

EIA SCOPING REPORT

FOR THE PROPOSED EXTRACTION OF SAND AND GRAVEL

AT

CRAIG FARM, NEAR RHYNIE ABERDEENSHIRE

This report was carried out in accordance with JPB Quality Assurance procedures.

Leiths (Scotland) Ltd Rigifa Cove Aberdeenshire AB12 3LR Johnson Poole & Bloomer Limited 50 Speirs Wharf GLASGOW G4 9TB

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1 INTRODUCTION

1.1 Summary of the Proposal

Leiths (Scotland) Limited (Leiths) is proposing to operate a sand and gravel quarry at Craig Farm in Aberdeenshire, which lies 2.8 km to the south west of the village of Rhynie. Geological site investigation has been carried out and exploratory drilling and laboratory testing has confirmed 650,000 tonnes of saleable sand and gravel is present at the site. The resource is primarily sand suitable for use in the production of ready mixed concrete and asphalt for road surfacing.

Leiths will extract and sell an average of 30,000 tonnes of sand and gravel per year, which would give the site an operational lifespan of circa 22 years.

The proposals can be summarised as comprising the following:

- The stripping of soils and overburden, its storage in bunds which will help to screen the site, and its subsequent reuse in restoration.
- The extraction of sands and gravels from the site using a wheeled loading shovel or excavator and its transport via loading shovel/dump truck to a sand and gravel processing plant.
- The processing (washing and screening) of mineral onsite into different categories of saleable product.
- Occasional crushing of oversized gravel
- The despatch of products off site by road transport to the market.
- The progressive restoration of the site to agriculture/grassland, woodland and wetland.
- New or upgraded access to the public road along with road improvement works.

This development is a candidate for Environmental Impact Assessment (EIA which it is intended be undertaken prior to finalisation of plans and a planning application. Leiths has engaged Johnson Poole and Bloomer to undertake the EIA and collate the subsequent EIA Report (EIAR).

The first stage of the EIA process is the preparation of a Scoping Report to consider the subject areas for inclusion and focus (or "Scope") of the EIA. This report aims to provide the necessary information to the planning authority in order for it to provide a Scoping Opinion in respect of the proposed development in accordance with The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017.

1.2 The Site Operator

Leiths is one of Scotland's largest privately owned quarrying and civil engineering business. The long-established family business has enjoyed significant growth over the past 20 years and operates 15 quarries throughout Scotland. Fundamental to their business activities is the need to be aware of the impact quarrying operations have on the environment and surrounding communities.



2 ENVIRONMENTAL IMPACT ASSESSMENT (EIA

2.1 The Regulations

An Environmental Impact Assessment (EIA) provides a systematic assessment of the likely significant environmental effects generated by a project. This helps to ensure that the predicted effects, and the scope for reducing them are properly understood by the public, consultees and the determining authority before it makes a decision on a proposal.

In carrying out an EIA, reference is made to the following documents:

- i. The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017.
- ii. Planning Circular 1 2017: The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017.
- iii. Planning Advice Note 1/2013 Environmental Impact Assessment

The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 (the Regulations) specify the projects for which an EIA is or may be required. That is:

- i. EIA is always required for quarries considered to be Schedule 1 Development. Proposals that fall within the relevant description in Schedule 1 includes quarries with a surface area more than 25 hectares or is in a sensitive area.
- ii. EIA is required for changes to Schedule 1 sites taking into account the total area that has changed and where the change is likely to have significant environmental effects.
- iii. EIA is also required for quarries below the 25-hectare threshold where there are likely to be significant environmental effects (Schedule 2).

Additionally, the developer can undertake EIA voluntarily.

The maximum Site area is 18.0 hectares, although this is likely to be refined and reduced through assessment and consultation. The proposal is therefore Schedule 2 development. The site is not in a sensitive area (as defined in the Regulations). It is assumed however that there could be significant effects and the developer, Leiths, is proceeding with EIA, without screening (i.e., testing the requirement or need for an EIA).

2.2 Scoping Study

Under Regulation 17 of The Regulations, a developer may ask the planning authority for their formal opinion on the information to be supplied in the EIA Report (a 'Scoping Opinion'). This provision allows the developer to be clear about what the planning authority considers the significant effects of the development are likely to be and, therefore, the topics on which the EIA report should focus.

A request for a Scoping Opinion must include (Regulation 17(2));

- A description of the location of the development, including a plan sufficient to identify the land.
- b) A brief description of the nature and purpose of the development and its likely significant effects on the environment,
- c) Such other information or representations as the person making the request may wish to provide or make.

PAN 1/2013 states in paragraph 4.15 that:

"The purpose of scoping is to:

- identify the key issues to be considered;
- identify those matters which can either be scoped out or which need not be addressed in detail:
- discuss and agree appropriate methods of impact assessment, including survey methodology where relevant."



A Handbook on Environmental Impact Assessment prepared by SNH (2018) confirms a key advantage of Scoping is that the "scoping" of the EIA Report can avoid excessive detail and omission of important issues and help the EIA process to focus on key issues. It is an important contribution to the EIA process.

The purpose of this Scoping Report is therefore to address the requirements of Regulation 17(2) as part of a request for a Scoping Opinion from the Planning Authority, Aberdeenshire Council to allow the content and Scope of the EIA to be confirmed.

Since 2017 there has been a direction to try to "front load" EIA by proceeding with key or obvious studies. This enables the EIA to proceed in a meaningful and concise way. In this case early consideration of key potential issues has taken place with the engagement of water, ecology, landscape, cultural heritage and noise specialists to assist the preparation of this Scoping Study and the early refinement of the proposals.



3 SITE DESCRIPTION & CONTEXT

3.1 The Existing Site

The Site is located within the administrative boundary of Aberdeenshire Council approximately 2.8km south west of the village of Rhynie as shown on Drawing WG656/SR/F/01.

The site is located within the Lumsden Valley which forms the division between the watersheds of the Don and the Bogie, surrounded by much higher ground. The area is largely open farmed land changing to remote exposed moorland in the west. The majority of the area is characterised by a convoluted landform of small hummocks and depressions which gives rise to a small-scale landscape pattern of paddocks and rough pasture enclosed by dry stone dykes, fences and sheltered farms and cottages.

The site is adjacent to the B9002 which provides access to the A97 to the east. An overall "Site" area has been defined for the purposes of initial assessment comprising a total area of 18.0 hectares. Drawing WG656/SR/F/02 shows the Site in context. The overall Site is shown edged red and contains:

- A proposed extraction area (comprising 7.6 hectares delineated by a dashed black line in Drawing WG656/SR/F/02) together with surrounding peripheral land for ancillary uses including the storage of soils and overburden (circa 4.6 hectares).
- A field to the south west between the proposed working area and the B9002 (comprising circa 5.8 hectares outlined in orange in Drawing WG656/SR/F/02) which provides options for road access.

A final red line application boundary within this wider Site will be refined and confirmed through assessment and consultation.

The proposed extraction area and surrounding land hereafter referred to as the "proposed working area" comprise circa 12.2 hectares of hummocky undulating improved grazing pasture. The ground generally rises from south to north with elevations of 262mAOD in the south west of the proposed working area to approximately 288mAOD in elevation in the central part of the proposed working area towards the northern boundary. Much of the northern and eastern boundary is bordered by woodland. The south eastern portion of the proposed working area is bordered by the U79M Wheedlemont Road and the south western part of the proposed working area is bordered by trees and a pond which is manmade which sits between the proposed working area and the potential access area.

The field which will be potentially used for access comprises gently rising ground from south to north with elevations rising from 266m AOD in the south of the site to 272m AOD in the north.

The area surrounding the Site is sparsely populated with individual properties the closest being Cuttieburn House, west of the proposed quarry; Shooting Lodge Craig, southwest of the proposed quarry; Craig Home Farm and Craig Castle, south of the proposed quarry and Quarry Cottage to the east. The location of these properties is shown on Drawing WG656/SR/F/09 – Residential Property Location Plan.

3.2 Environmental Designations

The Hill of Towanreef SSSI/SAC is situated approximately 1km to the south and west of the proposed quarry working area and is designated for biological and geological interest. The SSSI and a wider area around it is also designated as a Local Nature Conservation Site (LNCS). The LNCS is also approximately 1km to the south and west of the proposed quarry working area at closest point. There are no other ecological designations or designated sites relating to the water environment or landscape within 2km of the Site.

There are a number of sites of cultural significance within 1km of the Site, including Auchindoir, St Mary's Church, Mote Hill and Dovecot Scheduled Monument (SMR) to the south west; Cnoc Cailliche fort SMR to the north and the Craig Castle Category A listed building to the south. These are detailed in Drawing WG656/SR/F/10 and considered further in Section 5.4 below.



4 PROPOSED DEVELOPMENT

4.1 Proposed Development Scheme

It is anticipated that the proposed development would release approximately 650,000 tonnes of saleable sand and gravel products which at an output of approximately 30,000 tonnes per annum would allow the quarry to operate for circa 22 years. An initial phased working scheme has been prepared for the proposed development. This scheme which will be refined though the EIA process is described in Sections 4.1.1 and 4.1.2 below:

4.1.1 Site Establishment

The development will commence with the construction of the site access, and infrastructure including the site support area (office & welfare building) and ancillary facilities.

The precise location of those buildings and facilities and vehicle routing between the quarry and the public road are to be finalised. Three options for vehicular access to the Site are currently under consideration and are shown on Drawing WG656/SR/F/08 and will be finalised following the completion of assessment works.

These potential options for access can be described as follows:

Option 1 – A new access road through the field linking the quarry working area to the north with the B9002 to the south.

Option 2 – Use of the existing hardstanding areas adjacent to the existing farm buildings linking the quarry working area to the B9002 to the south.

Option 3 – Use of the existing U79M Wheedlemont Road to provide access from the proposed quarry working area to the B9002 to the south.

Following the establishment of site infrastructure and in accordance with the findings of the Preliminary Ecological Appraisal and consideration of Cultural Heritage Impacts:

- Soils/overburden stripped from Phase 1 will placed in a screening bund on the southern and
 western periphery of the proposed extraction area to reduce noise levels at the adjacent
 manmade pond and to screen the quarry from road users; This bunding will be refined to
 facilitate the chosen access option once this is finalised,
- The woodland on the northern site boundary will be reinforced with supplementary planting to improve the screening of the development from the north. This planting will infill the existing planting in "pockets" using native species.

These advanced mitigation works are shown on Drawing WG656/SR/F/03.

4.1.2 Mineral Extraction & Progressive Restoration

Sand and gravel will be excavated from the working face by an excavator or a wheeled loading shovel and transported by loading shovel or dump truck to the processing plant. Here the sand and gravel will be washed and screened to produce a range of sand and gravel products. Occasionally a crusher may need to be brought into the site to crush any oversized gravel to allow it to be subsequently washed and screened into product.

Phase 1 provides for the development of an initial excavation in the south west of the proposed extraction area with extraction taking place to a depth of 257mAOD.

It is proposed that the processing plant will be located within this area as soon as space allows where it will remain for the duration of operations. A ramp will be created during this phase to allow access to the remainder of the future excavation area. It is anticipated that mineral extraction in this phase will take place over a period of approximately 2.5 years. Development in this phase is shown in Drawing WG656/SR/F/03.



Phase 2 provides for the excavation to be extended to the central and north western parts of the proposed extraction area, with the floor level being working down to 272mAOD in this area. Soils and overburden stripped from Phase 2 will be placed and seeded to create a screening bund to the west and north of the working area to maximise the screening of operations from these directions. The existing access ramp will be extended to provide for excavated material to be transported from the extraction area to the processing area in the southern section of the site. Progressive restoration will commence in the phase with the north eastern corner of the site reprofiled, soiled and seeded once operations are complete in this area. It is anticipated that mineral extraction in this phase will take place over a period of 6 years. Development in this phase is shown in Drawing WG656/SR/F/04.

Phase 3 provides for the quarry floor to be extended in a southerly direction and deepened down to a level of 265m AOD. Progressive restoration will continue in this phase, with the remaining northern quarry faces reprofiled, soiled and seeded/planted using soils stripped and directly placed during this phase. It is anticipated that operations in this phase will take place over a period of approximately 6 years. Development in this phase is shown in Drawing WG656/SR/F/05.

Phase 4 provides for the quarry floor to be worked to its maximum southern extent with the excavation deepened to 257m AOD across a wider area. Progressive restoration would be completed in this phase on the eastern and western boundaries of the excavation area using soils directly stripped and placed in this phase. It is anticipated that operations in this phase will take place over a period of approximately 5 years. Development in this Phase is shown in Drawing WG656/SR/F/06.

Phase 5 will see the remaining mineral within the southern part of the extraction area worked to a maximum depth of 251mAOD. It is anticipated that operations in this phase will take place over a period of approximately 2 years. Development in this Phase is shown in Drawing WG656/SR/F/07.

Arrangements for the management of water will be incorporated in the final proposals as required, taking into account the findings of a Hydrology and Hydrogeology Assessment.

4.2 Access and Dispatch

Once processed the sand and gravel products will be stockpiled within the quarry adjacent to the processing plant. Vehicles will be weighed on entering and leaving the quarry using the site weighbridge/weigh loader. On entering the quarry, vehicles will progress to the processing area or quarry floor for loading. Once loaded, vehicles carrying an average load of 20 tonnes of sand and gravel leave the quarry.

Access to the site would be provided by the B9002, then eastwards to the A97. No quarry traffic will travel west towards the Cabrach.

HGV movements from the site will be very low with an average of 1 HGV in and out of the site per hour (in total).

4.3 Operating Hours

It is proposed operating hours for the site will be Monday to Friday 0700-1800 and Saturday 0700-1300, with the site being closed on Sundays.

4.4 Site Restoration

It is anticipated that restoration will primarily be to agriculture/grassland, woodland and wetland.

Restoration will take place progressively, beginning during Phase 2 of the development. A restoration scheme will be prepared in cognisance of the findings of the landscape and visual assessment, hydrology and hydrogeology assessment and ecological assessment.



5 SITE ASSESSMENT

An investigation of the existing site conditions has been carried out, taking into account the proposed development. This has reviewed the physical condition of the site, the nature of proposed development and desk-based assessment of available background information on the site and its surrounds including identification of any statutory and non-statutory designations.

Where necessary this has led to the appointment of appropriate specialists to undertake initial work and to advise on the proposed scope of works required in in relation to particular topics. The works undertaken and by whom are detailed in Table 5.1 below.

Table 5.1 Supporting Studies

Topic	Specialist	Works
Landscape	MDA	Landscape & Visual Scoping Report (Appendix 1)
Ecology	William Latimer	Preliminary Ecological Appraisal - (Appendix 2)
Water Environment	Envirocentre	Scoping Assessment (Section 5.3)
Cultural Heritage	RPS	Scoping Assessment (Section 5.4)
Noise	Vibrock	Scoping Assessment (Section 5.5)

In accordance with approach advocated for EIA Scoping, information has been front loaded to include the provision of a Preliminary Ecological Appraisal.

The proposed scope of the EIA is detailed in Sections 5.1 to 5.12 below. A matrix has been prepared which summarises the consideration of potential environmental sensitivities and effects detailed in Sections 5.1 to 5.12. This is detailed in Table 5.2 below. Where potential effects require further consideration/assessment these are shaded blue.



Table 5.2 Initial Scoping Matrix

	Phase of development				
Environmental		Mineral			
Impact	Preliminary	Extraction	Site		
/Receptor	works	Operations	Restoration	Commentary	
				There is the potential for landscape and	
Landscape and				visual effects in all phases of development	
Visual Effects				(both negative and beneficial). Further	
				consideration required.	
				Preliminary Ecological Appraisal confirms that	
				although virtually all of the site identified for	
_				the sand and gravel quarry is dominated by	
Ecology				extensive areas of dry improved pastures of	
				very low botanical interest further	
				consideration is required in respect peripheral	
				habitats and features of note.	
				The proposed development is considered to	
Hydrology and				have the potential to have impacts upon the	
Hydrogeology				surface and groundwater environment.	
				Further consideration is required	
				The surrounding area (1km) contains	
				Scheduled Monuments, Listed Buildings and	
				various non-designated heritage assets.	
Cultural				There is no recorded archaeology on the	
Heritage				potential quarry working area however there	
. ioi itago				is the potential for unrecorded archaeology.	
				Road improvements on the B9002 will not	
				affect designated or known non-designated	
				assets. Further consideration required	
Noise Impacts				A noise assessment will be carried out in line	
				with PAN 50 guidance.	
				A full dust and air quality assessment is not	
Dust				considered necessary given the nature of the	
Emissions and				proposed development and its limited scale. It	
Air Quality				is proposed that appropriate mitigation	
•				measures will be provided in a Dust	
Mataural				Management Plan.	
Natural				No potential for significant impacts subject to	
Resource				the implementation of good practice standard	
Usage & Waste				mitigation techniques.	
				Output levels will be very low (on average 1 HGV in and out of the site per hour).	
				Environmental impacts of road traffic will	
Transport				therefore be low although improvements will	
Transport				be required to the B9002 together with its	
				junction with the A97 to accommodate lorry	
				traffic.	
				The site is not prime agricultural land. No	
Land and Soil				potential for significant impacts subject to the	
Quality				implementation of good practice standard	
Quality				mitigation techniques.	
				Human populations are considered above	
				including in relation to visual impact and	
Population and				noise. No other potentially significant impacts	
Human Health				are anticipated. Potential impacts will be	
				considered in relevant chapters.	
Major				Little or no potential for significant impacts. A qualitative Flood Risk assessment will be	
Accidents and					
Disasters				undertakens part of the Hydrology and	
545.5.5				Hydrogeology Assessment.	



5.1 Landscape and Visual Impacts

It is proposed that a landscape and visual assessment will be carried out. Mullin Design Associates have been appointed to carry out this assessment. Full details are contained within Appendix 1 of this document however in summary it is proposed the assessment will be prepared in accordance and with reference to best practice guidance documents and information sources including the following:

- Guidelines for Landscape and Visual Impact Assessment (GLVIA), Third Edition, edited by The Landscape Institute and Institute of Environmental Management and Assessment (2013);
- Landscape Character Assessment Guidance (2002) Countryside Agency in conjunction with Scottish Natural Heritage
- Landscape Character Topic papers 1 to 9 (Various Dates). Published by The Countryside Agency and Scottish Natural Heritage
- Aberdeenshire Local Development Plan 2023.
- National Planning Framework 4

The assessment will review the policy context, the landscape character of the site and the site's visibility. The assessment will use this analysis to advise on the development strategy.

Landscape

The overall Site currently comprises undulating improved grazing pasture, bound by blocks of woodland, the B9002 to the west and the U79M Wheedlemont Road to the south.

There are a number of Landscape Character Types identified within 5km of the subject site, namely:-

- LCT 27 Farmed Moorland Edge Aberdeenshire (includes subject site)
- LCT 23 Farmed Basin Aberdeenshire
- LCT 28 Outlying Hills & Ridges

Farmland Moorland Edge (includes subject site) (Lumsden Valley)

There are two distinctive Moorland landscape character types, the only upland character areas in Aberdeenshire, Farmed Moorland Edge and Moorland Plateaux. These make up the high ground in the western part of the study area and are the transitional landscapes between the much higher Grampian Mountains massif, within the Cairngorms National Park, and the rolling lowland landscapes of agricultural heartland. They form the distinctive, upland backdrop to much of Aberdeenshire.

The Farmed Moorland Edge LCT is the transition, separating the higher Moorland Plateaux and merging into the rolling agricultural heartland areas to the east of Aberdeenshire. This character type continues west into Perth & Kinross and merges with other upland character types, including Moorland Plateaux, to the north and to the east in Aberdeenshire. The Cromar Uplands, Daugh of Cairnborrow and Lumsden Valley often form the watersheds between the deeper straths of the rivers Dee, Don, Deveron and Bogie. Mainly of variable relief, including compact landforms of small valleys and mounds as well as wide-open basins and plateaux, the small fields, well defined by drystane dykes, are used predominantly for livestock farming.

The subject site is located within a section of Farmed Moorland Edge LCT referenced as Lumsden Valley. In profile this has a valley landform but with no watercourse. It forms the division between the watersheds of the Don and the Bogie, surrounded by much higher ground; the majority of the area is open farmed land changing to remote exposed moorland in the west. The majority of the area is characterised by a convoluted landform of small hummocks and depressions which gives rise to a small scale landscape pattern of paddocks and rough pasture enclosed by gappy drystone dykes, fences and sheltered farms and cottages.



Visual Effects

A Zone of Theoretical Visual Influence model ZTVI is a tool to identify locations in the surrounding area from where changes (as a result of a proposal) would be theoretically visible. ZTVI plans are reliant on the data used to generate them and almost always overemphasise the degree to which a development would be visible due to the fact that they do not account for all vegetation and other screening elements that may be present in the wider landscape. A Zone of Theoretical Visual Influence has been established for the proposed quarry working area and is detailed on MDA Figure 1.1. Thereafter a series of representative viewpoints have been selected for the assessment. These are shown MDA Figure 1.2 and can be described as follows:

Table 5.3 – Proposed LVIA Viewpoints

Viewpoint	Grid Reference	Latitude	Longitude	Receptor / Receptor Type
VP1	NJ 47260 25423	57.316303	-2.8772539	Intervisibility
VP2	NJ 46806 25272	57.314901	-2.884756	Cuttieburn Residential (Oblique Views)
VP3	NJ 47145 24934	57.311899	-2.879051	B9002 (Sequential Views)
VP4	NJ 46073 24705	57.309716	-2.8968005	B9002 (Sequential Views)
VP5	NJ 46805 24888	57.311447	-2.8846943	B9002 (Sequential Views)
VP6	NJ 47083 24858	57.31121	-2.8800648	Craig Castle Heritage Building (Residential / Heritage Views)
VP7	NJ 47542 25254	57.31482	-2.8725332	U79M Wheedlemont Road (Sequential Views)
VP8	NJ 47455 22253	57.287854	-2.8733392	A97 - Lumsden /Tourist (Sequential Views)
VP9	NJ 48412 29306	57.351316	-2.8589438	Tap O North Hill Fort (Tourism/ Heritage Views)
VP10	NJ 47290 26069	57.322113	-2.8768880	Cnoc Cailliche Fort - scheduled monument

Characteristics of the Proposed Development

The sequence, position and extent of the proposed working area will be refined iteratively with direct input from the project landscape architect to ensure that the quarry incorporates all primary mitigation measures possible.

This application will include direct design input that:

- Identifies required screening, with potential location of advance screening requirement including temporary screen bunds and or planting;
- · Identifies and agrees extraction limits;
- · Agrees final quarry shape, form and depth;
- · Identifies and agrees stand offs and buffers;
- Agrees phasing and restoration proposals along with direction of extraction;



Identification of Likely Significant Impacts

Assessment will establish the sensitivity of specific landscape resources and describe the significance of changes to that landscape as a result of a proposed development. Once the design process is complete and mitigation is fully incorporated into the development proposals the assessment of potential Landscape and Visual Impacts will be considered in the following key phases: -

- 1 Construction Phase (Establishment)
- 2 Operational Phase (Extractive Operations)
- 3 Restoration Phase (Post Extractive Operations)

5.2 Ecology

A Preliminary Ecological Appraisal has been carried out by Latimer Ecology and is included as Appendix 2. The findings of the PEA can be described as follows:

Virtually all of the site identified for the sand and gravel quarry is dominated by extensive areas of dry improved pastures of very low botanical interest and, under the current grazing regime, a vegetation structure considered unlikely to be attractive to ground nesting birds and foraging bats. Land-take for quarrying in these areas is unlikely to raise any adverse ecological effects in relation to direct loss of habitat. There are peripheral habitats and features of note, however, where further work is required to assess potential impacts.

As the quarry extends westwards, around 60-70% of the more species-rich grasslands on the western valley slope of the Cuttie burn and its scattered stands of trees and shrubs will be taken (see Appendix 2). This habitat is significant but only at Site level. Any loss of this habitat should nevertheless be mitigated to, consistent with best practice and planning policy. The process of planning the phased extraction of material from the quarry should address the proposal to create new wildflower grasslands in a restored phase of the quarry using topsoil from the good semi-improved grasslands on the valley slope, supplementing the community with planted wildflower seed if necessary. Trees lost from this area should also be replaced by peripheral screens of advance planting.

A repeat preconstruction survey for badgers must be undertaken prior to any ground disturbance and during subsequent phases of quarry expansion. Where setts remain open upon the site, a badger licence will need to be applied for at the time when quarrying represents a risk of disturbance to the sett. Badgers are otherwise not considered to be under any threat from this development as long as appropriate surveys are completed, and best practice is employed on the working site relating to the protection of wildlife.

Access Option 3 represents the optimum in respect of ecological and potential ecological impact as this minimizes habitat loss and the risk of disturbance to the black-headed gull colony and the potential loss of bat roosts in the beech trees west of Craig Farm pond. Screen bunding and/or the planting of a native tree and shrub belt along the southern boundary of the proposal site would assist in reducing visual and to some extent, noise disturbance from the quarry which may otherwise deter the black-headed gulls from nesting.

There are three areas where further study is required to determine the overall impact of the development:

- Where any trees are lost to the development a detailed assessment must be completed to
 determine if those trees may support roosting bats. Such surveys should take place prior to
 the planning application as it is incumbent upon the planners to determine the application in the
 light of any risk to protected species.
- Potential impacts upon the artificial pond, perched on the edge of the northern boundary of the site within the Lochnagab woodland would need to be informed by a hydrological study to assess the risks of drawdown of the water within the pond.



It is proposed that the further survey work identified be completed and that the Ecological Impact Assessment be provided taking into account the findings of the PEA and this further survey work.

5.3 Hydrology and Hydrogeology

EnviroCentre Ltd have been appointed to consider the potential impact on hydrology and hydrogeology as a result of the proposed development.

The proposal has the potential to cause changes to the baseline hydrological and hydrogeological conditions at the Site and in the surrounding water environment.

The assessment will identify impacts with potential to result in significant effects in the absence of mitigation by establishing the current baseline conditions and considering the Proposal design.

5.3.1 Baseline Conditions

The proposed working area ranges in elevation between approximately 262 metres Above Ordnance Datum (mAOD) along the far western site boundary to approximately 288mAOD in the central area of the site towards the northern site boundary. The proposed quarry working area is bounded to the north and west by grazing pasture, with areas of woodland to the southwest, east and southeast, as well as adjacent to parts of the southern and northern site boundaries.

The potential access and screening area comprising gently rising ground from south to north with elevations rising from 266m AOD in the south of the site to 272m AOD in the north.

These two areas are shown on Drawing WG656/SR/F/02 and are collectively referred to as the Site.

5.3.2 Hydrology

There are no watercourses within the Site. The land within the proposed quarry working area slopes towards the south and west, with a relatively flat area of higher ground within the northern and northeastern areas.

The Cuttieburn flows in a southerly direction approximately 100m to the west of the western boundary of the Extraction Area, before entering the Burn of Craig, located approximately 380m to the southwest of the Extraction Area. The Burn of Craig has a classification of Good under the Water Framework Directive (WFD) in 2018.

There is a pond situated immediately to the south of the proposed quarry working area, and also a smaller area of standing water known as Lochnagab located within the small, wooded area immediately to the north of the northern boundary of the proposed quarry working area.

The NatureScot website was used to determine whether there are any protected areas, otherwise known as designated sites, within 2km of the Site. There is a Site of Special Scientific Interest (SSSI) and a Special Area of Conservation (SAC), namely Hill of Towanreef SSSI and SAC, located approximately 1km to the southwest of the proposed quarry working area at the nearest point (SNH, n.d.). These designated sites are not hydrologically connected to the Site and would therefore not be impacted by the proposal.

There are no other designated sites within 2km of the Site.

5.3.3 Water Supplies and Abstractions

Consultation will be undertaken with Aberdeenshire Council requesting records of any private water supplies (PWS) within 1km of the Site.



SEPA will be consulted to request details of licenced abstractions within 1km of the Site.

5.3.4 Geology and Groundwater

British Geological Survey 1:50,000 mapping (BGS, n.d.) indicates that the bedrock underlying a small area within the far south eastern extent of the proposed working area consists of sandstone, which is a sedimentary rock type of the Quarry Hill Sandstone Formation, from the Devonian Period. The bedrock underlying much of the east and north eastern areas of the proposed quarry working area consists of mudstone and siltstone, which is a sedimentary rock type of the Dryden Flags Formation, from the Devonian Period. The bedrock underlying the western side of the proposed quarry working area consists of Norite and Quartz-biotite, which is an igneous rock type of the Insch Pluton (Boganclogh Sector Middle Zone), from the Ordovician Period.

BGS 1:50,000 mapping indicates superficial deposits to be present across the majority of the quarry working area, consisting of glaciofluvial deposits of gravel, sand, silt and clay, which were formed up to three million years ago in the Quaternary Period (BGS, n.d.).

BGS 1:625,000 hydrogeological mapping (BGS, n.d.) indicates that the bedrock aquifer underlying the Application Site is a low productivity aquifer with limited groundwater in the near surface weathered zone and secondary fractures.

Three piezometers have been installed within the Site to record groundwater levels which are currently being monitored on a regular basis.

5.3.5 Approach

Potentially Significant Effects

Flow and Level Alterations

The proposal would have the potential to alter existing drainage patterns through the stripping of vegetation and the creation of open voids into which surface and groundwater can collect, and the temporary storage of soils and overburden.

Groundwater flow and levels providing baseflow to watercourses and potential abstractions have the potential to be impacted through dewatering, whilst discharge of groundwater ingress and surface water runoff, if required, to the Cuttieburn and/or directly to the Burn of Craig has the potential to impact surface water flow and levels.

The Preliminary Ecological Assessment has not identified Ground Water Dependent Terrestrial Ecosystems (GWDTE) at the Site, or within the immediate vicinity and consideration of GWDTE can be scoped out of assessment.

Flooding

SEPA's Flood Maps (SEPA, 2014) do not indicate any risk of fluvial flooding within the quarry working area. The mapping does show a High risk (1 in 10-year likelihood) of fluvial flooding within a small area in the vicinity of the Cuttieburn adjacent to the west of the quarry working area.

This is likely showing the fluvial flood risk from the Burn of Craig (i.e., the risk of flood waters backing up along the Cuttieburn, which is a tributary of the Burn of Craig). The catchment area of the Cuttieburn, at the point at which it flows south adjacent to the western boundary of the quarry working area is approximately 1km². SEPA's Flood Maps do not indicate flood risk from small watercourses where the catchment area is less than 3km². Flood risk is confined by topography to the floodplains of the Cuttieburn and Craig Burn and therefore the Site is not shown to be at risk of flooding. Flood risk directly



from or to the Cuttieburn will however be qualitatively assessed in the Hydrology and Hydrogeology EIA chapter.

SEPA's Flood Maps indicate isolated areas along the south eastern boundary of the quarry working area to be at risk from pluvial flooding, in addition to a larger area immediately to the south of the southern site boundary, which approximately corresponds with the extent of the existing pond in this area. The potential impact of the proposed development on surface water flow paths will be appraised alongside flood risk.

Sediment Discharges

There would be the potential for an increased release of sediment to surface water and groundwater receptors as a result of the following activities:

- Stripping of soil;
- Excavation of material; and
- Processing.

The level of risk to the small pond features at the Site, and nearby watercourses, will be assessed further in the Hydrology and Hydrogeology EIA chapter.

Erosion and run-off from soil and overburden stockpiles could increase sediment loading and degrade the surface and groundwater quality. It could also potentially change the substrate characteristics. If uncontrolled, such effects may adversely affect aquatic habitats downstream of the Site.

Contaminant Discharges

The proposal could also increase risk from accidental pollution incidences affecting surface water or groundwater, within the receiving water environment.

Oils, fuels and hydraulic fluids are hazardous (List I) substances under the Groundwater and Priority Substances (Scotland) Regulations 2009 and their ingress to groundwater must be prevented. Oil and fuel spillages would also have a detrimental impact on surface water quality and could affect fauna and flora. The most likely sources of oils, fuels and other hydraulic fluids are:

- Spillage or leakage of oils, fuels or hydraulic fluids from site vehicles and machinery; and
- Spillage of oil or fuel from refuelling machinery.

Quarry Restoration

Potential impacts include contamination from oil, fuels and sediment mobilisation during restoration activities.

5.3.6 Design & Mitigation

Mitigation seeks, first, to avoid adverse impacts and, where impacts are unavoidable, to reduce the significance of residual effect to an acceptable level. It also seeks enhancement and compensation, where possible, to provide the best practicable option. The magnitude and extent of effects identified will inform and influence the type of mitigation suitable for the Site. Mitigation will be discussed and agreed with the developer and a summary of the residual impacts following mitigation will be provided.

For a project such as this, typical mitigation includes adopting best practice throughout, implementing and maintaining a suitable drainage system, locating stockpiles on level ground where possible, ensuring all personnel are aware of and understand the risks of water contamination and adopting specific measures as required in line with the SEPA Pollution Prevention Guidelines (PPGs) and Guidance for Pollution Prevention (GPPs).



5.3.7 Proposed Methodology

The assessment will follow standard Environmental Impact Assessment (EIA) procedures which include:

- Desk based study;
- Consultation with key stakeholders;
- Establishing the existing baseline conditions;
- Identifying potential environmental impacts including cumulative impacts;
- Assessment of potential environmental impact magnitude;
- · Identification and assessment of mitigation measures; and
- · Statement of residual effects.

The assessment will be conducted in accordance with current legislation and good practice guidance including:

- The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended): A Practical Guide (SEPA);
- Technical Flood Risk Guidance for Stakeholders SEPA requirements for undertaking a Flood Risk Assessment;
- Control of water pollution from construction sites. Guidance for consultants and contractors (CIRIA C532);
- Guidelines for Water Pollution Prevention from Civil Engineering Contracts;
- Pollution Prevention Guidelines and Guidelines for Pollution Prevention 1 26 (as appropriate);
- Development of a groundwater vulnerability screening methodology for the Water Framework Directive (WFD28), SNIFFER (2004);
- SEPA Policy No.19: Groundwater Protection Policy for Scotland;
- Drainage assessment; A guide for Scotland (SUDS Working Party);
- Planning for SuDS making it happen (CIRIA);
- SuDS for roads (SUDS Working Party);
- The SUDS Manual (CIRIA); and
- Technical flood risk guidance for stakeholders (SEPA).

The assessment will involve a review of published documents and planning policies relating to receptors scoped into the assessment. Hydrology, flooding, water quality, groundwater and PWS/abstractions have been scoped into the assessment. The surface water drainage catchments of the site will also be established. Specifically, baseline work will include a review of OS, SEPA, NatureScot, soils and geology maps; the Flood Estimation Handbook (FEH) Web Service; consultation with stakeholders; an assessment of site hydrology; an assessment of soil type and sensitivity; and the identification of nearby abstractions including private water supplies.

A summary of the potential water environment effects to be considered within the Hydrology and Hydrogeology EIA Chapter are outlined in Table 5.4.

Table 5.4 Summary of the potential effects

Receptor	Effects	Scoped In
Hydrology	Increased sediment discharges and contaminant discharges	✓
Flood Risk	Flow and level alterations, increased sediment discharges, contaminant discharges	✓
Groundwater	Flow and level alterations, increased sediment discharges, contaminant discharges	✓
Water Supplies/ Abstractions	Flow and level alterations, increased sediment discharges, contaminant discharges	✓



5.3.8 Consultation

Consultation will be undertaken with SEPA and Aberdeenshire Council Environmental Health department following receipt of the Scoping Opinion, to ascertain presence of any private water supplies and abstractions respectively.

5.3.9 References

BGS (n.d.). Geology of Britain viewer. Retrieved from: http://mapapps.bgs.ac.uk/geologyofbritain/home.html

BGS (n.d.). 1:625000 Hydrogeological Map. Retrieved from: http://mapapps2.bgs.ac.uk/geoindex/home.html?layer=BGSHydroMap

Scottish Government (2019). Scotland's Environment Map. Retrieved from: https://map.environment.gov.scot/sewebmap/.

SEPA (2014). Flood risk management maps. Stirling: Scottish Environment Protection Agency. Retrieved from: http://map.sepa.org.uk/floodmap/map.htm

SEPA (2015). The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended); A Practical Guide.

NatureScot (2022). SiteLink. Retrieved from http://gateway.snh.gov.uk/sitelink/

SNIFFER (2009). WFD95: A Functional Wetland Typology for Scotland; Project Report. Edinburgh: SNIFFER

5.4 Cultural Heritage

RPS has been appointed to consider the potential impact on cultural heritage as a result of the proposed development. This section of the Scoping Report sets out the proposed approach to Cultural Heritage. It provides an initial summary of the baseline situation, identifies further studies to be undertaken and sets out the scope of the assessment and methods to be employed. Potential impacts are identified as are likely mitigation measures.

5.4.1 Baseline

This section contains a summary of baseline conditions, based on an initial review of readily available information. A full baseline study, including site visits, has yet to be undertaken and the below summary will be updated as the project progresses. Given the nature of the proposed development, the following considers assets within 1km.

Designated Heritage Assets

There are no designated heritage assets within or adjacent to the proposed quarry working area.

The closest Scheduled Monument is Cnoc Cailliche fort (SM11681), which is approximately 0.56km to the north of the proposed quarry working area. To its west, approximately 0.75km from the proposed quarry working area are Currach Cottage hut circles (SM11658). St Mary's Church, Mote Hill and Dovecote, Auchindoir (SM90267) is approximately 0.66km to the south-east of the proposed quarry working area.



Cnoc Cailliche fort is a late prehistoric fort occupying the top of the eponymous hill. Its elevated location affords it extensive views in all directions; the description attached to the scheduling highlights the view to the east. The fort on the summit of Tap o'Noth is clearly visible on the skyline to the north. The extensive views and prominence in the landscape afforded by the elevated location were probably key considerations in the location of the fort.

Currach Cottage hut circles are the earthwork remains of two later prehistoric dwellings located on the saddle between Cnoc Cailliche and Wheedlemont Hill. Views to and from the surrounding landscape are not likely to have been an important factor in their siting.

St Mary's Church, Mote Hill and Dovecote comprises the remains of a Medieval church and motte, and a 16th century dovecote. The surrounding churchyard is a Category C Listed Building. The Scheduled Monument is surrounded by woodland effectively divorcing it from the surrounding landscape.

Aside from the above churchyard there are five Listed Buildings within 1km of the proposed quarry working area:

- Category A Craig Castle (LB2736) and the associated sundial (LB2738) and walled garden (LB2737). Both of which are Category B.
- Milltown of Auchindoir mill (LB2735), which is Category B.
- Former Manse, now Lodge of Auchindoir (LB2734).

Craig Castle is a 16th century tower house with 18th, 19th and 20th century additions. The sundial dates to 1821 and the walled garden probably dates to the 18th century. They are located approximately 0.3km to the south-west of the proposed quarry working area, within a non-designated designed landscape laid out in the 17th to 19th centuries (Aberdeenshire HER NJ42SE0048). The designed landscape comprises a formal garden adjacent to the castle and extensive woodland. The woodland element includes Quarryhill Wood and the woods on Cot Hill, adjacent to the proposed quarry working area. The woodland limits the potential for views out from the castle to the surrounding landscape and for views of the castle.

The mill dates to the late 18th/early 19th century and former manse to c. 1845. They are both located alongside the Water of Bogie between 0.8km and 1km from the proposed quarry working area. Both are surrounded by trees. As a result, the views in and out are very limited.

The proposed passing places on the B9002 do not extend into or lie adjacent to any designated heritage assets.

Non-Designated Heritage Assets

No non-designated heritage assets are recorded within the proposed quarry working area.

The proposed quarry working area lies in an area with extensive recorded evidence of Prehistoric and Early Historic is recorded; primarily in the form of standing stones and rock art. No intrusive work has been undertaken in the area. Consequently, it is likely that archaeology that is not visible on the surface is under-represented in the record.

No non-designated assets are recorded within the footprint of the proposed passing places on the B9002. The extents of heritage assets in their vicinity, eg Auchindoir North Parish Church (NRHE 112528) and Milton of Auchindoir (NRHE 191453), are well-understood from historic mapping and there is no potential for unrecorded features associated with them to be affected.

5.4.2 Assessment Methodology

Baseline Studies

Baseline data will be gathered from the following data sources:

- HES spatial downloads website (designated heritage assets);
- Aberdeenshire Historic Environment Record (HER);
- Maps held by the National Library of Scotland;
- Satellite imagery; and



Readily available published sources.

Lidar data is not available for the area of the proposed Site.

Data will be gathered from HES and the HER for a study area extending 1km from the proposed quarry and road corridor. Data from the other sources will be gathered for the proposed quarry and its immediate vicinity. This study area reflects the type of development, its topographic location and the woodland bounding it. Together these restrict the likely visibility of the proposed quarry from distances in excess of 1km.

The above desk-based studies will be augmented and verified through a walkover survey of the proposed Site including passing place locations and site visits. The walkover survey will be intended to identify and briefly record any previously unrecorded upstanding features of archaeological interest. Detailed recording will not be undertaken at this stage.

5.4.3 Impact Assessment

The impact assessment will be undertaken in line with current guidance, specifically:

- HES (2020) Managing Change in the Historic Environment: Setting;
- HES & SNH (2018) EIA Handbook; and
- ClfA (2020) Standard and Guidance for Historic Environment Desk-Based Assessment

The following potential impacts will be considered:

- Potential physical loss of as yet unrecorded assets within the proposed quarry; and
- Change in the setting of designated heritage assets within 1km of the proposed quarry during the operational and reinstatement phases.

The assessment will identify the assets that will be affected by the proposed quarry, describe their cultural significance and, where relevant, the contribution of setting to their cultural significance. It will then consider the impact upon their cultural significance. This will be informed by a Zone of Theoretical Visibility (ZTV), which will take into account the screening effect of the built form and woodland. The assessment will also consider the potential for impacts to result from factors such as noise and dust.

As the design will contain embedded mitigation it is proposed to assess only residual impacts, rather than the impacts of a hypothetical worst-case design. Therefore, it is proposed that the assessment of operational phase impacts focuses on the potential impact upon Craig Castle in the context of proposed embedded mitigation and the screening provided by the existing surrounding woodland.

5.4.4 Mitigation Measures

Embedded Mitigation

As far as practicable, mitigation will be embedded in the design of the proposed quarry. This is likely to primarily involve the reinforcement of the woodland belt on the proposed quarry's northern boundary. This with existing woodland to the east and south and topography will minimise the proposed quarry's visibility in the surrounding landscape, including from designated heritage assets, in particular Cnoc Cailliche fort. In addition, the development will be phased, and restoration will be progressive.

The proposed passing places will be landscaped appropriately to be in keeping with their surroundings and to prevent any potential impacts relating to the setting of heritage assets.

Best Practice

Noise and dust will be minimised through best practice measures.



Other Mitigation

A programme of archaeological works will allow for the appropriate recording of heritage assets within the proposed quarry and, where necessary, further assessment and analysis. This will be undertaken in accordance with a Written Scheme of Investigation agreed with the LPA and their Aberdeenshire Council Archaeology Service.

5.5 Noise Impacts

Vibrock Ltd has been appointed to consider the environmental impact of noise as a result of the development. Guidance applicable to the assessment of noise impacts from mineral extraction and related development is provided by:

- BS5228-1:2009 (as amended): Code of practice for noise and vibration control on construction and open sites [British Standards Institute, 2009];
- PAN 50 Controlling the Environmental Effects of Surface Mineral Workings. Annex A: The Control of Noise at Surface Mineral Workings [Scottish Office, 1996].

The use of plant and machinery in the extraction, processing and dispatch of materials has the potential to increase noise levels in the areas around these types of development. Accordingly, it is considered that a noise assessment should be undertaken to demonstrate that the proposed development can comply with relevant noise criteria and operate with minimal likelihood of receiving complaints over noise from nearby residents.

It is assumed that contained within any planning permission received for the working of the proposed development would be planning controls, both for routine activities and also the short-term operations such as soil and overburden strip, the formation and removal of storage mounds and when restoration works are taking place. The noise criteria imposed may well be determined by the existing background and ambient sound levels at receptor locations.

From an inspection of the proposed development area, we have identified the following receptor locations, shown on Drawing WG656/SR/F/09 – Residential Property Location Plan and Table 5.5 below , that are considered representative for the general area around the development:

Table 5.5 Residential Property Locations

Residential Property Number	Location	Minimum Distance to Proposed Extraction Area (m)
1	Cuttieburn House	190
2	Shooting Lodge, Craig	340
3	Craig Castle	375
4	Craig Home Farm	290
5	Quarry Cottage	250

Baseline noise monitoring will be undertaken at the above, or similar locations agreed during consultation with the Environmental Health Department, to establish the current levels of background and ambient noise levels and identify the main sources of existing sound. It is proposed baseline surveys will be undertaken during the recognised daytime period for a minimum period of 2 hours. The monitoring will comprise 15-minute sampling intervals and would be undertaken following the guidance in British Standard (BS) 7445:2003.

At the agreed locations noise predictions, based upon methods outlined in BS 5228-1:2009+A1:2014 and the sound power levels of the intended plant, would be made for several phases throughout the life of the proposed development, including, for example: soil / overburden stripping, mineral extraction and processing, and haulage from the site. In each phase of working the worst possible case scenario would be addressed. The predictions would utilise acoustic modelling software, configured to calculate the noise from the development in accordance with the BS 5228-1 methodology.



The results from the prediction exercise would be used to undertake an assessment of the noise impact of the proposed development on the local environs. The noise assessment will follow the recommendations and guidelines given in PAN 50 (Annex A) 'The Control of Noise at Surface Mineral Workings' and, if necessary, will give details of mitigation measures to be adopted at the site to reduce impact.

5.6 Dust Emissions and Air Quality

The environmental impact on air quality as a result of the proposed development relates primarily to the emissions of dust.

Similar to other sand & gravel quarrying operations elsewhere, the principal potential sources of dust emissions have been identified as:

- soil and overburden handling;
- site haulage and/or conveyance;
- road transport;
- loading and tipping;
- other materials handling operations; and
- windblow across stockpiles.

It is not considered that a standalone air quality and dust assessment would be required. This is on the basis that any potential dust impacts are likely to be minimal due to the nature of the materials that would be handled on site (i.e., the excavated material would generally be moist) or impacts could be appropriately mitigated through the implementation of environmental/amenity control measures.

In the above context, a Dust Mitigation and Management Plan would be provided in support of the proposed development, which would identify controls and measures that would be implemented on site as part of operations, consistent with IAQM and planning policy/guidance.

5.7 Natural Resource Usage and Waste

Relevant policy and guidance include:

- The Waste (Scotland) Regulations 2012;
- The Management of Extractive Waste (Scotland) Regulations 2010;
- · Zero Waste Plan; and
- Waste Hierarchy.

In 2010 the Scottish Government published Scotland's Zero Waste Plan [Scottish Government, 2010a], which sets out the government's vision for a sustainable and resource efficient future. Leiths intends to operate at the site in accordance with this vision which aims to:

'Reduce Scotland's impact on the environment, both locally and globally, by minimising the unnecessary use of primary materials, reusing resources where possible, and recycling and recovering value from materials when they reach the end of their life.'

5.7.1 Potential Impacts

A site Extractive Waste Management Plan will be prepared in accordance with The Management of Extractive Waste (Scotland) Regulations 2010, detailing the management of natural resources on site. The proposed quarrying area at Craig Farm will be progressively stripped of soils in advance of extraction. These soils are to be held within the site and be managed to maintain soil quality in accordance with best practice. Thereafter the quarry excavation will be restored to a agriculture/grassland, woodland and wetland with retained soils available for reuse in restoration.



The main natural resource used during the operation of the site is the sand and gravel which will be excavated, processed and then sold to the market. It is anticipated that during the life of the project a total of 650,000 tonnes will be extracted and removed from Site. As a finite resource, it is important to ensure that this is done in to maximise resource usage therefore minimising likely significant effects.

Welfare waste will result from the proposed development with, appropriate waste segregation and recycling impacts are not deemed to be significant.

5.7.2 Mitigation

Mitigation proposed to minimise effects on natural resources and waste are outlined in Table 5.6 below.

Table 5.6 Mitigation - Natural Resources and Waste

Phase	Risk/Effect	Cause	Mitigation
Operation	Material usage	Inefficient use of resources	 Soil and overburden are stored, for reuse in restoration No soils will leave Site. Facilities are designed to minimise material usage.
Operation	Material Usage	Inefficient use of resources	 Extracted sand and gravel will be processed as efficiently as possible. Any residues from extraction or processing will be reused in site restoration in accordance with the sites Extractive Waste Management Plan.
Operation	Waste	Incorrect waste disposal	Segregated bins provided.Waste appropriately segregated.

No significant effects are expected from the development of the Site and mitigation has been identified to minimise any effects arising. It is therefore proposed that consideration of impacts upon natural resource usage and waste are scoped out of the assessment.

5.8 Transport, Recreation and Access

The proposed quarry will have a low output of in the region of 30,000 tonnes per annum. The sand and gravel will be removed by Heavy Goods Vehicles with an average capacity of in 20-tonnes. Spread over 50 working weeks per year, this represents 30 outgoing loads per week, or an average of 0.5 outgoing loads per hour, based on a 60-hour week. In addition, there would be 0.5 empty lorries arriving per hour, on average to collect sand and gravel products resulting in total movements in and out of 1 vehicle movement per hour. This level of output does not have the potential to create a significant environmental impact and detailed Environmental Assessment of transport impacts is therefore not considered to be required.

The routing between the quarry working area and the public road is to be finalised. Three options are currently under consideration and are shown on Drawing WG656/SR/F/08 and will be finalised following the completion of assessment works.

These potential options for access can be described as follows:

Option 1 – A new access road through the field linking the quarry working area to the north with the B9002 to the south.

Option 2 – Use of the existing hardstanding areas adjacent to the existing farm buildings linking the quarry working area to the B9002 to the south.

Option 3 – The use of the existing U79M Wheedlemont Road which links the proposed quarry working area to the B9002 to the south.



All vehicles would travel to and from the site using the B9002, and A97 to the east. No quarry traffic would travel west on the B9002 towards the Cabrach. Much of the B9002 between the site and its junction with the A97 to the east is below standard widths. Therefore, regardless of the low site output it is anticipated that work will need to be undertaken to the road network in order to accommodate the proposed additional use of the road by quarry related HGV's.

A draft proposal has been prepared on behalf of Leiths and is detailed in Drawing 147389/sk1001 – Indicative Passing Places and Improvements and 147389/sk1002 - Indicative Passing Places and Improvements Swept Path Analysis. This package aims to provide proportionate improvements to the B9002 and its junction with the A97 taking into account the low level of HGV traffic.

It is proposed that this package of improvements is refined though consultation with the Aberdeenshire Roads and that a refined package of improvements and a Transport Statement be submitted in support of the proposals.

Potential impacts upon recreation and access, have been considered. In this regard there are no core paths within 1km of the proposed development and no rights of way have been identified in the proximity of the proposed development. There is therefore limited potential for recreational access to be affected by the proposed development and it is proposed that consideration of impacts upon recreation and access be scoped out of the assessment except where they relate to visual effects from distance which will be considered within the Landscape and Visual Impact Assessment.

5.9 Land and Soil Quality

Scotland's National Planning Framework 4: Policy 5 states: Development on Prime agricultural land, or land of lesser quality that is culturally or locally important for primary use, as identified by the LDP, will only be supported where it is for the extraction of mineral and there is a secure provision for restoration. Guidance on the quality of agricultural land is provided by the Macaulay Institute Land Capacity for Agriculture Maps (LCA) which have defined the capability of land in Scotland for Agricultural use.

The Macaulay Institute LCA classification is used to rank land on the basis of its potential productivity and cropping flexibility. This is determined by the extent to which the physical characteristics of the land (soil, climate and relief) impose long term restrictions on its use. Prime quality land is described as LCA Grade 3.1 or above. In this connection:

- The proposed site is wholly comprised of Land Capability for Agriculture class 3.2 land capable of supporting mixed agriculture.
- The proposed quarrying area at Craig Farm will be progressively stripped of soils in advance
 of extraction. These soils are to be held in soils and overburden storage areas which will be
 formed and seeded in accordance with best practice and subsequently reused in restoration.

The land is wholly comprised of class 3.2 and therefore not classed as prime quality land. Soil resources from the site are to be retained on site and preserved in accordance with good practice. Thereafter, the site will be restored to a suitable after use with retained soils reused in restoration.

NPF 4: Policy 5: Soils seeks to protect peatland, and carbon-rich soils. Development proposals on peatland, and carbon-rich soils will only be supported in limited circumstances. The SNH Carbon and Peatland Map (SNH 2016b) confirms that the area of proposed development is mapped as a mineral soil and as a result there is no potential for impacts.

No significant impacts are therefore considered to result from the proposed development. It is therefore proposed that consideration of impacts upon land use and soils is scoped out of the assessment.

5.10 Population and Human Health

Relevant guidance on impacts upon population and human health at this stage is limited. Reference has been made to "Health in Environmental Impact Assessment – A Primer for a Proportionate Approach" produced by IEMA.



Impacts on population and human health are considered firstly in the sense of any impact on human beings as receptors. These are considered here under noise, and landscape and visual impacts.

It is therefore proposed that human health is covered under these topics but otherwise scoped out of the EIA process.

5.11 Major Accidents and Disasters

Major accidents/disasters that may affect the surrounding area is limited to flooding.

Flood risk will be considered within the hydrological and hydrogeological assessment. It is therefore proposed that Major Accidents and disasters is covered within the hydrological and hydrogeological assessment but otherwise scoped out of the EIA process due to the lack of significant potential impacts associated with the development.

5.12 Cumulative Impacts

There are no other quarry or nearby developments with similar effects within the vicinity the Site. No cumulative impacts are therefore predicted, and no further assessment is considered necessary.



6 CONSIDERATION OF ALTERNATIVES

The EIA regulations require that consideration is given to the alternatives which have been considered and this should be completed for the EIA Report. There are a number of alternatives within the design process which are likely to be the focus of further design work. The text below indicates the alternative aspects already considered and which may be considered during further design/mitigation (or iteration). Others may also arise.

Alternative Sites

It is recognised within a wide range of planning guidance notes and at National, Regional and indeed Local level that minerals are unusual in development terms, in that, that they can only be worked where they naturally occur, so the usual criteria applied in site searching exercises cannot be wholly adopted.

An analysis has been undertaken by Leiths to determine potential locations for sand and gravel extraction. This site was chosen for detailed geological site investigation as it is some distance from residential property, and limited potential to affect designated assets. Subsequent site investigation and testing has proven a source of high-quality sands and gravels which will support a key aim of the Aberdeenshire Local Plan in the provision of a minimum 10-year landbank for sand and gravel.

Extent of Development

The proposed development footprint has been developed to limit the quarry working area whilst achieving an acceptable level of resource to justify the investment required to establish and operate the site.

Alternative Phasing

The phasing of the development has been given early consideration with a view to safe and economic working and material handling (which has major effect on energy use). Scope for progressive restoration is another factor. An initial working scheme has been prepared incorporating the progressive restoration of the site. This will be refined further through the EIA process.

Alternative Method of Working

The method of working may be most simply considered in three components namely the face extraction, the processing operation, and the internal transport of the mineral from face to processing plant. These aspects will be reviewed within the design and the EIA, but options are limited, and it is unlikely that they will change substantially.



7 PLANNING CONTEXT

Decisions on planning applications should be made in accordance with the development plan unless material considerations indicate otherwise. The House of Lord's judgement on City of Edinburgh Council v the Secretary of State for Scotland (1998) provided that if a proposal accords with the development plan and there are no material considerations indicating that it should be refused, permission should be granted. If the proposal does not accord with the development plan, it should be refused unless there are material considerations indicating that it should be granted.

The statutory development plan for any given area of Scotland consists of the National Planning Framework and the relevant local development plan(s) which in the locality of the site comprises the Aberdeenshire Local Development Plan 2023.

Examples of possible material considerations are detailed in Scottish Government Circular 3/2013 Development Management Procedures and include:

- Emerging Development Plan policy;
- Scottish Government Planning Advice Notes and Circulars

7.1 The Development Plan

7.1.1 National Planning Framework 4

NPF4 was adopted by the Scottish Ministers on 13 February 2023, following approval by the Scottish Parliament in January. This replaces National Planning Framework 3 and Scottish Planning Policy.

The National Planning Policy Framework provides specific policy guidance on mineral extraction, as well as guidance on the protection of biodiversity, natural places, soils, forestry woodland and trees, historic assets and places which are of relevance to the proposals.

The primary policy relating to the development is detailed in Policy 33 Minerals which is detailed below:

Policy Intent: To support the sustainable management of resources and minimise the impacts of the extraction of minerals on communities and the environment.

Policy Outcomes:

Sufficient resources are available to meet industry demands, making an essential contribution to the Scottish economy.

Important raw materials for manufacturing, construction, agriculture, and other industries are available. Important workable mineral resources are protected from sterilisation by other developments. Communities and the environment are protected from the impacts of mineral extraction.

Local Development Plans:

LDPs should support a landbank of construction aggregates of at least 10-years at all times in the relevant market areas, whilst promoting sustainable resource management, safeguarding important workable mineral resources, which are of economic or conservation value, and take steps to ensure these are not sterilised by other types of development.

- a) Development proposals that seek to explore, develop, and produce fossil fuels (excluding unconventional oil and gas) will not be supported other than in exceptional circumstances. Any such exceptions will be required to demonstrate that the proposal is consistent with national policy on energy and targets for reducing greenhouse gas emissions.
- b) The Scottish Government does not support the development of unconventional oil and gas in Scotland. This means development connected to the onshore exploration, appraisal or production of coal bed methane or shale oil or shale gas, using unconventional oil and gas extraction techniques, including hydraulic fracturing, and dewatering for coal bed methane.



- c) Development proposals that would sterilise mineral deposits of economic value will only be supported where:
- i. there is an overriding need for the development and prior extraction of the mineral cannot reasonably be undertaken; or
- ii. extraction of the mineral is impracticable or unlikely to be environmentally acceptable.
- d) Development proposals for the sustainable extraction of minerals will only be supported where they: i. will not result in significant adverse impacts on biodiversity, geodiversity and the natural environment, sensitive habitats, and the historic environment, as well as landscape and visual impacts;
- ii. provide an adequate buffer zone between sites and settlements taking account of the specific circumstances of individual proposals, including size, duration, location, method of working, topography, and the characteristics of the various environmental effects likely to arise;
- iii. can demonstrate that there are no significant adverse impacts (including cumulative impact) on any nearby homes, local communities and known sensitive receptors and designations;
- iv. demonstrate acceptable levels (including cumulative impact) of noise, dust, vibration and potential pollution of land, air and water;
- v. minimise transport impacts through the number and length of lorry trips and by using rail or water transport wherever practical;
- vi. have appropriate mitigation plans in place for any adverse impacts;
- vii. include schemes for a high standard of restoration and aftercare and commitment that such work is undertaken at the earliest opportunity. As a further safeguard a range of financial guarantee options are available, and the most effective solution should be considered and agreed on a site-by-site basis. Solutions should provide assurance and clarity over the amount and period of the guarantee and in particular, where it is a bond, the risks covered (including operator failure) and the triggers for calling in a bond, including payment terms.

Other relevant policies are detailed in Table 7.1 below.

Table 7.1 Other Relevant National Planning Framework 4 Policies

Subject/Topic	Policy Reference
Biodiversity	Policy 3
Natural Places	Policy 4
Soils	Policy 5
Forestry, Woodland and Trees	Policy 6
Historic Assets and Places	Policy 7
Flood risk and water management	Policy 22:
Health and safety Policy 23:	
Rural development	Policy 29:

7.1.2 Aberdeenshire LDP 2023

The Aberdeenshire Local Development Plan 2023 sets out where development is expected to take place over the next five years, and beyond, up to 2031. The Local Development Plan aims to help promote Aberdeenshire as:

- An area with a high quality of life and distinctive places, and where new developments are designed as effectively as possible to improve this and help deliver sustainable, low carbon places.
- An area that promotes sustainable development that reduces the need to travel, reduces reliance on private cars and promotes safe and convenient active travel opportunities.
- An area where natural and cultural heritage are protected and enhanced, and where we
 recognise the multiple benefits of local green spaces and networks as an integral component of
 successful placemaking.

Relevant policies are detailed below:



Table 7.2 Minerals Policy

Policy R3 Minerals

R3.1

We will only allow minerals development where sufficient information is provided to enable the full likely effects of the development to be assessed, together with proposals for appropriate control, mitigation and monitoring. At a minimum the following information must be provided to support the application:

- details of phased working;
- waste management;
- land restoration and aftercare, including details of the timescales for such works:
- details of the proposed use of the site after completion of the works. It
 is generally expected that all minerals developments will be fully
 restored to its previous use unless an alternative use is outlined at the
 outset; and
- public road maintenance and restoration. This will require to be agreed with the Planning Authority before any planning application is approved.

R3.2

In all cases an environmental statement will have to show acceptable environmental impacts of the mineral development. Proposals will need to address, amongst other considerations:

- · the effect on natural heritage, habitat and biodiversity;
- habitat enhancement and restoration measures;
- · landscape and visual impacts;
- · the effect on the historic environment;
- impacts on local communities, individual homes, sensitive receptors and economic sectors important to the local economy;
- · disturbance from noise, blasting and vibration, and artificial light;
- potential pollution of land, air and water (surface and groundwater);
- · disturbance of carbon rich soils; and
- cumulative impacts with other minerals and landfill sites in the area.

R3.3

A statement from a suitably qualified professional outlining any benefits to the local and national economy as a result of the minerals development will be required as part of any planning application.

R3 4

Minerals development will not be permitted if a Transport Assessment shows that development will have significant negative transport impacts on local communities, or a Waste Management Plan does not show how secondary materials from mineral workings, such as overburden, waste rock and fines, will be reused.

R3.5

Where appropriate we will require financial guarantees through planning conditions or Legal Agreements to ensure that a high standard of site restoration and aftercare is provided. To mitigate environmental effects of mineral development, sustainable restoration of sites to beneficial use is sought, including ecological solutions. Such work should be undertaken at the earliest opportunity. Provision will be made for the monitoring and review of such guarantees as necessary.

R3.6

Where development would result in three or more consented mineral developments within a 5km radius of a settlement, consideration will be required of cumulative impacts and any adverse impacts identified should be adequately mitigated.



R3 7

All conditions attached to mineral permissions will be reviewed every 15 years unless postponed by written agreement with the Planning Authority to ensure that the development is not adversely affecting the natural or historic environment, landscape character or local amenity.

R3.8

A buffer distance restricting development around minerals sites will be agreed with the developer in consultation with the local community, prior to permission being granted. This will need to take into account the specific circumstances of the proposals, including factors such as site location, topography, expected duration of operations, and method of working.

R3.9

Protection of important minerals development sites is achieved through safeguarding minerals sites and areas of search for sand and gravel through Policy PR1 Protecting Important Resources and Appendix 14, Areas Safeguarded or Identified as Areas of Search for Minerals Development.

Table 7.3 Other Relevant Aberdeenshire Local Development Plan 2023 Policies

Policy Reference	Subject/Topic
Policy PR1	Protecting Important Resources
Policy P1	Layout, Siting and Design
Policy P4	Hazardous and Potentially Polluting Developments and Contaminated Land
Policy E1	Natural Heritage
Policy E2	Landscape
Policy HE1	Protecting Listed Buildings, Scheduled Monuments
	and Archaeological Sites (including other historic buildings)
Policy HE2	Protecting Historic, Cultural and Conservation Areas
Policy RD1	Providing Suitable Services

7.2 Planning Policy Position

The proposal is for a sand and gravel quarry to supply sand and gravel including sand of a quality suitable for the production of asphalt and ready mix concrete. Asphalt sand is a specific grading of sand used in the production of asphalt and is a rare product in the Aberdeenshire area. A key aspect of the proposal is the consideration of the need for the development with the need to maintain a 10 year landbank of sand and gravel. National Planning Framework Policy 33 and LDP policy R3 Minerals acknowledges this need. The recent planning decision at Muirtack (planning appeal reference: PPA-110-2398 granted 30 December 2020) acknowledged that the sand and gravel landbank in the Aberdeenshire region was likely to be below 10 years. No further significant sand and gravel resources have been given planning permission since this time.

It is proposed that a Planning Application Statement addressing the development plan and relevant material considerations will be presented as part of the supporting documentation to accompany the proposal.

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8 SUMMARY & CONCLUSIONS

A full range of environmental aspects relating to the development have been considered. The following topics are proposed to be scoped out of the EIA process as they are not likely to have significant environmental impacts:

- · Land and Soil Quality
- Transport, Recreation and Access

A Transport Statement and a scheme of road improvements will however be prepared to support the use of the B9002 and its junction with the A97 by HGV's.

Additionally, two topics are proposed to be scoped outwith the implementation of standard mitigation measures outlined in the individual sections, as these are not likely to have significant impacts. These are:

- Dust and Air Quality.
- Natural Resource Usage and Waste.

This approach has been taken in accordance with the 2017 Regulations to ensure the EIA focuses on the potential significant environmental risks and that the EIA Report is proportionate to the risk of the development. Mitigation measures outlined in these sections of the Scoping Report will be included in Schedule of Mitigation within the EIA Report to provide for successful implementation.

Focus of the EIA

The following topics are therefore proposed to be considered in detail in accordance with the scope of works identified in Section 5.0 above:

- Landscape and Visual Impacts
- Ecology
- Cultural Heritage
- Hydrology and Hydrogeology
- Noise



DRAWINGS



