (many communities either face away from proposals, or are located in valleys), intervening vegetation (including coniferous plantations), the distance between sites, and the fact that many sites will be restored when Duncanziemere is operational.
- Mitigation and control measures put into place at Duncanziemere will reduce other environmental impacts to acceptable levels, meaning that operational effects from other sites will not be cumulatively significant.
- No significant cumulative impacts on ecology, hydrology, hydrogeology, soils or cultural heritage were identified.

8. BENEFITS OF THE DEVELOPMENT

- Coal produced by ATH Resources is used in electricity generation, and provides a UK based coal supply to Longannet Power Station among others.
- Other users of coal from ATH's sites include the cement, paper, food processing, textile and chemicals industries, local authorities and the domestic market.
- Production of coal in Scotland prevents reliance on imported fuel, and provides valuable security and reliability of supply for consumers.
- The low cost of coal compared to oil and gas prevents extensive fuel poverty.
- The economy of many rural areas of Scotland, including East Ayrshire is in part dependent on mining.
- In Scotland, mining sustains many jobs in rural areas. It also maintains a key skill base, which is in increasing international demand.
- The development will require 36 staff, approximately 75% of which are expected to be drawn from the local population around the site. Many of the jobs are skilled, well paid and ATH Resources will provide training and development for employees.
- The biodiversity and nature conservation value of the site will be increased through a sensitive restoration and aftercare programme.
- The use of the existing conveyor infrastructure for coal distribution, and transport of the majority of coal by rail will avoid the need to transport coal on the local road network.
- Increased public access to the area will be provided through footpaths around the restored site.
- Financial input to the Cumnock and Doon Valley Minerals Trust Fund will be continued based on coal export from the site, to benefit community facilities and organisations.

9. PLANNING POLICY

East Ayrshire Council will examine the application for the proposed surface mine agains the current Development Plan for the area, as well as against other relevant planning policy. The policy that will be considered will include:

- The Ayrshire Joint Structure Plan: Growing A Sustainable Ayrshire (approved November 2007) this identifies that the extraction of coal by surface mining methods is an important economic activity within East Ayrshire and is likely to remain so. It indicates that individual surface mine development proposals will be assessed against the East Ayrshire Opencast Coal Subject Plan.
- East Ayrshire Opencast Coal Subject Plan (adopted March 2003) this aims to ensure an acceptable environmental, social and economic balance in surface mining of coal in East Ayrshire. The proposed development is largely supported by the policies within the Opencast Coal Subject Plan. A third of the proposed surface mine is located within a Potential Coal Extraction Area, which is a greater proportion than the consented Laigh Glenmuir surface mine.
- Scottish Planning Policy 16: Opencast Coal (SPP16) this sets out the national planning policy framework for the working of coal from surface mines. It seeks to apply a sustainable approach in determining where surface coal mining may take place. In general a proposed surface mine will require to justify that the proposal is, or can be made, environmentally acceptable, or that it provides local or community benefits which outweigh the likely impacts. Both of these tests are considered to be met by the proposed surface mine and it is largely supported by the policies in SPP16.

10. SUMMARY

The EIA carried out for the proposed Duncanziemere surface mine concluded that environmental impacts can be reduced to acceptable levels by the mitigation measures proposed, and that the development will not have a significant adverse impact. On restoration the site will be improved for local communities and wildlife.