

**THE TOWN AND COUNTRY PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND) REGULATIONS 2017  
SCOTTISH GOVERNMENT CIRCULAR 1/2017**

**RESPONSE OF SOUTH AYRSHIRE COUNCIL TO A REQUEST FOR A SCREENING OPINION SUBMITTED UNDER  
THE TOWN AND COUNTRY PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND) REGULATIONS 2017  
THE PROPOSED DEVELOPMENT SITE IS LOCATED AT AILSA CRAIG, SOUTH AYRSHIRE**

The proposal for which a screening opinion is sought is the winning of blue hone granite by means of extractive blasting on the island of Ailsa Craig, South Ayrshire. The proposed development site extends to approximately 0.288 hectares. The proposal represents Schedule 2 development, as defined in Regulation 2 of the above Regulations, on the basis it falls within category 2(a) of Schedule 2 to the Regulations and will take place within a 'sensitive area', in this case a Site of Special Scientific Interest (SSSI) and a Special Protection Area (SPA), under the EC Habitats and Birds Directive. Consequently, the proposal must be screened, to determine whether it constitutes 'EIA development', as defined in the Regulations, by dint of being likely to have significant effects on the environment.

This determination is referred to as a '**screening opinion**'. In each case, the basic question to be asked is: 'would this particular development be likely to have significant effects on the environment?'

For many types of development, perhaps the majority, it will be necessary to consider the characteristics of the development in combination with its proposed location in order to identify the potential for interactions between a development and its environment and, from that, determine whether there are likely to be significant environmental effects. In determining whether a particular development is likely to have such effects, the Council has taken account of the selection criteria in Schedule 3 to the Regulations (reproduced at Annex A to Circular 1/2017). Three categories of criteria are listed:-

- Characteristics of the development
- Location of the development
- Characteristics of the potential impact

Consideration of the third of these categories is designed to help in determining whether any interactions between the first two categories (i.e. between a development and its environment) are likely to be significant.

The content of this checklist meets the requirements of the Town and Country Planning (Environment Impact Assessment) (Scotland) Regulations 2017 – Schedule 3 selection criteria for screening Schedule 2 development.

|  | Yes/No | Briefly describe | Is effect likely to be significant? Significance should be considered in terms of the extent, transboundary nature, magnitude and complexity, probability, duration, frequency and reversibility of any impact(s). |
|--|--------|------------------|--|
| <b>1. Characteristics of development</b> |        |                  |  |

|  | Yes/No | Briefly describe   | Is effect likely to be significant? Significance should be considered in terms of the extent, transboundary nature, magnitude and complexity, probability, duration, frequency and reversibility of any impact(s).  |
|--|--------|--|---|
| <b>(a) Size and design of the development</b>  |        |  |   |
| Will the development be out of scale with the existing environment?  | No     | The red-line boundary encompassing the areas earmarked for extraction works is approx. 2880m <sup>2</sup> , representing a relatively minor proportion of the island's overall size.   | N/A   |
| Will it lead to further consequential development or works (e.g. new roads, extraction of aggregate, generation or transmission of power)? | Yes    | Potentially. Whilst the proposal involves the extraction of a finite quantity of blue hone granite (1000 tonnes) to meet what is assumed to be a correspondingly finite future demand for the end product (curling stones), how long the 1000-tonne yield will last in the context of what the applicant describes as a growing demand for Olympic standard curling stones is unspecified. However, from the comments made in the Screening Request that the world supply of stones of such a standard would be lost if the curling stone manufacturer "cannot continue to extract granite from Ailsa Craig" and that "Blue Hone and Common Green Granite...are only found on Ailsa Craig", it seems logical and reasonable to anticipate further extraction proposals in future, to replenish supply when the 1000-tonnes yield is exhausted. | Yes, in terms of the cumulative impact of irreversible, past and future periodic extraction resulting in loss of blue hone granite as a finite resource, the national importance of which is specifically recognised in the SSSI Citation and the maintenance and enhancement and avoidance of deterioration of which form part of the overall management objectives for the SSSI. Also, in terms of the incremental erosion of seabird nesting habitat and disturbance of the Island's internationally significant seabird assemblage caused by future extraction activity, including blasting, noise from drill rigs, diggers and generators and the movement of boats. In addition, possible incremental erosion of habitat for nationally significant blow fly and ground beetle populations from future periodic granite extraction. |
| <b>(b) Cumulation with other existing/approved development</b>   |        |  |   |
| Are there potential cumulative impacts with other existing development or for proposed development in the planning system?                 | No     | There are no developments ongoing on the Island, no extant consents and no applications under consideration. However, there is clear potential for cumulative impact with likely, future granite extraction to meet the growing demand for curling stones as set out above.  | Yes, in terms of the cumulative impact of irreversible, past and future periodic extraction resulting in loss of blue hone granite as a finite resource, the national importance of which is specifically recognised in the SSSI Citation and the maintenance and enhancement and avoidance of deterioration of which form part of the overall management objectives for the SSSI. Also, in   |

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|--|--------|---|---|
|  |        |   | terms of the incremental erosion of seabird nesting habitat and disturbance of the Island’s internationally significant seabird assemblage caused by future extraction activity, including blasting, noise from drill rigs, diggers and generators and the movement of boats. In addition, possible incremental erosion of habitat for nationally significant blow fly and ground beetle populations from future periodic granite extraction.   |
| Should the application for this development be regarded as an integral part of a more substantial project? If so, can related developments which are subject to separate applications proceed independently? | Yes    | The proposal involves the extraction of a finite quantity of blue hone granite (1000 tonnes) to meet what is assumed to be a correspondingly finite future demand for the end product (curling stones), how long the 1000-tonne yield will last in the context of what the applicant describes as a growing demand for Olympic standard curling stones is unspecified. Non-destructive granite harvests undertaken in 2002 and 2013 yielded 2000 and 2500 tonnes respectively, with the former quantity apparently sufficient for 11 years’ supply and the latter expected to last 10-12 years, viz. until 2025, yet from comments made in the Screening Request, it seems the curling stone manufacturer has already used up the stone collected from these harvests. The Screening Request also states the world supply of stones of such a standard would be lost if the curling stone manufacturer “cannot continue to extract granite from Ailsa Craig” and that “Blue Hone and Common Green Granite...are only found on Ailsa Craig”. Thus, it seems logical and reasonable to expect further granite extraction proposals in | Yes, in terms of the cumulative impact of irreversible, past and future periodic extraction resulting in loss of blue hone granite as a finite resource, the national importance of which is specifically recognised in the SSSI Citation and the maintenance and enhancement and avoidance of deterioration of which form part of the overall management objectives for the SSSI. Also, in terms of the incremental erosion of seabird nesting habitat and disturbance of the Island’s internationally significant seabird assemblage caused by future extraction activity, including blasting, noise from drill rigs, diggers and generators and the movement of boats. In addition, possible incremental erosion of habitat for nationally significant blow fly and ground beetle populations from future periodic granite extraction. |

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|   |        | future, to replenish supply when the 1000-tonnes yield from the current proposal is exhausted.   |   |
| <b>(c) Use of natural resources</b>   |        |  |   |
| <p>Will construction or operation of the development use natural resources i.e. land (especially undeveloped or agricultural land)?</p> <ul style="list-style-type: none"> <li>• water or fisheries?</li> <li>• minerals or aggregates?</li> <li>• agriculture, forests and timber?</li> <li>• energy including electricity and fuels?</li> <li>• any other resources?</li> </ul> | Yes    | The proposal represents consumption of a finite mineral resource, in the form of blue hone granite, which, according to the Screening Request, is only found on Ailsa Craig. The resource is of national importance, being specifically recognised in the SSSI Citation, the maintenance and enhancement and avoidance of deterioration of which form part of the overall management objectives for the SSSI. A proprietary chemical system will be used to break the rock. The plant to be used on site - generator, drill rig, digger - will consume various quantities of fuels and lubricants, which may have to be topped up in situ, as will the boat making return trips to transport the blocks won from the Island. | Yes, given consumption of the finite, nationally significant granite resource is both irreversible and falls to be considered as part of the wider, incremental erosion of that resource on Ailsa Craig, stemming from historical and likely future granite removal, the impact of which is correspondingly significant.<br>The energy consumed by plant and transport necessary to facilitate the development is unlikely to be environmentally significant. |
| <b>(d) Production of waste</b>  |        |  |   |
| Will the development produce wastes during construction or operation or decommissioning?  | Yes    | The proposed rock breaking process comprises a chemical propellant method. This process produces cartridges to be taken off site, but may also have by-products in the form of non-granite constituents of the blasted rock, subsoil and topsoil. The plant employed on site will produce fumes.   | Potentially, dependent upon the scale of the waste produced and how it is proposed to deal with it. Fumes from plant are unlikely to be environmentally significant.  |
| <b>(e) Pollution and nuisances</b>  |        |  |   |
| Will the development cause noise and vibration or release of leachates, light, heat energy or electromagnetic radiation during construction, operation or decommissioning?  | Yes    | This proposal is likely to cause substantial noise, vibration and disturbance, arising from the rock breaking process, drilling, operation of the digger   | The noise and vibration generated by the extraction operation may disturb the internationally important seabird assemblage on the Island, driving birds away  |

|  | Yes/No | Briefly describe   | Is effect likely to be significant? Significance should be considered in terms of the extent, transboundary nature, magnitude and complexity, probability, duration, frequency and reversibility of any impact(s).  |
|--|--------|--|---|
|  |        | and generator and the loading of the boat.<br>As the completeness of the propellant chemical reaction is unknown, there is potential for chemical by-product, leakage or spillage that may leach into the rock and the soil around the extraction areas. There is also potential for heat to be generated as a by-product of the chemical blasting process as well as the use of the plant.  | from the surrounding area. Any leachate could result in the destruction of seabird nesting habitat and the foraging habitat of the nationally important blow-fly and ground beetles.  |
| <b>(f) Risk of accidents, having regard in particular to substances technologies used</b>  |        |  |   |
| Will there be a risk of accidents during construction or operation of the development which could have effects on people or the environment?   | Yes    | There is potential for site personnel to be injured by falling rock stemming from error in the rock breaking process or from chemical/fuel spillages. Also, error in the rock breaking process, leachates or chemical/fuel spillages could result in habitat damage or loss.   | The risk of accidents occurring to personnel and the environment is unlikely to be high, assuming extraction operations are conducted in accordance with industry standards, though, if an accident does happen, the effects on the environment could be significant, in terms of loss of or damage to seabird and insect habitats. |
| <b>(g) Risks to human health</b>   |        |  |   |
| Will construction or operation of the development give rise to risks to human health, for example due to: <ul style="list-style-type: none"> <li>• water contamination?</li> <li>• Air pollution?</li> </ul> | Yes    | Potential for site personnel to be injured by falling rock stemming from error in the rock breaking process or from chemical/fuel spillages. Potential for chemical leachate or spillage into soil or sea. Human presence on the Island is intermittent and short term, with occasional visits being made for natural heritage research or tourism purposes. The only dwellings are the lighthouse cottages, 700 metres to the south-east of the extraction site, which are only thought to be occupied on an occasional, sporadic basis by researchers. | Assuming extraction operations are conducted in accordance with industry standards, the risk is likely to be low. If a chemical leakage or spillage does occur, the impact on human health is likely to be low as the Island is uninhabited most of the time, with an occasional human presence for research or tourism purposes.   |
| <b>2. Location of the Development</b>  |        |  |   |
| <b>(a) Existing and approved land use</b>  |        |  |   |

|   | Yes/No | Briefly describe   | Is effect likely to be significant? Significance should be considered in terms of the extent, transboundary nature, magnitude and complexity, probability, duration, frequency and reversibility of any impact(s).   |
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| Are there existing land uses on or around the location which could be affected by the development, e.g. undeveloped land, greenfield land, homes, other private property, industry, commerce, tourism and recreation, public open space, community facilities, agriculture, forestry, tourism, water catchments, functional floodplains, mining or quarrying? | Yes.   | The proposal involves the irreversible loss of a finite resource in the form of blue hone granite, which is of national importance. A public path runs along the eastern side of the Island, through the extraction area, to the industrial archaeology of the northern foghorn. It is likely this path will be closed temporarily for the duration of extraction operation. The only dwellings on the Island are the lighthouse cottages, 700 metres to the south-east of the extraction site, which are only thought to be occupied on an occasional, sporadic basis by researchers. | Yes, given the proposed consumption of the finite, nationally significant blue hone granite resource will be irreversible and contribute to the wider, incremental erosion of that resource on Ailsa Craig, stemming from historical and likely future granite removal. Impact of the proposal on homes, public access and tourism will not be significant, given human presence on the Island is intermittent, sporadic and short-term.   |
| <b>(b) Relative abundance, quality and regenerative capacity of natural resources in the area / underground</b>   |        |  |  |
| Are there any areas on or around the location which contain important, high quality or scarce resources which could be affected by the development?   | Yes    | As an SPA and SSSI, the Island is of international and national significance for its seabird assemblage and of national significance for blow-fly and ground beetles. The finite supply of blue hone granite on the Island is of national significance.  | Yes, given consumption of the finite, nationally significant blue hone granite resource - the maintenance and enhancement and avoidance of deterioration of which form part of the overall management objectives for the SSSI - will be irreversible and contribute to the wider, incremental erosion of that resource on Ailsa Craig, arising from historical and likely future granite removal. Also, in terms of the incremental erosion of seabird nesting habitat and disturbance of the Island's internationally significant seabird assemblage caused by past, present and future extraction activity, including blasting, noise from drill rigs, diggers and generators and the movement of boats. In addition, possible incremental erosion of habitat for nationally significant blow fly and ground beetle populations from the proposed and future, periodic granite extraction. |

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| <b>(c) Absorption capacity of the natural environment</b>   |        |   |   |
| Are there any areas on or around the location which are protected under international or national or local legislation for their ecological, landscape and visual, cultural or other value, which could be affected by the development? Particular attention should be paid to wetlands, watercourses or other waterbodies, the coastal zone, mountains, forests or woodlands, nature reserves and parks. | Yes    | As set out above, the entire island of Ailsa Craig is designated as an SPA because it supports gannet and lesser black-backed gull populations of European significance and a large assemblage of seabirds, including nationally significant populations of guillemot, kittiwake and herring gull. With the exception of the lighthouse and cottages, it is also designated as an SSSI for its (1) nationally important geological interest as a plug of microgranite of Palaeogene age; (2) large colony of seabirds, including a nationally important population of gannets; and (3) rare invertebrates, notably blow-fly and ground beetles. The entire Island is designated as a candidate Local Landscape Area in the Proposed Replacement South Ayrshire Local Development Plan, which has been approved for publication and public consultation by South Ayrshire Council. | Yes, given consumption of the finite, nationally significant blue hone granite resource - the maintenance and enhancement and avoidance of deterioration of which form part of the overall management objectives for the SSSI - will be irreversible and contribute to the wider, incremental erosion of that resource on Ailsa Craig, arising from historical and likely future granite removal. Also, in terms of the incremental erosion of seabird nesting habitat and disturbance of the Island's internationally significant seabird assemblage - the maintenance and avoidance of disturbance to which are specific conservation and management objectives of both the SPA and SSSI designations - caused by past, present and future extraction activity, including blasting, noise from drill rigs, diggers and generators and the movement of boats. In addition, possible incremental erosion of habitat and disturbance of nationally significant blow fly and ground beetle populations - the maintenance of suitable support conditions for which is a specific management objective of the SSSI - from the proposed and future, periodic granite extraction. |
| Are there any groundwater source protection zones or areas that contribute to the recharge of groundwater resources?  | No     | Not so far as the Council is aware.   |   |
| Are there protected species in or around the location, for example European Protected Species, which could be affected?   | Yes    | As stated above, the Island is designated as an SPA under the EC Habitats & Birds Directive, because it supports gannet and lesser black-backed gull populations of European significance and a large assemblage of seabirds, including nationally significant populations of guillemot,  | Yes, in terms of the incremental erosion of seabird nesting habitat and disturbance of the Island's internationally significant seabird assemblage - the maintenance and avoidance of disturbance to which are specific conservation and management objectives of both the SPA and SSSI designations - caused by  |

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|   |        | kittiwake and herring gull. The vast majority of the Island is also designated as an SSSI for its large colony of seabirds, including a nationally important population of gannets and rare invertebrates, notably blow-fly and ground beetles.   | past, present and future extraction activity, including blasting, noise from drill rigs, diggers and generators and the movement of boats. In addition, possible incremental erosion of habitat and disturbance of nationally significant blow fly and ground beetle populations - the maintenance of suitable support conditions for which is a specific management objective of the SSSI - from the proposed and future, periodic granite extraction. |
| Are there any routes or facilities on or around the location which are used by the public for access to recreation or other facilities, which could be affected?                                      | Yes    | A public path runs along the eastern side of the Island, through the extraction site, to the industrial archaeology of the northern foghorn.  | No. Human presence on the Island is intermittent, sporadic and short-term, so use of the path is extremely limited.   |
| Are there any areas or features of historic or cultural importance on or around the location which could be affected?   | Yes    | Ailsa Craig Castle and the lighthouse, keepers' cottages and foghorn on the south-east side of the Island are listed at Category B. There are 3 archaeology trigger areas on the south-east and south-west of the Island, as well as industrial archaeology in the form of foghorns at its northern and southern tips and the track of a disused mineral railway at its south-eastern edge. The Island is a candidate Local Landscape Area in the Proposed Replacement South Ayrshire Local Development Plan. | No. Given the extraction site is situated well away from the listed buildings and areas of archaeology interest and relatively small in extent, the proposal is unlikely to exert any adverse impact on the historic environment of the Island or its landscape character and quality.  |
| Are there any areas on or around the location which are already subject to pollution or environmental damage e.g. where existing legal environmental standards are exceeded, which could be affected? | No     | Not so far as the Council is aware  |   |
| Is the development in a location where it is likely to be highly visible to many people?  | No     | Human presence on the island is intermittent, sporadic and short term. Also, the extraction site would not be visible from the lighthouse keepers' cottages.  |   |

|   | Yes/No | Briefly describe | Is effect likely to be significant? Significance should be considered in terms of the extent, transboundary nature, magnitude and complexity, probability, duration, frequency and reversibility of any impact(s). |
|---|--------|------------------|--|
| Is the location of the development susceptible to earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions which could cause the development to present environmental problems? | No     |                  |  |

**Conclusions**

The checklist is a useful tool for the purposes of identifying a wide range of environmental receptors which could variously be affected by proposed development. The main effects of greatest concern considered to arise from the checklist are:

- Impact on nesting seabirds (gannets, gulls, shags eiders and the general seabird assemblage supported by the Island) - whose international and national significance is recognised by specific reference in the Citations for the Ailsa Craig Special Protection Area (the SPA) and Site of Special Scientific Interest (the SSSI), and the maintenance and avoidance of disturbance to which are specific conservation and management objectives of both designations - through destruction or loss of nesting habitat resulting from the extraction operations.
- Disturbance of roosting and foraging seabirds, the avoidance of disturbance to which is a specific conservation and management objective of both the SPA and the SSSI, due to noise and vibration from blasting, drill rig and digger activity.
- Irreversible loss of blue hone (micro) granite, a finite resource, the national importance of which is specifically recognised in the SSSI Citation and the maintenance and enhancement and avoidance of deterioration of which form part of the overall management objectives for the SSSI. The specific SSSI management objective for the geological interest of the island states that. “Any future quarrying activities would need to ensure there were no adverse impacts on the breeding birds and geological feature.”
- Impacts on blow fly and a species of ground beetle, the national importance of which are recognised in the SSSI Citation and the maintenance of suitable support conditions for which is a specific management objective of the SSSI, through the loss of both insect and seabird habitat, resulting in reduced blow fly food supply (carrion), and disturbance caused by the extraction operations.
- Cumulative adverse impacts on all of the above, due to the further extraction of granite that will, inevitably, be desired to meet growing demand, when the 1000-tonne yield from the current proposal is exhausted. Previous granite harvests in 2002 and 2013 garnered 2000 tonnes and 2500 tonnes of granite respectively, with the former lasting apparently until 2013 and the latter apparently likely to be exhausted relatively soon, given the current proposal.

From the assessment undertaken in accordance with the Regulations and Circular 1/2017, and on the basis of the information supplied and the particular sensitivities of Ailsa Craig (the entire island and an area of surrounding sea is designated as a Special Protection Area under the EC Habitats Directive, virtually the entire island is protected by an SSSI designation, and it is a candidate Local Landscape Area in PLDP2), the Council concludes the proposed development at Ailsa Craig, South Ayrshire, as shown on the map below, is likely to have significant effects on the environment, by virtue of its nature and

location, that need to be addressed in an EIA Report, to determine whether they are acceptable and can be mitigated successfully. Therefore, the Council is of the opinion **the proposed development qualifies as 'EIA development'**, as defined in Section 2 of the Regulations.

As well as addressing the environmental impacts referred to above, the Council – without prejudice to the procedure and Opinion/s arising from any subsequent scoping request/s as may be requested by the proposer under Regulation 17 – expects the EIA report to contain the following information:

1. The manufacturing company's long-term plan for granite extraction on Ailsa Craig;
2. How long the 1000-tonne granite yield is expected to last, within the context of the growing demand for championship and Olympic standard curling stones;
3. The site management arrangements for the proposed extraction works, such as the provision of accommodation and mess facilities for workers, the sanitary arrangements, details of any works required to facilitate the landing or loading of the boat, whether protective fencing or any other measures under the Quarry Regulations will be required;
4. Methodology for operation of the plant to be employed in the extraction, setting out, in particular, whether a wider area of land will be occupied to accommodate facilities and the drill rig, generator and digger whilst blasting is taking place;
5. Why 2 extraction events are needed, at 2 different times, October and the following February, rather than 1 longer event or 2 events in successive Octobers? Why February has been selected as a time for 1 of the events when birds might be prospecting for nesting sites at that time?
6. Proposals for restoring the extraction areas, on completion of the works, specifically whether the site will be restored as nesting habitat and whether the path surface will be restored, if necessary;
7. Clarification of what is meant in the Screening Request by "additional time is covered here in case of poor weather, limited daylight and granite formation." What is the estimated extent of the additional time?



