



The Planning Inspectorate
Yr Arolygiaeth Gynllunio

SCOPING OPINION

Proposed Moorside Development



August 2015

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EXECUTIVE SUMMARY

This is the Scoping Opinion (the Opinion) provided by the Secretary of State in respect of the content of the Environmental Statement for the proposed Moorside Development project.

This report sets out the Secretary of State's Opinion on the basis of the information provided in NuGeneration Limited's ('the applicant') report entitled Environmental Impact Assessment - Scoping Report (May 2015) ('the Scoping Report') prepared by AMEC Environment & Infrastructure UK Ltd on behalf of the applicant. The Opinion can only reflect the proposals as currently described by the applicant.

The Secretary of State has consulted on the Scoping Report and the responses received have been taken into account in adopting this Opinion. The Secretary of State is satisfied that the topic areas identified in the Scoping Report encompass those matters identified in Schedule 4, Part 1, paragraph 19 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended).

The Secretary of State draws attention both to the general points and those made in respect of each of the specialist topic areas in this Opinion. The main potential issues identified are:

- Uncertainty about the description of the development, particularly the associated development
- Effects on the transport system during construction and operation
- Effects on the setting of the Lake District National Park
- Effects on the marine environment
- Effects on the freshwater environment including effects on groundwater, management of flood risk and sources of fresh water for the project
- Effects on designated wildlife sites and legally protected species
- Consideration of cumulative and inter-related effects

Matters are not scoped out unless specifically addressed and justified by the applicant, and confirmed as being scoped out by the Secretary of State.

The Secretary of State notes the need to carry out an assessment under the Habitats Regulations¹.

¹ The Conservation of Habitats and Species Regulations 2010 (as amended)

1 INTRODUCTION

Background

- 1.1 On 25 June 2015, the Secretary of State received the Scoping Report submitted under Regulation 8 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (SI 2263) (as amended) ('the EIA Regulations') in order to request a scoping opinion for the proposed Moorside Development ('the proposed development'). This Opinion is made in response to this request and should be read in conjunction with the applicant's Scoping Report.
- 1.2 The applicant has formally provided notification under Regulation 6(1)(b) of the EIA Regulations in its letter dated 24 April 2015 that it proposes to provide an ES in respect of the proposed development. Therefore, in accordance with Regulation 4(2)(a) of the EIA Regulations, the proposed development is determined to be EIA development.
- 1.3 The EIA Regulations enable an applicant, before making an application for an order granting development consent, to ask the Secretary of State to state in writing their formal opinion (a 'scoping opinion') on the information to be provided in the environmental statement (ES).
- 1.4 Before adopting a scoping opinion the Secretary of State must take into account:
 - (a) the specific characteristics of the particular development;
 - (b) the specific characteristics of the development of the type concerned; and
 - (c) environmental features likely to be affected by the development'.
(EIA Regulation 8(9))
- 1.5 This Opinion sets out what information the Secretary of State considers should be included in the ES for the proposed development. The Opinion has taken account of:
 - the EIA Regulations
 - the nature and scale of the proposed development
 - the nature of the receiving environment, and
 - current best practice in the preparation of environmental statements.
- 1.6 The Secretary of State has also taken account of the responses received from the statutory consultees (see Appendix 2 of this Opinion). The matters addressed by the applicant have been carefully considered and use has been made of professional

judgement and experience in order to adopt this Opinion. It should be noted that when it comes to consider the ES, the Secretary of State will take account of relevant legislation and guidelines (as appropriate). The Secretary of State will not be precluded from requiring additional information if it is considered necessary in connection with the ES submitted with that application when considering the application for a development consent order (DCO).

- 1.7 This Opinion should not be construed as implying that the Secretary of State agrees with the information or comments provided by the applicant in their request for an opinion from the Secretary of State. In particular, comments from the Secretary of State in this Opinion are without prejudice to any decision taken by the Secretary of State (on submission of the application) that any development identified by the applicant is necessarily to be treated as part of a nationally significant infrastructure project (NSIP), or associated development, or development that does not require development consent.
- 1.8 Regulation 8(3) of the EIA Regulations states that a request for a scoping opinion must include:
- (a) 'a plan sufficient to identify the land;
 - (b) a brief description of the nature and purpose of the development and of its possible effects on the environment; and
 - (c) such other information or representations as the person making the request may wish to provide or make'.
- (EIA Regulation 8 (3))
- 1.9 The Secretary of State considers that this has been provided in the applicant's Scoping Report.

The Secretary of State's Consultation

- 1.10 The Secretary of State has a duty under Regulation 8(6) of the EIA Regulations to consult widely before adopting a scoping opinion. A full list of the consultation bodies is provided at Appendix 1. A list has also been compiled by the Secretary of State under their duty to notify the consultation bodies in accordance with Regulation 9(1)(a). The applicant should note that whilst the Secretary of State's list can inform their consultation, it should not be relied upon for that purpose.
- 1.11 The list of respondents who replied within the statutory timeframe and whose comments have been taken into account in the preparation of this Opinion is provided at Appendix 2 along with copies of their comments, to which the applicant should refer in undertaking the EIA.

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- 1.12 The ES submitted by the applicant should demonstrate consideration of the points raised by the consultation bodies. It is recommended that a table is provided in the ES summarising the scoping responses from the consultation bodies and how they are, or are not, addressed in the ES.
- 1.13 Any consultation responses received after the statutory deadline for receipt of comments will not be taken into account within this Opinion. Late responses will be forwarded to the applicant and will be made available on our website. The applicant should also give due consideration to those comments in carrying out the EIA.

Structure of the Document

- 1.14 This Opinion is structured as follows:
- | | |
|-----------|------------------------------|
| Section 1 | Introduction |
| Section 2 | The proposed development |
| Section 3 | EIA approach and topic areas |
| Section 4 | Other information. |
- 1.15 This Opinion is accompanied by the following Appendices:
- | | |
|------------|---|
| Appendix 1 | List of consultees |
| Appendix 2 | Respondents to consultation and copies of replies |
| Appendix 3 | Presentation of the environmental statement. |

2 THE PROPOSED DEVELOPMENT

Introduction

2.1 The following is a summary of the information on the proposed development and its site and surroundings prepared by the applicant and included in their Scoping Report. This comprises:

- Volume 1: Main text and associated appendices
- Volume 2: Figures
- Volume 3: Survey and monitoring plans

2.2 The information within these documents has not been verified and it has been assumed that the information provided reflects the existing knowledge of the proposed development and the potential receptors/resources.

The Applicant's Information

Overview of the proposed development

2.3 The proposed development comprises a new nuclear power station on land adjacent to the existing Sellafield Complex within the local authority area of Copeland in Cumbria. The power station will be capable of generating 3.6 (electrical) gigawatts (GW) and supplying up to 3.4 GW of electricity to the network.

2.4 The power station and its associated development are referred to collectively in the Scoping Report as the Moorside Project. The land (excluding the associated development) which may be required for construction of the power station is referred to as the Moorside Search Area. The Search Area has been subdivided into three areas, as shown in Figure 1.4 of the Scoping Report:

- Initial scoping land: initially identified in 2014 to enable baseline data collection, surveys and investigations to be commenced.
- Additional scoping land: identified as land which may be required for power station construction activities and environmental mitigation.
- Indicative marine infrastructure area (see Figure 1.4): which includes the locations of a Marine Off-loading Facility (MOLF) and cooling water infrastructure.

2.5 Potential associated development Sites are identified on Figure 1.5 of the Scoping Report. These are the areas where temporary construction worker accommodation and associated amenity facilities may be located.

Description of the site and surrounding area

The Application Site

- 2.6 The Moorside Search Area comprises a land area of approximately 552 hectares (ha) and a sea area of approximately 2,074 ha. It is estimated by the applicant that the land required to accommodate the generating elements of the power station within this area would be approximately 200 ha.
- 2.7 The Search Area is bordered by the A595 to the east, the Sellafield Complex to the south, the sea to the west, with agricultural land and the village of Beckermat to the north. The south-western boundary is marked by the Cumbrian Coast Rail Line.
- 2.8 The Search Area is divided in two by a disused railway embankment which runs from its southern to northern boundaries. To the west of the railway the land is flat and low-lying at or close to sea level and within the River Ehen floodplain. To the east of the line the land is undulating and includes a number of farmsteads and clusters of built development and local access roads, as well as farmland.
- 2.9 Part of the Search Area is located within the Cumbria Coast Marine Conservation Zone (MCZ). Part of Low Church Moss Site of Special Scientific Interest (SSSI) lies within the Area.
- 2.10 Preliminary ecological surveys have identified records of, or the potential for, various protected and notable species to be present within the Search Area. These include bats, otter, water vole, great crested newt, reptiles, natterjack toad, red squirrel, breeding and non-breeding birds and badgers.
- 2.11 Other notable aspects of the Search Area include:
- Small ponds, drainage ditches, becks, buried channels and principal/secondary aquifers
 - Areas of high flood risk
 - Agricultural land classified as Grade 3 (good to moderate) quality and Grade 4 (poor)
 - A potential historical landfill, potential infilled sand pits, naturally occurring peat deposits, groundwater flows from the Sellafield Complex and Made Ground, some of which is made up of Royal Ordnance Factory site debris
 - A radio mast and overhead powerlines
 - Public Rights of Way (PROW) and National Cycle Routes.
- 2.12 The potential associated development Sites (details of which are described below) are located to the north of the Moorside Search Area, as illustrated on Figure 1.5 of the Scoping Report. All of the sites are within or adjacent to existing residential areas and are

near to foot and/or cycle paths as well various local amenities. They are:

- **Corkickle** (Site AD A): mainly used for organised sports activity but with some land used for low quality grazing and some that appears to be abandoned. Pow Beck runs through the centre of the site and much of it is located in Flood Zones 2 or 3. National Cycle Route (NCR) 72 runs along the disused railway line through the site. The Scoping Report suggests some allotments may be present. It would be connected to the Search Area by an existing rail station.
- **South Whitehaven (Mirehouse)** (Site AD B): primarily in agricultural use. There is also a public footpath, a short length of unclassified county road and a section of NCR 72 along a section of disused railway. It would be connected to the Search Area by a new temporary rail station.
- **Cleator Moor South** (Site AD C): primarily in agricultural use. It would be connected to the Search Area by a bespoke coach service.
- **Cleator Moor North** (Site AD D): primarily in agricultural use. It is crossed by a public footpath and contains a Millennium Green. It is partly situated within the flood plain of the River Ehen. The Scoping Report suggests that other land uses may include formalised sport activities and allotments. It would be connected to the Search Area by a bespoke coach service.
- **Egremont East/North** (Site AD E): agricultural land, with no provision for countryside recreation. It would be connected to the Search Area by a bespoke coach service.
- **Egremont East/South** (Site AD F): primarily in agricultural use, but also contains a public footpath and NCR 72. It would be connected to the Search Area by a bespoke coach service.
- **Egremont Gulley Flats** (Site AD G): primarily in agricultural use, but also contains a public footpath, a permissive path (created under an agri-environment scheme) and a section of disused railway. It is partly within the flood plain of the River Ehen. It would be connected to the Search Area by a bespoke coach service.

The Surrounding Area

- 2.13 The surrounding area is characterised by the existing Sellafeld Complex to the south and various small settlements and agricultural land around the remainder of the site. The larger settlement of Whitehaven lies approximately 14km to the north west of the Search Area. Beyond this the A595 provides links to Carlisle (and M6 junctions 42/43/44) via Workington to the north and Barrow-in-Furness, M6 junction 36 and Lancaster to the south.

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- 2.14 At its closest point the boundary of the Lake District National Park appears to run within 1 - 2km of the Search Area boundary. The Scoping Report states that the proposed power station is likely to be visible from higher points in the western part of the national park.
- 2.15 Landscape designations within the surrounding area include St Bees Heritage Coast which is approximately 10km north west of the Search Area. Parts of the Search Area and associated development site are within 'Landscapes of County Importance'.
- 2.16 Ecological sites within the surrounding area include the following European sites:
- River Ehen SAC
 - Drigg Coast Special Area of Conservation (SAC)
 - River Derwent and Bassenthwaite Lake SAC
 - Solway SAC
 - Upper Solway Flats and Marshes Special Protection Area (SPA) and Ramsar site
 - River Eden SAC
 - Lake District High Fells SAC
 - Wastwater SAC.
- 2.17 Other ecological features include:
- Five Marine Conservation Zones (MCZ) (declared or recommended)
 - 23 Sites of Special Scientific Interest (SSSIs) lie on or within 15km of the Search Area
 - Halsenna Moor National Nature Reserve
 - County Wildlife sites (CWS)
 - Local Nature Reserves
 - Sites of Invertebrate Significance (SIS)
 - Ancient woodland
- 2.18 Other designations identified in the Scoping Report are:
- Scheduled monuments and listed buildings
 - Muncaster Castle Registered Park and Garden
 - Principal, Secondary A and Secondary B aquifers
 - Flood Zones 2 & 3.

Alternatives

- 2.19 Section 2.5 of the Scoping Report describes the main alternatives for the proposed development that have been considered. In terms of alternative sites for the nuclear power station it states that consideration of alternative sites for the nuclear power station element of the development was not appropriate due to the inclusion of the adjacent Sellafield site in National Policy

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Statement EN-6 as one of the key sites for such development. In terms of the design of the power station itself technical requirements of nuclear reactor design means that the configuration of certain buildings is fixed.

2.20 Alternatives are being considered for:

- Cooling systems including the possible provision of auxiliary cooling towers
- The layout and design of ancillary buildings and structures
- The temporary and permanent arrangements for the placement and landforming of soils, the distribution of construction activities and land restoration proposals.
- The location, function and design of the proposed MOLF and associated development (AD).
- Arrangements for the transportation of workers, equipment, plant and materials to and from the Moorside Search Area and the AD sites during construction.
- The availability of existing infrastructure with the appropriate capacity and capability for enhancement (as an alternative to new build)
- Locations for park and ride/rail facilities, freight sequencing/consolidation and port infrastructure.

2.21 The Scoping Report states that decisions on the selection of preferred alternatives will be influenced by operational, safety, environmental and economic considerations, as well as consultation responses.

Description of the proposed development

Moorside Search Area

2.22 The power station element of the development will include three AP1000 nuclear reactors, each with a pressurised water reactor (PWR) design. Each reactor will include a 'nuclear island' which will contain:

- A steel containment vessel (which houses the reactor)
- A concrete shield building that surrounds the containment vessel
- An auxiliary building which houses the main control room
- A fuel and spent fuel handling area
- Liquid and gas radiological waste areas
- A main stack (chimney) for controlled discharges to the atmosphere
- Safety equipment.

2.23 Other buildings associated with each reactor include:

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- A turbine building which houses the main turbine and generator
 - An annex building which serves as the main personnel access to the power generation complex
 - A diesel generator building which houses two back-up diesel generators
 - A building which contains facilities for solid radiological waste storage, processing and containment.
- 2.24 Cooling water for the power station is proposed be drawn from the Irish Sea via an intake structure (or structures) mounted on the sea bed. The water would then be conveyed via a tunnel (or tunnels) under the sea bed to the power station via a forebay structure (a large balancing tank). A pumping station would be used to overcome the head difference.
- 2.25 Cooling water would be returned to the sea via a dedicated outfall tunnel, located under the seabed. It is likely to be within 2 to 6 km offshore, but sufficiently far from the intake(s) to prevent recirculation of the returned cooling water. The Scoping Report states that it is anticipated that cooling water demand will result in the intake and discharge of approximately 45 cubic metres per second (cumecs) of water per reactor. The three reactors will generate a total demand of approximately 150 cumecs, which will be discharged into the marine environment.
- 2.26 The Scoping Report states that a range of process effluents and surface water drainage from the operational power station are also likely to be discharged into the sea with the cooling water.
- 2.27 A Marine Offloading Facility (MOLF) would be constructed for the delivery of large components and possibly for bulk construction materials and large items of plant. Its location has yet to be determined but is proposed to be within the area of overlap between the initial scoping land and the 'indicative marine infrastructure area' (see Figure 1.4 of the Scoping Report). Its design will allow access for both roll-on/roll-off vessels and conventional barges and it may therefore extend across the intertidal zone into the nearshore marine environment.
- 2.28 The Moorside Search Area will also include the following:
- Electricity transmission infrastructure (including substation);
 - Landscaped and ecological areas;
 - Surface water and foul sewer drainage systems;
 - Main access arrangements (including security control facility); and
 - Visitor Centre.

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- 2.29 The likely characteristics of these components (or their locations) are not described in the Scoping Report.

Additional Scoping Land

- 2.30 Details concerning the spatial extent and scope of works within the additional scoping land are yet to be confirmed (as they are subject to ongoing project design and consultation), although they are likely to include:

- Management of excavated soils (with soils arising primarily from within the initial scoping land);
- Temporary activities that may need to be undertaken to support the construction of the proposed Moorside Power Station works;
- Environmental mitigation works such as landforming and landscaping; and
- Vehicle movements during construction and operation.

- 2.31 Baseline survey work and investigations to refine the scope of the assessment for the additional scoping land will be initiated in late Spring/early Summer 2015. This work will build on any data that has already been collected for the initial scoping land, where relevant.

Associated development sites

- 2.32 The proposed associated development will provide the infrastructure and facilities needed to support the construction of the power station. Seven land parcels identified for construction worker accommodation (see Paragraph 2.12 above) have been subject to initial EIA scoping by the applicant, although it is possible that not all of the parcels would be developed.
- 2.33 The Scoping Report refers to other potential associated development which is still under consideration by the applicant. The associated development comprises, park and ride/rail facilities, freight sequencing/consolidation, port infrastructure and a new rail spur. A construction workforce accommodation strategy and transport strategy are also being prepared. The development requirements and precise location, layout and land use for these components have not yet been determined so they have not been included in the Scoping Report. Paragraph 2.4.3 of the Report states that the scope of the EIA for these components will be discussed with relevant stakeholders once their need has been determined. The same approach is proposed in respect of the required improvements to the local road and rail networks to support the construction and operation of the Moorside Project.

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- 2.34 The exact location, layout and detailed land use proposals for each of the associated development sites described in the Scoping Report have yet to be determined.
- 2.35 At each of the associated development sites, and where possible, opportunities will be explored for potential 'legacy' benefit (i.e. the potential to use the development elements for other purposes once they are no longer required for the Moorside Project).

Proposed access

- 2.36 Limited information on the proposed access arrangements for the Moorside Project is provided in the Scoping Report. Current proposals include a new rail spur linking to the Cumbria Coast Railway line to transport workers and materials to the site during construction.
- 2.37 Paragraph 4.1.2 of the Scoping Report states that a Transport Strategy and a supporting Access and Movement Plan for the construction and operational phases are to be developed. The Transport Strategy will include details of the movement of people and materials during both phases, together with details of the mitigation measures proposed to address potential significant adverse effects. The Access and Movement Plan will seek to maximise sustainable travel opportunities for construction workers and operational site employees to minimise the effect of additional commuting trips on the highway network.
- 2.38 The associated development site at South Whitehaven would be connected to the Moorside Search Area through a new temporary rail station. At the Corkickle site the connection would utilise an existing rail station, whilst the sites at Cleator Moor and Egremont would be served by a bespoke coach service.

Construction

- 2.39 Detailed information on the likely characteristics of the construction phase of development is not provided in the Scoping Report. The Report explains however that the works would include permanent remodelling of the site to provide a development platform and to accommodate soil generated during site preparation and construction work. This could involve the earthworks and excavation of in excess of 10 million cubic metres of material, although this will depend upon the elevation of the chosen development platform, which is envisaged between 15-20m AOD. The works would also include extensive dewatering.
- 2.40 Excavation work would commence in 2019/2020. This would be followed by creation of the nuclear island and tunnelling for the cooling water intake/outfall. Other further works would then

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enable the loading of the first reactor (Unit 1) with nuclear fuel in the first half of 2024, with commercial operation by the end of the same year. Construction work would continue on Units 2 and 3 in parallel to the operation of Unit 1. Once Unit 2 is operational in 2025, its operation and the construction of Unit 3 would occur in parallel; Unit 3 would be operational by the end of 2026.

- 2.41 Abnormal Indivisible Loads (AILs) would be required to deliver some of the pre-assembled off site components of the power station. These could be transferred by road, rail or sea but the applicant anticipates that a significant proportion of the AILs would arrive via the proposed MOLF. A significant proportion of the bulk construction materials required would also be delivered by rail. Any loads to be delivered by road would be managed in order to reduce the number of vehicles movements on the network.
- 2.42 During its peak in the construction phase it is estimated that approximately 6,000 workers will be required on site. The applicant's stated intention is to maximise the use of rail for transporting workers to the site to reduce demand on the highway network.
- 2.43 The areas used temporarily during construction would be restored to agricultural, biodiversity and recreational uses once works are complete.
- 2.44 The Scoping Report does not include any information on the construction of the associated development.

Operation and maintenance

- 2.45 Approximately 1,000 staff would be required during operation of the power station. It is likely that additional personnel would be required periodically during outage events (e.g. during reactor refuelling and routine maintenance work for operational efficiency and plant safety).
- 2.46 The likely personnel requirements for the associated development sites are not described in the Scoping Report.

Decommissioning

- 2.47 It is proposed that decommissioning of the power station would not be considered in the ES on the basis that it will be occurring in approximately 60 years when baseline conditions and decommissioning methods may be substantially different. An ES would be prepared for the decommissioning works closer to the time, in accordance with the relevant regulatory requirements. An assessment of the decommissioning of the associated development would be included in the ES.

The Secretary of State's Comments

Description of the application site and surrounding area

- 2.48 The Secretary of State requests that the ES should include a section that describes the characteristics of the site and surroundings for both the Search Area and all the associated development. This should provide the context for the proposed development and identify any relevant designations and sensitive receptors that could be affected by the proposed development as well as any associated auxiliary facilities, landscaping areas, and potential off-site mitigation or compensation schemes.
- 2.49 More detailed information on the environmental baseline conditions used in the assessment should be described in the individual technical assessment chapters. The Secretary of State advises that the environmental baseline for the Search Area should integrate the baseline information for the initial scoping land and the additional scoping land. It will be very difficult for the decision maker to understand the likely effects resulting from the project unless a consistent baseline has been used for the Search Area.
- 2.50 The Secretary of State welcomes the use of figures in the Scoping Report to support the description of the application site and surrounding area. For the avoidance of doubt, the following approach is recommended:
- A single red line plan should be provided to illustrate all land affected by the proposed works, including all temporary works, such as construction compounds, access roads and storage areas;
 - All figures should be provided at a high resolution and be clear and legible, including the base map. Should any files be excessively large it would be appropriate to also submit lower resolution versions to facilitate easier downloading from our website.
 - All features on figures should be clearly labelled, identifying not only the location of certain designations, but also the specific name (e.g. 'Drigg Coast SAC').
- 2.51 The study area for the applicant's ES should extend to consideration of likely transport routes and disposal sites, once this information becomes available. Specific comments in relation to study areas are highlighted within the Secretary of State's comments on topic areas below.

- 2.52 Paragraph numbering should be used throughout the ES for ease of cross referencing. Figure numbers should also be simplified for ease of cross referencing.

Description of the proposed development

- 2.53 The applicant should ensure that the description of the proposed development that is being applied for is as accurate and firm as possible as this will form the basis of the environmental impact assessment. It is understood that at this stage in the evolution of the proposed development the description of the proposals and even the location of the site may not be confirmed. The applicant should be aware however, that the description of the development in the ES must be sufficiently certain to meet the requirements of paragraph 17 of Schedule 4 Part 1 of the EIA Regulations and there should be more certainty by the time the ES is submitted with the application.
- 2.54 The Secretary of State notes that the Scoping Report provides limited information on the likely characteristics of many of the project elements. This has made it difficult for the Secretary of State and consultees to comment appropriately in terms of scoping. The Secretary of State recommends that the applicant should consider carefully how the scope of the assessments should be refined once greater detail is available. It is advised that it will be essential to ensure ongoing consultation with relevant bodies as part of an iterative process.
- 2.55 If a draft DCO is to be submitted, the applicant should clearly define what elements of the proposed development are integral to the NSIP and which are 'associated development' under the Planning Act 2008 (PA 2008) or is an ancillary matter. Associated development is defined in the Planning Act as development which is associated with the principal development. Guidance on associated development can be found in the DCLG publication 'Planning Act 2008: Guidance on associated development applications for major infrastructure projects'.
- 2.56 Any proposed works and/or infrastructure required as associated development, or as an ancillary matter, (whether on or off-site) should be assessed as part of an integrated approach to environmental assessment.
- 2.57 The Secretary of State recommends that the ES should include a clear description of all aspects of the proposed development at the construction and operation stages, as well as:
- Land use requirements, quantified where possible (e.g. for construction compounds)
 - Site preparation

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- Construction processes and methods
- Diversion of existing utilities infrastructure and transport routes
- Resource demands, particularly for water
- Transport routes, both temporary and permanent
- Dimensions of the key project components
- Operational requirements including the main characteristics of the production process and the nature and quantity of materials used, as well as waste arisings (both conventional and radioactive waste) and their disposal
- Maintenance activities including any potential environmental impacts
- General emissions - including water, air and soil pollution, noise, vibration, light, heat, radiation – quantified where relevant
- Drainage/management of flood risk.

2.58 The environmental effects of all wastes, including radioactive wastes, to be processed and removed from the site should be addressed throughout the lifetime of the proposed development. The ES will need to identify and describe the control processes and mitigation procedures for storing and transporting waste (including any contaminated waste) off site. All waste types should be quantified and classified.

2.59 The Secretary of State notes that a significant volume of material is proposed to be excavated from the site during the construction phase to create a development platform. The ES should describe (with reference to relevant figures) the proposed changes to the levels of the land (in AOD) across the site and the characteristics of the works required for this. This should include the extent of land, the type of plant/machinery and the type and volume of material involved. The ES should explain how the expected volume of material has been predicted based on the level changes that are proposed. This should include a table which clearly describes the cut and fill balance of material that is predicted. It should also be clear how requirements in the DCO will ensure that the characteristics of the works and the volume of excavated material will be within the parameters described and assessed in the ES.

2.60 The Scoping Report makes reference to the potential for dredging activities associated with the construction and operation (maintenance) of the proposed development. The ES should describe the dredging requirements and the activities likely to be involved. The applicant should consult with the MMO at an early stage regarding the need for marine licences for these and other proposed works and on how potential impacts on the marine environment should be assessed in the ES.

Flexibility

- 2.61 The Secretary of State notes that details of various elements of the proposed development have not yet been finalised. Where the details of the proposed development cannot be precisely defined, the applicant's attention is drawn to Advice Note 9 'Using the 'Rochdale Envelope' which is available on our website and to the 'Flexibility' section in Appendix 3 of this Opinion which provides additional details on the recommended approach. The applicant should also be aware of the case law with regard to the use of a 'Rochdale Envelope' approach under the Town and Country Planning Act 1990.
- 2.62 The applicant should make every attempt to narrow the range of options and explain clearly in the ES which elements of the proposed development have yet to be finalised and provide the reasons. At the time of application, any proposed parameters should not be so wide ranging as to represent an effectively different proposed development. The proposed development parameters will need to be clearly defined in the draft DCO and therefore in the accompanying ES. It is a matter for the applicant, in preparing an ES, to consider whether it is possible to robustly assess a range of impacts resulting from a large number of undecided parameters. The description of the proposed development in the ES must not be so wide that it is insufficiently certain to comply with the requirements of paragraph 17 of Schedule 4 Part 1 of the EIA Regulations.
- 2.63 It should be noted that if the proposed development changes substantially during the EIA process, prior to application submission, the applicant may wish to consider the need to request a new scoping opinion.

Proposed access

- 2.64 All access points under consideration for construction, operational and maintenance phases of the proposed development should be detailed in the ES. The ES should detail the environmental impacts of each option considered, including a worse-case scenario. The ES should also describe the anticipated type, nature and extent of any other works necessary to construct the accesses (e.g. demolition works, road widening, rail works, footpath/pipeline diversions and vegetation clearance).
- 2.65 Consideration of the effects on the population from the existence of a development is required under Schedule 4 of the EIA Regulations. In that context the ES should demonstrate how access to and from the site would be maintained in an emergency. Given that permanent works will be situated within the coastal zone and flood plain, the ES and associated flood risk assessment

(FRA) should also demonstrate how the development will remain accessible during periods of flooding in the event of an emergency.

- 2.66 The Secretary of State notes that the proposed development is likely to affect existing infrastructure, including railway lines, roads, bridges and electricity pylons. It is also possible that other infrastructure could be affected by the proposed development (e.g. gas/sewage/water/ pipelines or public transport infrastructure). The applicant is therefore encouraged to consult with relevant bodies (e.g. National Grid, the relevant highways authority or Network Rail) regarding any potential impacts on these assets and their users. This might include the capacity of the infrastructure to accommodate the development, the potential for disruption or the need for other infrastructure to be redesigned or relocated. The methodology for any assessment required should be discussed and agreed with relevant consultees, together with the design and likely effectiveness of measures proposed to mitigate any significant adverse effects identified.

Alternatives

- 2.67 The Secretary of State notes that no alternative sites will be considered as this has already been addressed through the Strategic Siting Assessment reported in National Policy Statement EN-6 (NPS EN-6) Volume II. In addition the Scoping Report states that the layout of the nuclear island for each reactor is already fixed because of the need to meet operational and safety requirements. It would be helpful to provide evidence within the review of alternatives in the ES which makes it clear what elements of the layout are fixed and to justify this, as well as explain where there are opportunities to adopt modifications.
- 2.68 The Secretary of State welcomes the intention to review alternative options for other aspects of the proposed development. The consideration given to the potential environmental effects of the various options for the proposed development considered by the applicant should be described in the ES, as this is a requirement of the EIA Regulations. The ES should describe why the potential effects of the alternatives have meant that the proposed development was chosen.
- 2.69 The location and layout of development within the associated development search areas and detailed land use proposals have yet to be determined. The Scoping Report states that the refinement of the associated development proposals will be informed by ongoing work on the identification of environmental constraints (Scoping Report, paragraph 2.4.6). The ES should explain the alternatives that have been considered, the reasons for the final choice and how the potential environmental effects of the different options have been taken into account.

Construction

- 2.70 The number of full time equivalent construction jobs expected to be generated by the proposed development is not included in the Scoping Report. It should form an essential element of the assessment as it will affect provision of accommodation and traffic movements. The Secretary of State requests that this figure, along with an explanation of how it has been calculated, is provided in the ES. Details of construction working hours, including any unsocial hours of working anticipated, should also be provided.
- 2.71 The size and precise details of construction compounds and material/plant storage areas are not provided in the Scoping Report. Whilst it is appreciated that this information may not be available at this stage in the evolution of the proposed development, applicants are reminded that this information will be required and should be included within the ES.
- 2.72 The Secretary of State considers that information on construction (for both the offshore and onshore project elements) including: phasing of programme; construction methods and activities associated with each phase; measures taken with respect to National Grid pipelines, underground and overground high voltage cabling (where relevant); construction noise mitigation; waste storage and disposal arrangements; siting of construction compounds (including on and off site); lighting equipment/requirements; and number, movements and parking of construction vehicles (both HGVs and staff) should be clearly indicated in the ES.
- 2.73 In light of the extensive quantity of excavated material to be generated during construction, the applicant should set out what measures have been taken to reuse excavated materials within the proposed development design.
- 2.74 Paragraph 19.1.4 of the Scoping Report highlights the potential for legacy uses to be identified for associated development sites. The applicant must therefore give careful consideration to any assessment outcomes, for example when considering the long term impacts of legacy provision.

Operation and maintenance

- 2.75 Information on the operation and maintenance of the proposed development should be included in the ES and should cover but not be limited to such matters as: the number of full/part-time jobs; the operational hours and if appropriate, shift patterns; the number and types of vehicle movements generated during the operational stage. The applicant should confirm whether the line is

proposed for use of operational rail freight and assess this accordingly.

- 2.76 The applicant's assessment should outline the measures considered to ensure ease of disassembly and reuse/recycling of materials during future maintenance works.
- 2.77 The Secretary of State is aware that the life of spent nuclear fuel can extend significantly beyond the anticipated life of the power station (60 years). The ES should therefore describe how the spent fuel storage would be maintained throughout the life of the facility. The potential impacts of any works required for this should also be considered as part of the EIA.

Decommissioning

- 2.78 The Secretary of State notes that the decommissioning of the power station will not be considered in the EIA, due to the length of time to when this is likely to occur. It is also acknowledged that separate consent for these works will be required from the Office of Nuclear Regulation under the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999 (as amended).
- 2.79 The Secretary of State considers it important for the means of decommissioning to be considered throughout the design phase. A high-level environmental assessment of the decommissioning phase (including consideration of potential options) should be included within the ES. This will help ensure structures can be taken down and removed so as to minimise the potential impacts on the environment and maximise the re-use of materials.
- 2.80 The impacts of decommissioning the associated developments should also be considered in the EIA.

3 EIA APPROACH AND TOPIC AREAS

Introduction

- 3.1 This section contains the Secretary of State's specific comments on the approach to the ES and topic areas as set out in the Scoping Report. General advice on the presentation of an ES is provided at Appendix 3 of this Opinion and should be read in conjunction with this Section.
- 3.2 Applicants are advised that the scope of the DCO application should be clearly addressed and assessed consistently within the ES.

National Policy Statements (NPSs)

- 3.3 Sector specific NPSs are produced by the relevant Government Departments and set out national policy for nationally significant infrastructure projects (NSIPs). They provide the framework within which the Examining Authority will make their recommendations to the Secretary of State and include the Government's objectives for the development of NSIPs.
- 3.4 NPS EN-6 Volumes I and II (National Policy Statement for Nuclear Power Generation) sets out assessment principles that should be considered in the EIA for the proposed development. NPS EN-1 (Overarching National Policy Statement for Energy), EN-5 (National Policy Statement for Electricity Networks Infrastructure) and the National Policy Statement for Ports may also be relevant. When undertaking the EIA, the applicant must have regard to the relevant NPS and identify how principles these have been assessed in the ES.
- 3.5 The Secretary of State must have regard to any matter that the Secretary of State thinks is important and relevant to the Secretary of State's decision.

Environmental Statement (ES) - approach

- 3.6 The information provided in the Scoping Report sets out the proposed approach to the preparation of the ES. The level of information provided at this stage has limited the capacity of the Secretary of State to provide detailed comments, particularly in relation to the associated development. This has also limited the comments from the consultees as demonstrated in their replies (see Appendix 2). It is a matter of some concern to the Secretary of State that the associated development itself and the approach to assessing environmental effects resulting from the associated development has not been more clearly defined within the Scoping

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Report. Given the applicant's stated intention to submit their DCO application in 2017 this leaves a tight timescale to carry out the work necessary to produce a robust ES.

- 3.7 The Secretary of State notes and welcomes the consultation undertaken so far with relevant consultees to refine the scope of the assessment. It is strongly recommended that the applicant continues to their discussions with these consultees and local bodies such as the parish councils. Agreement should be sought with regard to the scope, methodology and assessment as well as to provide evidence for such agreements in the final environmental statement. Key points that should be covered include:
- The physical extent of the study areas
 - The need and type of surveys/investigations required to determine the assessment baselines
 - Agreement on all data to inform the baseline
 - The potential impacts and the receptors that could be affected
 - The assessment methodology, in terms of predicting/defining the impacts and evaluating the significance of the likely effects
 - The need and characteristics of the measures required to mitigate potentially significant adverse effects and their likely effectiveness.
- 3.8 The applicant should be aware that if baseline data is drawn from existing reports then, should the application be accepted for examination, the Examining Authority may request copies of those reports. Before relying on data drawn from sources that are not publically available the applicant should consider whether they would be in a position to produce them if requested to do so.
- 3.9 Section 3.3 of the Scoping Report explains the proposed approach to dealing with potential changes to the assessment baseline between May 2015, the scheduled commencement of commercial operation of the third reactor in 2026 and beyond into the 60 year operational phase. It states that the assessment needs to be made with reference to the baseline conditions that are likely to apply during the years that are selected for assessment (referred to as the 'future baseline'). The Secretary of State welcomes the proposal to discuss the future baseline with relevant stakeholders.
- 3.10 The applicant is encouraged to agree the future baselines to be used in each assessment chapter with relevant consultees. This is to ensure it is robust and representative of the most appropriate baseline conditions for each phase of the development.
- 3.11 The applicant should consider the potential changes to the baseline by each phase of the proposed development (including

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the associated development). The potential for the development to affect mitigation delivered during earlier phases should also be considered.

- 3.12 The ES should also describe whether/how the assessment accords with recognised professional guidance. Where this is not possible, this should be stated clearly in the ES and a reasoned justification should be provided.
- 3.13 Volume 3 of the Scoping Report contains the Survey and Monitoring Plans (SMP) for the various topics that will be included in the ES. In some cases the scope of the work proposed for the initial scoping land differs to that proposed for the additional scoping land. The Secretary of State expects effects from development of the main project site to be undertaken and presented as one integrated assessment.
- 3.14 The ES should not be a series of separate reports collated into one document, but rather a comprehensive assessment drawing together the environmental impacts of the proposed development. This is particularly important when considering impacts in terms of any permutations or parameters to the proposed development. The Secretary of State is concerned that the submitted ES should ensure that the potential impacts of the main nuclear site are assessed comprehensively along with any associated developments.
- 3.15 Box 1.1 of the Scoping Report notes that a revised EIA Directive was published in the European Union's Official Journal in April 2014. The Secretary of State notes that the UK Government is required to bring into force the regulations necessary to comply with this Directive by 16 May 2017. The Report states that the project is likely to benefit from transitional provisions which mean that the current regulations will still apply but that, where applicable, the applicant will incorporate the new requirements from the updated regulations. The Secretary of State welcomes the proposal to take account of the requirements of the new Directive.
- 3.16 The Scoping Report makes a number of references to the use of professional judgement in determining the significance of effects. While the Secretary of State acknowledges that this can be appropriate, reliance on professional judgement should not be used where legislation and guidelines are available. The ES should be clear when an assessment relies on professional judgement and this approach should be clearly explained and justified.
- 3.17 The approach to defining significance appears to vary across Chapters 4 -17 of the Scoping Report. For some topics, such as transport or visual effects significance is classed as major,

moderate, low, neutral or negligible. For other topics such as noise and vibration effects are simply classed as significant or not significant. It is not clear why different topic chapters have taken different approaches to describing the significance of effects. As stated earlier the ES should not be a series of separate reports bound together. The Secretary of State recommends that as a matter of good practice a standard approach should be provided wherever possible. The significance of effects should be clearly explained and applied as this assists the decision maker. It also assists in identifying the need and effectiveness of mitigation measures.

Cumulative Effects

- 3.18 It is not clear from the Scoping Report how cumulative and inter-related effects will be considered within the ES. Paragraphs 3.3.4 – 3.3.9 of the Scoping Report describe which projects are likely to require consideration in the environmental impact assessment for the Moorside project but do not explain how cumulative effects will be assessed. There is no information in Chapters 4 – 19 of the Scoping Report on how cumulative impact assessment will be approached.
- 3.19 The applicant's attention is drawn to the advice in Appendix 3 of this Scoping Opinion on defining the baseline for assessment and assessing cumulative and inter-related effects on receptors. The ES must clearly explain which plans or projects have been taken into account in the baseline. If these plans or projects were not in operation when the original baseline data was collected then they have not formed part of the baseline and the applicant should give detailed consideration to including them in an assessment of cumulative effects. The Secretary of State is particularly concerned that the inter-related effects from different elements of the project should be properly assessed.

Matters proposed to be scoped out by the applicant

- 3.20 The matters proposed to be 'scoped out' of the EIA in respect of the initial scoping land and the associated development sites are provided in Table 20.1 and Table 20.2 of the Scoping Report and the text of Chapters 4-19. The reasons for these matters to be scoped out are provided in the relevant topic chapters of the Scoping Report (under the heading 'Potential effects not requiring further assessment'). Chapter 19 of the Scoping Report also sets out reasons why radiological issues and the marine and coastal physical environment do not need to be considered as part of the EIA in respect of the associated development Sites.
- 3.21 Paragraph 20.1.1 of the Scoping Report states that no effects are scoped out in relation to the additional scoping land.

3.22 The following matters are proposed by the applicant to be scoped out of the EIA:

Initial Scoping Land

- Noise
 - Effects from operational vibration on human and non-human receptors
- Air Quality
 - Effects from specific air pollutants (benzene, 1,3-butadiene, heavy metals and polycyclic aromatic hydrocarbons (PAHs)) on human and non-human receptors during construction and operation.
 - Effects associated with odour and ozone.
 - Transboundary air quality effects.
- Soils and geology
 - Effects on the geological environment (i.e. designated and / or non designated geological sites of interest such as SSSIs, RIGS and LGS) during the construction, and operational phases.
- Freshwater Environment
 - Any effects on the Ehen Silver Tarn, Hollas and Harnsey Mosses SSSI.
- Landscape
 - Effects to landscape character during construction and operation on specific National Character Areas, specific Regional Landscape Character Types, specific Landscape Character Types (and sub-types), specific Areas of Distinctive Character and townscapes.
- Visual
 - Effects on visual receptors located outside the preliminary and subsequently refined Zone of Theoretical Visibility (ZTV) and some categories of visual receptor located inside the preliminary and subsequently refined ZTV with sufficient separation distances.
- Historic Environment
 - Designated heritage assets outside the bare-earth ZTV and selected designated heritage assets within the bare-earth ZTV with no changes to relevant views which may have a bearing on the heritage significance of the assets.
- Marine
 - Construction and operational effects on the West of Walney and the Allonby Bay recommended Marine Conservation Zones;
- Biodiversity
 - Effects on upland breeding bird assemblages in sites of Special Scientific Interest (SSSIs) within 20 km where there is no connectivity.
- Recreation

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- Effects on users of the Coast to Coast (CTC) walking and cycling trails which start/end to the north (e.g. St Bees Head) and south (e.g. Walney).
- Socio economics
 - Effects on users of social and community infrastructure (parks and green space, churches and other religious facilities) in Copeland and Allerdale,
 - Effects on tourism image and perceptions.

Associated Development Sites

- Air Quality
 - Effects from specific air pollutants (benzene, 1,3-butadiene, heavy metals and polycyclic aromatic hydrocarbons (PAHs)) on human and non-human receptors during construction and operation.
 - Effects associated with odour.
- Radiological Issues
- Freshwater Environment
 - Groundwater flows or water levels in the West Cumbrian Principal Aquifer and other Secondary Aquifers.
 - Flows or water levels in receptor surface water bodies (including the River Ehen, and the Pow Beck).
 - The yield or water quality of licensed abstractions or private water supplies (including the new South Egremont Groundwater Scheme) which abstract groundwater from aquifers within the vicinity of the associated development sites.
 - Water quality of the Principal West Cumbrian Aquifer and Secondary Aquifers.
 - Water quality of the Principal West Cumbrian Aquifer and Secondary Aquifers.
- Marine Physical Environment
 - Changes to physical and coastal processes.
- Landscape
 - National landscape designations: the Lake District National Park (LDNP) and its setting.
 - National landscape designations: the St Bees Head Heritage Coast.
- Visual
 - Effects upon visual receptors located at separation distances in excess of 2 km from the edge of any of the proposed AD sites (except in relation to sequential effects).
- Historic Environment
 - Effects on the marine historical environment.
- Biodiversity
 - Effects on the marine environment.
 - Surveys for white-clawed crayfish
- Socio economics

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- Home owners in relation to long term property value.
- 3.23 Paragraph 3.1.3 of the Scoping Report explains also that potential effects on civil and military aviation and defence interests are listed in NPS EN-1 and EN-6 but are not environmental issues and hence are not addressed further. The applicant is reminded that NPS EN-1 and EN-6 do require that effects on civil and military aviation and defence interests be considered. If they are not included in the ES then they must be considered elsewhere in the application documents.
- 3.24 In addition, Volume 1 Paragraph 3.4.2 suggests that likely non-significant effects would be scoped out from further assessment.

Matters agreed to be scoped out by the Secretary of State

- 3.25 Matters are not scoped out unless specifically addressed and justified by the applicant, and confirmed as being scoped out by the Secretary of State.
- 3.26 Effects associated with ozone have been scoped out for the main site as this pollutant is controlled at a national and European level rather than locally. The Secretary of State accepts that it is standard practice not to include effects from ozone within environmental impact assessments and agrees that this effect can be scoped out.

Matters not agreed to be scoped out by the Secretary of State

- 3.27 The Secretary of State notes that many details of the project, especially the associated development, are still being developed. Given this and the limited nature of the evidence presented in the Scoping Report the Secretary of State does not agree that any matters other than those listed above can be scoped out of further consideration.

Environmental Statement - Structure

- 3.28 Section 22 of the Scoping Report sets out the proposed structure of the ES as:
- A Non-technical Summary (NTS)
 - Separate volumes with the following chapters:
 - Introduction
 - Project need and alternatives
 - Project description
 - Approach to preparing the Environmental Statement
 - Relevant legislation, policy and guidance

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- Transport
 - Noise and vibration
 - Air quality
 - Radiological issues
 - Soils, geology and land quality
 - Freshwater environment
 - Marine water and sediment quality
 - Marine and coastal physical processes
 - Landscape
 - Visual
 - Historic environment
 - Biodiversity
 - Recreation
 - Socio-economics and human population
 - Climate
 - Summary of likely significant effects
 - Technical Appendices providing supplementary information for the various technical studies.
- 3.29 The applicant may wish to include a chapter on nuclear safety issues which refers to relevant legislation, policy and guidance and also cross-refers to other relevant sections of the ES and other assessments such as the Health Impact Assessment and the Flood Risk Assessment.
- 3.30 The Secretary of State notes that each of the technical chapters in the ES will include a section on the environmental measures incorporated into the project. Paragraph 3.5.3 of the Scoping Report also states that the ES will include information about the adopted environmental measures in a format that will assist in defining the requirements for the DCO. The Secretary of State welcomes this approach.
- 3.31 The ES should include a schedule of the proposed environmental mitigation measures. This should include a description of the following:
- The predicted significant environmental effects before mitigation, as described in each of the assessment chapters of the ES
 - The characteristics of the mitigation measures proposed to address the significant effects, as well as the resultant 'residual' effects with the measures in place
 - The specific provisions proposed within the draft Development Consent Order to deliver the proposed measures
 - Evidence of whether/how the measures and their delivery has been agreed with relevant consultees

- 3.32 Where reliance is placed on management plans to deliver the proposed measures the ES should include draft copies of such plans and provide a full explanation of how they will address the potentially significant adverse effects.
- 3.33 Paragraph 2.2.11 of the Scoping Report states that electricity transmission infrastructure will be required for the project. The ES should therefore include a description of any potential electromagnetic field effects associated with this component of the development as well any measures proposed to mitigate these effects. The applicant's attention is drawn to the comments from Public Health England in Appendix 2 of this report.

Topic Areas

- 3.34 Chapters 4 to 17 of the Scoping Report outline the scope of the assessment for each environmental topic in respect of the initial scoping land and the adjoining indicative marine infrastructure area (see Figure 1.4). The scope of the assessment for the additional scoping land and the associated development sites is described in Chapters 18 and 19 of the Scoping Report respectively. The Secretary of State's comments for each of these chapters are provided below.

Transport (see Scoping Report Chapter 4)

- 3.35 The proposed development has potential to generate significant traffic over a wide geographic area during construction and operation, with potential to give rise to effects on traffic and on existing transport infrastructure. The geographic scope takes in the Cumbria Coast Railway, West Coast Mainline, the M6 and A74(M) as well as the local road network within Cumbria. Figure 4.1 shows the 'indicative scope' for the transport assessment. The Secretary of State considers that the final study area should reflect the actual geographical zone of impact as identified through the transport assessment and modelling process. The geographical scope of assessment should be clearly identified in the application for development consent and agreed with the relevant local highways and transport planning authority(s). The applicant's attention is drawn to the comments from Cumbria County Council (CCC), Allerdale Borough Council (ABC), Copeland Borough Council (CBC) and the Lake District National Park Authority (LDNPA) in Appendix 2 of this report on the potential geographical scope of the assessment.
- 3.36 The applicant proposes to develop a Transport Strategy and an Access and Movement Plan (paragraph 4.1.2 of the Scoping Report) for the construction and operational phases of the proposed development and its associated development sites. The Secretary of State recommends that drafts of these documents are

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submitted as part of the application for development consent. A draft site specific Travel Plan, as referenced in paragraph 4.4.1 of the Scoping Report, should also be submitted. The applicant should seek to agree the scope and detail of these plans with the relevant highways authorities. The applicant's attention is drawn to the comments from CCC in Appendix 2 on this matter.

- 3.37 Paragraph 4.5.3 of the Scoping Report references strategies for transport hubs and freight logistics that are currently not referenced as part of the description of development. It is not clear how these project elements would be covered within the environmental impact assessment. The Secretary of State strongly recommends that these elements must be included in the assessment. The methodology used to assess effects should be agreed with the relevant consultees.
- 3.38 The road and rail transport assessments and environmental assessment of transport effects are proposed to be developed in accordance with recognised industry standard methodologies listed in paragraph 4.2.3 of the Scoping Report. The Secretary of State considers that the final transport assessment should be based on an up to date assessment methodology. The Secretary of State would expect on-going discussions and agreement of the assessment methodology, modelling requirements to a recognised standard and mitigation measures with the relevant highways and transport planning authority(s) and informed by the consultees identified in section 4.4 of the Scoping Report. The Secretary of State welcomes the proposed engagement with CCC, Highways England and the local authorities regarding the strategic West Cumbria Transport Model (WCTM) and a proposed transport model scoping report. The scenario years should include, but not be limited to, fully operational and partially constructed/operational scenarios and consider peaks relating to outages at the existing Sellafield site. CCC and CBC have raised several specific points about transport modelling (see Appendix 2 of this report) which the applicant is encouraged to address.
- 3.39 The applicant should obtain written confirmation from Highways England regarding the need to use their spreadsheet model and from CCC with regards to use of the existing gravity model.
- 3.40 At this stage in the project's development a range of options are still under consideration for the construction and operational phases of the development. The ES should clearly explain which options have been selected and how the scope of the assessment has been defined to predict the effects of these options. It would also be helpful to explain how the ranges of options have been narrowed down, especially where this choice has been informed by earlier work.

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- 3.41 The assessment of effects should include consideration of any required waste movements and transport effects arising from any proposed highway mitigation works.
- 3.42 Paragraph 4.7.5 of the transport assessment makes reference to 'applying a degree of professional judgement in the interpretation of the magnitude of effects in relation to the sensitivity of the receptors'. Justification should be provided where any component of the assessment is moderated by professional judgement. In relation to the Guidelines for the Environmental Assessment of Road Traffic (GEART) methodology the applicant should show how the 30%, 60% and 90% traffic increase thresholds for slight, moderate and substantial impacts relate to the criteria set out in section 4.8 of the Scoping Report.
- 3.43 The applicant's ES should assess potential cumulative effects or where appropriate, changes to the future assessment baseline due to other developments, such as the potential introduction of the European Rail Traffic Management System (ERTMS) on the Cumbrian Coast Railway and any change in franchising arrangements.
- 3.44 The resilience of the transport network to emergencies such as high tides, flooding or other emergencies such as the need to evacuate the Sellafield works should be considered in the ES. If the issue is not addressed directly in the transport chapter of the ES cross-references should be provided to the ES chapters where resilience has been examined.

Noise and Vibration (see Scoping Report Chapter 5)

- 3.45 The Scoping Report states that the existing noise environment immediately surrounding the Sellafield Complex is characterised by operational noise emissions and associated road traffic movements but is more agricultural or coastal in nature further from the complex. Rail uses and road vehicles contribute to the noise climate adjacent to transport corridors.
- 3.46 Paragraphs 5.2.3 and 5.7.1 of the Scoping Report set out the proposed industry standard methodologies for the assessment of noise and vibration effects from construction and operation of the proposed development. The list of effects identified in paragraph 5.7.1 includes 'Existing and potential future noise sensitive receptors during construction due to changes in road traffic', the supporting definition of which goes on to reference assessment of operational traffic. For the avoidance of doubt, operational traffic noise and vibration should be assessed in accordance with the Calculation of Road Traffic Noise (CRTN) methodology and BS 6472-1:2008 'Guide to the evaluation of human exposure to vibration in buildings respectively'. Similarly the noise and

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vibration effects from rail during operation of the proposed development should also be assessed in accordance with the relevant guidelines set out in paragraph 5.2.3 of the Scoping Report. The applicant should address the queries raised by CCC and CBC about the application of the British Standards (see Appendix 2).

- 3.47 In light of the potential for 24 hour working associated with the proposed development it is not considered to be appropriate to use the shortened measurement method set out in CRTN for quantifying road traffic noise (as proposed in the Survey and Monitoring Plan). Continuous noise measurement should be undertaken at roadside monitoring locations and agreed with the local EHO.
- 3.48 No reference is made to blasting or activity for the preparation of development platforms. In the event that any blasting is required, this should be assessed in accordance with the relevant British Standard.
- 3.49 Section 5.3 of the Scoping Report sets out the data used in preparation of the Scoping Report, which includes historic data from the period 1991 – 1994. Whilst this data may provide some useful context, the Secretary of State emphasises the need for the assessment to be based on recent data and notes the proposal in paragraph 5.5.18 of the Scoping Report to use 2013-2014 boundary noise measurements for the Sellafield Complex, supplemented by new noise survey data. The applicant's attention is drawn to the comments in paragraph 3.8 of this Opinion.
- 3.50 The Secretary of State considers that the proposed Zone of Influence (ZOI) relating to noise, as set out in paragraphs 5.5.1 – 5.5.5 of the Scoping Report, are appropriate. It is noted that the ZOI for construction vibration has not been stated. The applicant's ES should clearly state this.
- 3.51 Paragraph 5.5.17 discusses CBC's complaints log for the period 2007 – 2014. The text is unclear whether the complaints raised relate to the existing Sellafield Complex and might therefore have a bearing on the noise and vibration assessment. The applicant's attention is drawn to the comments from Sellafield Limited about complaints that have been made to the Environment Agency (EA) on noise emissions from the Sellafield Complex.
- 3.52 The applicant proposes to undertake noise surveys at eight locations around the proposed development site and at five locations on the road network (Figure 3.1 of Noise and Vibration Survey and Monitoring Plan Volume 3). The Secretary of State considers that additional noise monitoring locations are required at Middlebank, which is surrounded by proposed development land

and on all main access roads including from locations to the south of the existing Sellafield Complex to capture potential north bound traffic movements to the proposed development site. The precise survey locations should be agreed with the local Environmental Health Officer (EHO). CBC has also suggested additional noise monitoring locations in their comments on the Scoping Report (see Appendix 2).

- 3.53 With respect to ecological receptors, paragraph 5.7.1 of the Scoping Report states that 'ecological receptors would be identified and if necessary noise levels which may affect such receptors would be calculated'. The Secretary of State considers that where the potential for effects to arise is identified, the applicant should undertake calculations of noise levels to quantify effects. The ES should clearly cross reference between the ecology and noise and vibration chapters in this respect.
- 3.54 Paragraph 5.8.20 of the Scoping Report states that BS8233 allows a 5dB(A) relaxation to be applied to internal ambient noise thresholds where development is considered to be desirable. Whilst the Secretary of State acknowledges this position, the applicant should seek to achieve the non-relaxed noise levels wherever possible, particularly in light of potential long-term night working requirements.
- 3.55 Paragraph 5.8.27 Scoping Report states that 'for the majority of assessments, the noise predictions will be based on realistic worst-case assumptions'. The ES as a whole should be based on realistic worst-case assumptions and should justify any departure from this position. The same paragraph also discusses 'apportionment of a magnitude rating' and application of 'an element of professional judgement'. The Secretary of State considers that magnitude of impact should be stated without moderation and professional judgement should be applied to the significance of effect if necessary, in order to provide a transparent assessment. For the construction and decommissioning phase the type of machinery and the activities on site should be specified in the ES so that it is clear what the assessment is based on.
- 3.56 The applicant should clearly outline the method adopted to mitigate noise effects within the ES. The Secretary of State recommends that specific proposals for noise and vibration control as discussed in tables 21.1 and 21.2 of the Scoping Report are set out within the applicant's draft CEMP. The draft CEMP should be provided as part of the ES. Consideration should be given to the use of temporary noise bunds constructed from site won materials to mitigate noise impacts on local communities during construction.

- 3.57 The ES should also consider effects from construction on the marine environment, particularly if piling is likely to be required. The applicant's attention is drawn to comments from the Marine Management Organisation (MMO) in Appendix 2 of this report.

Air Quality (see Scoping Report Chapter 6)

- 3.58 Paragraph 6.1.2 of the Report explains that this chapter deals with air pollutants arising from the combustion of fuels by vehicles, plant and dust from site preparation and construction works, as well as from stand-by diesel generators during operation. The proposed assessment of radionuclide emissions to the atmosphere and their likely effects are considered in Chapter 7 of the Scoping Report.

- 3.59 The Secretary of State notes the need for the collection of further data to provide the baseline for the assessment. Air Quality Progress Reports from CBC and ABC have been requested and the additional baseline monitoring to be undertaken is described in the air quality Survey and Monitoring Plan (SMP) in Volume 3 of the Scoping Report. The EA, CCC, CBC, Sellafield Limited and NE have all raised points about the collection of the baseline data in their comments on the Scoping Report. The applicant is strongly advised to continue engaging with these consultees to agree key points. Issues that the Secretary of State wishes to see resolved are:

- Which pollutants should be recorded in the baseline recording
- The time period over which data will be collected
- The methods for collecting data
- The location of any monitoring equipment.

- 3.60 Tables 6.2 – 6.4 of the Scoping Report set out the receptors that have been identified by the applicant as having the potential to be affected by the development of the initial scoping land. Paragraph 6.6.1 states that the appropriate sensitive receptors to be assessed will be determined with reference to the threshold road traffic criteria recommended by Highways England and EPUK/IAQM. The relevance of these criteria to determining the receptors that could be affected by other potential impacts is not clear however. This includes the following other activities/pollutants identified in Table 6.5:

- Dust and fine particulate matter emissions during site clearance, preparatory earthworks excavation and power station construction

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- Combustion emissions from plant during site clearance, preparation and construction
 - Combustion emissions from ship movements to and from the marine off-loading facility during the import of construction materials, components and equipment
 - Emissions from combustion plant (stand-by and emergency generators and steam-raising boilers) during commissioning and operation of the nuclear reactors
 - Emissions of ammonia from the main stack during operation
- 3.61 The ZOI and receptors to be assessed in the ES should be agreed with relevant consultees.
- 3.62 The Secretary of State recommends that the ES should (as far as possible) quantify the overall impact of the proposed development on the agreed receptor locations. This should include the predicted changes in air quality resulting from all potential sources of emissions during each phase of development (including water vessels delivering or removing fuel or materials to/from the site).
- 3.63 The site lies within a sensitive area, which includes a range of nationally and internationally designated sites for nature conservation as well as other sensitive ecological habitats. The impacts on these habitats and sites due to any predicted increase in airborne pollutant emissions (including cumulative) during construction and operational phases should be considered in the EIA. Section 4 of this Opinion provides specific advice on considering and assessing impacts on designated sites and protected species.
- 3.64 The inter-relationships with the assessment of impacts on traffic generation should be considered and the ES should cross refer to other relevant parts of the ES. Such information should also be used to inform the assessment in the Biodiversity ES chapter.
- 3.65 The impact of emissions both on site and off site should be assessed, including along access roads, local footpaths and other PRow. The need for appropriate mitigation and monitoring measures should also be considered and to this end the Secretary of State supports the applicant's intention to agree these with relevant consultees.
- 3.66 The applicant should consider the potential for odour impacts to arise from excavated materials stored on the power station element of the site. These should be assessed in accordance with industry standard methodologies, where applicable.
- 3.67 The Secretary of State welcomes the proposal in paragraph 6.8.13 of the Scoping Report for further detailed consideration of the potential effects on habitats where it is not possible to

demonstrate that changes to deposition on these would be insignificant.

- 3.68 Where potentially significant adverse effects are identified consideration should be given to appropriate mitigation measures and to monitoring of dust and odour complaints during construction and operation. These should be outlined in any proposed management measures to be submitted with the applicant's ES (e.g. a draft CEMP). The applicant should seek to agree the need and effectiveness of proposed mitigation measures with relevant consultees.
- 3.69 The applicant's attention is drawn to the comments from CBC and CCC in Appendix 2 of this report on the appropriate criteria to use to define the significance of effects. The Secretary of State strongly recommends that the choice of significance criteria is agreed with the relevant consultees.

Radiological Issues (see Scoping Report Chapter 7)

- 3.70 The Secretary of State welcomes the further engagement proposed with the organisations listed in Paragraph 7.4.5 of the Scoping Report. The applicant should seek to refine and agree the scope of the assessment with these organisations and the ES should explain how any issues raised in respect of the EIA have been taken into account. Attention is drawn to the consultation responses from Sellafield Ltd on this matter (see Appendix 2). The applicant should also have regard to the comments from the EA in respect of addressing the relationship with the Office for Nuclear Regulation on the Environmental Permit required.
- 3.71 The study area used in the assessment (in terms of the potential for radiological effects) should be clearly defined and justified with reference to established and recognised professional guidance.
- 3.72 The Secretary of State notes the impact assessments already undertaken in respect of the Generic Design Assessment (GDA) for the AP1000 reactor. Paragraph 7.7.17 states that further site specific assessments will be carried out as part of the EIA using appropriate location specific data applicable to the Moorside project. The locations used to gather this data should be agreed with relevant consultees and described in the ES.
- 3.73 The implications of stack height and dispersion on the discharge of emissions need to be clearly explained in the ES, alongside a justification of the modelled parameters. The Secretary of State recommends that dispersion modelling considers a range of possibilities and seeks to ensure that the 'worst case' scenario is assessed (even if this is only a short term impact).

- 3.74 Paragraph 7.7.22 of the Scoping Report describes the proposed components of the prospective dose assessment to be undertaken (i.e. to determine predicted emissions). A retrospective dose assessment of previous discharges is also proposed, based on reviews of secondary published information on the effects of historic radiological discharges from other sources, such as the Sellafield Complex and the Low Level Waste Repository (LLWR). The validity of any such sources relied upon in the assessment should be discussed and agreed with relevant consultees. The applicant is reminded that any reports relied on in the ES may be requested by the Examining authority during examination, should an application for the project be accepted. If the applicant would not be in a position to provide a report because it is not publically available information then they may not be able to rely on it as evidence within their ES.
- 3.75 The inter-relationship between radiological assessments and effects on soils and groundwater on the main site should be clearly explained and cross-referenced between the relevant chapters.
- 3.76 Careful consideration should be given to the future baseline in the marine environment in the light of the comments from Sellafield Limited indicating that discharges from the Sellafield complex could change in future (see Appendix 2 of this report).
- 3.77 Comments from consultees on the Scoping Report suggest some confusion about whether radiological investigations will be undertaken for the infilled Sellafield Tarn (see Appendix 2). The applicant is strongly advised to clarify this point with the relevant consultees.

Soils, Geology, Agricultural Land and Land Quality (see Scoping Report Chapter 8)

- 3.78 The Scoping Report identifies the potentially contaminating land uses and other constraints within and surrounding the site. These include:
- Agricultural use including former and current farms
 - Disused railway land and embankment (within and on the southern and western boundary of the initial scoping land)
 - Potential historical landfill
 - Potential infilled sand pits (north-western edge of the initial scoping land)
 - Naturally occurring peat deposits (potential source of ground gases such as methane, carbon dioxide and hydrogen sulphide)
 - Potential soil contamination due to the migration of contaminated groundwater originating up hydraulic gradient

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of the initial scoping land (e.g. from below the Sellafield Complex)

- Potential Made Ground on site. Note that areas of infilling/mounding could potentially be sources of both soil contamination and ground gas
- Infilled former Sellafield Tarn
- Historical contamination within the Sellafield Complex
- North tip extension landfill (located approximately 550 to 1000 m to the east of the initial scoping land)
- Spoil mounds (located approximately 400 m from the south eastern boundary of the initial scoping land)
- Radio chemically contaminated material and unexploded ordnance within Sellafield Tarn.

3.79 The Secretary of State welcomes the proposed assessment of these uses. The consultation response from Sellafield Ltd (see Appendix 2) states that the geological information and conceptual model for the Sellafield Complex have been derived for the Sellafield Site, not the Moorside Site. The ES should describe and justify the methods used to identify the type, magnitude and extent of contaminants present on the site and should present the results of this. The reasons for the choice of receptors should be clearly explained to give the decision maker confidence that the assessment is robust.

3.80 Any remedial works proposed to address any contamination issues or other risks on the site should be described. The potential impacts arising from these works should be assessed as part of the EIA.

3.81 The Scoping Report refers to various plans that will be used to manage the potential effects on soils/land quality. These include a Construction Environment Management Plan, Soil Management Plan and a Materials Management Plan. Draft versions of these and other such plans should be discussed with the relevant local authorities and the EA and copies should be appended to the ES. The means by which the delivery of these plans is secured through the DCO should also be explained.

3.82 The applicant identifies that the proposed development will result in the production of large volumes of excavated material. The Secretary of State considers it essential that the ES describes and assesses the volume and types of materials and whether these will be re-used on site or will be removed from the site. The ES should explain how the expected volume of material has been predicted based on the changes that are proposed. It is recommended that the use of a table would be most helpful to clearly describe the cut and fill balance of material that is predicted. It should also be clear how requirements in the DCO will ensure that the characteristics

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of the works and the volume of excavated material will be within the parameters described and assessed in the ES.

- 3.83 The effects of the proposed excavations and other works/activities during each development phase on the underlying geology of the site should be assessed. This should include potential effects on designated and non-designated geological sites of interest. Paragraph 8.7.23 of the Scoping Report explains that there are no receptors of value within the initial scoping land, however the Secretary of State notes that the baseline characteristics of the additional scoping land are not yet known.
- 3.84 The potential for the development to result in significant effects on available waste management capacity within the local area is noted by the Secretary of State. When considering the likely effects of any proposed off-site disposal the applicant should have regard to the waste hierarchy and the available capacity of nearby landfill sites. The ES should also clearly describe the control processes and mitigation procedures for storing and transporting waste off site.
- 3.85 Paragraph 8.7.19 of the Scoping Report identifies the potential effects on agricultural land that are to be considered in the EIA. These include:
- Permanent loss of existing agricultural land through land take
 - Degradation of agricultural land used temporarily for construction (e.g. areas used for soil handling or temporary soil storage)
 - Impairment of agricultural land use close to the construction site (e.g. due to airborne dust deposition on crops).
- 3.86 The assessment should also include consideration of severance effects on existing agricultural land uses.
- 3.87 Paragraph 8.8.6 explains that the magnitude of predicted changes on land quality receptors will be assessed largely qualitatively and therefore will be reliant on professional judgement. Any assessment based on such judgement must clearly articulate how decisions have been made. The use of guidelines such as those provided in Table 8.5 of the Scoping Report is therefore welcomed by the Secretary of State.
- 3.88 The inter-relationships between the assessment findings and those of other relevant ES chapters should be considered. These should include the assessments on socio-economics, ground/surface water and biodiversity. Cross-reference should be made to the relevant chapters where appropriate.
- 3.89 Comments from consultees suggest some confusion as to whether Sellafeld Tarn is within the initial scoping land (see comments

from CCC and Sellafield Limited in Appendix 2) and whether or not it will be included in the assessment of ground conditions. The applicant is strongly advised to clarify matters with the relevant consultees.

Freshwater Environment (see Scoping Report Chapter 9)

- 3.90 The Secretary of State acknowledges and welcomes the production of a separate Water Framework Directive (WFD) assessment to accompany the DCO application. Chapter 9 includes reference to a number of waterbodies identified in the North West River Basin Management Plan (RBMP). The Secretary of State welcomes the intention to incorporate the second tranche of RBMPs, due to be released in 2015, into the baseline characterisation and EIA. It will be essential for the impact assessment on waterbodies will take into account any new targets once the updated RBMPs are published.
- 3.91 The approach to the WFD assessment is described as based on the Northern Ireland Environment Agency guidance note 'Carrying out a Water Framework Directive (WFD) Assessment on EIA Developments' (NIEA, 2012). The applicant is advised to consult with the EA in order to agree the methodology for the WFD assessment. The applicant's attention is also drawn to the comments from CCC on the scope of the WFD Assessment (see Appendix 2 of this report).
- 3.92 The Secretary of State also welcomes the proposed submission of a Flood Risk Assessment (FRA). The applicant is advised to agree the scope of assessment and modelling with the EA and Lead Local Flood Authorities (LLFA) in accordance with national guidance and any local flood risk management strategies. Where the FRA identifies the need for flood mitigation or compensation, the applicant should identify and assess such measures within the ES. These should be agreed with the EA and LLFA. The applicant is reminded of the need to comply with the requirements of EN-6, paragraphs 3.6.6 – 3.6.8 when assessing flood risk.
- 3.93 With regard to sources of data for the impact assessment, the applicant's attention is directed to the comments of the EA included in Appendix 2 to this Opinion concerning the water resources plan for West Cumbria and the and the EA/Office for Nuclear Regulation (ONR) principles for flood and coastal risk management for nuclear new build (EA/ONR, 2013). The applicant is advised to use the most recent guidance and data available to inform the impact assessment. The Secretary of State welcomes the early engagement with relevant consultees and the intention for ongoing engagement concerning matters relating to the freshwater environment.

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- 3.94 Comments on the Scoping Report from consultees (see Appendix 2 of this report) have highlighted concerns about the definition of the baseline for the freshwater environment assessments. The applicant is advised to resolve these issues with consultees.
- 3.95 Chapter 9 states that the initial scoping land to the east of the disused railway embankment is located entirely in Flood Zone 1. Other areas of the initial scoping land are within Flood Zone 3. Paragraph 9.5.15 of the Scoping Report states that the likelihood of a significant increase in the extent of fluvial flood risk in the area due to the effects of future climate change is considered to be low, since flood extents will be largely unchanged even if maximum flood depths increase, due to the relatively well defined topography of the area. This statement is not currently supported by any studies or reference. The ES should ensure that statements of effects and assumptions are substantiated.
- 3.96 Section 9.7 of the Scoping Report states that detailed methodologies for the assessment of potential effects on the freshwater environment, including potential modelling to inform the assessments, have yet to be defined. The Secretary of State recommends that the relevant consultees, including the EA, should be consulted at an early stage to discuss and agree appropriate methodologies and modelling for the impact assessment and that engagement continue throughout the pre-application stage.
- 3.97 The Scoping Report provides no clear details regarding the source of fresh water for the proposed development, both during construction and operation, and for the variety of sources for which it will be required, such as the main power station site, campus accommodation etc. The applicant's attention is drawn to the comments of the EA and NE in respect of water resources. The requirement for and the effects associated with water resources will need to be assessed in the ES. The water supply strategy for the proposed development will need to be agreed with relevant stakeholders, including the EA.
- 3.98 The Scoping Report also contains no information regarding sewage disposal for the proposed development. The ES will need to detail the proposed foul water management strategy and agree this with the relevant stakeholders.
- 3.99 The ES should clearly explain how the inter-relationship between effects on groundwater and the mobilisation of leachable contaminants has been addressed.
- 3.100 Chapter 9 refers to effects associated with temporary and permanent waterbody crossings. The Scoping Report contains limited information concerning river/waterbody crossings. This information should be included and assessed within the applicant's

ES. Designs for all elements of the proposed development should demonstrate that due consideration has been given to resilience and that climate change effects on flood risk have been evaluated. The extent of temporary and permanent works within the floodplain should be minimised.

- 3.101 Reference is made to mitigation measures for potential impacts on the freshwater environment. The Secretary of State reminds the applicant that any embedded mitigation should be secured within the project design and presented within the DCO application. All other mitigation relied on in the ES will also need to be adequately secured through the draft DCO. The applicant is also reminded of the requirements of EN-6, paragraphs 3.6.15 – 3.6.16 on the need for applicants to demonstrate suitable flood risk mitigation measures.
- 3.102 Table 9.8 'Derivation of significance of potential effects' identifies whether effects are significant or not significant. The Secretary of State notes that in accordance with this Table, any magnitude of effect on a receptor of low and very low sensitivity would be not significant, and that only high magnitude impacts on receptors of medium sensitivity would be considered significant. Low sensitivity receptors are identified in Table 9.6. These include Secondary B aquifers and private water supplies and non-statutory conservation sites. The Secretary of State notes with some concern that this approach does not appear to consider whether multiple impacts on the low sensitivity receptors could lead to significant effects.
- 3.103 The Secretary of State notes from the Freshwater Quality and Flows SMP that 'at present there are no proposed routine surface water discharges to the freshwater environment associated with the Moorside Project once construction is complete (beyond some assumed surface water runoff) and thus there are no specific discharge parameters to be taken into account. Should it develop that the operational scheme will discharge to the freshwater environment, the ES should consider potential effects associated with the discharges and any proposed mitigation.
- 3.104 The Secretary of State notes there is no reference to cumulative effects in Chapter 9. In accordance with the EIA Regulations, the Secretary of State expects the applicant to consider and address cumulative effects associated with the proposed development.

Marine and Coastal Physical Environment (see Scoping Report Chapter 10)

- 3.105 The Scoping Report highlights the potential for the proposed development to give rise to changes in waves, current, tides and associated patterns of sediment transport. The characteristics of

these changes and the means by which they have been predicted should be clearly described in the ES.

- 3.106 The Secretary of State notes that the assessment of effects on marine water quality will be based on compliance with Water Framework Directive Environmental Quality Standards (EQS). The relevant EQS and their corresponding water bodies should be clearly described in the ES. A plan illustrating the boundaries of these water bodies should also be provided.
- 3.107 The ES should provide full details of modelling and monitoring methodologies, including zone of influence and impact pathways, within the ES and should consider the full geographic extent of effect of the proposals. Models should be adequately calibrated, validated and sensitivity tested against any assumptions used. The Secretary of State recommends that data collection to inform the modelling should be agreed with the Marine Management Organisation, NE and other relevant stakeholders. The applicant's attention is drawn to the comments in Appendix 2 from the MMO, CCC and CBC. In this regard, site specific surveys and background data which are relied upon in the assessment should be appended to the ES. The applicant may otherwise be asked to provide them.
- 3.108 The scope of the assessment should include routine maintenance activities that will be required during the operation of the project.
- 3.109 The chapter provides limited information on how the potential for cumulative effects on the marine and coastal physical environment will be assessed. The potential for cumulative impacts should be considered and built into the modelling to be undertaken. The applicant's attention is drawn to the comments from the EA on the potential for discharges from Sellafield to be drawn into the Moorside cooling water intakes (see Appendix 2).
- 3.110 The ES should assess the range of sediment types likely to be affected by the proposed scheme; the behaviour (formation, movement and dispersal) of fluid mud layers over the spring-neap tidal cycle; the behaviour of mobile sand and other geomorphological features over time; sediment processes such as volume, elevation, erosion and accretion; and the effect on existing dredge disposal and aggregate dredging, including that which may occur as a result of obtaining construction materials for the development locally.
- 3.111 Potential changes due to natural variations in marine and coastal processes (e.g. during extreme weather events and as a result of climate change) should be considered. The Secretary of State requires that full justification is provided in the ES for the climate change scenarios adopted and any assumptions or limitations encountered and that sensitivity testing is undertaken. The

applicant's attention is drawn to the comments from NE and CBC on this point (see Appendix 2 of this report).

- 3.112 Changes to the marine and coastal environment caused by the proposed development could affect other aspects of the environment, such as transport, biodiversity, the freshwater environment, landscape, socio-economics and recreation. The Secretary of State therefore welcomes that such interactions will be considered in the assessment. Cross references should be made to other chapters in the ES where this information is provided, particularly the biodiversity and freshwater chapters.
- 3.113 Attention is drawn to the comments provided by the Maritime and Coastguard Agency (see Appendix 2).

Landscape (see Scoping Report Chapter 11)

- 3.114 The Secretary of State welcomes the approach taken by the applicant to consulting local planning authorities, key stakeholders and statutory bodies on the approach to the assessment of effects on landscape character. The applicant is encouraged to agree as many aspects of their assessment as possible, particularly with reference to methodology and the identification of receptors to be included within the assessment, the collection of baseline data and cumulative effects.
- 3.115 The Secretary of State notes that the Lake District National Park is one of the receptors identified in the Scoping Report. The applicant's attention is drawn to the advice in NPS EN-1 and EN-6 Volumes I and II on the weight that the decision maker should attach to effects on the setting of and views from the National Park. The ES should clearly explain how the effects on the National Park and its key qualities have been assessed and how the design of the project has sought to minimise any effects.
- 3.116 The Scoping Report states that the Preliminary Zone of Theoretical Visibility (ZTV) shown at Figure 11.1 has been defined on the basis of the height of the stack and the reactor vessel containment buildings. It also states that the preliminary zone of theoretical visibility will be refined. The ES should explain how the ZTV has been prepared, with reference to the model used, and the assumed proposed ground level/s within the site. The development parameters such as the height of the stack should also be explained. The assessment should be based on a realistic worst-case scenario.
- 3.117 The Secretary of State notes that the final method of cooling has not been determined. If this has not been determined by the time that a formal application has been made then the ES should explain the basis of the assessment and how this represents a

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realistic worst case scenario. The ZTV and scope of the assessment may also require amendment to assess the effects of cooling towers and associated visible plume, including any effects on the Lake District National Park. If the final layout of the main project site has not been determined then again the ES should explain the basis of the assessment and how this represents a realistic worst case scenario. Given the constraints referred to in the Scoping Report in terms of the design, it is considered that most of the design and the scheme proposals of the main nuclear site should be fixed by the time of the application.

- 3.118 The Secretary of State welcomes the use of the Guidelines for Landscape and Visual Impact Assessment 3rd edition (GLVIA3) and Natural England's Approach to Seascape Character Assessment. However the 'matrix approach' to assessment of significance (evidenced by Table 11.3) does not appear to be entirely compatible with the approach suggested in GLVIA3, where the emphasis is meant to be on well-reasoned argument. The matrix approach also seems to be in conflict with the text in paragraph 11.8.14 which indicates that in assessing likely significant landscape and visual effects there will be an emphasis upon professional judgement as opposed to a purely mechanistic approach. The approach described in paragraph 11.8.14 is in line with the overarching approach that is advocated in GLVIA3. The ES should clearly explain how the approach to defining significance reflects the guidance in GLVIA3.
- 3.119 The definition of 'quality' given in paragraph 11.8.9 of the Scoping Report is not fully explained and does not meet with that set out in Box 5.1 of GLVIA3. The ES should provide greater clarification for the approach taken.
- 3.120 In Table 11.1 of the Scoping Report, the definitions of 'Visual susceptibility to change' which appear the 'High' and 'Medium' categories are not very obviously different and it would be helpful if the applicant could clarify these in the ES.
- 3.121 The intention to carry out baseline assessments in summer and winter and at night is noted and welcomed. The ES should clearly explain the effects of the project at night and during the winter months when screening from vegetation is at a minimum.
- 3.122 It is not clear from this chapter of the Scoping Report how cumulative effects will be covered, both with other proposed developments and other elements of the wider project (the associated development, marine offloading facility, and associated transport and electricity transmission infrastructure). National Grid's North West Coast Connections project is included on the list of projects in paragraph 3.3.7 as being likely to require further consideration. The Secretary of State welcomes this and advises

that particular consideration should be given to the cumulative effects on the setting of the Lake District National Park.

- 3.123 It is also not clear landscape mitigation measures will be identified in the application documents and secured in the draft DCO. Consideration will need to be given to measures needed to ensure successful establishment and management in the longer term, the potential for securing off site mitigation measures, and the inter-relationship with other topic areas, including visual effects and biodiversity.

Visual (see Scoping Report Chapter 12)

- 3.124 It is not clear why assessment of landscape character and visual effects has been separated into different chapters. The applicant may wish to consider whether it would be better to combine the assessments on landscape character and visual effects into one chapter in the ES to reduce repetition.
- 3.125 The Secretary of State welcomes the approach taken by the applicant to consulting local planning authorities, key stakeholders and statutory bodies on the approach to the assessment of visual effects. The applicant is encouraged to agree as many aspects of their assessment as possible, particularly with reference to methodology and the identification of receptors to be included within the assessment, collection of baseline data, including agreement of the locations of viewpoints, agreement to photomontages or other visualisations to be prepared, and the cumulative effects. In this regard, the Secretary of State draws attention to the consultation response from Natural England and their request that viewpoints 20, 28, and 31, and views from Coniston Old Man, are included in the detailed study area boundary and subject to detailed assessment. The Secretary of State recommends that these viewpoints should be included in the detailed visual impact assessment.
- 3.126 The Scoping Report states that the Preliminary Zone of Theoretical Visibility (ZTV) shown at Figure 12.1 has been based on the parameters used to generate the preliminary ZTV referred to in Chapter 11. The ES should explain how the ZTV has been prepared, with reference to the model used, and the assumed proposed ground level/s within the site. The development parameters such as the height of the stack should also be explained.
- 3.127 The Secretary of State notes that the final method of cooling has not been determined. If this has not been determined by the time that a formal application has been made then the ES should explain the basis of the assessment and how this represents a realistic worst case scenario. The ZTV and scope of the

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assessment may also require amendment to assess the effects of cooling towers and associated visible plume, including any effects on the Lake District National Park under different climatic/seasonal conditions.

- 3.128 If the final layout of the main project site has not been determined by the time that a formal application has been made then the ES should explain the basis of the assessment and how this represents a realistic worst case scenario. At 12.7.2 of the scoping report, reference is made to the assessment of sequential visual effects. The Secretary of State notes the consultation response made by Natural England with regards to the manner in which the overall significance of effect of a sequence of moderate visual effects will be reported in the ES, and encourages further discussion and agreement with Natural England on this point.
- 3.129 At paragraphs 12.8.4, 12.8.5 and 12.8.6 of the scoping report, the factors to be considered in defining levels of visual susceptibility will include the susceptibility of the receptors to visual change, the frequency with which the view is experienced and the value attached to the view. The Secretary of State draws attention to the consultation response from Natural England and expects that reference will be made to Wainwright's Guides to the Lakeland Fells when taking into account frequency of use and value of views.
- 3.130 The Secretary of State welcomes the use of the Guidelines for Landscape and Visual Impact Assessment 3rd edition (GLVIA3). However the 'matrix approach' to assessment of significance (evidenced by Table 12.3) does not appear to be entirely compatible with the approach suggested in GLVIA3, where the emphasis is meant to be on well-reasoned argument. The matrix approach also seems to be in conflict with the text in paragraph 12.8.11 which indicates that in assessing likely significant landscape and visual effects there will be an emphasis upon professional judgement as opposed to a purely mechanistic approach. The approach in paragraph 12.8.11 is in line with the overarching approach that is advocated in GLVIA3. The ES should clearly explain how the approach to defining significance reflects the guidance in GLVIA3.
- 3.131 The Secretary of State notes that the quotation from GLVIA3 set out at paragraph 12.8.2 of the Scoping Report is incomplete. If any parts of paragraphs within the Guidance are to be quoted in the ES, the Secretary of State recommends that this be made clear in the way that they are presented.
- 3.132 It is not clear how cumulative visual effects will be covered, both with other proposed developments and other elements of the wider project (the associated development, marine offloading

facility, and associated transport and electricity transmission infrastructure). National Grid's North West Coast Connections project is included on the list of projects in paragraph 3.3.7 as being likely to require further consideration. The Secretary of State welcomes this and advises that particular consideration should be given to the cumulative effects on the setting of the Lake District National Park.

- 3.133 It is also not clear from this chapter of the Scoping Report how visual mitigation measures will be identified in the application documents and secured in the draft DCO. Consideration will need to be given to measures needed to ensure successful establishment and management in the longer term, the potential for securing off site mitigation measures, and the inter-relationship with other topic areas, including landscape effects and biodiversity.
- 3.134 The Secretary of State notes from Appendix C of the Scoping Report that photomontages are to be prepared with reference to the recommendations of Scottish Natural Heritage (SNH) Visual Representation of Wind Farms v 2.1, December 2014, but that the methodology is not stated in full. For example, no reference is made to the proposed height of images and vertical field of view. The methodology for the production of photomontages and wirelines should be clearly stated in the ES and be agreed with the relevant consultees. In this regard the Secretary of State confirms that the applicant should have regard to the SNH guidance as set out above, as far it is appropriate to the development proposed. There is also no information in the Scoping Report as to which other developments, or elements of the proposed project will be shown on the photomontages, with regards to cumulative effects. The Secretary of State expects consultation and agreement with local planning authorities and statutory bodies in this respect.

Historic Environment (see Scoping Report Chapter 13)

- 3.135 The Scoping Report identifies that the proposed development is located within a landscape that includes prehistoric, Roman and industrial features and therefore has potential for direct and indirect effects on cultural heritage assets. These include archaeological sites, as well as historic settlements, conservation areas and historic landscapes. The offshore area of search includes quaternary sediments with the potential to contain geoarchaeological features of interest; wreck sites and submerged features within the ZOI; as well as coastal heritage features (e.g. a fish trap and a salt works).
- 3.136 The proposed assessment method comprising desk based assessment, walkover surveys, geophysical surveys and detailed field evaluation (where necessary) accords with relevant

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guidelines. The applicant should continue to engage with CBC, LDNPA, ABC and CCC regarding the assessment and the written scheme of investigation (WSI) for field evaluation. The applicant should continue to engage with Historic England's marine planning team regarding the scope of the marine archaeological assessment.

- 3.137 The 1km boundary for describing non-designated heritage assets appears to be quite narrowly defined. The Secretary of State advises that the ZOI should be agreed with the relevant consultees and clearly justified in the ES.
- 3.138 The ZOI for direct effects is defined in paragraph 13.5.3 of the Scoping Report as 'land where there will be a direct effect on current ground levels or changes to ground conditions as a result of the Moorside project', the Secretary of State considers that this definition should include non-intrusive temporary construction effects such as compaction of ground during construction, stockpiling of materials and plant movements. This also applies to geophysical survey activity and any off site planting proposed as mitigation.
- 3.139 The applicant should consider any indirect effects arising from changes in coastal and marine processes associated with the proposed cooling water infrastructure, MOLF and associated marine works areas. The applicant is advised to provide appropriate cross referencing between the historic environment and the marine and coastal physical environment chapters.
- 3.140 Paragraph 13.5.16 of the Scoping Report states that the offshore initial scoping land has not been subject to a systematic marine archaeological assessment. The applicant should ensure that this information is provided as part of the applicant's ES.
- 3.141 Paragraph 13.8.11 of the Scoping Report states that the significance of effects on settings is a 'subjective matter'. The applicant should provide robust justification to support any subjective judgements made in relation to heritage effects.
- 3.142 In light of the potential for archaeological finds within the proposed development ZOI, the applicant should consider the potential for preservation by record and long term educational displays and visitor information relating to any finds in addition to the recording strategy outlined in Table 21.1 of the Scoping Report.
- 3.143 The historic environment SMP includes reference to works that 'should be done in 2015' (e.g. in Section 3.1.3 relating to Archaeological Geophysical Survey). The conversational nature of the wording suggests some uncertainty in the programme of

works to be carried out. Any future submissions should set out the proposed rather than potential approach.

- 3.144 With respect to offshore geotechnical site investigations, Section 3.1.7 of the Survey and Monitoring Plan states 'it is anticipated that these would extend over a suitably wide area'. Robust justification should be provided for the final study area selected and its limits clearly defined.
- 3.145 The Historic Environment assessment should be based on the most up to date guidance from the Chartered Institute for Archaeologists and the Joint Nautical Archaeology Policy Committee.
- 3.146 The applicant's attention is drawn to the comments from CCC, LDNPA and CBC in Appendix 2 of this report.

Biodiversity (see Scoping Report Chapter 14)

- 3.147 The Secretary of State notes reference to the 'Cumbria Coast AONB' in paragraph 14.4.1. The Secretary of State is not aware of this AONB, and the designation is not shown on any of the figures submitted. AONBs are landscape designations; therefore the applicant should make clear any effects on AONBs within the landscape chapter of the ES.
- 3.148 The applicant's attention is drawn to advice in Appendix 2 from NE regarding the future designation of Mud Hole rMCZ and the recommended approach for considering impacts on MCZ sites.
- 3.149 Paragraph 14.5.1 refers to a 400km Zone of Influence (ZoI) for sites in the wider Irish Sea designated for mobile seabird interests. This distance would extend far beyond the Irish Sea encompassing Ireland and parts of the Atlantic Ocean. The Secretary of State recommends that a meaningful and well-justified study area is chosen, and accurately described in the ES. The Secretary of State encourages the applicant to seek advice from the relevant nature conservation bodies in setting the ZoI used in the assessments for all ecological receptors.
- 3.150 The Scoping Report provides a Phase 1 Habitat Survey and other survey data to inform the scope of ecological assessment. Surveys were conducted in 2010 and 2012. Figure 14.3 shows the Phase 1 habitats recorded; however, the figure does not cover the entire area given as the Moorside Search Area (Figure 1.3). The Secretary of State recommends that thorough survey information is collected for the entire development area and beyond if appropriate, in accordance with the ZoI determined for each ecological receptor. Figures should be clearly presented with appropriate boundaries shown. The Secretary of State also

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recommends that surveys are up to date at the time of submission and welcomes the intention in Paragraph 14.5.32 to do so, incorporating advice received from Natural England.

- 3.151 Given the uncertainty surrounding the areas of associated development and the baseline data still to be gathered, the Secretary of State recommends that the scope of the assessment is kept broad until it can be refined, in order to ensure that potential environmental impacts are not erroneously omitted from the EIA. The Secretary of State draws the applicant's attention to comments in Appendix 2 from the EA, NE, CBC, CCC and ABC in this regard. These responses also express concerns regarding the ability of the assessments to respond to emerging information including that gathered by the consultation process, given the proposed timescales.
- 3.152 The scope and methodologies of the marine and terrestrial surveys should be discussed further with the relevant consultees, and the applicant's attention is drawn to specific comments from the EA (Appendix 2) regarding the marine ecology evidence base and the methodology for the plankton surveys. NE has also provided comments regarding the intention for aerial ornithology surveys, and advice regarding the need for additional intertidal and subtidal rocky area surveys (Appendix 2). The MMO's response contains advice relating to scope, and in particular regarding fish species known to be subject to impingement and entrainment and relating to the methodologies of intertidal and sub-tidal benthic surveys (Appendix 2). CBC have also provided detailed comments on the methodologies of the proposed surveys for birds (terrestrial and marine), vegetation and habitat surveys, terrestrial invertebrates, badgers, bats, great crested newts, reptiles, otters, water voles, and aquatic invertebrates (including freshwater pearl mussel and white-clawed crayfish). This response also comments on the potential need for additional mammal surveys (Appendix 2).
- 3.153 It would be helpful in understanding the description of baseline conditions if the figures illustrating the locations of designated sites could include labels for the sites shown, as these are absent from Figure 14.1. It is recommended that figures are provided in the ES at an appropriate scale to show designations in and around the site itself, in addition to figures showing the wider geographical context.
- 3.154 The Secretary of State notes the overall approach to identifying potentially significant effects in Section 3.4 of the Scoping Report, and the reference to current professional guidance for the terrestrial and marine environments (CIEEM, 2006) in Section 14.8 for determining significance. The specific methodologies used to evaluate ecological receptors and determine the significance of effects should be fully explained in the ES.

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- 3.155 The assessment should take account of impacts relating to landscape, severance, hydrogeology, hydrology, marine and coastal physical processes, noise, vibration, lighting and air quality (including dust), and cross reference should be made to these specialist reports. The EA highlight the need to consider noise impacts on fish populations and hydrological impacts on designated sites in their response in Appendix 2. CCC also highlight the importance of ensuring that all wetland areas that could be affected by hydrological impacts are considered in the assessment.
- 3.156 Potential impacts to the marine environment resulting from the introduction or spread of invasive non-native species are discussed in the Scoping Report, however it is not clear why these potential impacts are not considered for the terrestrial environment. The applicant is directed to comments from the EA in Appendix 2 in this regard.
- 3.157 The Secretary of State recommends that the assessment should take the opportunity to identify any biodiversity enhancement opportunities or 'net gains' associated with embankments and screen planting in accordance with the requirements of the National Planning Policy Framework. The Secretary of State welcomes the intention in Paragraph 14.7.4 to seek such opportunities.
- 3.158 The Secretary of State notes the possible need for an Appropriate Assessment in view of the development site's location in relation to a number of European Sites, including the River Ehen SAC (see section 4 of this Opinion). The applicant is referred to Natural England's comments in respect of the body of information required to support Habitats Regulations Assessment.

Countryside Recreation (see Scoping Report Chapter 15)

- 3.159 Chapter 15 of the Scoping Report identifies a number of recreation activities. The Secretary of State welcomes the proposed consultation with local authorities and stakeholders, and also the proposed collection of baseline data in relation to the current level of use of existing facilities. Consultation with local authorities should also seek to agree the detail of the methodology for the assessment of effects.
- 3.160 The Secretary of State encourages discussions to take place with relevant consultees and stakeholders with regards to the area used informally for motocross. Consultation should consider the potential for a replacement facility or other suitable mitigation measures to deal with the displacement of the existing activity resulting from the proposed development (as referred to at the last bullet point of paragraph 15.7.1 of the Scoping Report).

- 3.161 The Scoping Report notes the implementation of the new England Coast Path in the vicinity of the proposed development. The Secretary of State draws attention to the consultation response of Natural England, that preferably the Path should be accommodated on the seaward side of the proposed development, to avoid lengthy inland detours. Appropriate mitigation measures for accommodation of the Path during the construction period will also need to be identified in the ES; Natural England's consultation response refers to their Coastal Access Scheme in this respect.
- 3.162 Paragraph 15.5.1 of the Scoping Report states that the effect on views enjoyed by walkers within the Lake District National Park will be addressed within the scope of Chapter 11 and 12 (landscape and visual effects). This should be suitably cross-referenced in the ES. Chapter 15 should include consideration of other indirect effects on countryside recreation that could result from the construction and operation of the proposed development on the National Park.

Socio-economics and Human Population (see Scoping Report Chapter 16)

- 3.163 The Secretary of State welcomes the proposed consultation with local authorities and stakeholders to further agree the detailed scope of the assessment taking account of local conditions and baseline data.
- 3.164 The Secretary of State agrees with the ZOI proposed for the study in most respects but considers that the demand for temporary accommodation during the construction period may affect settlements not mentioned in paragraph 16.5.1 (Cleator Moor, Egremont, Whitehaven, Workington and Barrow) and the rural hinterland. The ES should include the consideration of potential for significant effects on other settlements and the rural hinterland. The assessment of effects should include the potential effects, including indirect effects, to all relevant social and community infrastructure, including health care and education facilities.
- 3.165 Baseline information is expressed either as at the present day or from previously published information, such as the 2011 Census. Given the long duration of the construction programme, which is expected to extend until at least 2026, the applicant should consider how this will be assessed in the ES and the use of a future baseline for socio-economic and human population effects where relevant.
- 3.166 Table 16.11 sets out criteria for assessing the characteristics of socio-economic effects. Most of these are expressed as quantitative criteria, but some are qualitative. The assessment of

the adequacy of the supply of housing to meet local need should be expressed in quantitative terms, to ensure that the quantum of temporary accommodation proposed as associated development is adequate and mitigates potential impacts to the local supply of residential accommodation. The assessment of effects to the housing market should cover all relevant sectors, including short and long term rented accommodation, and tourist accommodation during the construction and operational phases of the project.

- 3.167 The indirect effects that may result from the temporary worker population on the local community, including effects on community cohesion, should also be considered.
- 3.168 Given the make-up of the local economy, the Secretary of State expects that the assessment of effects will include direct and indirect effects on local fisheries and agriculture and encourages consultation with relevant local groups in this respect. The applicant's attention is drawn to the consultation response received from the Marine Management Organisation, which indicates that data on commercial fisheries is at present incomplete, and shortcomings in the proposed surveys for establishing baseline with respect to impacts on fisheries. The Secretary of State expects that the applicant will discuss and agree the scope of such surveys and the methodologies for the assessment of effects on fisheries, which should include effects on recreational fishing, with the Marine Management Organisation and other relevant stakeholders.
- 3.169 The Scoping Report states at paragraph 16.5.38 that the baseline data will be collected on the scale of activity at the Sellafeld Complex and the manner in which this is expected to change over the next two decades. The Secretary of State draws attention to the consultation response received from Sellafeld Ltd. and concerns raised with regards to potential cumulative effects, and encourages the applicant to engage with Sellafeld Ltd in considering the detailed scope of the assessment in this respect.

Climate (see Scoping Report Chapter 17)

- 3.170 The Secretary of State notes from the Scoping Report that potential increases in surface water flooding, and predicted sea level rises that may give rise to the need for additional protection to the development site, are to be assessed in the Freshwater Environment and Marine and Coastal Processes chapters of the ES respectively.
- 3.171 Paragraph 17.2.3 of the scoping report refers to the requirements of EN-6, which states at section 2.10.2 that applicants should provide 'information as to how the development incorporates

adaptation measures to take account of the effects of climate change, including:

- coastal erosion and increased likelihood of storm surge and rising sea levels;
- effects of higher temperatures; and
- increased risk of drought, which could lead to a lack of available process water.'

The Secretary of State expects this information to be included in the ES. At present it is not clear where the effects of higher temperatures and increased risk of drought will be included in the assessment.

- 3.172 The Secretary of State notes the consultation response of Natural England which raises the issue of the security of the current railway embankment as a coastal flood defence. The applicant should confirm, in the ES, how the security of the embankment would be ensured in the event of Network Rail ceasing to maintain this structure in the future.

Additional Scoping Land (see Scoping Report Chapter 18)

Transport

- 3.173 Section 18.2 of the Scoping Report suggests that deterioration in the quality of infrastructure will be considered, where the increase in traffic is considered to be significant. The Secretary of State requires that deterioration to the road surface and verges due to changes in the composition of traffic should also be assessed.

Noise and Vibration

- 3.174 The Secretary of State has no additional comments to those provided on Chapter 5 of the Scoping Report.

Air quality

- 3.175 The Secretary of State has no additional comments to those provided on Chapter 6 of the Scoping Report.

Radiological issues

- 3.176 The Secretary of State has no additional comments to those provided on Chapter 7 of the Scoping Report.

Soils, geology and land quality

- 3.177 The Secretary of State has no additional comments to those provided on Chapter 8 of the Scoping Report.

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Freshwater environment

- 3.178 The Secretary of State has no additional comments to those provided on Chapter 9 of the Scoping Report.

Marine and coastal physical environment

- 3.179 The Secretary of State notes that details concerning the spatial extent and scope of works within the additional scoping land are yet to be confirmed. It is therefore not possible to agree that construction and operational activity on the additional scoping land would not affect the marine and coastal physical environment. The applicant should therefore review the potential for such effects (and the scope of the assessment required) as details of the development components/works within the Land emerge.

Landscape

- 3.180 The Secretary of State has no additional comments to those provided on Chapter 11 of the Scoping Report.

Visual

- 3.181 Paragraph 18.10.1 indicates that the visual receptors which may be affected by activities or uses during the construction phase would be primarily those within the additional scoping land or within 3km of its closest boundary. The Secretary of State confirms that the assessment should take include consideration of all visual receptors that may experience significant effects during the construction period.

Historic environment

- 3.182 The Secretary of State has no additional comments to those provided on Chapter 13 of the Scoping Report.

Biodiversity

- 3.183 The Secretary of State has no additional comments to those provided on Chapter 14 of the Scoping Report.

Countryside recreation

- 3.184 The Secretary of State has no additional comments to those provided on Chapter 15 of the Scoping Report.

Socio-economics and human population

- 3.185 The Secretary of State has no additional comments to those provided on Chapter 16 of the Scoping Report.

Climate

- 3.186 The Secretary of State has no additional comments to those provided on Chapter 17 of the Scoping Report.

Associated Development Sites (see Scoping Report Chapter 19)

Transport

- 3.187 Paragraph 19.2.21 of the Scoping Report references collection or sourcing of baseline transport data. The method of collection of new data should be clearly set out within the applicant's ES.
- 3.188 Paragraph 19.2.24 of the Scoping Report states that 'effects will be assessed with reference to baseline conditions in the absence of development on the sites, which may be cumulatively affected by other developments'. It is not clear what this means. The Secretary of State considers that the applicant should assess any development built-out prior to the start of construction within the future baseline.

Noise and Vibration

- 3.189 Whilst most effects may arise within 500m of the proposed associated development sites, the ZOI for the associated development sites should be dictated by the magnitude of change in sounds introduced into the local area by the development relative to the baseline. Potential effects on the tranquillity of the Lake District National Park should be taken into consideration when defining the ZOI.
- 3.190 Noise monitoring locations to inform the baseline should be agreed with the local Environmental Health Officer. CBC have suggested some additional noise monitoring locations in their comments on the Scoping Report (see Appendix 2 of this report).
- 3.191 Any additional traffic data commissioned for the transport assessment (as referenced in paragraph 19.2.21 of the Scoping Report) should also be used to inform the noise and vibration assessment.

Air quality

- 3.192 The Secretary of State has no additional comments to those provided on Chapter 6 of the Scoping Report.

Radiological issues

- 3.193 The Secretary of State has no additional comments to those already provided.

Soils, geology and land quality

- 3.194 The Secretary of State's comments on Chapter 8 of the Scoping Report also apply to the associated development Sites. The Secretary of State notes and welcomes that the ES will assess the potential impacts associated with other constraints that apply to these sites (including previous mining activities, on-site or nearby industrial estates, a disused quarry and railway land).

Freshwater environment

- 3.195 Chapter 19 does not include reference to any historic flooding in the areas proposed as associated development. The ES should ensure that records of historic flooding are used to inform the impact assessment.
- 3.196 Section 3.2 of the Freshwater Quality and Flows SMP states that it is currently anticipated that the majority of AD Sites will not require water quality survey and monitoring for the purposes of the EIA or to characterise the EIA baseline water quality environment, except where watercourses (beyond small drainage ditches) flow across a proposed associated development site and there remains the potential for adverse effects to reach water quality receptors, in which case monitoring may be required. The Secretary of State considers that there is currently insufficient information to establish that no water quality survey or monitoring of associated development sites should take place. However, the Secretary of State acknowledges the intention to review the need for targeted surveys and confirm these to the EA. The scope of any water quality surveys for the proposed development should be agreed with the EA.

Marine and coastal physical environment

- 3.197 The Secretary of State has no additional comments to make on this chapter.

Landscape

- 3.198 The Secretary of State agrees that the assessment of landscape effects resulting from the AD sites should use GLVIA3.
- 3.199 The Scoping Report contains only a very preliminary description of the nature of the development proposed at the AD sites, with no indication of height or massing. The Secretary of State considers that the extent of ZTVs that are proposed to be prepared for the AD sites should be agreed with relevant stakeholders as there is at present no justification for the 2km radius proposed in the Scoping Report.

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Visual

- 3.200 The Scoping Report contains only a very preliminary description of the nature of the development proposed at the AD sites, with no indication of height or massing. The Secretary of State expects that the extent of ZTVs that are proposed to be prepared for the AD sites should be agreed with relevant stakeholders as there is at present no justification for the 2km radius proposed in the Scoping Report. There is also no justification for the selection of visual receptors described in paragraphs 19.10.2 to 19.10.15. The Secretary of State expects to see a full explanation for the visual receptors considered in the assessment within the ES.

Historic environment

- 3.201 Paragraph 19.11.2 of the Scoping Report references three designated heritage assets within the AD site boundaries but only describes two Listed Buildings. The applicant should ensure that all assets referenced are described and assessed in the ES.

Biodiversity

- 3.202 Limited information has been presented with regards to the areas identified as associated development sites, and the sites potentially required for transport facilities and local transport network improvements referred to in Paragraphs 2.4.3 and 2.4.4 of the Scoping Report. The Secretary of State notes the additional baseline information recognised as required by the applicant in Paragraph 19.12.11, but recommends that the applicant should ensure that the surveys and figures submitted with the ES provide coverage of all impacted areas, including those impacted by temporary construction activity.

Countryside recreation

- 3.203 The Secretary of State has no additional comments to those provided on Chapter 15 of the Scoping Report.

Socio-economics and human population

- 3.204 The Secretary of State has no additional comments to those provided on Chapter 13 of the Scoping Report.

Climate

- 3.205 The Secretary of State has no additional comments to those provided on Chapter 17 of the Scoping Report.

4 OTHER INFORMATION

- 4.1 This section does not form part of the Secretary of State's Opinion as to the information to be provided in the environmental statement. However, it does respond to other issues that the Secretary of State has identified which may help to inform the preparation of the application for the DCO.

Pre-application Prospectus

- 4.2 The Planning Inspectorate offers a service for applicants at the pre-application stage of the nationally significant infrastructure planning process. Details are set out in the prospectus 'Pre-application service for NSIPs'. The prospectus explains what the Planning Inspectorate can offer during the pre-application phase and what is expected in return. The Planning Inspectorate can provide advice about the merits of a proposed development in respect of national policy; can review certain draft documents; as well as advice about procedural and other planning matters. Where necessary a facilitation role can be provided. The service is optional and free of charge.

- 4.3 The prospectus is available on our website:

http://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2014/05/NSIP-prospectus_May2014.pdf

- 4.4 The level of pre-application support provided by the Planning Inspectorate will be agreed between an applicant and the Inspectorate at the beginning of the pre-application stage and will be kept under review.

Habitats Regulations Assessment (HRA)

- 4.5 The Secretary of State notes that European sites may be located close to the proposed development. It is the applicant's responsibility to provide sufficient information to the Competent Authority (CA) to enable them to carry out a HRA if required. The applicant should note that the CA is the Secretary of State.

- 4.6 The applicant's attention is drawn to The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (as amended) (The APFP Regulations) and the need to include information identifying European sites to which the Habitats Regulations applies or any Ramsar site or potential SPA which may be affected by a proposal. The submitted information should be sufficient for the competent authority to make an appropriate assessment (AA) of the implications for the site if required by Regulation 61(1) of the Habitats Regulations.

- 4.7 The report to be submitted under Regulation 5(2)(g) of the APFP Regulations with the application must deal with two issues: the first is to enable a formal assessment by the CA of whether there is a likely significant effect; and the second, should it be required, is to enable the carrying out of an AA by the CA.
- 4.8 When considering aspects of the environment likely to be affected by the proposed development; including flora, fauna, soil, water, air and the inter-relationship between these, consideration should be given to the designated sites in the vicinity of the proposed development.
- 4.9 Further information with regard to the HRA process is contained within Planning Inspectorate's Advice Note 10 available on our website.

Evidence Plans

- 4.10 An evidence plan is a formal mechanism to agree upfront what information the applicant needs to supply to the Planning Inspectorate as part of a DCO application. An evidence plan will help to ensure compliance with the Habitats Regulations. The evidence plan process may be extended to cover matters such as EIA and Water Framework Directive assessment. It will be particularly relevant to NSIPs where impacts may be complex, large amounts of evidence may be needed or there are a number of uncertainties. It will also help applicants meet the requirement to provide sufficient information (as explained in Advice Note 10) in their application, so the Examining Authority can recommend to the Secretary of State whether or not to accept the application for examination and whether an appropriate assessment is required.
- 4.11 It is noted that the applicant has agreed an evidence plan with NE in relation to this project. The applicant's attention is drawn to the comments from NE in Appendix 2 of this report regarding the status of the plan as a working document.

Sites of Special Scientific Interest (SSSIs)

- 4.12 Where there may be potential impacts on SSSIs, the Secretary of State has duties under sections 28(G) and 28(I) of the Wildlife and Countryside Act 1981 (as amended) (the W&C Act). These are set out below for information.
- 4.13 Under s28(G), the Secretary of State has a general duty '... to take reasonable steps, consistent with the proper exercise of the authority's functions, to further the conservation and enhancement of the flora, fauna or geological or physiographical features by reason of which the site is of special scientific interest'.

- 4.14 Under s28(1), the Secretary of State must notify the relevant nature conservation body (NCB), NE in this case, before authorising the carrying out of operations likely to damage the special interest features of a SSSI. Under these circumstances 28 days must elapse before deciding whether to grant consent, and the Secretary of State must take account of any advice received from the NCB, including advice on attaching conditions to the consent. The NCB will be notified during the examination period.
- 4.15 If applicants consider it likely that notification may be necessary under s28(1), they are advised to resolve any issues with the NCB before the DCO application is submitted to the Secretary of State. If, following assessment by applicants, it is considered that operations affecting the SSSI will not lead to damage of the special interest features, applicants should make this clear in the ES. The application documents submitted in accordance with Regulation 5(2)(1) could also provide this information. Applicants should seek to agree with the NCB the DCO requirements which will provide protection for the SSSI before the DCO application is submitted.

European Protected Species (EPS)

- 4.16 Applicants should be aware that the decision maker under the Planning Act 2008 (PA 2008) has, as the CA, a duty to engage with the Habitats Directive. Where a potential risk to an EPS is identified, and before making a decision to grant development consent, the CA must, amongst other things, address the derogation tests² in Regulation 53 of the Habitats Regulations. Therefore the applicant may wish to provide information which will assist the decision maker to meet this duty.
- 4.17 If an applicant has concluded that an EPS licence is required the ExA will need to understand whether there is any impediment to the licence being granted. The decision to apply for a licence or not will rest with the applicant as the person responsible for commissioning the proposed activity by taking into account the advice of their consultant ecologist.
- 4.18 Applicants are encouraged to consult with NE and, where required, to agree appropriate requirements to secure necessary mitigation. It would assist the examination if applicants could provide, with the application documents, confirmation from NE whether any issues have been identified which would prevent the EPS licence being granted.

² Key case law re need to consider Article 16 of the Habitats Directive: Woolley vs East Cheshire County Council 2009 and Morge v Hampshire County Council 2010.

- 4.19 Generally, NE are unable to grant an EPS licence in respect of any development until all the necessary consents required have been secured in order to proceed. For NSIPs, NE will assess a draft licence application in order to ensure that all the relevant issues have been addressed. Within 30 working days of receipt, NE will either issue 'a letter of no impediment' stating that it is satisfied, insofar as it can make a judgement, that the proposals presented comply with the regulations or will issue a letter outlining why NE consider the proposals do not meet licensing requirements and what further information is required before a 'letter of no impediment' can be issued. The applicant is responsible for ensure draft licence applications are satisfactory for the purposes of informing formal pre-application assessment by NE.
- 4.20 Ecological conditions on the site may change over time. It will be the applicant's responsibility to ensure information is satisfactory for the purposes of informing the assessment of no detriment to the maintenance of favourable conservation status (FCS) of the population of EPS affected by the proposals³. Applicants are advised that current conservation status of populations may or may not be favourable. Demonstration of no detriment to favourable populations may require further survey and/or submission of revised short or long term mitigation or compensation proposals. In England the focus concerns the provision of up to date survey information which is then made available to NE (along with any resulting amendments to the draft licence application). This approach will help to ensure no delay in issuing the licence should the DCO application be successful. Applicants with projects in England or English waters can find further information on Natural England's protected species licensing procedures by clicking on the following link:
- <https://www.gov.uk/government/publications/european-protected-species-apply-for-a-mitigation-licence>
- 4.21 In England or English Waters, assistance may be obtained from the Consents Service Unit (please see section 4.23 below for more information on the work of the Unit).

Consents Service Unit

- 4.22 The Unit works with applicants on a number of key non-planning consents associated with nationally significant infrastructure projects in England and English Waters. The Unit's remit includes 12 non-planning consents, including European Protected Species (EPS) licences, environmental permits and flood defence consents.

³ Key case law in respect of the application of the FCS test at a site level: Hafod Quarry Land Tribunal (Mersey Waste (Holdings) Limited v Wrexham County Borough Council) 2012, and Court of Appeal 2012.

The consents covered are set out in Annex 1 of the Unit's 'Prospectus for Developers' available on the web. The service is free of charge and entirely voluntary. Further information is available from the following link:

<http://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/consents-service-unit/>

Other regulatory regimes

- 4.23 The Secretary of State recommends that the applicant should state clearly what regulatory areas are addressed in the ES and that the applicant should ensure that all relevant authorisations, licences, permits and consents that are necessary to enable operations to proceed are described in the ES. Also it should be clear that any likely significant effects of the proposed development which may be regulated by other statutory regimes have been properly taken into account in the ES.
- 4.24 It will not necessarily follow that the granting of consent under one regime will ensure consent under another regime. For those consents not capable of being included in an application for consent under the PA 2008, the Secretary of State will require a level of assurance or comfort from the relevant regulatory authorities that the proposal is acceptable and likely to be approved, before they make a recommendation or decision on an application. The applicant is encouraged to make early contact with other regulators. Information from the applicant about progress in obtaining other permits, licences or consents, including any confirmation that there is no obvious reason why these will not subsequently be granted, will be helpful in supporting an application for development consent to the Secretary of State.

The Environmental Permit

- 4.25 The Environmental Permitting Regulations 2010 (EPR 10) require operators of certain facilities, which could harm the environment or human health, to obtain permits from the Environment Agency. Environmental permits can combine several activities into one permit. There are standard permits supported by 'rules' for straightforward situations and bespoke permits for complex situations. For further information, please see: <https://www.gov.uk/environmental-permit-check-if-you-need-one>
- 4.26 The Environment Agency's environmental permits cover:
- industry regulation
 - waste management (waste treatment, recovery or disposal operations)
 - discharges to surface water

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- groundwater activities, and
- radioactive substances activities.

4.27 Characteristics of environmental permits include:

- they are granted to operators (not to land)
- they can be revoked or varied by the Environment Agency
- operators are subject to tests of competence
- operators may apply to transfer environmental permits to another operator subject to a test of competence
- conditions may be attached.

4.28 It is the responsibility of applicants to identify whether an environmental permit is required before an NSIP can be constructed or operated. Failure to obtain an environmental permit is an offence. The Consents Service Unit was established to aid applicants with this, see:

<http://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/consents-service-unit/>

4.29 The Environment Agency allocates a limited amount of permitting pre-application advice free of charge. Further advice can be provided, but this will be subject to cost recovery.

The Environment Agency encourages applicants to engage with them early in relation to the requirements of the Environmental Permitting process. Where a project is complex or novel, or requires a Habitats Risk Assessment, applicants are encouraged to 'parallel track' their environmental permit applications to the Environment Agency with their DCO applications to the Planning Inspectorate.

<http://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2013/04/Advice-note-11-Annex-D-EA.pdf>

4.30 When considering the timetable to submit their environmental permit application, applicants should bear in mind that the Environment Agency will not be in a position to provide a detailed view on the permit application until it issues its draft decision for public consultation (for sites of high public interest) or its final decision. Therefore the applicant should ideally submit its environmental permit application sufficiently early so that the Environment Agency is at this point in the determination by the time the Development Consent Order reaches examination.

4.31 It is also in the interests of an applicant to ensure that any specific requirements arising from permitting are capable of being carried out under the works permitted by the DCO. Otherwise there is a risk that requirements under permitting could conflict with the

works which have been authorised by the DCO and render the DCO impossible to implement.

Health Impact Assessment

- 4.32 The Secretary of State considers that it is a matter for the applicant to decide whether or not to submit a stand-alone Health Impact Assessment (HIA). However, the applicant should have regard to the responses received from the relevant consultees regarding health, and in particular to the comments from the Public Health England in relation to electric and magnetic effects (see Appendix 2). Attention is drawn to the consultation responses from the Office of Nuclear Safety and Public Health England.
- 4.33 The methodology for the HIA, if prepared, should be agreed with the relevant statutory consultees and take into account mitigation measures for acute risks.

Transboundary Impacts

- 4.34 The Secretary of State notes that the applicant has provided a transboundary screening matrix which does not identify any significant impacts on the environment of another European Economic Area (EEA) State.
- 4.35 Regulation 24 of the EIA Regulations, which inter alia require the Secretary of State to publicise a DCO application if the Secretary of State is of the view that the proposal is likely to have significant effects on the environment of another EEA state and where relevant to consult with the EEA state affected. The Secretary of State considers that where Regulation 24 applies, this is likely to have implications for the examination of a DCO application.
- 4.36 The Secretary of State has not yet undertaken a review of the potential transboundary effects of the project and so has not reached a conclusion on the likelihood of effects on another EEA state.

APPENDIX 1

LIST OF CONSULTEES

APPENDIX 1

LIST OF BODIES FORMALLY CONSULTED DURING THE SCOPING EXERCISE

CONSULTEE	ORGANISATION
SCHEDULE 1	
The Welsh Ministers	Welsh Government
The Scottish Executive	Scottish Government
The Relevant Northern Ireland Department	Department of the Environment in Northern Ireland
The Health and Safety Executive	Health and Safety Executive
The National Health Service Commissioning Board	NHS England
The relevant Clinical Commissioning Group	NHS Cumbria Clinical Commissioning Group
Natural England	Natural England
The Historic Buildings and Monuments Commission for England	Historic England - North West
The Relevant Fire and Rescue Authority	Cumbria Fire & Rescue Service
The Relevant Police and Crime Commissioner	Cumbria Police & Crime Commissioner
The Relevant Parish Council(s) or Relevant Community Council	Lowside Quarter Parish Council
	Ponsonby Parish Council
	Beckermet with Thornhill Parish Council
	St Bees Parish Council
	Haile & Wilton Parish Council
	Egremont Parish Council
	Cleator Moor Town Council
	Arlecdon & Frizington Parish Council Weddicar Parish Council
The Environment Agency	The Environment Agency - North West
The Joint Nature Conservation Committee	Joint Nature Conservation Committee
The Maritime and Coastguard Agency	Maritime & Coastguard Agency
The Marine Management Organisation	Marine Management Organisation (MMO)
The Civil Aviation Authority	Civil Aviation Authority
The Relevant Highways Authority	Cumbria County Council
The relevant strategic highways company	Highways England - North West
The Canal and River Trust	The Canal and River Trust
Trinity House	Trinity House
Public Health England, an	Public Health England

executive agency to the Department of Health	
The Crown Estate Commissioners	The Crown Estate
The Forestry Commission	Forestry Commission - North West and West Midlands
The Secretary of State for Defence	Ministry of Defence
The Office for Nuclear Regulation (the ONR)	The Office for Nuclear Regulation
RELEVANT STATUTORY UNDERTAKERS	
Health Bodies (s.16 of the Acquisition of Land Act (ALA) 1981)	
The National Health Service Commissioning Board	NHS England
The relevant Clinical Commissioning Group	NHS Cumbria Clinical Commissioning Group
Local Area Team	Cumbria, Northumberland and Tyne & Wear Area Team
Ambulance Trusts	North West Ambulance Service NHS Trust
Relevant Statutory Undertakers (s.8 ALA 1981)	
Railways	Network Rail Infrastructure Ltd
	Highways England Historical Railways Estate
Water Transport	The Canal and River Trust
Civil Aviation Authority	Civil Aviation Authority
Licence Holder (Chapter 1 Of Part 1 Of Transport Act 2000)	NATS En-Route Safeguarding
Universal Service Provider	Royal Mail Group
Relevant Homes and Communities Agency	Homes and Communities Agency
Relevant Environment Agency	Environment Agency
Water and Sewage Undertakers	United Utilities
Public Gas Transporter	Energetics Gas Limited
	ES Pipelines Ltd
	ESP Connections Ltd
	ESP Networks Ltd
	ESP Pipelines Ltd
	Fulcrum Pipelines Limited
	GTC Pipelines Limited
	Independent Pipelines Limited
	LNG Portable Pipeline Services Limited
	National Grid Gas Plc
	National Grid Gas Plc
	Quadrant Pipelines Limited
	SSE Pipelines Ltd
Scotland Gas Networks Plc	
Southern Gas Networks Plc	

	Wales and West Utilities Ltd
	Northern Gas Networks Limited
Electricity Generators With CPO Powers	Sellafield Limited
Electricity Distributors With CPO Powers	Energetics Electricity Limited
	ESP Electricity Limited
	Independent Power Networks Limited
	The Electricity Network Company Limited
	Utility Assets Limited
	Electricity North West Limited
Electricity Transmitters With CPO Powers	National Grid Electricity Transmission Plc
	National Grid Electricity Transmission Plc
LOCAL AUTHORITIES (SECTION 43)	
Local Authority	Copeland Borough Council South Lakeland District Council Allerdale Borough Council Barrow in Furness Borough Council Durham County Council Northumberland County Council Cumbria County Council Lancashire County Council North Yorkshire County Council Dumfries and Galloway Council Scottish Borders Council Lake District National Park Authority Yorkshire Dales National Park Authority Northumberland National Park Authority
NON-STATUTORY CONSULTEES	
Royal National Lifeboat Institution	
Isle of Man Government	

APPENDIX 2

RESPONDENTS TO CONSULTATION AND COPIES OF REPLIES

APPENDIX 2

LIST OF BODIES WHO REPLIED BY THE STATUTORY DEADLINE

Allerdale Borough Council
Canal & River Trust
Copeland Borough Council
Cumbria County Council
Dumfries & Galloway Council
Environment Agency
GTC Pipelines Limited
The Electricity Network Company Limited
Independent Power Networks Limited
Quadrant Pipelines Limited
Independent Pipelines Limited
Health and Safety Executive
Lake District National Park Authority
Marine Management Organisation
Maritime and Coastguard Agency
NATS
Natural England
North Yorkshire County Council
Northern Ireland
Office for Nuclear Regulation
Public Health England
Royal National Lifeboat Institution
Royal Mail
Scottish Borders Council
Sellafield Ltd
Trinity House
Welsh Government

Our Ref:
Your Ref:

This matter is being dealt by:
Julie Ward

Direct Line: 01900 702767

E-Mail: julie.ward@allerdale.gov.uk



Will Spencer
EIA and Land Rights Advisor
Planning Inspectorate
3/18 Eagle Wing
Template Quay House
2 The Square
Bristol
BS1 6PN

24 July 2015

Dear Sir,

Planning Act 2008 (as amended) and the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended) – Regulation 8

Application by Nugeneration Limited for an Order Granting Development Consent for Moorside Development Project

Scoping Consultation

Thank you for your letter dated 26 June 2015 regarding the above requesting comments on the scoping report for the Moorside project.

Allerdale Borough Council has been included in the initial dialogue regarding the scoping report by NuGeneration Limited. As the adjoining Local Authority the Council's principal interest centres on Associated Development arising from this project and wider impacts away from the Moorside site.

To date NuGEN has not identified Associated Development sites in Allerdale. However as some aspects of the project still require greater detail and clarity there may be a requirement to locate Associated Development in Allerdale. Should this be the case the Council seeks clarification on how this would be incorporated in to the scope of the Environmental Statement.

Similarly the emerging transport strategy has implications for the wider area especially in relation to the use of the West Cumbria rail line, which pass through three of the main towns in the Borough and will be critical to the movement of workers and materials for this project. References are made throughout the scoping document that further work will be required as more detail on Associated Development emerges. It is unclear, given that the scoping report is concentrated on



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Allerdale House
Workington
Cumbria CA14 3YJ
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the Moorside site and accommodation sites area of search how the wider impacts, including cumulative impacts, is to be addressed. It is unclear whether the existing scope captures the wider impacts especially in relation to transport.

Socio- economic factors

The Council welcomes recognition that the impact on the local population in terms of housing, employment and social infrastructure will extend outside the Copeland boundary. It is important that the area of search with in Allerdale is sufficiently wide in order to capture fully the housing and employment markets likely to be impacted by this project.

Noise and Vibration

All sensitive receptors will need to be identified and agreed with the Council to investigate the potential impact regarding any likely increase in road and rail movements within the Allerdale boundary. As the footprint and uses of the Associated Development sites are further identified, Allerdale will expect to be consulted and have input into the surveys.

In particular the Council seeks clarity on whether the type of freight trains used for construction would differ in terms of vibration generation from those currently using on the line and how this will be assessed.

The Council supports a continuing dialogue and sharing of best practice application of National Noise Policy. A key issue is the extent to which proposals for Associated Development will evolve and drive the assessment process for noise and vibration

Air Quality

The same approach will be required for air quality in terms of the need agree with the Council the approach and method to be used to robustly assess impacts on air quality.

Conclusion

The key issue for the Council is whether the wider impacts of this project outside the areas of search have been sufficiently captured and what is the process of how and when they will be incorporated as more detail emerges on the project. The Council wishes to ensure that all impacts are captured and a robust methodology is employed for Associated Development as it applies to Allerdale.

Yours faithfully

A solid black rectangular box used to redact the signature of Kevin Kerrigan.

Kevin Kerrigan
Head of Development Services

From: [Alison Truman](#)
To: [Environmental Services](#)
Subject: EN010047 – Nugen Moorside Development – EIA Scoping Consultation
Date: 15 July 2015 14:27:06

FAO Will Spencer

Thank you for your consultation dated 26 June 2015.

I can confirm that the proposed development does not affect any of the Canal & River Trust's waterways so we have no comments to make.

It is not necessary to include the Canal & River Trust in future stages of consultation.

Regards,

Alison Truman

Area Planner (North West & North Wales)

Canal & River Trust

Waterside House, Waterside Drive, Wigan WN3 5AZ

T. 01942 405774 **M.** 07917 898333

Cynlluniwr Ardal (Gogledd Orllewin a Gogledd Cymru),

Glandŵr Cymru

Waterside House, Waterside Drive, Wigan WN3 5AZ

Ff. 01942 405774 **S.** 07917 898333

alison.truman@canalrivertrust.org.uk www.canalrivertrust.org.uk

The Canal & River Trust is a new charity entrusted with the care of 2,000 miles of waterways in England and Wales. Get involved, join us - Visit / Donate / Volunteer at www.canalrivertrust.org.uk - Sign up for our newsletter at www.canalrivertrust.org.uk/newsletter

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Mae Glandŵr Cymru yn gwmni cyfyngedig drwy warant a gofrestrwyd yng Nghymru a Lloegr gyda rhif cwmni 7807276 a rhif elusen gofrestredig 1146792. Swyddfa gofrestredig: First Floor North, Station House, 500 Elder Gate, Milton Keynes MK9 1BB.

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Title	Response to NuGen Request for Scoping Opinion – EIA Scoping Report
Author	John Groves
Date of Issue	6 July 2015

The Council acknowledge the receipt of from the Planning Inspectorate having regard to the Scoping Request by NuGen relating to the Moorside Environmental Impact Assessment.

The Council has commissioned ARUP to provide a technical appraisal of issues which are covered by the EIA Scoping Report. A report is attached as Appendix 1 to this response. The Council would ask that this report is considered as the substantive basis for response to this consultation.

It is recognised that this consultation precedes more detailed evolution of the Moorside project. Whilst it is accepted that a range of principles about the construction of reactors on the main site can be accepted, it is clear that there is considerable additional detail around the project which will need to be specified in anticipation of the submission of an application for a Development Consent Order.

A separate document provides for the Council's comments in respect of the consultation by NuGen on a Stage 1 Strategic Issues Consultation. It is requested that this document – attached as Appendix 2 is read in conjunction with the specific EIA Scoping Submission provided by ARUP. This wider commentary elaborates on the Council's position in respect of the issues which are not covered in either Stage 1 or EIA Scoping processes as a result of omission or as a result of the detail of the project not as yet being sufficiently formed. For the most part it is acknowledged that any concerns or inadequacies identified are a consequence of the absence of detail in parts of the Moorside project

Whilst this consultation over Scoping early in the formulation of the project is welcomed, particularly based on an assumption that this enables the consultation to realistically inform the detailed design and form of the development and the approach to Environmental Assessment – it is clear that the nature of the wider project as currently presented is based on a considerable number of assumptions many of which are not currently evidenced.

It is accepted that the process of designing the project is inevitably iterative. It is considered however that the Council must highlight those areas where appraisal and understanding of the impact of the on the residential and business communities in Copeland, is currently constrained as a consequence of the limited information available. This particularly relates to understanding of the requirements for a construction workforce, the manner in which that workforce will be established and the consequences for accommodation, transportation and skills development strategies. It is considered that there are inherent weaknesses in submissions within the EIA Scoping Report around the topics of Socio-economic and Transport related impacts

It is accepted that this information will evolve as the project as a whole develops. The Council has confidence in the technical information which has emerged to date and a consequent expectation that as detail of the project is presented it will be provided in a competent and comprehensive manner. It should be noted however that the timetable established by NuGen for the submission of the DCO is incredibly challenging given this position. The ability to understand and respond appropriately to this evolving position must represent a risk in the projects progression and particularly the ability of the Council to be assured that the interests of the community which it represents can be adequately appraised and reported.

It will be noted that the Council has endeavoured to ensure that analysis of the Scoping Report is structure in a manner which highlights three categories of response:

- Area of consideration is adequately presented in consultation documentation and requires not further appraisal. (Subject to review as proposals evolve).
- Area of consideration is inadequately presented and requires further and/or amended appraisal.
- Proposals are insufficiently formed to enable informed response by the Council.

It is anticipated that the position of the Council in regard to the issue of a Scoping Opinion is consequently clear.

Appendix 1 – Scoping response on NuGen Moorside EIA Scoping Report - ARUP

Appendix 2 Copeland Borough Council Draft Response to NuGen Stage 1 Consultation

Copeland Borough Council
NuGeneration Moorside Project
Scoping Response on NuGeneration
Moorside EIA Scoping Report

Issue 3 | 23 July 2015

This report takes into account the particular instructions and requirements of our client

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party

Job number 243362-00

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4 Pierhead Street
Capital Waterside
Cardiff CF10 4QP
United Kingdom
www.arup.com

ARUP

Document Verification

Job title		NuGeneration Moorside Project		Job number	
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		Signature			
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		Description	Issue for NSIP Panel Review and Comment		
			Prepared by	Checked by	Approved by
		Name	Tara-Marie Richards	Helen Peake	Peter Hulson
		Signature			
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		Signature			

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Executive Summary

This report sets out the response from Copeland Borough Council (CBC) to the request for a Scoping Opinion from the Secretary of State pursuant to Regulation 8(1) of the Environmental Impact Assessment Regulations for the NuGeneration Moorside project. The Council sets out a technical commentary on the methodologies proposed in the NuGeneration Scoping Report as well as the information that should be supplied in the Environmental Statement (ES) to be submitted in support of the Development Consent Order (DCO) application pursuant to the Planning Act 2008.

CBC welcomes the opportunity to review and appraise consultation material and submissions made by NuGeneration. As principal host community to the development, the Council recognises its' key role in assessing the proposals as they evolve in response to NuGeneration's multi-stage consultation process.

The Council notes that it has also provided (under separate cover) a Stage 1 Strategic Issues Consultation Response to NuGeneration in respect of Section 47 of the Planning Act. Both this Scoping Response and the Strategic Issues Consultation reference common environmental information provided in the EIA Scoping Report provided by NuGeneration.

In this executive summary, a traffic light system has been employed to summarise the key recommendations in each topic area. This assessment reflects the Council's current position based on the information provided to date, and will be subject to review as the project progresses. It is acknowledged that where significant omissions are identified, this may be addressed as further project information becomes available.

Colour	
	The content of the EIA scoping report is considered appropriate and generally lacks errors or omissions. Information is considered adequate for the purpose of EIA Scoping with the expectation of further dialogue as the project progresses.
	Insufficient project definition, or baseline information available at this stage limits the extent to which the scoping approach can be evaluated. Further dialogue required on specific areas.
	The content of the Scoping Report has significant omissions, or requires updating or reviewing to comply with recommended policy and guidance.

Ref	Topic Area	Specific Issue	Adequacy of Technical Information	Gap Analysis and Council Recommendations	Suggested action or mitigation delivery mechanism
Project Strategy and Definition					
1.1	Project Definition and Approach to Scoping	Lack of project definition for the Additional Scoping Land, and Associated Development sites. The Scoping Report contains relatively little baseline data which undermines confidence in the approach to EIA		Continued dialogue in respect of project definition and strategy. Continued dialogue in respect of scoping the approach to EIA for Additional Scoping Land and Associated Development. This will be imperative to ensure that the Council and wider stakeholders are satisfied that a robust methodology is to be employed i.e. which is commensurate with the anticipated effects arising from development proposals. The commitment from NuGeneration for on-going engagement on this is welcomed and supported by the Council.	Further engagement in advance of Stage 2 consultation. Details of project strategy for Additional Scoping Land and Associated Development to be made available to the Council as soon as possible. Wider theme or topic based discussion fora with the Council and wider stakeholders recommended.

1.2	Project Definition and Approach to Scoping	Approach to scoping out of potential topic focussed EIA needs based on proposed and high level strategic limits of deviation at scoping stage.		The Environmental Statement (ES) should encompass the worst case effects assessment ('Rochdale envelope' approach). The Council urge caution where potential EIA needs are scoped out, before the project is sufficiently defined, limits of deviation are fully defined, or defined with a large degree of flexibility at this stage. Matters should not be scoped out from the EIA unless specifically confirmed as being scoped out by the Secretary of State in the Scoping Opinion.	Further engagement in advance of Stage 2 consultation. The Council recommends that this be linked into dialogue on further project definition when this becomes available.
Technical Appraisal					
2.1	Approach to EIA	Effective and sustained consultation to date.		Informal consultation undertaken with the Council with regard to the details of the Survey and Monitoring Plans (SMPs), has supported a more robust and thorough approach to baseline data collection.	Council to be consulted on any updated SMPs and linked to survey approaches where the project is not defined at this time. Further dialogue is required to ensure effective outcomes.
2.2	Approach to EIA	Consideration of cumulative, in-		The Council notes that the Scoping Report lacks topic specific detail regarding how	Further engagement in advance of Stage 2

		combination, and inter-disciplinary effects.		<p>cumulative development would be considered. The Council notes the complexity of cumulative assessment with respect to the ongoing decommissioning programme at Sellafield.</p> <p>The Council would wish to ensure that NuGeneration will fully assess any in-combination effects and inter-disciplinary effects, particularly those that have the potential to affect community / residential amenity.</p>	<p>consultation. The Council recognises the importance of dialogue on this matter, particularly as the project becomes more defined around the Associated Development strategy.</p>
2.3	Approach to EIA	Decommissioning and Legacy effects		<p>It is acknowledged that decommissioning of the nuclear power station is scoped out of the EIA. This is consistent with the approach supported by legislation at this time. NuGeneration should clarify how it intends to address decommissioning of all other elements (such as AD) that form part of the proposed DCO. A link should be made to the prospective end (legacy) uses of sites as far as this is possible.</p>	<p>Further engagement in advance of Stage 2 consultation. Development of an AD Transition Plan which sets out the status of infrastructure once it has served its' immediate purpose in supporting NuGeneration's construction needs.</p>
2.4	Approach to EIA	Planning Strategy		<p>Further explanation is required in respect of the development planning strategy and any sequential impacts associated with</p>	<p>Ongoing engagement with the Council and wider stakeholders. It</p>

				various phases of work supported under different planning regimes i.e. DCO, Town and Country Planning, Marine Licensing, and any permitted development.	will be important that effects are fully explored and appropriate / proportionate mitigation measures agreed to address effects.
3.1	Transport	Adequacy of proposed Scoping approach to Transport assessment.		The Council considers the scope of the assessment sufficient, although further detailed is expected prior to Stage 2 consultation. In particular, the Council will need to understand the relationship of the AD sites and the transport strategy from the perspective of the construction programme. The Council also highlight the need to understand the strategy for how excavated material will be dealt with. The overall excavated volumes (subject to re-use) are potentially large and could have significant transport implications.	Further engagement in advance of Stage 2 consultation. Further definition of the transport strategy linked in to the AD strategy and in particular the movement of workers, equipment and materials. Transport of excavated materials to be addressed as part of the EIA.
4.1	Noise and vibration	Assessment methodology		The Council has identified a number of concerns around the proposed assessment methodology, including compliance with assessment methodology advocated by the Noise Policy for England and the application of BS6472 Pt1. Further work is	EIA methodology to be further developed in consultation with the Council. The Council would support engagement on this issue

				required to ensure that the impact criteria correctly interpret BS4142:2014.	in terms of wider DCO experience of noise assessment.
4.2	Noise and Vibration	Potential effects from transport movements		The Council seek clarity on the type of freight trains used for construction as to how vibration would be assessed. Receptors affected by the new rail spur should be considered, alongside those on the existing track. Quantified justification is required as to why operational phase vibration this is not assessed in the context of operational rail movement, and further definition of the number of rail movement and the management of spoil required.	Further consideration given to the assessment of vibration from operational rail movement as part of the EIA or further justification required on its exclusion.
4.3	Noise and Vibration	Potential effects and health and tranquillity		There should be a full consideration of all the receptors and resources potentially affected to properly scope the spatial scope and the methodologies. This could include places prized for tranquillity, and potential effects on health and quality of life.	To be considered as part of the EIA. To be considered as part of the EIA. The Council recognises that this would be more readily undertaken when the project is fully defined.
5.1	Air Quality and Climate	Assessment of impacts on climate		The Council would strongly encourage NuGeneration to consider carbon foot-printing for the construction stage in	To be considered as part of the EIA.

				alignment with the Copeland Local Plan and recommendations of the HM Treasury Infrastructure Carbon Review.	
5.2	Air Quality and climate	Baseline assessment		<p>It is considered that the monitoring survey is largely sufficient to establish baseline conditions. Clarification is sought on the rationale for why NO₂ monitoring is being undertaken at the SSSI rather than NO_x monitoring, and the absence of SO₂ monitoring.</p> <p>Assessment of emissions from all modes of transport including train, ship and vehicle emissions should be incorporated within an appropriate Zone Of Influence (ZoI).</p>	Further engagement in advance of Stage 2 consultation.
5.3	Air Quality and Climate	Assessment methodology		<p>The Council recommends that criteria to determine impact and significance provided in the revised EPUK/IAQM development control guidance should be used to determine affected roads as a result of the scheme (this also applies for AD sites). This will require amendment to the evaluation significance criteria proposed.</p> <p>The assessment of potential significant effects on nitrogen and acid deposition at</p>	To be considered as part of the EIA and HRA.

				ecological receptors should be given due regard under the Habitats Regulations Assessment (HRA).	
5.4	Air Quality and Climate	Assessment methodology		The air quality and climate assessment should link to the Health Impact Assessment (HIA) and transport, noise and vibration, amenity and socio- economic assessments to provide a holistic assessment of potential community and health impacts.	To be considered as part of the EIA.
5.5	Air Quality and Climate	Assessment methodology		The air quality and climate assessment should link to the Health Impact Assessment (HIA) and transport, noise and vibration, amenity and socio- economic assessments to provide a holistic assessment of potential community and health impacts.	To be considered as part of the EIA.
6.1	Radiological issues	Baseline data		The baseline data gathering and assessment proposals appear reasonable, however the detailed locations and testing suites for radiological assessment cannot be ascertained from the information provided.	Further engagement in advance of Stage 2 consultation.

<p>6.2</p>	<p>Radiological issues</p>	<p>Assessment methodology</p>		<p>The Council would anticipate the consideration of potential effects associated with dewatering and disposal of radiological contaminated groundwater within the ES.</p> <p>The radiological assessment considers human and non-human species effects via air, groundwater, soil and marine environment pathways and therefore has interfaces with several other proposed ES chapters. Further clarity is sought around the methodology associated with predicted radiation dose.</p> <p>In respect of issues relating the change in baseline for contaminated sediments there needs to be a clear understanding of the potential for marine cooling of the Moorside project to, in itself, change the baseline during construction and operations. This will need to be fully evaluated during the design of the cooling water systems intake and outfall structures and the associated marine environment modelling.</p>	<p>To be considered as part of the EIA and wider regulator engagement (alongside the Council).</p>
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7.2	Soils, Geology, Agricultural Land and Land Quality (including spoil management)	Baseline information		The Council considers the baseline adequate for the purpose of Scoping. Further baseline information should include details of superficial deposits thickness and characteristics; sandstone bedrock characteristics and faulting and excavated soils within the reactor footprint.	To be considered as part of the EIA. The Council notes limited definition in respect of geological conditions of AD sites and anticipates further dialogue on this matter.
7.3	Soils, Geology, Agricultural Land and Land Quality (including spoil management)	Assessment methodology		It is unclear to the Council whether the assessment will consider all receptors (including water, environmental, ecology receptors (as well as wider consideration of invasive species) as well as radiological contamination.	To be considered as part of the EIA.
8.1	Freshwater Environment and Flood Management	Assessment methodology		The Council would generally note that the Freshwater section of the Scoping Report is thorough and systematic although the approach to assessment of effects is presented in outline only. Detailed methodologies for assessment of potential effects have not yet been defined.	Further engagement in advance of Stage 2 consultation.

<p>8.2</p>	<p>Freshwater Environment and Flood Management</p>	<p>Flood risk assessment methodology</p>		<p>A joint probability analysis of river flow and tidal boundary conditions is recommended. The Flood Risk Assessment (FRA) should align with the ES and the material supporting dialogue with wider regulators including ONR on the Generic Design Assessment process.</p> <p>The Council notes that NuGen will need to assess and demonstrate that staff and visitors to the site will remain safe from the flooding effects (including residual effects) from a flood with a 1 in 1,000 (0.1%) annual probability.</p>	<p>To be considered as part of the EIA.</p>
<p>8.3</p>	<p>Marine and Coastal Physical Environment</p>	<p>Potential effects on designated sites</p>		<p>Low Church Moss SSSI requires particular consideration due to the potential sensitivity of this SSSI to changes to the hydrogeological regime (such as dewatering or in-ground barriers to groundwater flow).</p>	<p>To be considered as part of the EIA.</p>
<p>9.1</p>	<p>Marine and Coastal Physical Environment</p>	<p>Assessment methodology and project definition</p>		<p>Further design definition is required to establish the likely significant effects, and therefore comment on the suitability of baseline data and detailed methodologies e.g. details on where the in-take and out-</p>	<p>Further engagement in advance of Stage 2 consultation.</p>

				<p>falls will be located, type of structure present on the seabed, and location and facilities expected at the MOLF.</p> <p>The Council notes that there is limited information on dredging and disposal operations.</p>	
9.2	Marine and Coastal Physical Environment	Assessment criteria		<p>An understanding of sediment transport will underpin the marine coastal assessment. The assessment criteria need to be considered further in terms of changes to the general marine physical processes and not just focussed on designated sites. Long terms climate implications on physical processes require some consideration.</p>	<p>Further engagement in advance of Stage 2 consultation.</p>
9.3	Marine and Coastal Physical Environment	Cooling infrastructure		<p>The Council notes a considerable area of uncertainty in NuGeneration’s proposals for cooling at this time. Furthermore, the range of options create very different requirements in the marine and terrestrial environment.</p>	<p>Further engagement in advance of Stage 2 consultation as project definition is developed for the cooling options.</p>

10.1	Landscape and Visual Impacts	Baseline information		The approach taken to capturing the baseline characteristics is judged to be adequate, subject to further refinement and further engagement as design, including the MOLF, Additional Scoping Land and AD details emerge. Due consideration should be given to the relatively proximate Local Character Areas are not included within the current ZTV.	Further engagement in advance of Stage 2 consultation and as the project is more thoroughly defined.
10.2	Landscape and Visual Impacts	Mitigation		The landscape chapter does not address how mitigation and replacement planting would be considered/secured. Opportunities for off-site mitigation measures such as planting may need to be explored.	Mitigation plans to be developed as early as possible as part of the EIA with a view to SOCG with the Council and wider stakeholders. Mitigation to be secured via DCO requirements.
11.1	Historic Environment	Baseline and Approach		The Council considers the approach taken by NuGeneration to the Scoping Report largely appropriate. The Council would encourage NuGeneration to adopt a precautionary approach to scoping and to scope matters in where development and	Further engagement in advance of Stage 2 consultation and commitment to adopt a precautionary approach to scoping the EIA.

				<p>the nature of their effects is yet to be fully defined.</p> <p>The ZoI should be given consideration as the scope of development in AD is defined.</p>	
11.2	Biodiversity	Baseline and survey methodology		<p>The Council considers that the Biodiversity SMP and baseline has been substantively developed. Further detail is recommended in respect of Ancient Woodland, Section 41 Natural Environment and Rural Communities (NERC) mammals, polecat and harvest mouse.</p> <p>The Council requests further clarity surrounding the detail of surveys relating to terrestrial invertebrates, S41 species, badger, bats, great crested newts, reptiles, amphibious mammals, breeding bird surveys, white-clawed crayfish and aquatic macro invertebrates.</p>	<p>Council to be consulted on any updated to the SMPs and during the development of the ecology strategy for the project.</p>
11.3	Biodiversity	Habitats Regulations Assessment		<p>The programme for HRA Evidence Plan, should align appropriately with the survey programme.</p> <p>The Council seeks clarification on whether any freshwater pearl mussel downstream</p>	<p>Further engagement in advance of Stage 2 consultation.</p> <p>HRA matters to be considered in further</p>

				<p>from the SAC boundary are being considered as part of the SAC population or if such reaches will be treated as contributing habitat to the SAC. This will clearly be an important matter for inclusion / discussion with the HRA.</p> <p>A mechanism to include other new projects within the in-combination assessment that may come forward between now and the application date would be helpful.</p>	<p>dialogue with the Council and Natural England.</p>
12.1	Countryside Recreation	Assessment scope and methodology		<p>It is accepted that the methodology is currently high level, therefore details will need to be agreed regarding the scope of assessment, assessment methodology, and how mitigation will be identified and secured.</p> <p>The Council stress the importance of appropriate consideration of the future baseline (e.g. the proposed England Coastal Path). Nugeneration should consider the potential effects during construction including those on the recreational coast and bathing water standards. Potential impacts associated</p>	<p>Further engagement in advance of Stage 2 consultation.</p> <p>Ongoing consideration as part of EIA.</p>

				with the MOLF and AD sites require further consideration, along with an appropriate mitigation strategy.	
13.1	Socio-Economics and Human Population	Supply Chain and legacy benefit		<p>The Council wish to be consulted further on baseline information including the supply chain and employment. A baseline analysis should identify gaps in the supply chain and skills and inform a supply chain strategy and should be supported by a robust quantitative data.</p> <p>The Council require more detail on the precise mechanisms for NuGeneration’s commitments to the local supply chain to ensure that such measures are agreed, investment is secured and a linkage made to the long term legacy benefits arising from the project.</p>	<p>Further engagement in advance of Stage 2 consultation.</p> <p>Supply Chain Strategy to be developed to inform the DCO with underpin DCO Requirements and Obligations.</p>
13.2	Socio-Economics and Human Population	Assessment of amenity effects		<p>Further detail should be provided on how an amenity assessment will be undertaken. NuGeneration’s approach to the socioeconomics / human population sections of the ES are primary areas where cumulative environmental effects will be assessed.</p>	<p>Further engagement in advance of Stage 2 consultation.</p>

13.3	Socio-Economics and Human Population	Accommodation Strategy		An accommodation strategy should be provided, based on a robust baseline should identify displacement effects, tourism impacts and the potential for legacy benefits.	Further engagement in advance of Stage 2 consultation.
13.4	Socio-Economics and Human Population	Social and cultural infrastructure		Further detail should be provided as to potential impacts and legacy benefits for community social and cultural infrastructure provision. The demand for religious facilities currently assumes Christian provision only. Nugeneration should provide evidence to support key assumptions.	Further engagement in advance of Stage 2 consultation.
14.1	Health Impact Assessment (HIA)	Scoping of HIA.		<p>NuGeneration propose to provide an HIA and this is welcomed by the Council. However, it is unclear when this document will be provided and what the intended content is.</p> <p>Healthcare provision for workers including the potential for ‘supporting local leisure and health services’ should be linked back to the anticipated worker needs and any balance of provision which might be accessed by the community clearly</p>	Further engagement in advance of Stage 2 consultation. A draft of the approach to the HIA should be shared with the Council and wider stakeholders prior to its’ formulation.

				articulated in the HIA. Nugeneration should also consider post-construction implications of sustained infrastructure provision.	
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1 Introduction

1.1 Scope and Context of Evaluation

This technical evaluation of the Moorside Environmental Impact Assessment (EIA) Scoping Report sets out the response from Copeland Borough Council (CBC) to the request for a Scoping Opinion from the Secretary of State pursuant to Regulation 8(1) of the EIA Regulations and for the information that should be supplied in the Environmental Statement (ES) to be submitted in support of the Development Consent Order (DCO) application.

In order to provide a full account of the NuGeneration Scoping Report, this response includes a detailed review of the information and data provided within. This sets the context for additional material which would be expected by the Council within the Environmental Statement.

Due recognition has been given to the Infrastructure Planning (Environmental Impact Assessment) (Amendment) Regulations 2012 (hereafter referred to as the EIA Regulations), The Planning Inspectorate Advice Note Seven, Preliminary Environmental Information, Screening and Scoping (PINS, 2015,) the EIA Regulations and the Department for Communities and Local Government's (DCLG's) EIA Planning Practice Guidance (DCLG, 2014).

Copeland Borough Council welcomes the opportunity to review and appraise submissions made by NuGeneration relating to their proposals for a new nuclear power plant at their Moorside site. As principal host authority to the development, the Council recognises its' key role in assessing the proposals as they evolve in response to NuGeneration's multi-stage consultation process.

2 Technical Evaluation and Response (Moorside EIA Scoping Report)

2.1 Review of the Introduction (Section 1)

This section of the Scoping Report gives a brief overview of the proposed development, the project team, and the purpose and structure of the Scoping Report. This section also outlines whether the project qualifies as a Nationally Significant Infrastructure Projects (NSIPs) under the Planning Act 2008. The section identifies that the Moorside Project will require a Development Consent Order (DCO) application and that decision-making with respect to the granting of the DCO will rest ultimately with the Secretary of State (SoS). The Council notes that the Scoping Report omits in places the correct legislative references, including the Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended). This should be appropriately addressed within the ES.

NuGeneration acknowledge the potential for the project to fall under transitional arrangements for changes made to the EIA Directive. Dependent upon the date when the new regulations come into force, NuGeneration will, where applicable, incorporate the new requirements from the Regulations within the EIA work that leads to the preparation of the Moorside ES. Copeland Borough Council welcome the commitment to consider legislative changes where required, and would wish to see emerging best practice and advice given by PINS within the published advice notes taken into consideration in preparation of the ES. NuGeneration should consider and engage the Council on the implications of any future potential changes likely to be made to the EIA Regulations and how this might affect the scheme.

It should be noted that EIA studies to date have focused upon the Initial Scoping Land within the Moorside Search Area and there is a greater level of detail provided for the Initial Scoping Land than for the Additional Scoping Land and Associated Development (AD) search areas. Further additional baseline data for the Additional Scoping Land and AD is required which would be expected within the Environmental Statement. Furthermore, details associated with potential transport proposals and infrastructure development is not available in detail at this time. Where further infrastructure design detail is required to refine the Survey and Monitoring Plans (SMPs), NuGeneration have committed on continuing engagement with the Council and key stakeholders to finalise the SMPs. Although fully formed responses regarding the baseline data collection are not possible where further project definition is required, the Council welcomes and supports the concept of continuing dialogue in this regard. The Council would wish to see further details emerge between Stage 1 and Stage 2 S47 Planning Act consultation on AD sites and a refinement of Survey and Monitoring Plans (SMPs) and EIA assessment methodologies.

Section 1.4 of the Introduction refers to the Developer and Project Team and outlines a number of organisations who are undertaking the EIA technical assessments. Table 1.1 outlines the environmental studies which will be included within the Environmental Statement. Whilst these topics are broadly welcomed it is noted that limited provision appears to have been made within the Environmental Statement for discussion on Sustainability, and health related assessments are yet to be defined in the context of HIA scoping. Given that the proposals comprise a large scale, safety-critical heavy civil engineering project with the potential for influence on sustainability and health-related matters it is expected that these matters will be addressed within the Environmental Statement accompanying the DCO. It should be noted that specialist support for the EIA technical assessment of Radiological Issues, Additional Scoping Land and Associate Development Sites has not been illustrated within Table 1.1.

There is an imbalance of baseline information between the initial scoping land and additional scoping land within the Scoping Report. It is not clear to what extent the additional scoping land will be relied on to construct the Moorside Power Station although it is currently envisaged to include areas which may be required for power station construction activities and for environmental mitigation (paragraph 1.4.2). However, it is difficult to conclude this area of additional scoping land will not be relied on to form part of the operational land, particularly the coastal foreshore areas.

Due reference is made in Section 1.5 to the required consents, licences, permits and assessments independent of the DCO. These should be specified in full within the Environmental Statement and demonstrate the relationship to environmental effects assessed within the EIA.

Section 1.7 refers to consultation undertaken to date and outlines the objectives of the consultation process. It is considered helpful for the outcome of pre-application consultation to be reflected in the Environmental Statement with a full account of representations made by consultees and the means by which these have been addressed within the Environmental Statement.

In many topic areas, the Council is encouraged to note that prior comments provided on an earlier draft of the Scoping Report have been addressed. Consultation has been undertaken with the Council and key stakeholders with regard to the details of the Survey and Monitoring Plans (SMPs) which have resulted in a largely robust and thorough approach to baseline data collection.

In addition, in relation to advice given on the PINS website (20th May 2015) (Ref: EN010047_3191421) – any consultation carried out in relation to the original EIA Regulation 6(1)(b) notification from NuGeneration and subsequent Regulation 9 list of prescribed consultation bodies may need to be checked as this was developed on the power station and did not include the AD proposed at other sites in the vicinity of the proposed development. This may mean that additional consultees may be identified which were not included in the original list of consultation bodies.

It should be noted that the consultation threshold may need to include consultees in Ireland, for instance An Taisce (The Irish National Trust). The Hinkley Point C nuclear power station development was challenged by An Taisce which was

unsuccessful at the High Court and Court of Appeal. The appeal was on the basis that the government should have consulted the Irish Government on the transboundary effects of the project but did not do so. The case centred on the meaning of 'likely' in this context, given that Ireland should have been consulted if environmental effects from the project were considered 'likely'. The claimants argued that 'likely' meant the same for the purposes of the Habitats Regulations and the Environmental Impact Assessment regulations, but the judges disagreed. While the judges accepted that the greater the environmental impacts that would occur, the less the chance of them occurring would have to be for them to require consultation, taking a 'zero risk' approach was going too far. The consultation threshold should be treated similarly to include low-probability high-impact events, but not where the probability is much smaller than the magnitude of the impact.

Further clarification is required on the need for cooling towers to support the Moorside development and the likely significant effect this could have on views from the Initial Scoping Land and more widely including the potential to give rise to a transboundary impact.

The structure of the report is outlined in paragraph 1.6.1. It is noted that Chapter 20 provides a tabular summary of potential significant effects that are not likely to be significant and that it is therefore proposed to 'scope out' of the EIA for the Moorside Project. When scoping out, NuGeneration must give sufficient information including relevant baseline information, assessment and reasoning for the determining authority to make a judgement on scoping out.

It should be noted that matters should not be scoped out unless specifically confirmed as being scoped out by the Secretary of State in the Scoping Opinion as further investigations through pre-application may prove otherwise. Whilst the Secretary of State may not agree to scope out certain topics or matters within the Scoping Opinion on the basis of the information available at the time, this does not prevent applicants from subsequently agreeing with the relevant consultees to scope matters out of the ES, where further evidence has been provided to justify this approach. The Council anticipate that this approach will be explained fully in the ES.

It will be important for the Council to understand the programme for design maturity through pre-application and how this ties into the consultation process, EIA, and the limits of deviation relied on for the purposes of environmental assessment and the DCO. The Environmental Statement submitted with the DCO should encompass the worst case effects of the project (Rochdale envelope approach). It is important the Rochdale envelope and its implications on the EIA are clearly defined, and informed by on-going dialogue with the Council. The Council urge caution where potential effects are scoped out, before the limits of deviation are fully defined, or defined with a large degree of flexibility at this stage.

Additionally the Council wish to understand which elements of design detail which will be subject to Requirement, requiring further support from the Council post consent.

2.2 Review of Description of the Development (Section 2)

Regulation 8(3) of the EIA Regulations specifies that the request for a scoping opinion should include a *plan sufficient to identify the land; a brief description of the nature and purpose of the development and possible effects on the environment; such other information or representations* which the applicant may wish to provide. Whilst it is noted that the graphical material included in appendices to the Scoping Report provide outline information in terms of geographical area of the Moorside Search Area, Initial Scoping Land and Additional Scoping Land, considerably more detail would be required in the Environmental Statement. Very limited information is provided within the Scoping Report in graphical terms with respect to the infrastructure and facilities of the AD Sites and Moorside Power Station. Furthermore, due regard should be made of the location and extent of all aspects of the proposals including the specific location of offshore works such as possible cooling water tunnels.

Reference is made to the relevant NPSs (EN-1 & EN-6) which identifies land adjacent to the existing Sellafield Complex as being potentially suitable for development of a new nuclear power station – i.e. ‘the NPS boundary for the Reactor.

The Planning Inspectorate should be drawn to Figures 1.2 – 1.5 (included in the Scoping Report) which illustrate the locations of Moorside Search Area, Initial Scoping Land, Additional Scoping Land and AD Sites. It should be clear from the outset that the Scoping Report (and therefore the Environmental Statement to follow) should adequately detail all aspects of the proposed development such that the proposed methodology for EIA can be validated. Further detail would be requested within the Environmental Statement (in graphical as well as narrative form) on:

- Detailed information on the Marine Offloading Facility (MOLF);
- Detailed information on cooling water tunnels;
- Detailed information on electricity transmission infrastructure (including substations);
- Information on options and proposals for interim waste store for high level waste for 160 years;
- Location of access roads (in conjunction with enhancements);
- Proposed locations of landscape and ecological mitigation / enhancement measures;
- Support and administration buildings;
- Park and Ride facilities;
- Freight consolidations facilities;
- Accommodation Facilities (on and offsite), including legacy uses;
- Design guidance and criteria for off-site development;

- Local labour agreement;
- Leisure strategy for workers and the host community, including physical proposals;
- Approach to obligations, requirements and community benefit;
- Visitor centre;
- Surface water and foul sewer drainage systems.

Spoil management from onshore excavations used to facilitate foundations (stated at 10 million cubic metres) (2.3.4 P24 Scoping Report) is of interest to the Council, particularly in respect of the strategy for retaining spoil for landscaping. The wider management of spoil extracted from cooling water tunnel construction (if this is not included in the above figure) is also of interest. Final siting considerations for AP1000 deployment is assumed to have a crucial bearing on the material required in excavation given the variable depth of overburden across the site. The Council is aware that this is broadly characterised by relatively shallow depth to bedrock in the northern area of the NPS boundary with greater depth to bedrock approaching the coastal zone.

Paragraph 2.3 provides information around the construction, operational and decommissioning activities of the nuclear plant and ancillary infrastructure. Given the need to store intermediate level waste on the site over potentially a 100 year timeframe due reference should be made to climate adaption and flood assessment within this period. In combination with these details being provided for the station in the Environmental Statement, a Legacy Management Programme detailing the management intentions of off-site AD should be included within the Environmental Statement, including impacts of climate change, and the issues associated with the national waste repository. It is fundamentally important for the Planning Inspectorate to understand that the interim waste proposals are long term proposals for 160 years. Communities will need to understand the degree of risk associated with the deliverability of this, and the detailed implications locally, for example, a long term high level radioactive store.

It should also be set out that the developer has no plans to accommodate new or existing waste from other sites in the UK or overseas at the Moorside site. It is purely for its own operational use.

The Scoping Report states at paragraph 2.3.14 '*Decommissioning of the AD (AD) elements which are required only for the construction phase would be included in the ES*'. It should be confirmed how it intends to address decommissioning of existing facilities which are subject to improvement and will be included in the DCO application i.e. utilities, community facilities, logistical distributions centres, ports and highways.

Although it is acknowledged that the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations (1999) [S.I. 2892] permit the decommissioning of the generating station being scoped out of the EIA, NuGeneration should clarify how it intends to address decommissioning of all other elements (such as AD) that form part of the proposed DCO.

Section 2.4 describes the AD Sites and it is recognised that four search areas for ADs have been identified and there are seven land parcels within these four search areas. The location and layout of development within the four AD search areas and the detailed land use proposals for each AD site are yet to be determined. However, it is expected that detailed information on this will be provided in the Environmental Statement.

In paragraph 2.4.2 NuGeneration notes that ‘other locations are being considered for park and ride/rail facilities, freight sequencing/consolidation and port infrastructure. Requirements for new development at these locations have not been determined’. These services / functions have a fundamental bearing on the wider ‘movement strategy’ for the project and will also influence the potential for legacy consistent with the Council’s Local Plan. The Council welcomes NuGeneration’s commitment to continued consultation on these matters and believes this is imperative in order to facilitate conjoined working and to achieve mutually acceptable outcomes for the project.

In paragraph 2.4.4, NuGeneration highlights the ‘need for infrastructure improvements to the local road and rail networks to support the construction and operation of the Moorside Project’. Furthermore, the Scoping Report states that the ‘exact nature of these improvements are currently being defined in liaison with relevant stakeholders’. The Council would wish to be involved in this dialogue and seek confirmation from NuGeneration on the anticipated scope of transport improvements linked to the AD Strategy and the points at which there will be an opportunity for dialogue. The Council notes that the resolution of such matters at Stage 2 i.e. in May to July 2016 would leave limited opportunity to genuinely influence the project prior to the anticipated DCO submission in April 2017.

NuGeneration note in paragraph 2.4.5, that the ‘location and layout of development within the four AD search areas and the detailed land use proposals for each AD site are yet to be determined’. This is a matter of some concern for the Council. The Council anticipated indicative layouts and broad functions to be included alongside Scoping. This section of the Scoping Report goes on to note that ‘detailed proposals will be developed in consultation with local planning authorities and other key stakeholders, informed by the evolving construction workforce accommodation strategy and the transport strategy’. The emphasis on consultation with Copeland and other stakeholders is welcomed although the precise means of undertaking this consultation is to be discussed and agreed. Whilst the association of AD sites with transport is understood, the Councils would also urge NuGeneration to consider spatial recommendations in the Local Plan at the centre of its’ AD Strategy. The Council notes that in respect of land use, the Local Plan identifies a need to ‘target new development to existing centres as the most sustainable locations and to support population and economic growth’ (2.1.6). This will be a key element which the Council need to have reflected in NuGeneration’s AD strategy.

Section 2.5 outlines an explanation with regards to not considering main alternative sites for the nuclear power station element of the Moorside Project within the ES. The UK Government’s Strategic Siting Assessment (SSA) has identified eight key sites for the development of new nuclear power stations, the Sellafield site is one of these sites. The selection of this site, which adjoins the

Sellafield Complex, reflects the government's preference for locating new nuclear power stations as close to existing nuclear related activities as possible to help minimise a number of potential effects and take advantage of existing infrastructure and the availability of key resources. It is welcomed that other alternatives will be considered for the proposed MOLF, AD, temporary and permanent arrangements for the placement and landforming of soils, the distribution of construction activities and land restoration proposals.

2.3 Review of Approach to EIA scoping (Section 3)

This section describes the anticipated approach to and content of the EIA Scoping.

The Scoping Report sets out the environmental topics to be addressed in the ES at Table 3.1, making reference to environmental aspects included in Schedule 4 Part 1 of the EIA Regulations and uses this to justify the technical chapters selected.

NuGeneration acknowledge the potential for the project to fall under transitional arrangements for changes made to the EIA Directive. Dependent upon the date when the new Regulations come into force, NuGeneration will, where applicable, incorporate the new requirements from the Regulations within the EIA work that leads to the preparation of the Moorside ES. Copeland Borough Council welcome the commitment to consider legislative changes where required, and would wish to see emerging best practice and advice given by PINS within the published advice notes taken into consideration in preparation of the ES. NuGeneration should consider and engage the Council on the implications of any future potential changes likely to be made to the EIA Regulations and how this might affect the scheme.

Table 3.2 identifies the potential environmental effects that can be caused by the construction, operation and decommissioning of new nuclear power stations identified in Part 5 of The Overarching National Policy Statement (NPS) for Energy (EN-1) (see pages 65 – 113) and sections 3.7-3.12 of the NPS for Nuclear Power Generation (EN-6) Volume 1 (pages 23 - 30) (Department of Energy and Climate Change 2011a and b). It is welcomed that Human Health and Wellbeing will be addressed in most chapters, most notably Noise and Vibration [Chapter 5]; Air Quality [Chapter 6]; Radiological [Chapter 7]; Visual [Chapter 12]; Socio-economics [Chapter 16]). In addition, a free-standing Health Impact Assessment will be prepared although the Council notes that there is limited information on this at this time.

Table 3.2 makes reference to the Waste Management for the project. Estimates of waste material arising and due reference to the anticipated role of a Geological Disposal Facility (GDF) as well as transportation requirements / effects should be made in a dedicated chapter of the Environmental Statement. This section of the Environmental Statement should also detail the relationship of managing 'conventional' wastes to sustainability objectives for the project.

This section of the Scoping Report details the information relating to the subject matter outlined in each technical chapter. It is acknowledged that there is limited baseline information for the Additional Scoping Land and the AD sites. However, it is expected that detailed information on this will be provided in the

Environmental Statement. In addition, once the proposed DCO application red line boundary has been confirmed, information relating to the Additional Scoping Land and AD sites (where relevant) will be fully integrated with information pertaining to the assessment of effects of the Initial Scoping Land.

Section 3.4 outlines the approach to identifying potential likely significant effects and what contributes to 'significant' which has been informed by PINS Advice Note Seven, Preliminary Environmental Information, Screening and Scoping (PINS, 2015) the EIA Regulations and the Department for Communities and Local Government's (DCLG's) EIA Planning Practice Guidance (DCLG, 2014).

It is acknowledged that the Moorside Project will evolve through an iterative process in response to scheme design changes, new environmental information and consultation. It is welcomed that opportunities will be explored to adopt good environmental practice and to prevent, reduce and where possible offset any significant adverse effects that cannot be mitigated through project design iteration. Opportunities to deliver environmental enhancements related to the project will also be identified.

Further explanation is required in respect of the development planning strategy and any sequential impacts associated with planning processes i.e. DCO, Town and Country Planning, Marine Licensing, and any permitted development.

The inclusion of cumulative projects to be assessed alongside the proposals for Moorside is welcome (in paragraph 3.3.7). The Scoping Report sets out that the cumulative assessment would be informed by those conducted for other projects of a similar nature. The Council would propose that NuGeneration identify this approach explicitly such that it can be agreed as methodologically sound. Reference is made in the Scoping Report (in paragraph 3.3.8) an approach for cumulative impact assessment 'informed by cumulative assessments for other projects of a similar nature such as the proposed new nuclear power station at Hinkley Point C, Somerset, and its related electricity transmission connection', which is welcomed. PINS Advice Note Seven set out that that this cumulative assessment methodology should be clearly set out at the stage.

The Council would particularly note the complexity of cumulative assessment with respect to the ongoing decommissioning programme at Sellafield and with reference to the emerging NDA Strategy 3. The Council will seek a high degree of clarity from NuGeneration that the proposed strategy for Moorside and effects assessment therein, has been fully considered in the light of proposals from Sellafield Ltd. In addition, the Council is encouraged to see reference to the proposed grid transmission reinforcement programme, the North West Connections Project. The precise means of considering this programme for the EIA and its' relationship to Moorside will require further dialogue with the Council.

The Scoping Report considers the likely significant effects of the main development and AD in isolation as there seems to be separate sections within the Scoping Report with no clear linkages. It should be considered if this precludes the identification of any impacts that may occur in combination i.e. would an impact previously determined not significant (or not identified) change status as a result of is cumulative effects.

For the purpose of assessing the likely significant environmental effects and impacts from schemes in cumulation with Moorside (Schedule 4 Part 2) schemes considered should be 'reasonably foreseeable' and have a 'high level of certainty'. Consideration should also be given to the 'whole project' and not simply the main site development area in isolation.

The Council would wish to ensure that in approaching the project from the perspective of a 'Rochdale¹' envelope (consistent with PINs Advice Note 9) due consideration also be made of the worst case environmental case in each assessment process reconciling the range of project options with the topic under consideration. This matter is crucial in ensuring a mitigation scheme is developed commensurate with the widest extent of potential environmental effect.

It will be important for the Council to understand the programme for design maturity through pre-application and how this ties into the consultation process, EIA, and the limits of deviation they are seeking to rely on which will require further support from the Council post consent i.e. understanding the resources needed to discharge requirements.

As a minimum each of the local planning authorities should be consulted to ensure all relevant cumulative effects from the Moorside Project, AD, and other affected infrastructure upon their respective Districts is considered:

- District Councils of: Copeland, Allerdale, Barrow-in-Furness, South Lakes and Eden;
- Lake District National Park Authority;
- Cumbria County Council as Highway Authority;
- Cumbria Local Enterprise Partnership (LEP); and
- Others.

The ES should include the outcomes of the EIA Scoping process and all relevant notifications under EIA Regulation 6.

Careful consideration should be given to inter-disciplinary effects, particularly those that have the potential to affect residential amenity. The Scoping Report lacks detail on how inter-disciplinary effects will be assessed.

The Planning Inspectorate (PINs) Advice Note Seven also advises that the potential for mitigation should be considered at Scoping stage. Early consideration may be beneficial for mitigation and enhancement to facilitate implementation, for example off-site mitigation measures such as planting for landscape and visual effects where early engagement with third parties is likely to be required.

¹ R v Rochdale MBC ex parte Milne (No. 1) & R v Rochdale MBC ex parte Tew [1999] and R v Rochdale MBC ex parte Milne (No. 2) [2000]

3 Review of Environmental Impact Assessment Scope and Methodologies

This section provides a review of the baseline conditions associated with the individual technical areas and a commentary on the proposed EIA methodologies.

3.1 Transport (Section 4)

This section details the Council's response on transport matters related to the Section 4 of the Scoping Report and also the Survey and Monitoring Plan.

3.1.1 Adequacy of Baseline

At this stage, and based on the elements of the project which can be defined the geographical scope of the assessment of transport appears logical and extensive to the Council.

The Council notes that the principal Highways England network and junctions likely to be affected by proposals are addressed in the baseline. A micro-simulation model is proposed for the local highway network and this is supported.

The Council note the focus on rail is primarily on the Cumbrian Coast Railway, with comment made that connections onto the West Coast Main Line (WCML) would also be looked at as required, again this seems logical and the Council would welcome continuing dialogue in this regard.

The Council understands that the West Cumbria strategic model is proposed to be used with Cumbria County Council operating the model under the project guidance of NuGeneration.

The Council notes that NuGeneration's rail strategy may now be well advanced. However, given that rail accessibility to the south is better than the north, NuGeneration may well derive value from including the Furness Line (WCML to Cumbria Coast Railway) within the scope of evaluation. This would be a matter for discussion with the Council and subject to wider strategies including those proposed on worker accommodation.

The Council notes the intention for the micro-simulation model to extend 'just to the south' of the Initial Scoping Land. The Council would note the imperative of ensuring that the model extends sufficiently far south to assess the full predicted effects of the development.

The Council understands that the proposed micro-simulation model is intended to cover development peaks. The Council notes there is also a need to ensure that it covers worst-case network flows, including consideration of work patterns at Sellafield and other major employers and influences upon the network.

3.1.2 Adequacy of Terms of Reference

The Council notes that the Scoping Report contains a comprehensive list of legislation, policies and guidance. At this stage, the Council does not anticipate significant updates or major new additions which could amend the approach although reference should be made to Cumbria County Council - Travel Plans and the Planning Process in Cumbria: Guidance for Developers and in addition, Cumbria Local Enterprise Partnership – Cumbria Strategic Economic Plan 2014-2024.

Careful consideration should be given to the following policies from the Copeland Local Plan;

- Policy ST4 – Providing Infrastructure;
- Policy ER3 – The Support Infrastructure for the Energy Coast;
- Policy SS4 – Community and Cultural Facilities and Services;
- Policy T1 – Improving Accessibility and Transport; and
- Policy ST1 – Strategic Development Principles.

3.1.3 Commentary on Consultation Activity to Date

The Council notes that consultation activity to date has primarily been with Highways England and Cumbria County Council focussed on transport modelling and other consultation has been with port operators. A wide range of stakeholders for future consultation is provided. It would be useful to provide further detail on the likely methods and frequency of consultation with each of these bodies were provided in order to help to identify the relative importance of each of the consultees with regards to the assessment

Consultation with Network Rail and other rail stakeholders should be prioritised to ensure that a rail-first strategy is deliverable. The Council also notes that there may be an opportunity to explore shared benefits from transport interventions with Sellafield and other major employers.

3.1.4 Commentary on Proposed Studies

The methodology generally follows the IEMA guidelines, which are appropriate for this development. A mix of quantitative and subjective assessments are proposed which is appropriate to ensure that the full range of impacts are assessed. However limited mention is provided on how the EIA chapter will relate to the Transport Assessment.

The Council notes that limited mention is provided on how the Environmental Impact Assessment section on transport will relate to the Transport Assessment and further information is sought in this regard. There is also a need to ensure that there is consistency with other chapters of the Environmental Statement and ensure that any cumulative effects are adequately captured, assessed and mitigated as far as practicable.

3.1.5 Commentary on Adequacy of Key Issues Raised and Data

The Council notes that the Scoping Report covers all of the main areas for assessment, including a multi-modal approach and a mix of qualitative and quantitative assessments. However, more detail is required on the sensitivity of the trip generation forecasts to changes in the assumed parameters relating to items such as staff numbers, location of staff accommodation and freight modes. Overall need to ensure that transport strategy is compatible with the development proposals and is deliverable within the proposed timescales.

Decommissioning is not mentioned specifically in the transport section although a commitment to a future application underpinned by an Environmental Statement consistent with the Environmental Impact Assessment for Decommissioning Regulations (EIADR) is made within the Scoping Report.

The Council notes that no mention is made to any specific requirements relating to the safe transport of nuclear materials to / from the site and this should be set out with more clarity in the Environmental Statement.

The Council would highlight a need to understand the strategy for how excavated material will be dealt with (where re-use testing confirms that it must be exported). The overall excavated volumes (subject to re-use) are potentially large and could have significant transport implications.

3.1.6 Adequacy of Graphics

The Council notes that there is limited graphical material supporting the transport section of the Scoping Report or wider Stage 1 material. There is only one figure that relates to transport, showing the spatial scope of the transport assessment. Further figures to illustrate the text in key areas would be beneficial in aiding the reader. For example, plans showing the survey locations and traffic model extents should be included in (or alongside) the Environmental Statement.

3.1.7 Summary

Overall the proposed scope of assessment is exhaustive and covers all of the areas expected. In particular, the baseline conditions and consultation sections are comprehensive. Given the scale of the development, and resulting complexity of assessment, the methodology is only presented at a relatively high level. This should be developed in more detail with statutory stakeholders as soon as possible. In some instances where long lists are presented, there would be a benefit in bringing out the key points more concisely.

3.2 Noise and Vibration (Section 5)

This section provides the Council's response on noise and vibration matters. This is informed by Section 5 of the Scoping Report and also the Survey Monitoring Plan.

3.2.1 Adequacy of Baseline

The Council notes that in respect of selecting noise survey locations to assist with baseline characterisation, it is unclear (in paragraph 5.3.1) to what extent ordnance survey mapping supplemented by field work analysis has been used to inform the approach. The engagement with Copeland to date is welcome and it is important to refer to continuing dialogue in respect of developments granted planning permission / under construction since 2012. The Council have recently provided comment to Nugeneration regarding sites for noise and vibration monitoring in the vicinity of the existing and proposed railway line including the identification of additional sites for consideration. The need for additional traffic noise monitoring has also been identified by the Council during on-going engagement with Nugeneration, including areas such as Cleator.

It is clear that in informing the baseline position such development (particularly where this may be located in proximity to proposed transport interventions and / or development in AD locations) will be crucial in ensuring a comprehensive approach to the noise assessment.

The Scoping Report identifies (in paragraph 5.5.18) additional baseline information being required. The Council would suggest merit in gathering further data using classified counters if hourly data over 24 hours is not available for the principal freight and worker routes. The Scoping Report suggests that current data assembly is to assist with finding the extent of the road traffic noise assessment, which is suitable.

In terms of the Survey and Monitoring Plan, it is worth considering adding a location on the A595 to the south of the Sellafield entrance as it is of concern that the area to the south of Sellafield access has not been covered.

Health care facilities are not included within the identification of receptors that could be subject to likely significant effects, it is assumed that it is known that there are currently no proposed new ones.

The Council notes in the Scoping Report (5.5.2 P70 Scoping Report) that a Zone of Influence (ZOI) has been established to derive the road traffic noise baseline. Whilst this approach is welcomed, it is not clear whether the ZOI would be extended and where this might be distributed (linked into the evolving development details for AD in particular). The Council would seek clarity on whether all of the road defined in the transport area study would be subject to the 25/20 test, or whether there is a more contained area. This matter should be subject to continuing dialogue with Copeland and other key stakeholders including Cumbria County Council.

3.2.2 Adequacy of Terms of Reference

The Council has been unable to identify how National Noise Policy has been taken into account in the proposed methodology for noise and vibration assessment. The provisions are highlighted in paragraph 5.2.2 but it is unclear how this has been taken through into the methodological approach. The Council would ask for further justification on the inclusion of the Noise Act in the Scoping Report. The Scoping Report infers 5.2.3 that BS5228 Pt 1 sets noise limits. The Council's observation is more that this enables assessment of potential significance of noise levels.

Guidance BS6472 Pt1 does not present an assessment of adverse impacts from road or rail traffic, but it does present criteria for adverse comment, which are used to derive criteria for adverse impacts and consequent significant effects.

3.2.3 Commentary on Consultation Activity to Date

Wider engagement (in paragraph 5.4.2) is also acknowledged on the SMP and including Environmental Health Officers from Copeland Borough Council.

3.2.4 Commentary on Proposed Studies

In respect of the SMP, the Council notes the value of NuGeneration considering adding a location on the A595 to the south of the Sellafield entrance. It is possible that this may not have been included because of initial lack of 25/20 being identified and clarity is sought on this matter.

The Council notes in the Scoping Report (5.6.1 *P74 Scoping Report*) that in identifying receptors that could be subject to likely significant effects health care facilities are not mentioned. The Council would wish to ensure that this remains reflective of any proposals that NuGeneration themselves may bring forward to service the needs of the Moorside project.

Under 5.7.1 (*P74 Scoping Report*) and the description of potential effects requiring further assessment the Council note that for vibration prediction methodologies, methods in TRL429 should be considered where this provides methods not available in BS5228 Pt2. The Council would also seek clarity on whether the type of freight trains used for construction would differ in terms of vibration generation from those currently using the line. Otherwise the assumption that change is only due to a potential increase in numbers of trains could be inaccurate. In addition, the Council would wish to ensure due consideration of receptors affected by a new rail spur. Here, vibration predictions will be required if the line takes freight, so a vibration prediction method will also need to be employed.

Under 5.7.2 (*P75 Scoping Report*) the Council notes that under potential effects not requiring further assessment, vibration sensitive receptors during the operational phase have been scoped out. The Council would agree with scoping this out for the power station itself, but deliveries or removals by rail could give rise to effects, depending on their frequency. Unless figures are already available which demonstrate why this has been scoped out at this stage, it should be

retained and then potentially addressed in the Environmental Statement with a statement regarding the train numbers to justify why it is unlikely to give risk to a significant effect.

The Council notes in 5.8 (P78 *Scoping Report*) the statement that the “determination of significance within the noise and vibration chapter shall apply to human receptors only”. However, there is no clear consideration of the types of receptor locations and resources to be included. In particular, little or no consideration is given to quiet areas or places prized for tranquillity. The Council considers that there should be a full consideration of all the receptors and resources potentially affected to properly scope the spatial scope and the methodologies.

The Council notes that in general, a numerical approach seems to be adopted to the assessment of significance with little consideration of impacts and effects as advocated by the Noise Policy for England. Moreover, the potential effects on health and quality of life have not been explained, properly considered or factored into the assessment of the likely significant effects. In addition, there is little if no consideration of the context in which noise changes will occur and how context will be addressed within the assessment e.g. are the noise levels already unacceptably high and if so will any increase in noise be deemed to be significant, and whether there are opportunities to improve.

In respect of the Scoping Report (5.8.13 P82 *Scoping Report*) and fixed plant the Council considers that BS4142:2014 has not been properly considered or reported. In particular there is no proper consideration of the context in which the rating level minus the background sound level will occur. Neither do the impact criteria properly reflect or interpret the BS4142:2014. This matter should be addressed through dialogue with the Council.

In respect of proposals for construction rail vibration (Table 5.4 and 5.5 P81 onwards *Scoping Report*) as the criteria are in terms of Vibration Dose Value (VDV) it would be helpful to state whether the levels quoted are only for the construction trains, or whether they are for the total VDV resulting from all trains.

In respect of Table 5.5 (P82 *Scoping Report*) and construction traffic noise the Council would encourage NuGeneration to review the word “increase” as this may not be appropriate, given that some of the levels in the criteria are probably total noise (baseline plus construction). This may require further explanation below the table as it is taken forward to underpin the Environmental Statement.

The Council also notes that the operational road and rail “high” categories are not consistent in their approach to using values from the relevant noise insulation regulation for that mode, for the night-time criteria. It would be helpful to include an explanation for this below the table as it is transferred across to the methodological approach section of the Environmental Statement.

3.2.5 Commentary on Adequacy of Key Issues Raised & Data

The Council notes that at this Scoping Stage, NuGeneration is unable to provide details of the proposed development within AD sites. Furthermore, details associated with potential transport proposals and infrastructure development is not

available in detail at this time. This limits the extent to which the locations of noise monitoring and noise approach more generally can be meaningfully commented upon at this time. The Council would embrace the approach of continuing dialogue on these matters to inform the approach proposed for noise and vibration assessment in the Environmental Statement.

The Council notes some concerns in the extent to which the proposed noise assessment adequately addresses National Noise Policy, particularly as it relates to the Noise Policy Statement for England (NPSE). This policy position strongly advocates an approach driven by context which the Council would encourage NuGeneration to include as part of their emerging proposals for Moorside. The Council also notes that the application of BS4142 appears to be incorrect or at least incompletely described in the Scoping Report at this time. There are several matters in the proposed approach which the Council would welcome engaging with NuGeneration upon at this important stage where plans for AD are also being established.

3.2.6 Summary

The EIA Scoping Chapter on noise and vibration presents a thorough approach to scoping for noise and vibration.

In reviewing the Scoping Report and SMP it is clear that there has been helpful dialogue to date which has shaped NuGeneration's proposals for noise and vibration assessment. The Council is supportive of this continuing dialogue and the sharing of best practice application of National Noise Policy. A key matter for the Council is the extent to which proposals for AD will evolve and drive the assessment process for noise and vibration. As a common point across topic area included within the Scoping Report, the Council would wish to see further details emerge between Stage 1 and Stage 2 S47 Planning Act consultation on AD sites and a refinement of approaches to noise and vibration therein.

3.3 Air Quality (Section 6)

This section presents the Council's response on air quality issues this is informed by Section 16/17 of the Scoping Report and also the Survey and Monitoring Plan.

3.3.1 Adequacy of Baseline

The Council would generally comment that the overview of baseline conditions in the air quality chapter is acceptable and provides sufficient detail to determine the study area (zone of influence) of the assessment and baseline air quality conditions.

The zone of influence (ZoI) for construction dust and fine particulate emissions uses appropriate and up to date guidance published by the Institute of Air Quality management (IAQM), however it would be helpful to include a definition of both human and ecological receptors in line with the guidance.

The operational zone of influence is appropriate with regard to emissions from the plant proposed within the Moorside Search Area, however paragraph 6.5.5, with regard to the ZoI of ecological effects should sit within this section rather than under the road traffic emissions ZoI as the EA horizontal guidance note relates to plant and processes rather than traffic emissions.

The ZoI with regard to road traffic emissions is appropriate and follows DMRB guidance assessing receptors within 200m of affected roads. It is noted that the guidance published by Environmental Protection UK (EPUK)/IAQM, as mentioned in paragraph 6.5.8, contains more stringent criteria with regard to changes in traffic flows than DMRB, therefore this should be used to determine affected roads as a result of the scheme (This also applies for AD sites). The use of updated guidance by the Highways Agency with regard to vehicle emission factors (IAN 170/12) is welcomed.

The first bullet point of paragraph 6.5.9 states that "effects upon air quality at human receptor locations are considered unlikely to be discernible beyond a distance of 5km from the initial scoping land". It is assumed that this relates to operational point source emissions and whilst this is not disagreed with, it somewhat contradicts what is currently included as the ZoI for operational emissions. Further clarity is sought from NuGeneration on this matter.

It is unclear why monitoring of NO₂ is being undertaken at Sites of Special Scientific Interest (SSSIs) rather than NO_x monitoring. This is a matter for discussion with NuGeneration and may purely be a typographical error. The Council would also seek views on the potential for monitoring of SO₂ and whether this has been discussed with wider stakeholders to date.

It is noted that a data request is in progress to obtain the latest air quality monitoring data from Copeland and it is anticipated that the latest data including at least 2014 annual average data would be used in the assessment of baseline

conditions in the Environmental Statement, in addition to the scheme specific monitoring being undertaken.

3.3.2 Adequacy of Terms of Reference

The Council notes that the list of appropriate legislation is comprehensive in respect of both air quality and climate, however it is noted that the amendments to the Environmental Permitting Regulations have not been included and should be revisited for the Environmental Statement.

The list of appropriate policy is comprehensive, however there is a typo in the 4th paragraph which refers to ‘natural air quality objectives’, for the avoidance of doubt this should state ‘national air quality objectives’.

It is noted that additional policies are included within Copeland’s Local Plan which relate to air quality/amenity which are not discussed here:

- ST1 B(iv) Minimise the need to travel, support the provision of sustainable transport infrastructure and measures to encourage its use; and
- ST1 D (ii) Ensure development safeguards good levels of residential amenity and security.

In addition, Policy ST1 A in paragraph 6.2.3 should read Policy ST1 B. There should be further consideration of the relevant local policies, including those added above, from Copeland’s Local Plan

In respect of the Survey and Monitoring Plan, the appropriate guidance is referenced with regard to monitoring methodology, however it is unclear whether a co-location study is being undertaken for NO₂ diffusion tubes and clarification is sought on this matter. The Council notes that the air quality standards provided in Appendix A are incorrect as there is no NO₂ standard for the protection of vegetation, this should read NO_x and is assumed to be a typographical error.

The list of appropriate guidance is comprehensive and it is not anticipated that any further documents would be required to undertake the assessment. The revised EPUK guidance, has now been published and therefore it is anticipated this will be used going forward.

3.3.3 Commentary on Consultation Activity to Date

The comments made by Copeland on a prior Draft Scoping Report shared by NuGeneration have been addressed with the exception of the addition of the amendment to the Environmental Permitting Regulations. Dust and Particulate Matter monitoring is proposed and the implementation of this is ongoing, the Council would expect to be made aware of when these are deployed and their locations. It is noted that the Council had stated that an assessment of Carbon Monoxide (CO) emissions should not be scoped out, although it was confirmed in a subsequent meeting that CO would not be assessed and this is considered appropriate based on the justification provided for other pollutants in the scoping report.

Consultation has been undertaken with the key stakeholders with regard to the scheme specific monitoring survey including the choice and number of monitoring locations. It is considered that the monitoring survey is sufficient to establish baseline conditions and for potential use in dispersion model verification. Clarification is sought on the rationale for why NO₂ monitoring is being undertaken at SSSI and the absence of SO₂ monitoring.

NuGeneration have been proactive in consulting on the proposed air quality monitoring locations including with Copeland Borough Council, Cumbria and Natural England and are open to suggestions add additional monitoring locations to the survey if the need arises.

3.3.4 Commentary on Proposed Studies

The potential effects identified as requiring further assessment are comprehensive and it is considered that these cover all potential air quality effects arising from the development.

It is anticipated that the assessment of construction and operation phases for human health will assess NO_x emissions from vehicles which will then be converted to NO₂ concentrations for comparison with the air quality standards.

The proposed methodology for each of the activities which have the potential to generate air quality effects (as shown in Table 6.5) are appropriate. It is noted that a staged approach is proposed for the assessment emissions to atmosphere from vehicles on the road network during construction and operation, clarification is required as to whether the screening stage would be undertaken using the DMRB spreadsheet method. If so, it should be noted that the in-built emission factors are out of date and it would be anticipated that more recently published emission factors from Defra would be used in the assessment. In further dialogue with the Council, NuGeneration have clarified that dispersion modelling would likely be used rather, than the DMRB spreadsheet method for this reason.

It is considered the justification for potential effects not requiring further assessment is valid and these pollutants are highly unlikely to result in any significant effects as a result of the scheme. This list should also include carbon monoxide.

With regard to the significance evaluation methodology it is anticipated that paragraphs 6.8.1 – 6.8.8 and associated tables will now be replaced with the criteria to determine impact and significance provided in the revised EPUK/IAQM development control guidance. It is anticipated that this will be used in relation to the assessment of emissions from transport including train, ship and vehicle emissions. It is noted that paragraph 6.5.6 makes reference to revised guidance from Highways England with regard to significance of road schemes, however no further mention is made of this document. The Council considers that the EPUK/IAQM guidance document should be used as this provides a more stringent methodology for evaluating significance where pollutant concentrations are likely to comply with the air quality standards.

The use of significance criteria outlined in H1 guidance is appropriate and it is anticipated that this would be used to assess the significance of the operation of plant within Moorside Search Area.

The assessment of potential significant effects on nitrogen and acid deposition at ecological receptors is appropriate for EIA, however consideration should be given to how this is interpreted with regard to HRA.

It would be useful for the SMP to make clear whether the proposed locations shown in Table 3.1 are confirmed as the actual list of monitoring locations for the avoidance of doubt. Furthermore, the Council would note the importance of agreeing the monitoring locations near the rail line and also the particular matter monitoring locations and to record that agreement. This is important to the Council in recording agreements made with NuGeneration in an attempt to commence working on Statements of Common Ground as early as practicable.

A technical review meeting between the Council and NuGeneration was held on the 16th June. At this meeting it was indicated that some of the actions outlined in the SMP are still ongoing but are being progressed. It would be helpful for coordinates of monitoring locations to be provided to enable the Council to review locations and determine whether this is sufficient.

3.3.5 Commentary on Adequacy of Key Issues Raised & Data

The Council notes that the proposed assessment methodology is comprehensive and is appropriate for the scheme. It is important to note that the revised EPUK/IAQM guidance has now been published and it is anticipated that this will be used going forward. The revised publication includes more stringent screening criteria for when an assessment of effect is required and updated criteria for impact descriptors and significance of effect.

The potential for monitoring at residential properties near St Bees Head Railway Station was suggested by the Council, to provide baseline information with regard to the potential effects from rail emissions. NuGeneration have committed to review the situation at this location but also mentioned that monitoring was in place at similar distances from the railway line in other locations and therefore there would be representative data for properties which lie adjacent to the railway line.

It was noted at a technical review meeting with the Council and NuGeneration held on 16th June 2015 that should any improvements to the strategic highway network be required as a result of the scheme that other interim advice notes from Highways England may need to be used and regard would need to be given to the National Networks National Policy Statement (NN NPS). The NN NPS should also be considered with regard to the improvements to the rail network required during construction and operation of the scheme. It should be clarified whether changes to the rail network meet the criteria to be considered under the NN NPS.

3.3.6 Adequacy of Graphics

It would have been useful to include a graphic showing the identified human and ecological receptors in Table 6.2 and 6.4. A detailed plan of survey locations would have been welcomed. In addition, names of statutory designated sites should be labelled on Figure 14.1.

3.3.7 Summary

The Council notes that in common with other subject areas, further definition is needed in terms of the proposals for AD and the transport linking those sites and the Moorside Search Area. The Council is thus able to comment on the approach to air quality and climate assessment but would anticipate continuing dialogue in its application. The Council notes that it recommends criteria to determine impact and significance provided in the revised EPUK/IAQM development control guidance.

In the SMP it would be useful to include areas (particularly in respect of monitoring locations) of agreement with the Council and wider stakeholders to support dialogue on Statements of Common Ground.

The SMP sets out an appropriate monitoring methodology and choice of locations. The tense of the document suggests this was written prior to monitoring be undertaken therefore clarification is required as to whether all actions noted in this document have now been implemented and that proposed locations are the final locations.

On wider issues, the Council would certainly expect mitigation to be required during the construction phase, however the level of which would be determined following the assessment. It is unclear whether operational mitigation would be required, however the siting of the reactors and associated combustion plant should be undertaken having regard to human and ecological receptors.

3.4 Radiological Issues (Section 7)

This section provides the Council's response on radiology in response to Section 7 of the Scoping Report and also the Survey and Monitoring Plan.

3.4.1 Adequacy of Baseline

This Section 7 of the Scoping Report proposes the assessment of potential effects relating to radiological issues on human and non-human species. The Council notes that soil and groundwater are environmental media that are effectively pathways (as are air and marine water), rather than being considered receptors in this assessment.

The baseline presented in the Scoping Report draws on desk study sources, including material drawn from empirical data in Radioactivity in Food and Environment (RIFE) studies. Proposed sources for continuing dialogue and data on radiological issues include Sellafield Ltd, given the adjacency of the Sellafield Facility and additional investigations presented in the Survey and Monitoring Plans. It may be relevant to reference baseline data available through the Sellafield Beach particle monitoring programme. The Council notes limited discussion of known existing contamination is presented in the Scoping Report and would be useful although not essential.

The Groundwater, Soil and Surface Water SMPs present proposed additional radiological data gathering to inform the baseline. Sampling locations and testing appear reasonable, however the detailed locations and testing suites for radiological assessment cannot be ascertained from the information provided.

The Groundwater SMP does not identify any groundwater monitoring locations near the coast. Baseline groundwater quality is potentially impacted by the Sellafield facility in this area and it is important to understand baseline groundwater radiological quality.

The Scoping Report refers to the RIFE 2011 data. Although more recent data is included in RIFE 2013 and should be used. It is unclear whether the baseline has been informed through access to Sellafield Ltd.'s radiological groundwater quality data and this would be recommended.

3.4.2 Adequacy of Terms of Reference

The Council highlights the need to consider Copeland Local Plan Policy DM5 - Nuclear Sector Development at Sellafield and the LLWR at Drigg.

3.4.3 Commentary on Consultation Activity to Date

The Scoping Report identifies early engagement has been undertaken with a wide range of stakeholders and notes comments received from Copeland Borough Council, the Environment Agency, Marine Management Organisation, Allerdale Borough Council and Cumbria County Council. This continuing dialogue is crucial to informing the ongoing assessment of radiology.

The Council notes that NuGeneration released draft Survey and Monitoring Plans for comment in August 2014 to Copeland Borough Council, the Environment Agency, Marine Management Organisation, Natural England, Cumbria County Council, and Sellafield Ltd and meetings were held in 2014 to discuss the draft Survey and Monitoring Plans and Scoping Report. The Scoping Report notes the Environment Agency recommended investigation of Sellafield Tarn for radiological contamination and the Local Authorities (including Copeland) highlighted public concern relating to radioactive releases. It is not clear from the information provided in the Scoping Report nor wider Stage 1 material (provided for Section 47 Planning Act consultation), whether radiological contamination of Sellafield Tarn is proposed in the Soil Survey and Monitoring Plan.

The Scoping Report notes the EA recommended investigation of Sellafield Tarn for radiological contamination and the Local Authorities highlighted public concern relating to radioactive releases. It is not clear from the information provided whether radiological contamination of Sellafield Tarn is proposed in the Soil SMP.

The Council notes and supports ongoing engagement during the development of the Environmental Impact Assessment proposed to include the key stakeholders identified above.

3.4.4 Commentary on Proposed Studies

The Scoping Report chapter proposes the assessment of potential effects relating to radiological issues on human and non-human species. Soil and groundwater are environmental media that are effectively pathways (as are air and marine water), rather than being considered receptors in this assessment.

In relation to soil and groundwater radiological contamination effects may arise as a result of excavation of soil with pre-existing radiological contamination (e.g. marine sediments) or dewatering of groundwater with pre-existing contamination.

Radiological contaminated land assessment should be undertaken as part of the non-radiological contaminated land assessment, as described in Chapter 8.

If identified in groundwater, radiological contaminants should be considered in the numerical groundwater modelling to assess the impacts of dewatering.

The Council notes that the design of the proposed AP1000 reactor technology will incorporate passive safety and control measures designed to prevent radiological contamination of soil, surface water and groundwater during operation and the mechanisms to achieve this outcome will be proven to regulatory approval in the Generic Design Assessment process. However, it is not clear to the Council how this development basis will be described in the Environmental Statement for the scheme design. It would be useful for the safety control mechanisms as a function of AP1000 design to be described in the Environmental Statement.

The Council notes that data and design / operational information and assessments will be required for the Environmental Permit application and Safety Case that will also be needed for the Environmental Statement. The Council has assumed that the Environmental Impact Assessment Environmental Permit application and

Safety Case will be progressed in parallel (accepting their point of application may be different within the overall programme). Confirmation would be sought on this matter.

3.4.5 Commentary on Adequacy of Key Issues Raised & Data

The potential effects identified as requiring further assessment do not include effects associated with dewatering and disposal of radiological contaminated groundwater. The Council would anticipate the inclusion of this matter within the Environmental Statement. In addition, and as noted above, the relationship of the GDA process and design development of AP1000 should be reflected within the Environmental Statement, particularly in respect of technology enhancements for passive safety and containment.

3.4.6 Adequacy of Graphics

There are no figures present within the Scoping Report showing the extent of radiological issues.

3.4.7 Summary

The Council notes that in reviewing the Scoping Report and the Survey and Monitoring Plan the radiological assessment considers human and non-human species effects via air, groundwater, soil and marine environment pathways and therefore has interfaces with several other proposed Environmental Statement chapters. This must be properly signposted in the Environmental Statement to ensure there are no gaps in assessments and there is coherence. Nugeneration should ensure that a robust Health Impact Assessment (HIA) is supported by the information in the Radiology assessment.

The Council notes the common base of information and alignment between the Environmental Statement production, the programme for the Environmental Permit applications and Safety Case and design information informing GDA. There are strong opportunities to tie regulatory bodies and the Council together on this matter and a common basis of data exchange would be valuable.

3.5 Soils, Geology, Agricultural Land, and Land Quality (Section 8)

This section provides the Council's response on soils, geology, agricultural land and land quality in response to Section 8 of the Scoping Report and also the Survey and Monitoring Plan.

3.5.1 Adequacy of Baseline

In general, the Council notes that the description of the baseline conditions in respect of soils and geology is considered adequate. Descriptions of solid geology, drift deposits and made ground are provided and comments are made on the thickness of strata to assist with an understanding of materials likely to be generated through excavations. A summary of the land use history is provided and significant features are shown on Figure 8.2 accompanying Section 8.

The area under consideration in the Scoping Report and SMP requires clarification. It is apparent that the Additional Scoping Land areas have been added to the scheme more recently and have been subject to less assessment to date.

The Scoping Report includes a summary of the land use history of the Initial Scoping Land and is adequate for the purposes of the Scoping Report. However a detailed review of site history, related to historical maps and other historical information, for the entire Moorside site area (Initial Scoping Land plus Additional Scoping Land) and AD sites is required to identify potential contamination.

The Council would note that further information anticipated to assist with characterising the Moorside Search Area includes;

- Superficial deposits thickness and characteristics,
- sandstone bedrock characteristics and faulting,
- characteristics (geotechnical and chemical) of soils within the 'nuclear islands' that will require excavation, to inform assessment of suitability for re-use or disposal. Para 2.3.4 indicates these soils may be 'in excess of 10Mm³',
- characteristics of tunnel and MOLF spoil and marine sediments that will require excavation, to inform assessment of suitability for re-use or disposal,
- characteristics of material deposited at Sellafield Tarn relating to its potential as a contaminant source; Sellafield Tarn should be clearly identified on figure because it is difficult to establish whether Sellafield Tarn is within the Initial Scoping Land (e.g. 8.5.33 and Fig 3.1 SMP differ),

- characteristics (geotechnical and chemical) at AD sites to inform contamination risk assessment, excavation requirements and material re-use potential; and
- the Additional Scoping Land and areas of Initial Scoping Land outside the central area (see below).

The Scoping Report identifies the Additional Scoping Land as outside the current scope, but also identifies this land as within the 'Moorside Search Area' and indicates it may be included in the future. The programme and approach to integrating the Additional Scoping Land should be provided to ensure all areas have been adequately assessed in the ES.

It is not clear where baseline radiological soil contamination will be presented in the ES, and the how it will be incorporated across possibly the Soils or Radiological assessments.

The Soils and Geology SMP is proposed to further inform the baseline although the programme in the SMP Summary of Activities section is out of date and needs updating against current progress.

The Soils and Geology SMP presents proposed additional ground investigation to inform the baseline and assessment of effects. Progress of the ground investigation is unknown, from the programme provided the bores should have been installed by April 2015 and monitoring commenced in May 2015.

It is welcomed that the proposals for investigation in the Initial Scoping Land include a site walkover, geophysical survey and intrusive investigation. Initial Scoping Land ground investigation is focused on central area to the east of the disused railway line where the construction of the Moorside Power Station is stated as likely to take place. No site layout plans are provided to support this.

The Scoping Report notes the area of study was extended into the 'AB Land' to south of main investigation area. The Additional Scoping Land is not included in the Soils and Geology SMP scope. The SMP largely considers the AB Land separately from the Initial Scoping Land and the investigation scopes appear to have been designed separately. The ES should consider the entire site area subdivided on the basis of proposed site layout, with integrated assessments rather than separated into distinct geographical designations.

In particular, the rationale for the number, position, depth and design of site investigation locations is not provided providing the Council with limited understanding of the approach justification and intention. Further details would be welcome on this matter. At this stage however (and based on available information) the proposed coverage appears reasonable to the Council and gives good coverage across the centre of the site (Initial Scoping Land plus AB Land).

Monthly monitoring of groundwater levels and ground gas is proposed over a 12 month period. It has been noted that ground gas monitoring may stop after three rounds if no risk is identified. This is a reasonable approach and the Council consider this appropriate.

A comprehensive chemical analysis suite for soil testing is proposed which includes radiological contaminants, WAC testing and ordnance related chemical substances. However, the Council notes that investigation does not include all of the Initial Scoping Land or Additional Scoping Land and it is understood that this land may be required during the construction process and the strategy/programme for further assessment thus needs to be determined.

A separate unexploded ordnance (UXO) desk study is proposed for the Sellafield Tarn area. This is a reasonable approach and supported by the Council considering the historical information relating to Sellafield Tarn (which identifies this need).

Ground investigation is not proposed for the AD sites. The SMP notes this will be undertaken once the footprint and uses of the AD sites has been identified.

A desk based review of soil survey data and agricultural land classification is proposed once the footprint of the proposed development has been finalised, augmented by additional field data if required. This is a reasonable approach.

3.5.2 Adequacy of Terms of Reference

The Council is encouraged that a comprehensive list of national and local policy and guidance is set out in the Scoping Report which will be considered during the study. A full reference list of source data used is provided and referred to in the text and this is welcomed by the Council. Further consideration should be given to Policy ENV5 – Protecting and Enhancing the Borough’s Landscapes, set out in the Copeland Local Plan.

3.5.3 Commentary on Consultation Activity to Date

The Council notes that early engagement has been undertaken with relevant stakeholders and comments relevant to the EIA Scoping. The Council is encouraged that NuGeneration has engaged on the draft Survey and Monitoring Plans in August 2014 to the Environment Agency, Natural England, Copeland Borough Council and Sellafield Ltd and meetings were held in 2014 to discuss the draft SMPs and Scoping Report available in draft form at that time.

The Council welcomes and supports NuGeneration’s ongoing engagement to include the above stakeholders in addition to Public Health England. This will be of importance as further details in respect of AD in particular are made available.

3.5.4 Commentary on Proposed Studies

The Council notes the proposals for intrusive investigation, survey and monitoring works to collect additional data. This will include long term monthly ground gas and groundwater level monitoring, geophysics survey, intrusive borehole investigation and soil sampling.

An UXO survey will be undertaken in the vicinity of Sellafield Tarn. This is a reasonable approach and supported by the Council.

The Council notes that there would be value in NuGeneration obtaining the Sellafield Contaminated Land Study (for Sellafield Ltd) if this information is not already available. In particular, there would be value in reviewing the Sellafield Contaminated Land & Groundwater Management Project and the Next Steps for the Land Quality Programme Report (and the conceptual model therein).

The Council notes that the strategy for the assessment of the Additional Scoping Land appears to be poorly defined at present and continuing dialogue is sought on this matter (prior to the execution of surveys

Materials management during construction, arising from excavations within nuclear Initial Scoping Land, MOLF and tunnel spoil, will be a major issue at the site and the potential for re-use, including definition of geotechnical and chemical reuse criteria, must be considered. This will require development of the geological understanding and the design of subsurface aspects of the Moorside development.

In Section 9 of the Scoping Report a numerical groundwater model is proposed to assess effects. This will rely on the geological understanding that will be developed using data collected from the desk study and intrusive investigation.

Paragraph 8.7.5 of the Scoping Report notes the operational effect caused by 'release to ground of substances stored, used and handled on site'. It is unclear where this effect is to be assessed.

The approach and programme to securing Environmental Permits is not presented fully within this section of the Scoping Report but it is noted that permitting will require demonstration of Best Available Techniques (BAT) (8.7.8 P151 Scoping Report). The Council note that the Environmental Permit (including Radiological Substances Regulation) requires BAT demonstration and pollution prevention measures in the permit.

The Council notes that NuGeneration indicate that matters associated with radioactive waste management are not set out in full in this section of the Scoping Report although wider references are made in the Radiology section of the Scoping Report and cross referencing within the Environmental Statement is recommended. The Council notes (Section 7 Scoping Report) that soil does not seem to have been identified as a specific receptor for radiological effects. It is unclear to the Council how radiological contamination of soil is to be assessed.

Within the Scoping Report (8.8.4 P156 Scoping Report) NuGeneration confirm that the soils chapter of the Environmental Statement is intended to only consider human health and built structures in the land quality assessment. The Contaminated Land risk assessments will be included in an appendix. It is unclear to the Council whether these will consider all receptors (including water, environmental, ecology receptors (as well as wider consideration of invasive species)) as well as radiological contamination. Confirmation is sought in this regard.

3.5.5 Commentary on Adequacy of Key Issues Raised & Data

The Council considers that the identified receptors and exposure pathways are adequate and the list of key potential issues which require further assessment appears to be complete. Furthermore, the Council views the proposed assessment methodologies for key issues are provided.

As noted above, the Council would value continuing dialogue in respect of materials management within the site and in particular the proposed approach for NuGeneration in materials assessment for re-use and potential transport implications for any export. In addition, continuing discussion on proposals for management of radioactive waste streams would be welcome, particularly as proposals for radioactive waste management on site become more developed.

It would be useful for the Council to have more details on NuGeneration's assessment of potential risks associated with ground instability as a result of groundwater dewatering. Wider discussions, including technical material supporting the development of Safety Case would be helpful to understand the broader technical context.

3.5.6 Adequacy of Graphics

Graphical material included in the Scoping Report is fairly limited. The Council notes some uncertainty in respect of the graphical material supporting the soils and geology section. For example, in respect of Figure 8.2 at least one feature is identified in the Additional Scoping Land, but the accompanying text suggests that the Additional Scoping Land is outside the scope. Clarification of what is shown is required. In addition, the Survey and Monitoring Plan in Figure 3.1 would benefit from further explanation. The Council has reviewed this material and it does not appear that this is wholly consistent with Table 3.1 in respect of the inclusion of the AB land. Clarification would be welcome on this matter. The Council notes that in respect of the Survey and Monitoring Plan Figure 3.2, it is presumed that this should be associated with the Groundwater Survey and Monitoring Plan. Clarification would be welcome as to whether the Sellafeld Tarn is within or outside the Initial Scoping Land.

3.5.6.1 Summary

The Council notes a good level of information in the Soils, Geology, Agricultural Land and Land Quality section of the Scoping Report, cross referenced with the SMP. The Council would welcome continuing dialogue on a number of matters including the availability of site investigation data to underpin the interpretation and strategy for materials use on site. The Council would seek confirmation on how far the investigation will be pursued for the purposes of informing the Environmental Statement. Further information would be welcome on the relationship and conclusions drawn from material for the Environmental Statement in the context of Environmental Permitting. The Council notes the importance of monitoring and reporting on progress against the Survey and Monitoring Programme (in this case in respect of the ground investigation

programme). It would be helpful to note the agreement of monitoring locations for example and the Council would welcome further dialogue on this.

For the ES the entire area must be assessed to a consistent and appropriate level for the proposed scheme. At present the central Initial Scoping Land appears to be the focus of attention, with some assessment also of the AB land. Outer areas of Initial Scoping Land and all the Additional Scoping Land and AD sites have not been examined.

The scheme design is presented in outline only and must be sufficiently developed to inform the ES. An important area of scheme design of interest for this Chapter are management of material arising from excavation (including nuclear Initial Scoping Land, MOLF, marine outfall, tunnelling).

3.6 Freshwater Environment and Flood Management (Section 9)

The Council has set out below the response on Freshwater Environment and Flood Management in respect of Section 9 of the Scoping Report and also the Survey and Monitoring Plan. This makes provision for a discussion in respect of both groundwater and surface water issues and assets.

3.6.1 Adequacy of Baseline

In respect of surface water, the Council notes that key features appear to have been identified by NuGeneration and the 3km Zone of Influence (ZOI) is appropriate in this case, provided the studies consider all related wider surface water catchment issues with potential to affect the flood risk and hydrological regime within the site over its lifetime.

The Council notes that the flood risk baseline appears to be based on existing Environment Agency Flood mapping only. Environment Agency guidance suggests that for nuclear sites operators should demonstrate, through a flood and coastal erosion risk assessment, that the site can be managed for nuclear safety during a 1 in 10,000 (0.01%) year annual probability flood, over its full lifetime, taking account of climate change. This being critical national infrastructure, the UK Climate Impacts Programme (UKCIP09) scenarios for sea level rise will need to consider the H++ scenario and careful consideration will need to be given to longer-term impacts beyond the epochs for which estimates are available. A joint probability analysis of peak river flows and tidal boundary conditions will be required in order to define the fluvial flood risk baseline.

The study will also need to assess and demonstrate that staff and visitors to the site will remain safe from the flooding effects (including residual effects) from a flood with a 1 in 1,000 (0.1%) annual probability and ensure operations are unaffected by a 1 in 200 (0.5%) annual probability flood (from all sources). Disruption of access and egress to the site from workers' home bases, caused by flooding of roads for example, will also need to be considered. Whilst an FRA will be prepared separately, this should align with the EIA/ES.

Rainfall baseline should make full use of local historic gauged data, including records from the Sellafield gauge.

Monthly recordings of a full suite of pollutants over a single year will provide essential data for the WFD baseline, but 'first flush' effects may not be identified if sampling is at set intervals. It may be worthwhile doing water quality sampling immediately following storm events, to help establish the nature of existing 'first flush' impacts, which may be significant, and have potential to be very significant during and post construction unless properly mitigated.

Whilst the site will be almost wholly re-modelled as part of the proposals, the existing patterns of runoff from the site should be established to inform the site drainage strategy, which should aim to mimic existing drainage patterns where

possible, particularly with regard to: a) the catchment area draining to and out for the Calder catchment/Sellafield site to avoid flood risk impacts and b) the area draining to Church Moss SSSI, to prevent changes in hydrological regime. This information may also inform the design of a sustainable drainage strategy for the site that protects all the WFD waterbodies in the area from the effects of pollutants within site run-off (particularly within 'first flush' events caused by storms occurring after extended dry periods), as well as hydromorphological impacts potentially caused by creating new 'point' discharges.

Little information on the hydromorphology of the River Ehen is provided. An assessment of its long term morphological development and sensitivity to disruption may be required, if any infrastructure is to be placed in proximity to the river. The river's hydromorphological sensitivity to disruption will need to be established if any temporary works within the floodplain are proposed. Opportunities to improve the physical state of this river should also ideally be identified where possible.

The Council would encourage NuGeneration to set out a consideration of 1 in 10,000 year fluvial, tidal and surface water/pluvial flood risks at the site for the nuclear safety case on this site and at Sellafield. In addition to the Environment Agency flood outlines, mapping is also required for 1 in 200 year and 1 in 100 year plus climate change scenarios (including UK Climate Impacts Programme H++ scenario). A joint probability analysis of river flow and tidal boundary conditions is required. Mapping should include assessment of the impacts of infrastructure failure, bridge collapse or blockage. The Council would also note the importance of scoping out consideration of Category C dams in the river catchments that would be at potential risk of failing if a 1 in 10,000 year fluvial flood occurred. The Council notes that Category C dams only have to be capable of safely passing a 1 in 1,000 year flood (Category D 150 year).

The baseline should include characterisation of extreme storm rainfall over the site using local gauged data, as well as wider datasets, in collaboration with the Meteorological Office will be important to define the pluvial flood hazard. Runoff event based water quality sampling should also be considered.

Improved characterisation of the site topography using LiDAR data to establish existing runoff patterns and sub-catchments to inform the sustainable drainage strategy for the site is considered necessary by the Council.

Hydromorphological characterisation of the River Ehen using fluvial audit techniques should also be considered, depending on the nature of any temporary or permanent proposals with potential to affect this river and its floodplain (and also to identify enhancement opportunities).

In respect of groundwater, the Council considers the description of baseline groundwater conditions in the Scoping Report adequate for scoping and to underpin Stage 1. However, the council notes further baseline characterisation is required and is proposed in the Groundwater Survey and Monitoring Plan.

The Scoping Report (Section 8 Soils *Scoping Report*) includes a summary of the land use history of the Initial Scoping Land and that also informs the groundwater contamination aspects of the Scoping Report. However, a detailed review of site

history, related to historical maps and other historical information, for the entire Moorside site area (Initial Scoping Land plus Additional Scoping Land) and Associated Development sites is required to identify potential contamination.

The main areas requiring further assessment (desk study and intrusive investigation) to characterise groundwater baseline include the following:

- Superficial deposits thickness and characteristics;
- Sandstone bedrock characteristics and faulting;
- Groundwater quality in the central and southern Initial Scoping Land (particularly in relation to dewatering and contamination arising from wider prior site uses (including Sellafield Facility));
- Other sources of groundwater contamination including Sellafield Tarn;
- Low Church Moss Site of Special Scientific Interest (SSSI) potentially a groundwater dependent terrestrial ecosystem;
- River Ehen buried channel location and depth;
- Groundwater flow (levels and gradients) across the area, including interaction with surface water and coast;
- Additional Scoping Land area and Associated Development sites.

The Scoping Report identifies the Additional Scoping Land areas as outside the current scope, but also identifies this land as within the 'Moorside Search Area' and indicates it may be included in the future. The programme and approach to integrating the Additional Scoping Land should be provided to ensure all areas have been adequately assessed in the Environmental Statement.

The Council notes that it is not clear from the Scoping Report where baseline radiological groundwater contamination will be presented in the Environmental Statement. It is possible that this subject matter will need to be approached in both the Freshwater and Radiological sections of the Environmental Statement.

The Groundwater Survey and Monitoring Plan is proposed to further inform the baseline (and the Council includes observations on this below) although the programme in the Survey and Monitoring Plan Summary of Activities section is out of date and needs updating against current progress.

The Groundwater Survey and Monitoring Plan presents proposed additional ground investigation and groundwater monitoring to inform the baseline and assessment of effects. The Council notes that the Initial Scoping Land ground investigation is focused on the central area to the east of the disused railway line where the construction of the Moorside Power Station is stated as likely to take place. No site layout plans are provided to support this position and the Council would welcome continuing engagement on the details of deployment as this is developed.

Low Church Moss SSSI requires particular assessment due to the potential sensitivity of this SSSI to changes to the hydrogeological regime (such as

dewatering or in-ground barriers to groundwater flow). The surface water and groundwater monitoring design for this SSSI should be integrated.

The Groundwater Survey and Monitoring Plan does not identify any groundwater monitoring locations near the coastal zone. Baseline groundwater quality is potentially influenced by the Sellafield facility in this area and it is important to understand baseline quality and groundwater-coastal interactions.

The Council notes that the area under consideration is extended in February 2015 to include 'AB Land' to the south of the main investigation area. The site investigation locations for the AB Land (BHH-Pz series of bores) are not shown on the figures in the Groundwater Survey and Monitoring Plan (Figure 3.1 and 3.2), but are shown on the Soil Survey and Monitoring Plan figures.

The Council notes that the Additional Scoping Land is not included in the Groundwater Survey and Monitoring Plan scope.

The Council notes that the Environmental Statement should consider the entire site area subdivided on the basis of the proposed site layout, with integrated assessments. The Council would wish to stress the importance of coherently considering the Initial Scoping Land, Additional Scoping Land and AB Land rather than as discrete components.

In respect of characterising baseline from the perspective of groundwater, the Council is unable to understand the rationale for the number, position, depth and design of investigation locations based on scoping material. However, the Council notes that the proposed monitoring locations give reasonable coverage across the centre of the Initial Scoping Land. The proposed investigation is described as the first phase of intrusive investigation and notes there will be the opportunity for further intrusive investigation at a later date.

The current progress of the site investigation is uncertain. The Council notes that the Scoping Report infers that the programme provided for the intrusive investigation should have been completed by April 2015 and monitoring commenced in May 2015. The Council would note the importance of maintaining an accurate reflection of progress in the investigation programme (and data captured therein).

Monthly monitoring of groundwater levels and groundwater quality is proposed over a 12 month period. This is considered to be adequate by the Council and should be appropriately targeted based on desk study information.

The Council notes that pump tests, packer tests and falling/rising head tests are proposed to determine aquifer hydraulic properties. Considering the possible difficulties associated with disposal of potentially radiological contaminated water the Council notes that these should be focussed on areas that may require dewatering.

The Council notes that the proposed scope of the investigation does not include all of the Initial Scoping Land, although this land may be required during the construction process and the need for further assessment to inform the Environmental Impact Assessment should be determined.

The Council would note the value of NuGeneration obtaining the Sellafield groundwater quality and level data and conceptual and numerical groundwater model if this is not already obtained.

3.6.2 Adequacy of Terms of Reference

In respect of surface water, the Council notes that the Flood Risk Assessment and Water Framework Directive Assessments should address many of the key issues which the Council would anticipate. A key recommendation is to ensure alignment of these assessments with the wider Environmental Impact Assessment.

NuGeneration should also ensure design addresses staff safety, site access and egress. The Council consider that the need to assess the impact of flooding on site accessibility from workers' home bases should require consideration of a wider area than 3km.

The Council notes that the area under consideration in the Scoping Report and SMP requires clarification. It is apparent that the Additional Scoping Land has been added to the scheme more recently and have been subject to less assessment to date.

It is noted that the Northern Ireland guidance on incorporating the Water Framework Directive into EIAs will be adopted, in the absence of formal guidance on this issue in England. This should be formalised with Natural England and the Environment Agency. The Environment Agency has internal guidance on Water Framework Directive assessment.

The Council notes that a comprehensive list of national and local policy and guidance which will be considered during the study is provided. Careful consideration should be given to the following policies set out in the Copeland Local Plan;

- Policy ENV1 – Flood Risk and Risk Management
- Policy ST1 – Strategic Development Principles
- Policy DM24 – Development Proposals and Flood Risk.

3.6.3 Commentary on Consultation Activity to Date

The Council has welcomed NuGeneration's engagement to date and notes that the Scoping Report refers to wider discussions with the Environment Agency, Natural England, the Lake District National Park Authority, and Cumbria County Council as Lead Local Flood Authority. Furthermore, the Council notes that the draft Survey and Monitoring Plans were issued for comment in August 2014 to the above plus Sellafield Ltd and meetings were held in 2014 to discuss the draft Plans and Scoping Report at that time. Cumbria County Council, as Lead Local Flood Authority, is a key flood risk consultee and will need to be closely involved with agreeing the scope of the flood risk assessment, as will Copeland Borough Council, as Local Planning Authority and a Category 1 responder under the Civils Contingency Act.

3.6.4 Commentary on Proposed Studies

In respect of surface water, NuGeneration should ensure that site investigation will provide all necessary data for assessment and design of sustainable drainage systems. Sustainable drainage systems, both during and after construction will be absolutely key to mitigating water quality impacts on surface and groundwaters. The Council would welcome continuing dialogue on this matter.

The Council notes that the Scoping Report states that detailed methodologies for assessment of potential effects have not yet been defined. It follows that the Council will seek certainty on how methodologies will be defined and for there to be active consultation on the approach prior to implementation.

Materials management during construction and defining material chemical suitability for re-use will be related to groundwater protection. If leachable contaminants are present re-use criteria should be risk-based. This will require development of the geological understanding as well as site design.

The potential impacts of dewatering and disposal of abstracted water must be assessed, both in terms of impact on the groundwater flow regime and contaminant transport. The Council would seek confirmation on this matter.

The impact on the groundwater flow regime of construction of in-ground barriers to groundwater flow should be assessed. The Council notes that numerical modelling is proposed as a technique to assess these aspects however no details are provided. Numerical modelling is potentially a very useful tool and is supported for this assessment, however modelling of the hydrogeology of the complex superficial deposits, vertical gradients, bedrock faults and so forth will be demanding. The council would welcome continuing discussion on this matter.

The potential groundwater quality impact during operation is identified as a possible effect. No proposed method for assessing these effects is presented and the Council would anticipate this being undertaken. Furthermore, the Council would wish to ensure that the scheme design seeks prevention of groundwater pollution and this should be presented in the Environmental Statement.

The approach and programme to securing Environmental Permits (requiring Best Available Techniques (BAT) demonstration) is not presented in this section. Cross referral is encouraged in the Environmental Statement (particularly where common sources of data are proposed).

The Council notes that groundwater is not identified as a receptor for operational radiological effects in Section 7 of the Scoping Report. The Council is unclear whether the potential radiological impact on groundwater is set out in full within Section 9.

The Council notes that the scope of the baseline and effects assessment of Associated Development sites has not been defined. The Council seeks clarity on whether Associated Development sites E, F and G are within the South Egremont Groundwater Scheme.

3.6.5 Commentary on Adequacy of Key Issues Raised & Data

The Council notes that in general terms, potential effects identified as requiring further assessment are considered adequate (subject to commentary above). Detailed methodologies for the assessment of the key issues are still to be defined and are to be scoped as further baseline data and scheme design information becomes available. It is important that Council is given an opportunity to comment on this continuing scoping process as it evolves.

According to the programme in the Groundwater SMP, the intrusive investigation should be complete with monitoring ongoing. However, no investigation data is provided. The Council would seek confirmation that there will be further consultation on the revised baseline considering the additional investigation and monitoring data before Environmental Statement completion.

It is not clear to the Council at this time how far scheme design (such as dewatering, in ground barriers, pollution prevention measures) will be developed for the Environmental Statement, so it is not possible to assess the adequacy of the assessment in full. The Council recommends continuing dialogue on this matter.

Information and assessments will be required for the Environmental Permit application that will also be needed for the Environmental Statement. The Environmental Impact Assessment and Environmental Permit application should ideally be progressed in parallel (albeit with submissions at different points in the future). The Council would welcome further dialogue on this matter.

The Council notes that graphical material included in the Scoping Report is fairly limited for this section and would be a welcome addition for the Environmental Statement. The Council notes that there is no indication of 1 in 10,000 1 in 200 year and 1 in 100 year flood extents (all sources), and which should be defined in the Environmental Statement. It would be helpful to see a figure showing delineation of sub-catchments within the site and existing site drainage patterns, which need defining to inform the site drainage strategy

As a further specific matter, the Council has identified that the Survey and Monitoring Plan Investigation Plan does not show the bores proposed for the AB Land. Furthermore, Figure 3.2 in the Soil SMP 'Proposed Groundwater and Gas Monitoring Locations' should be included in the Groundwater SMP. The Low Church Moss SSSI investigation proposals should be presented on a separate figure to aid clarity.

3.6.6 Adequacy of Graphics

The Council notes that graphical material included in the Scoping Report is fairly limited for this section and would be a welcome addition for the Environmental Statement. The Council notes that there is no indication of 1 in 10,000 1 in 200 year and 1 in 100 year flood extents (all sources), and which should be defined in the Environmental Statement. It would be helpful to see a figure showing delineation of sub-catchments within the site and existing site drainage patterns, which need defining to inform the site drainage strategy.

Figure 3.2 in the Soil SMP ‘Proposed Groundwater and Gas Monitoring Locations’ should be included in the Groundwater SMP.

The Low Church Moss SSSI investigation proposals should be presented on a separate figure.

3.6.7 Summary

Noting the areas for further discussion above, the Council would generally note that the Freshwater section of the Scoping Report is thorough and systematic although the approach to assessment of effects is presented in outline only. A key issue for the Council include that the entire area must be assessed to a consistent and appropriate level for the proposed scheme. At present, the central Initial Scoping Land appears to be the focus of attention. The Groundwater Survey and Monitoring Plan does not consider the AB Land (but the Soil Survey and Monitoring Plan does). Outer areas of the Initial Scoping Land and all the AB Land, Additional Scoping Land and Associated Development sites have not been examined.

The Council notes that the scheme design is presented in outline only. Clearly, this must be sufficiently developed to inform the Environmental Statement effectively. Important areas of scheme design of interest for this Freshwater section include dewatering and associated water disposal, in ground barrier design, material re-use proposals and pollution prevention measures.

The Council highlights that the methodologies for assessment of effects have not been defined in any detail. The assessment of effects of temporary or permanent works in the vicinity of existing Water Framework Directive waterbodies, or of any changes in the distribution of surface water flows, will potentially require more detailed assessments to be made of the waterbodies existing hydromorphological features possibly using fluvial audit techniques. Opportunities to improve the morphology of the River Ehen locally, should audit identify local pressures, should ideally be identified and implemented as part of the scheme if at all possible to align with Water Framework Directive drivers. Continuing dialogue will be sought on how and when detailed methodologies be defined alongside an opportunity to comment on the proposed approaches.

3.7 Marine and Coastal Physical Environment (Section 10)

The following section provides the Council's response to the Scoping Report and Survey and Monitoring Plan in respect of the Marine and Coastal Physical Environment. In order to ensure completeness, both Section 10 and 14 on Physical Marine Processes and Biodiversity (Marine) area addressed in this response

3.7.1 Adequacy of Baseline (Physical Marine Processes)

The Council notes that the survey work being undertaken along with the existing information in the area should provide an adequate baseline for the building of the physical processes models (temperature, sediment, water movement). The Council would note its' desire to monitor the development of the models (through periodic briefings) especially in terms of grid size and how capable the models are of predicting change and at what scales. The Council notes the importance of ensuring that the impacts of climate change will be built into the modelling. This point is particularly important as there is limited detail on the detailed design proposals e.g. for cooling tunnels, MOLF and so on at this time. The Council would wish to ensure that models are capable of picking up both near-field (small) and far-field potential impacts.

At this time, the Council would note a concern over the apparent lack of interaction between the receptors. As a specific point, the Council would wish to ensure that the proposed surveys are sufficient to allow post construction monitoring, both near-field and far-field. It is unclear from the Stage 1 material how and when these surveys will be planned. The Council would welcome further dialogue on this matter.

The Council would recommend consideration of Acoustic Ground Discrimination System (AGDS) on the seabed survey however as the survey has commenced it may be too late to incorporate this method. The application of AGDS would give roughness and smoothness information for the seabed. The council notes that it would be useful to understand the results of the geophysical survey prior to the benthic survey being commissioned as the geophysical survey should be used to inform where habitats are likely and therefore inform the benthic survey. The Council would note the importance of considering the impacts of changes to temperature, sediment movement etc. on biodiversity and link back to what information is required.

3.7.2 Adequacy of Terms of Reference (Physical Marine Processes)

The Council would generally note a good degree of confidence in the techniques and terms of reference proposed for the Physical Marine Processes survey and modelling. In respect of 10.6.8 (P218 *Scoping Report*) the Council would recommend a more detailed representation of the pathways and using this to steer

the links between the sections of the Environmental Statement as they are prepared. The Council would highlight the value of providing a roadmap between what questions the models will need to answer and to what degree of sensitivity. This will assist in terms of gaining an understanding of the approach and presentation of results in the Environmental Statement.

The Council notes the importance of responding to predicted impacts of climate change over the next 60 years and how this will be managed in the modelling process (so there will be a degree of change and there is a need to put any further anthropogenic change into context). It is unclear how this will be achieved to the Council at this time. Equally, it would be helpful to understand how the baseline will describe the natural variation if surveys are only proposed to cover one year. The Council would wish to understand NuGeneration's more far reaching survey strategy to cover a number of years.

Consideration should be given to the following policies Policy ENV2 – Coastal Management and Policy ST1 – Strategic Development Principles set out in the Copeland Local Plan.

3.7.3 Commentary on Consultation Activity to Date (Physical Marine Processes)

The Council would welcome dialogue with NuGeneration on wider engagement reflecting the potential for transboundary effects associated with the project. As an example, the Council are unclear on whether Scottish Natural Heritage and the Scottish Environment Protection Agency. The Council would welcome NuGeneration setting out the transboundary consultation programme/strategy.

3.7.4 Commentary on Proposed Studies (Physical Marine Processes)

The council would generally note that there is comprehensive information on the proposed baseline studies. However, there is little information provided on what studies will be used / undertaken to help undertake the impact assessment in terms of evidence collection or any previous studies which can be referenced. The Council would recommend that detailed consideration is given to this now so that there is evidence available to support the assessment when the time comes.

The Council would also recommend further effort is placed into considering how the impact assessment will be completed for the Environmental Statement. Where there is insufficient evidence to support conclusions the Council would wish to see whether any studies could be undertaken now noting that these studies go beyond Physical Processes and are much more about how changes in physical process influence other receptors.

3.7.5 Commentary on Adequacy of Key Issues Raised & Data (Physical Marine Processes)

The Council notes that there is limited detail about what impacts will be modelled at this time. This is primarily due to the uncertainty regarding the potential

physical footprint and location of the outfall / intake for cooling water infrastructure and MOLF. The Council would anticipate continuing dialogue on this matter.

In respect of Table 10.2 addressing Assessment Criteria (P225 Scoping Report) the Council notes that the assessment criteria need to be considered further in terms of changes to the general marine physical processes and not just focussed on designated sites.

3.7.6 Adequacy of Graphics (Physical Marine Processes)

The Council notes that minimal graphical material on Physical Processes is presented within the Stage 1 material. The Council would expect to see a summary of techniques, and results from all surveys in documents in May 2016 including where surveys could not be achieved (either due to weather or other conditions encountered).

As a wider issue, the Council would wish to ensure that survey results and models will be available in time to input into and influence the production of the other sections of the Environmental Statement. Surveys will need to be undertaken over winter months and it is unclear how NuGeneration anticipates this being tied in with production of material for May 2016.

3.7.7 Summary (Marine Physical Processes)

There is limited detail about how impacts on physical effects (changes in sediment, temperature etc. will be related to the impact on the biological and human environment). The Council would encourage NuGeneration to assemble both a far reaching baseline as well as ensuring enough detailed evidence to support Environmental Impact Assessment conclusions.

The detail surrounding what / where and how the marine infrastructure will be built is limited at this time reflecting the Strategic Issues stage of consultation. Without further clarity on the plans it is thus difficult to provide commentary although the Council is committed to continuing dialogue in this regard. In particular, details on where the in-take and out-falls will be located and the type of structure present on the seabed alongside a better description of the location and facilities expected at the Marine Offloading Facility would aid the planning for surveys. The Council notes that there is limited information on dredging and disposal operations.

3.7.8 Adequacy of Baseline (Marine Biodiversity)

This section has principally been informed through reference to Section 14 of the Scoping Report. The Council is pleased to note that for seabird surveys boat based surveys and aerial surveys have been undertaken. However, the Council notes that whilst NuGeneration has proposed a one year programme of sea surveys whilst engagement with Natural England has indicated a requirement for two years. From the Council's perspective, there would likely be more value associated with gaining an understanding of why and how seabirds are using the area. As such, the

Council would recommend engagement on a programme of a tagging / monitoring programme to look at connectivity with colonies / Special Protection Areas (SPAs).

In respect of Marine Mammals, the Council would note that at sea visual surveys are generally not particularly effective and it may be more appropriate to consider acoustic surveys.

In terms of the Benthic Survey programme this seems appropriate and adequate to the Council although it would be useful for the Council to review results of geophysical surveys to ensure all potential habitats sampled. The provision of the drop down video should provide an adequate description of the marine environment.

The Council would encourage consideration of the Offshore Vulnerability Index for Seabirds (a measure of how sensitive seabirds are to oil pollution) and would welcome further dialogue on this matter.

In general terms, the Council would note that with respect to marine species survey, it is crucially important to understand trends in the area, rather than a snapshot baseline. For example, the surveys should attempt to characterise whether a particular species of seabird numbers been trending up or down, have more marine mammals been seen in the area in the last five years than the five before. Since the Council understands that the operation of the reactors is likely to be some 60 years or more, a key issues is the ability to consider the impact over that time, this is especially important for any changes to prey species (benthos/fish) which may then impact upon the food chain (birds and marine mammals). With this timeframe in mind, it would be useful to see further references to the National Marine Plan and likely developments over the next 60 years in the baseline section.

3.7.9 Adequacy of Terms of Reference (Marine Biodiversity)

In terms of Marine Biodiversity, the Council would generally note that the terms of reference and approaches proposed are sound and logical. However, without understanding the planned offshore works better it is difficult to assess if the proposed ZoI are adequate. The Council recognises that this design development process will evolve over time and the Council would welcome continuing dialogue on the ZoI as further information becomes available.

As with Physical Processes it is useful to consider impacts of natural and climate change and how these will impact upon species and habitats in the future. It would be useful to put anthropogenic impacts in context (i.e. a large storm event may cause more change to the marine environment than depositing dredge material).

3.7.10 Commentary on Consultation Activity to Date (Marine Biodiversity)

As with Physical Processes, the Council would welcome dialogue with NuGeneration on transboundary effects associated with the project. The Council notes that Scottish Natural Heritage and the Scottish Environment Protection

Agency will no doubt wish to set out consultation responses on transboundary effects. The Council also notes the value in engagement with the Whale and Dolphin Conservation group (<http://uk.whales.org/>).

3.7.11 Commentary on Proposed Studies (Marine Biodiversity)

As with the Council's comments on physical processes, there should be a consideration of how the impact assessment will be delivered for Marine Biodiversity. In particular, this should address the nature of temperature change impacts on the benthic environment, then fish, then birds then marine mammals. Overall, this should drive a consideration therefore of whether temperature change significant such that there is a clear and logical association between evidence and assessment of significance.

3.7.12 Commentary on Adequacy of Key Issues Raised & Data (Marine Biodiversity)

The council is concerned that the increase risk of spills (either chemical or oil spills) from increased marine traffic is being overlooked and would encourage NuGeneration to detail this element in full. In addition, the Council would wish NuGeneration to ensure there is adequate mitigation in place for this (especially bunding for rivers etc.)

At this time, the potential impacts of noise during construction and operation do not appear to fully planned for in the survey / modelling programme. The Council notes that there may need to be modelling of underwater noise to better understand potential impacts on fish and marine mammals.

The Council would seek further information on marine growth and how this will be cleaned/managed on sub-sea structures. In addition, the Council would wish to understand what provision is made to safeguard marine mammals (seals) in respect of the cooling water intake structures. Furthermore, it would be useful to understand how jelly fish blooms will be managed.

The Council notes that minimal graphical material is presented in the Scoping Report and wider Stage 1 consultation supporting Marine Biodiversity. The Council would welcome the provision of maps of distribution of species and connectivity to any protected sites in the Environmental Statement.

Generally, the Council notes that with the current programme, it is quite early in the process to judge data. The Council would thus welcome a further consideration of data quality once data collection is complete and, depending on the results, further surveys may be required at that time.

3.7.13 Adequacy of Graphics (Marine Biodiversity)

The Council notes that minimal graphical material is presented in the Scoping Report and wider Stage 1 consultation supporting Marine Biodiversity. The Council would welcome the provision of maps of distribution of species and connectivity to any protected sites in the Environmental Statement.

3.7.14 Summary (Marine Biodiversity)

As a particular matter, the Council would stress the importance of ensuring that the timelines for impact assessment across multiple subject areas (topics) allows for a coherent consideration of impacts and thus a robust Environmental Impact Assessment. This is particularly important in respect of Marine Biodiversity.

In terms of monitoring, the Council notes that part of the role of baseline surveys in the marine environment will be to provide a baseline for any future monitoring surveys. As there is limited information on what will be built and discharged it is difficult to plan for far-field monitoring at this time. However, the baseline surveys should not prevent this happening and the Council would welcome more detail on future monitoring plans and details on control areas and monitoring of natural change versus anthropogenic change.

The Council notes the importance of NuGeneration's consideration of transboundary impacts, in particular impacts on Isle of Man and Irish seas. In addition, the Council would encourage a full consideration of Cumulative Marine Impacts further from other industries and offshore developments including the designation of Special Areas of Conservation (SAC), Special Protection Areas (SPA), Marine Conservation Zones (MCZ) and other Marine Planning Areas (MPAs). The Council would also encourage NuGeneration to consider the associated impacts of these designations on other industries including impacts on Commercial Fisheries from either changes in quotas or limitations on fishing ground / gear from designation of sites.

In respect of Commercial Fisheries the Council would encourage NuGeneration to consider the cumulative impact of shipping increasing in the area, especially how this may affect the static gear fishermen (gill nets and pots). Furthermore, the Council would seek clarity on whether an exclusions zone will be sought surrounding the intake / outfall areas and whether there are likely to be risks from these structures in respect of fishing and other marine traffic. The Council would suggest criteria be used to describe 'value and sensitivity' and this should include importance of changes to the seabed on commercial fish species.

As a separate and more general point, the Council would wish to ensure that NuGeneration ensure that Marine Surveys consider Historic Environment and making best use of survey data (13.5.7 Scoping Report) to minimise risk of grabs impacts on wrecks and so forth.

3.8 Landscape (Section 11)

This section provides the Council's response on landscape and visual matters related to Section 11 of the Scoping Report and also the Survey and Monitoring Plan.

3.8.1 Adequacy of Baseline

The Council notes that in general terms, the approach taken on landscape to capturing the baseline characteristics associated with the Initial Scoping Land is judged to be adequate. The ZTV and definition of study areas is helpful, but as acknowledged by NuGeneration, these need further refinement with more accurate data and more detailed design information when this becomes available. It is difficult to offer useful comments on the baseline for the AD sites, MOLF and the Additional Scoping Land, due to the inadequacy of information provided to date. In particular the potential seascape effects and methodology for assessment require further development in order for the Council to provide useful commentary.

At this stage, particularly as a consequence of the full extent and nature of the development requiring further definition, the relatively proximate Local Character Areas are not included within the current ZTV. However, the Council notes that these are likely to be in the refined ZTVs especially when the AD sites are included. Due consideration should thus be given to:

- LCT 2a-Dunes and Beaches (Coastal Margins);
- LCT 5a-Ridge and Valley (Lowland);
- LCT 5d-Urban Fringe (Lowland); and
- Lake District Area of Distinctive Character 37 - Bleng and Irt Valleys.
- Urban Areas requiring their own Townscape Character Assessment.

It will be critical to capture somewhere in the Environmental Statement an assessment of the effects on the overall in-combination effects of the Moorside development, the MOLF, the AD sites and all associated transport and electricity infrastructure on the landscape character of the local and wider landscape to include national and regional character areas as well as the Local Character Areas.

The ZTV and study areas will need refining through further more accurate modelling of the terrain and further detailed understanding of the proposed development and AD.

As well as being based on OS terrain 5 data, the ZTV model should also include larger blocks of screening vegetation and built form, both easily obtainable at no cost from OS Opendata, 'Vectormap District'.

The Council notes and welcomes that NuGeneration's commitment to further baseline and assessment work in respect of;

- Condition of Landscape elements;

- a detailed site specific assessment of the character of the site, but this should include all sites such as the AD sites, MOLF and additional scoping land once defined);
- detailed baseline for the Landscapes of County Importance;
- an increase understanding of tranquillity;
- Seascape character baseline and assessment ; and
- an understanding of the night-time lighting baseline on the character of the detailed study area.

The above matters are crucial in informing a wider understanding of the nature and distribution of the effects upon landscape resource.

3.8.2 Adequacy of Terms of Reference

The high level of legislation and policy review is appropriate for the scoping stage. However, the Council notes an absence of review of the Lake District National Park Authority (LDNPA) policy and guidance and this should be provided and inform the evolving design.

Careful consideration should be given to the following policies set out in the Copeland Local Plan;

- Policy ER3 – The Support Infrastructure for the Energy Coast;
- Policy SS5 – Provision and Access to Open Space and Green Infrastructure;
- Policy ENV5 – Protecting and Enhancing the Borough’s Landscapes;
- Policy ST1 – Strategic Development Principles;
- Policy DM26 – Landscaping; and
- Policy DM10 – Achieving Quality of Place.

3.8.3 Commentary on Consultation Activity to Date

High level consultation on landscape issues has taken place with Natural England, LDNPA, Cumbria County Council, and Copeland and Allerdale Borough Councils. This is an appropriate list of consultees to date.

Opportunities for off-site mitigation measures such as planting may need to be explored. If off-site measures are to be proposed, consultation with third party landowners on the potential effects on their land should be commenced as early as possible.

Due to the project programme and inherent complexity the information presented at this stage, particularly in respect of the AD sites, MOLF and associated transport and electrical infrastructure is not adequately resolved to scope the required assessment. This means fully informed responses at this stage are not possible and will necessitate ongoing consultation as the proposed design, layout and assessment scope evolves ahead of the next round of formal consultation next year.

3.8.4 Commentary on Proposed Studies

In general terms, the Council notes that the methodology proposed for the assessment of effects on landscape character appears adequate. The scale to which the landscape baseline has been resolved is appropriately fine, i.e. looking at site specific character within and immediately around the development site(s), and based on local level character assessments in the wider landscape. The effects assessment needs to be carried out at this level, providing an assessment of the potential effects on the character of each locally distinct feature or area rather than amalgamating or grouping those that are similar.

Similar but subtly different methodologies may need to be provided for seascape and night-time character assessments.

The landscape chapter does not address how mitigation and replacement planting would be considered/secured and how this would be taken into account in residual effects. The Planning Inspectorate (PINs) Advice Note Seven states that this should be included.

The Council notes that the chapter does not cover how cumulative development would be considered. PINS Advice Note Seven states that this should be included.

3.8.5 Commentary on Adequacy of Key Issues Raised & Data

The Council notes that the landscape chapter adequately identifies the potential for the most significant effects and the requirement for further work. This commitment to further work and a phased consultation programme therein is seen as highly important to the Council as the design evolves to Stage 2. In particular, the Council's ability to meaningfully comment on the landscape issues associated with development proposals in AD sites is limited by the lack of design development for those sites.

3.8.6 Adequacy of Graphics

Figures appear to be adequate for this stage.

3.8.7 Summary

Several landscape receptors have been scoped out of the assessment without consideration of aspects of the wider development, which have not yet been resolved such as AD sites. The Council would anticipate further justification of scoping out these elements in the context of the evolving design.

The consultation to date is adequate, but further consultation is necessary on the scope of assessment of the wider development and on additional baseline information. This is needed before the next formal stage of consultation.

Further work on opportunities for on and off site mitigation and replacement planting is required and a full consideration of the scope of cumulative effects assessment is required.

3.9 Visual (Section 12)

This section provides the Council's response on landscape and visual matters related to Section 12 of the Scoping Report and also the Survey and Monitoring Plan.

3.9.1 Adequacy of Baseline

As with the landscape scoping chapter, the Council notes that the general approach to the Baseline associated with the Initial Scoping Land is adequate. The ZTV and definition of study areas is helpful, but as identified by NuGeneration in the documentation, both need refining with more accurate data and more detailed design information as this becomes available.

It is difficult for the Council to comment meaningfully on the baseline for the AD sites, MOLF and the Additional Scoping Land, due to the limited information provided to date. The Council encourages NuGeneration to engage in continual dialogue on this matter.

In paragraphs 12.6.1 and 12.7.3, Public Rights of Way (PRoW) and individual or small groups of residences beyond 3km of the Initial Scoping Land (with the exception of those PRoW within the LDNP) have been excluded from further assessment. This is justified by a likely reduced magnitude of change to these receptors (last paragraph of 21.7.3). This is confusing as the magnitude of change is not dependent on the nature of the receptor. Residents and PRoW users are categorised as highly sensitive receptors (Table 12.1), just as users of nationally and regionally designated routes and visitors to specified viewpoints are, and accordingly should be represented throughout the Study Area where the potential for significant effects exists. It is of course important that the visual assessment is kept proportionate, but it is considered that highly sensitive visual receptors beyond 3 km but within 22km, should not be excluded outright. Perhaps the number of these receptors beyond 3km could be reduced by using viewpoints that represent a number of PRoWs or residences in an area. One aspect that might reduce the scope for significant effects on receptors such as individual residents or PRoW users might be their lower susceptibility to change as a result of reduced 'frequency' as described at paragraph 12.6.5.

The ZTV and study areas will need refining through further more accurate modelling of the terrain and further detailed understanding of the proposed development and ADs.

As well as being based on OS terrain 5 data, the ZTV model should also include larger blocks of screening vegetation and built form, both easily obtainable at no cost from OS Opendata, 'Vectormap District'.

It is noted and welcomed by the Council that NuGeneration have identified the need for further baseline and assessment work in respect of:

- Distribution of visual receptors;
- Existing screening and nature of visual connection;

- An understanding of the night-time lighting baseline on the character of the detailed study area;
- Inclusion of seaward visual receptors such as ships and leisure craft;
- Increased understanding of the future visual baseline at Sellafield; and
- Additional detailed PRow information.

These matters are deemed crucial in terms of enhancing the robustness of the approach to visual assessment.

3.9.2 Adequacy of Terms of Reference

As with landscape, the Council considers the high level of legislation and policy review is appropriate for the EIA scoping stage.

3.9.3 Commentary on Consultation Activity to Date

The Council notes that high level consultation on visual issues has taken place with Natural England, LDNPA, the County Council, and Copeland and Allerdale Borough Councils. This is an appropriate group of consultees reflecting the scope of the project to date.

Opportunities for off-site mitigation measures such as planting may need to be explored. If off-site measures are to be proposed, consultation with third party landowners on the potential effects on their land should be commenced as early as possible.

Due to the project programme and inherent complexity the information presented at this stage, particularly in respect of the AD sites, MOLF and associated transport and electrical infrastructure is not adequately resolved to scope the required assessment. This means fully informed responses at this stage are not possible and will necessitate ongoing consultation as the proposed design, layout and assessment scope evolves ahead of the next round of formal consultation next year.

3.9.4 Commentary on Proposed Studies

The methodology proposed for the assessment of effects on views appears adequate. Similar but subtly different methodologies may need to be provided for night-time visual assessments and the Council would welcome dialogue with NuGeneration on this matter.

The chapter does not cover how mitigation and replacement planting would be considered/secured and how this would be taken into account in residual effects. PINS Advice Note Seven states that this should be included.

The chapter does not cover how cumulative development would be considered. PINS Advice Note Seven states that this should be included.

It will be critical to capture somewhere in the Environmental Statement an assessment of the effects on the overall in-combination effects of the Moorside development, the Marine Offloading Facility, the AD sites and all associated transport and electricity infrastructure on visual amenity.

3.9.5 Commentary on Adequacy of Key Issues Raised & Data

The Council considers that the visual scoping chapter of the Scoping Report adequately pick up the potential for the most significant effects and the requirement for further work.

It is recognised that due to the large scale of the study area it is hard to present information on adequately detailed maps. One way of refining this might be to focus in on more detailed (1 to 25,000) maps of areas around the development sites as well as having a broad scale map for outlying viewpoints. All receptors should be shown as graphic layers on appropriate scale maps (such as PRoW individual and quantified groups of dwellings, Open Access Land, and other designations should be highlighted.

The council would seek further information from NuGeneration on the amount of photomontage information and other forms of visualisation that will be provided and their timing relative to the overall programme of formal consultation. In particular, the Council would wish to understand whether all winter and summer views will be subject to a photomontage or just a selection. Furthermore, it would be useful to understand whether views that are not proposed for a photomontage will nonetheless be annotated to provide reference information for the assessment.

3.9.6 Adequacy of Graphics

It is recognised that due to the large scale of the study area it is hard to present information on adequately detailed maps. One way of refining this might be to focus in on more detailed (1 to 25,000 scale) maps of areas around the development sites as well as having a broad scale map for outlying viewpoints. All receptors should be shown as graphic layers on appropriate scale maps such as PRoW individual and quantified groups of dwellings, Open Access Land, and other designations should be highlighted.

3.9.7 Summary

Whilst there is much material in the Scoping Report to give the Council confidence on visual matters, there are a number of issues which will require resolution.

The selection of viewpoints appears to be based only on the main (Moorside Search Area) development. Others that will be important for the AD and other sites have been scoped out of the assessment and further justification is sought for this approach. It is clear that proposed development within the AD sites has the potential to influence visual amenity, potentially on a long term basis (subject to legacy proposals) and this should be clearly articulated.

The consultation to date appears adequate, but further consultation is necessary on the scope of assessment of the wider development and on additional baseline information as identified in the chapter. This is needed before the next formal stage of consultation.

The exclusion of some residential and PRow receptors beyond 3km from the Initial Scoping Land should be revisited.

Further work on opportunities for on and off site mitigation and replacement planting is required and in addition full consideration of the scope of cumulative effects assessment is required.

3.10 Historic Environment (Section 13)

This section provides the Council's response on historic environment matters related to Section 13 of the Scoping Report and also the Survey and Monitoring Plan.

3.10.1 Adequacy of Baseline

The Council considers the baseline to be comprehensive for scoping stage, and utilises data from the expected sources. It is noted that the Archives Monuments Information England (AMIE) is now the Historic England Archive.

The Zone of Influence (ZoI) selected for describing baseline conditions is considered to be appropriate for the scale of development. However it is stated that the ZoI for non-designated assets will extend no more than 1km from the boundary of the initial scoping land; for the majority of non-designated assets this would be appropriate, however where there is potential for significant effects, such as where assets are intervisible with others in the wider historic landscape, these assets should be identified and examined on a case by case basis as to whether a significant effect may occur. This may require photomontages to be produced to inform the assessment, in co-ordination with the LVIA.

3.10.2 Adequacy of Terms of Reference

Although the Council would generally note that the approach to historic environment is acceptable, it would have been useful to have more detail on the terms of reference in the Scoping Report.

In particular, Policy ENV4 – Heritage Assets and Policy DM27 – Built Heritage and Archaeology policies of the Copeland Local Plan should be taken into careful consideration.

3.10.3 Adequacy of Engagement with Consultees

The Council notes that from the perspective of historic environment, consultees have been periodically consulted about the proposed project since at least 2012, and while details of the discussions are not provided, this level of consultation is as expected for a development of this scale and potential complexity.

Paragraph 13.4.3 states that consultation regarding archaeological fieldwork will mostly be by means of telephone and email; we would encourage a programme of face-to-face discussions with consultees regarding proposed surveys as this provides a more effective means of discussing and agreeing the scope of work, and may shorten the consultation period allowing archaeological fieldwork to be brought forward and on the critical path for delivery of the EIA. This would also allow sufficient time for more detail survey to be undertaken in specific locations if required.

3.10.4 Commentary on Proposed Studies

The suite of potential survey techniques proposed is in line with professional standards, however the value of undertaking test/shovel pits over a wide area is questioned; these should be concentrated in areas where prehistoric (in particular Mesolithic) activity may have occurred, such as on high ground or adjacent to watercourses, and where the nature of buried remains would likely not be identified by geophysics and trial trenching. Further discussion and justification would be helpful in this regard.

The potential use of LiDAR 'where available' is noted, it is recommended that a LiDAR survey is commissioned for the project, as this is now a cost-effective method that provides data that can be used by a wide range of disciplines apart from archaeology. It is also the only method of identifying minor/ploughed earthworks that are invisible to other techniques. It is understood from the technical review meeting with NuGeneration on 15th June 2015 that full LiDAR is available for the site, at a resolution of 50cm. It is considered appropriate level of detail, however to date 'false lighting' has not been used to identify potential sites and historic landscape features; this should be undertaken as a priority to enable the features to be investigated and assessed as part of the overall evaluation strategy.

3.10.5 Commentary on Adequacy of Key Issues Raised & Data

The Scoping Report discusses key issues and impacts, and sets out historic assets to be assessed and those to be excluded from further assessment. These seem reasonable, however without further information on these sites, and a site visit, it is difficult to confirm whether these exclusions are justified.

3.10.6 Adequacy of Graphics

In respect of graphical material supporting the Scoping Report for historic environment, the Council notes that Figure 13.1 should only show designated heritage assets and Figure 13.2 Initial Scoping Land would ideally be presented as shaded as hatching makes the drawing difficult to read at present.

3.10.7 Summary

The Council notes that the approach taken by NuGeneration to the Scoping Report and wider Stage 1 material gives the Council confidence on Historic Environment. Notwithstanding, there are matters which the Council would wish to raise to NuGeneration's attention at this time. Some of these matters are common across other disciplines, in particular in respect of the relationship between Historic Environment, Landscape and Visual topics. The Council notes the challenge in providing a commentary on Historic Environment from the perspective of the whole project, given a limited degree of information on the potential range of effects arising from proposals in AD sites. This is a particular matter for the ZoI and the Council would encourage NuGeneration to give this matter further consideration as the scope of development in AD sites becomes clearer.

The Council would seek NuGeneration's views on a more targeted approach to undertaking test/shovel pits and the inclusion of LiDAR survey being commissioned for the project.

The Council would encourage NuGeneration to adopt a precautionary approach to scoping and to scope matters in where development and the nature of their effects is yet to be fully defined.

3.11 Biodiversity (Section 14)

This section provides the Council's commentary on biodiversity matters related to Section 14 of the Scoping Report and also the Survey and Monitoring Plan.

3.11.1 Adequacy of Baseline

As an overall position, the Council would note that the baseline description provides a reasonable basis for setting out the scope and methodology for the EIA based on current information sources available. However, the Council notes some apparent omissions and areas for improvement that are described following.

The Council would seek clarity from NuGeneration on the definition of ZoI with regard to air pollution. It is unclear and justification is sought on why the zone of influence is set at 15km for statutory sites but this is reduced to 2km for non-statutory sites, when it is assumed significant impacts could occur within habitats to the greater range. Ancient woodland is briefly referred to in the text, although the Council notes a limited description of its distribution within the baseline section. The baseline section provides a brief description of S41 Natural Environment and Rural Communities (NERC) Act 2006 mammals (brown hare and hedgehog only) although there is no mention of polecat or harvest mouse records or lack thereof in this section.

Further additions / information which the Council has identified from the review of baseline are described following. In Section 14.3.2, the dates when data were received should be inserted, and the search radii for protected sites should be specified. This would introduce more certainty to the baseline section.

The Council notes and as also raised by Natural England within the Habitats Regulations (HRA) response, when using data from NBN, it should be clearly stated that the applicant have commercial permission to use this source and have the relevant permissions of individual data set owners.

It is unclear in Section 14.5.7 if Rivers Ehen and Calder are considered barriers to Natterjack Toad given the suggestion that animals may use the Initial Scoping Land occasionally. If this is the case, it would be helpful to clarify whether these animals are thought to be from the Braystones or Sellafeld populations.

It would be helpful to use scientific names of fish (e.g. Table 14.4) given the potential confusion when just using vernacular, such as 'sole'.

Precision should be added to Section 14.5.23 regarding leatherback turtle records in the Irish Sea, with the closest such records should be identified. Likewise, there is one reference to basking shark within the scoping section but no other description of this species is present. This should be covered within the baseline.

3.11.2 Adequacy of Terms of Reference

The Council notes that NuGeneration has provided a comprehensive list of legislation, policies and guidance in the Scoping Report. However, further detailed explanation of the Copeland Local Plan 2013-2028 policies and their

relationship to biodiversity would be helpful. In particular, due consideration should be given to the following policies;

- Policy ENV2 – Coastal Management,
- Policy ENV3 – Biodiversity and Geodiversity,
- Policy ST1 – Strategic Development Principles,
- Policy DM25 – Protecting Nature Conservation Sites, Habitats and Species, and
- Policy DM28 – Protection of Trees.

It is recognised that a comprehensive list of legislation, policies and guidance is listed. However a greater detailed explanation of Copeland Local Plan 2013-2028 policies is required. Forthcoming changes to guidance, notably Chartered Institute of Ecology and Environmental Management (CIEEM) Ecological Impact Assessment (EcIA) and water vole survey and mitigation, should be incorporated.

3.11.3 Commentary on Consultation Activity to Date

The Council welcomes NuGeneration's consultation to date which it judges to have been relatively comprehensive and the HRA EP contains a useful summary of HRA specific responses to date. The Council notes that a similar list of consultation responses would be helpful within the Scoping Report.

3.11.4 Commentary on Proposed Studies

This section describes the Council's commentary on proposed studies where included within the Scoping Report and SMP. It is noted that in the main, surveys are described in methodological terms (as might be expected for EIA Scoping). NuGeneration's commitment to continuing dialogue in the application of this proposed survey methodology to the evolving design (in varying locations of the Moorside Search Area and AD Search Areas) is supported by the Council. The Council proposes that particular survey needs, driven by the particular context encountered at the local scale of proposed survey be discussed with them.

In respect of the bird surveys, the Council notes that further justification is needed for the 500m distance from the Initial Scoping Land for intertidal bird surveys. This would be seemingly low based on wider survey experience given the relative lack of detail on project design at this stage. NuGeneration notes the importance of continued engagement in the scoping of surveys and the Council would be supportive of this. It will be imperative that time / season based surveys are conducted to the physical extent required in order to characterise the effects arising from the project as it evolves.

The Council would seek further justification on the number and distribution of sites considered in relation to potential effects associated with aerial deposition, although the Council notes (Table 14.2) the inclusion of some sites at close range (1km). The Council would seek further clarity / confirmation that none of these

sites are hydrologically linked and other impacts, such as traffic/noise, could affect them.

Additional surveys for NERC S41 mammals, such as brown hare, hedgehog, polecat and harvest mouse, may be required and justification should be presented for their exclusion / scoping out at this stage, particularly in respect of the AD Search Areas which are less well characterised in terms of the proposed scope of development at this stage.

The Council notes that Natural England has advised NuGeneration on the need for two years of avian surveys (Table A.2 within HRA Evidence Plan) but NuGeneration is proposing one year and interval review of data to determine if more is needed. The Council considers that further justification is needed for this approach as given potential inter-year variability, two years seems would appear to be a reasonable duration of data gathering.

In the SMP National Vegetation Classification (NVC) surveys are proposed only at selected sites. The Council would seek confirmation on whether these include all relevant hydrologically linked sites including CWSs and SSSIs. In addition to designated sites, the NVC should target high quality habitat outside these areas and S41 habitats. Associated reporting should include discussion of results and reference to candidate CWS criteria.

The Council notes that in respect of Terrestrial Invertebrates, the number of sites is limited and should not just be focussed on previous areas. This should be extended into other potentially valuable habitats including brownfield sites (potentially therefore on AD sites). It is unclear to the Council how surveys will target legally protected and other key species and indeed what specifically these are given the large variety of potential invertebrates on the various lists stated. The methods proposed use few techniques; for example, no light trapping is proposed which seems likely to be necessary to effectively sample Lepidoptera. Further justification, dialogue is anticipated on this matter from the Council.

In terms of Badger, the Council notes that no camera trapping is proposed to aid in sett classification and usage conclusions. This could greatly add to conclusion certainty and is recommended.

In respect of bats, the Council seeks further explanation of why the site is assessed to be of 'medium' quality as per Bat Conservation Trust (BCT) guidelines. Furthermore, the number of proposed transects and static detectors to be used should be indicated; the reason for delaying roost surveys until 2016 needs explanation and it appears that sound analysis is only proposed for static detector results. All bat surveys including transects and emergence surveys should collect sound data that should be analysed in this way. The rationale for excluding AD Site A also needs presenting as this is unclear to the Council at this time. The relative habitat quality scores for the AD sites should also be presented.

The Council notes that in respect of Great crested newt (GCN), there is a danger that if only ponds with positive eDNA results are surveyed in 2016, populations may be underestimated given GCN move between ponds in different years. The Council would recommend that if positive results are obtained, all connected and suitable ponds should be surveyed and treated as pond clusters.

In terms of Reptiles the Council seeks clarification on the type of survey proposed and the number of visits as well as population size class assessment or presence/absence and the year these surveys will take place.

The Council would highlight that in respect of Amphibious Mammals NuGeneration proposes that 'surveys will be extended off-line'. Confirmation is required as to how far these will be extended to search for otter and water vole. In addition, the Council notes that the reference used for the water vole conservation handbook is out of date and the 3rd edition methods should be used.

In terms of Ornithology Surveys (Terrestrial) the Council notes that the Breeding bird survey only refers to walking field boundaries. It is unclear to the Council how the woodland will be surveyed and whether point count methods will be employed. It is unclear whether any special methods will be employed for kingfisher. The rationale for missing out September and October (when migrant species may use the site) should be explained and justified. The data presentation section refers to target species, but this term is not defined and it is assumed all bird species would be presented. The rationale for excluding the AD Site E should also be presented. Barn owl activity methods are discussed for the AD sites but not for the main site (Moorside Search Area). It is unclear whether these will also be undertaken on the Moorside Search Area.

The Council would highlight that in terms of Aquatic Macroinvertebrates, the reference to UKBAP should be replaced with S41 and key species as defined for the West Cumbria Coastal Plain needs further reference or explanation. The rationale for excluding AD Sites C and E also needs presenting.

In terms of Freshwater Pearl Mussel the Council seeks clarification on whether any Freshwater Pearl Mussel downstream from the SAC boundary are being considered as part of the SAC population or if such reaches will be treated as contributing habitat to the SAC. This will clearly be an important matter for inclusion / discussion with the HRA.

The Council notes that in respect of the Pond Ecological Quality Assessment, allowance should be made on site (within the Moorside Search Area) and at AD locations to include any new ponds found during the Phase 1 survey not shown on local plans or maps.

In respect of NERC S41 Mammals, the Council understands that NuGeneration do not propose surveys for these species. However, the rationale for this approach needs explanation in order to support the Council's endorsement of this approach. Given recent declines, if the site supports hedgehog, an accurate assessment of value should be underpinned by robust data.

The Council notes that in respect of White-clawed crayfish, this species is only mentioned for the AD sites. There is no mention of surveys proposed for the main site (Moorside Search Area) or in the Scoping Report, though low potential appears to have been noted on site in 2010 and 2012 (Appendix A2 to the Survey and Monitoring Plan). Further explanation is thus sought on this matter from the Council. Furthermore, the Council notes in (19.12.11 P432 Scoping Report) that "the Environment Agency does not hold records of crayfish from the River Ehen

catchment and therefore no crayfish surveys will be undertaken at AD G". The Council seek further explanation and justification for this decision.

3.11.5 Commentary on Adequacy of Key Issues Raised & Data

In terms of key issues identified within the Stage 1 material and Scoping Report, the Council note that given marine invasive species are included within Section 14.7 P333, it seems appropriate to include terrestrial invasive species in addition.

Within Section 5.8.14 of the HRA, there is no mention of a mechanism to include other new projects within the in-combination assessment that may come forward between now and the application date. A defined cut-off date for such project inclusion would be helpful and will give the Council more confidence that such new projects will be included in the assessment.

Within the Scoping Report, it is unclear to the Council why only selected habitats are identified as having the potential to receive significant effects. At this stage it is unclear on what basis (noting uncertainty in project development in each of the Search Areas) any habitats within and adjacent to the site can be scoped out (notably including NERC S41 habitats such as hedgerows and ponds) given baseline data collecting is still ongoing. The Council notes that NuGeneration have a continuum of survey effort and it may well be that further data (not included in the information made available at Stage 1) has enabled / informed this position to be reached.

The Council seeks clarity on the use of the CIEEM EcIA methodology for the Biodiversity assessment. It is unclear whether the Biodiversity chapter within the Environmental Statement proposes to employ this method fully, wherein the actual determination of whether an impact is ecologically significant is made irrespective of the value of the receptor in question. In this respect the IEEM methodology differs from some other approaches to EIA and it will be important that this is reflected in the Environmental Statement.

Within the HRA Evidence Plan, the timetable suggests that the final HRA report will be issued in September 2016. The Council is unclear as to how this relates to the fact that data gathering is proposed to carry on until the end of 2016. The Council assumes that this is due to uncertainty over whether 2016 data gathering will indeed be needed, but if so, an alternative timetable for HRA submission should be presented to the Council and wider stakeholders.

3.11.6 Adequacy of Graphics

In respect of graphical material supporting Biodiversity, the Council notes that Figures 3.1 to 3.2 within the Survey and Monitoring Plan are incorrect and are instead for Ground Investigation and groundwater monitoring.

3.11.7 Summary

Overall the work presented appears well consulted and covers most expected potential receptors.

Given the lack of detail on the project design thus far, survey areas and scope should be kept as broad as possible.

The lack of surveys proposed for S41 mammals needs further justification and is a surprising omission.

Given the uncertainty of scheme design and site layout presented, there can be no guarantee that any habitat within the site boundaries will be retained or available for mitigation, compensation or enhancement measures; therefore data collection phase should be including effort to identify off-site receptor areas for e.g. reptile translocation or new pond creation.

At the technical review meeting held with NuGeneration on 16th June 2015, we were initially told that the impact of shipping would be covered in the transport chapter; during questioning we discussed with the applicant that associated impacts on ecological chapters should be covered in the biodiversity chapter and stressed the importance of all EIA disciplines working together to deliver a coherent assessment. The same comment applies for other cross cutting themes such as acoustic effects and air pollution.

3.12 Countryside Recreation (Section 15)

The following section provides the Council's response to Section 15 of the Scoping Report and Survey and Monitoring Plan in respect of the Countryside Recreation.

3.12.1 Adequacy of Baseline

The Council notes that the definition of ZoI seems appropriate and has been agreed with relevant stakeholders. In order to inform the assessment and for the purposes of driving Statement of Common Ground the Council would suggest that written evidence to show this agreement would be useful, alongside the agreed reasons for selecting this zone.

It is recommended that the ZoI is reviewed against that of other disciplines (e.g. noise, LVIA, air quality, transport) in order to ensure cumulative effects are not missed and relationships are fully explored in the Environmental Statement.

It is recognised by NuGeneration that there are gaps in existing baseline data regarding usage levels of countryside resources. Proposed use of automated devices seems sensible and will allow long term data collection (NuGeneration suggest a minimum period of twelve months). The devices also record activity times and can therefore indicate peak usage times. Consideration needs to be given as to how the raw data will be collated and analysed – it was acknowledged that there is a margin of error with regards to double-counting, misinterpretation of pedestrians/equestrians etc.

It is recognised that automated devices are unsuitable for monitoring water-based recreation usage. NuGeneration proposes engagement with relevant user groups and clubs, however it is recommended that surveys should be required.

The Council would wish to stress the importance of appropriate consideration of the future baseline such as the proposed England Coastal Path. For the purposes of Environmental Impact Assessment, this will require a review of all proposed development supported by engagement with the Council (this is referred to in para 15.5.12 *Scoping Report*). The Council would recommend that NuGeneration provide a list of future baseline items for the Council to review. The future baseline list will need updating on a regular basis as new proposals are consented / brought forward.

The Council would note the value of defining exactly which areas / resources and users are considered within this section as it is taken forward to the Environmental Statement. In particular, it is unclear which land and water based resources are included, for example, the Council is unclear whether this includes amenity space, parks, accessible woodlands, green infrastructure, lakes, reservoirs and so forth. Equally, the Council would welcome further definition of what is proposed for scoping out at this stage. It is suggested that Canal & Rivers Trust may be able to provide usage data for the water bodies they monitor/control.

In addition, Nugeneration should consider the potential effects during construction including those on the recreational coast and bathing water standards. Potential impacts associated with the MOLF and AD sites require further consideration, along with an appropriate mitigation strategy.

3.12.2 Adequacy of Terms of Reference

The Scoping Report uses high-level legislative and policy review which is appropriate for the scoping stage. It would be expected that the Scoping Report include reference to relevant PINS advice notes including Advice Note Seven. In addition, it is expected that the guidance and best practice to be relied upon has been agreed with the relevant bodies as recommended by PINS Advice Note Seven. There is no reference to this in the Scoping Report, unclear if this has taken place.

3.12.3 Commentary on Consultation Activity to Date

The Council notes and welcomes the high level engagement which has taken place with Copeland and Allerdale, Cumbria Tourism, the Marine Management Organisation and Natural England. The Council welcomes the list of proposed consultees in the Scoping Report (15.4.5 P343 *Scoping Report*) which is comprehensive. The Council notes the value of maintaining a wider recognition of these contacts and further details of additional local recreation groups and organisations as NuGeneration's proposals evolve.

The Council would welcome continuing dialogue on the proposed consultation strategy for wider groups e.g. methods and timescales for engagement, how will comments be collated, considered and reported on in the future.

3.12.4 Commentary on Proposed Studies

It is accepted that the methodology is currently high level, therefore detail will be required in due course on how different effects will be assessed (amenity and land take) and how mitigation will be identified and secured. This should be agreed through continued engagement with stakeholders, including the Council.

Consideration should be given to the following factors in the sensitivity rating of receptors (Table 15.1):

- Usage levels; those who use a receptor on a regular basis would be more sensitive than one-off users; and
- ability of users to absorb change.

Consideration should be given to the following factors in the magnitude rating of change (Table 15.2):

- Duration of effect; long term or permanent changes would have a high magnitude, whereas short term reversible changes would be lower; and

- ability of resource to continue functioning; high magnitude would mean the resource is closed, low magnitude would mean the resource is compromised or inconvenienced.

It is unclear how amenity and land take effects will be assessed. The Council recommend that the magnitude of each receptor be fully assessed. Amenity should look at cumulative environmental effects on users e.g. a combination of noise, visual and air quality effects (see HS2 Phase One Environmental Statement for exemplar methodology).

The Council understands that NuGeneration is committed to surveys with users to identify potential deterrent effects. Whilst this could provide useful qualitative context, it is recommended that a quantitative amenity assessment is included which determines cumulative environmental effects on users. Users will find it difficult to quantify how they might be deterred from using a resource without any confirmation of what the significant effects on that resource would be. The Council would recommend further dialogue on this.

It should be noted that the amenity assessment should also be applied to community and business resources (not suggested as being covered by this section of the Scoping Report) and that there should be a consistent approach to the assessment of these topics. The Council notes that it is vital that the other environmental disciplines within the NuGeneration team are aware that countryside recreation, community and business resources need to be scoped into their assessments to ensure no significant effects are missed.

The Council notes that this section does not cover how mitigation would be considered/secured and how this would be taken into account in residual effects. The Council stresses that PINS Advice Note Seven states that this should be included and would be expected in the Environmental Statement.

This section of the Scoping Report does not cover how cumulative effects with other proposed developments would be considered, for example with the adjacent Sellafield decommissioning programme would be considered. PINS Advice Note Seven states that this should be included and this would be expected from NuGeneration. Furthermore, the Council notes that there is no specific reference as to how construction/operation/decommission effects will be covered and this would be expected in the Environmental Statement.

3.12.5 Commentary on Adequacy of Key Issues Raised & Data

Section 15.7 identifies potential effects on users including severance and deterrent effects; the methodology needs to be clear as to how each of these effects would be assessed.

The Council notes that the list of potential effects cannot be confirmed until further design information is available however initial list seems logical. It would be useful to know if this has been informed by other environmental disciplines e.g. LVIA and noise ZoI.

3.12.6 Adequacy of Graphics

Figure 15.1 defines the 'Countryside recreation zone of influence' and Figure 15.2 shows the 'Designated recreational routes'. Both figures are relevant to this EIA technical chapter and provide useful context.

3.12.7 Summary

Given that this is not a 'standard' EIA topic, it is difficult to compare to previous examples. The baseline coverage seems appropriate and engagement has been undertaken with the key stakeholders to confirm this.

Confirmation required as to how existing gaps in baseline data will be filled, proposed surveys and engagement can provide useful qualitative input however this should be supported by a robust quantitative assessment. The amenity assessment is important this and 'Socioeconomics/human population' chapters are the only ones where cumulative environmental effects will be assessed.

It is accepted that the methodology is currently high level, however detail is required on how different effects will be assessed (amenity and land take) and how mitigation will be identified and secured. This should be agreed through continued engagement with stakeholders.

3.13 Socio-economics and Human Population (Section 16)

The following section provides the Council's response to Section 16 of the Scoping Report in respect of the socio-economics and human population technical matters.

3.13.1 Adequacy of Baseline

The baseline set out in the Scoping Report appears adequate. As a minimum it should cover economy and employment characteristics/trend, demographic and settlement characteristics/trends, education and facilities characteristics, community/local perceptions, other local socio-economic issues/services, housing and accommodation market characteristics (including holiday accommodation market), and health and facilities characteristics. There will be a number of "cross-cutting" issues which will need to be addressed and managed and this would be of great interest to Local Authorities.

The Council notes that the proposed nuclear facility which covers the employment programme, workforce, and economic characteristics/ trends and supply chain should be included within the Environmental Statement. However, there are gaps within the baseline information including the supply chain (i.e. numbers; sectors; size, location etc.).

Youth unemployment is another omission which was acknowledged as being important in the technical review meeting held on the 15th June 2015 by the Council with NuGeneration. There will also be pockets of deprivation in relation to education, skills and employment. It is understandable that CBC and other Local Authorities will want to secure the maximum benefit for local businesses, communities and places.

The Council would expect to see an assessment of the impacts on people, place and business for the construction and operational phases. This should include labour requirements; recruitment and the impact of NuGeneration expenditure on locally procured/purchased goods and services and what this would mean for local services, local manufacturers and suppliers. With increasing pressure in the local labour market with skill shortages in certain categories, it makes economic sense to develop pathways to skills and employment targeted at young people and others which could increase the local input to this project and others later on.

It should be borne in mind that NuGeneration will not just be interested in turbine generator suppliers or reactor pressure vessel manufacturers (which will most likely be global concerns) but also the main civil works, contractors and other suppliers such as caterers; health care; security firms even taxi firms etc.

It is suggested that with Moorside using new nuclear technology that a key outcome must be to identify opportunities for UK (local) and global suppliers to develop partnering arrangements e.g. in modular construction, reactor protection systems etc. A proactive procurement approach would facilitate this. The baseline analysis would identify gaps in the supply chain and skills.

The Council would also expect that elements of the baseline are brought up to date in line with statistical releases of new data particularly those concerning employment (BRES), enterprise (BRES) and unemployment (claimant count).

It is recommended to include agriculture as an economic sector to include employment and main activities description. This would complement analysis already present on fisheries. Its inclusion would represent the fact that Cumbria still has agricultural activity (e.g. upland farming).

Private rented sector housing data should be included given its importance as a potential sensitive receptor.

Analysis of worklessness should be undertaken through a review of persons on other working age benefits (accessible for Nov 2014 last based on NOMIS accessible data). In addition, analysis of worklessness/areas of deprivation by geography/areas/neighbourhoods should be undertaken as this would enable targeting of support to be developed and access to employment/skills and apprenticeships improved. This will be an important consideration for the Local Authorities and their partner organisations at community and regional levels. A reference to “pathways to employment” as part of Appendix F (Scoping Report) should be made.

Youth unemployment rate is higher than for the adult population, this needs further explanation. Similarly youth under-employment is a key issue which, with the right support and approach could be addressed via the project.

Section 16.5.25, Social and Community Infrastructure, is too limited in its scope and description. Community infrastructure is often used to engage disadvantaged groups and provide support for learning, careers, skills and employment either as part of community economic development or access to wider training and employment.

Project jobs analysis should include the incidence of outage worker and their relationship to a peak workforce. Analysis should also be undertaken of the existing nuclear “capable” workforce as represented in Sellafield and the nuclear related defence engineering.

A review of the SME economy is essential as it is likely that the opportunities offered by the nuclear facility will be much wider than nuclear. There will be a number of indirect and induced effect opportunities which will need to be analysed when impacts and opportunities are explored

Information on employment sites and premises, sites of a specific size would be helpful as storage/ lay down facilities (for bringing together sub-assemblies implicit in a modular design approach) will be required in appropriate locations.

The Council notes that in Section 16.7 further assessment is required, for instance people seeking employment and reference to youth/young people required.

The Council also notes that Household Projections are now available², this should be included within the Environmental Statement. Inclusion of tourism bedspace stock by type and LAD would be a useful addition to the baseline information section.

3.13.2 Adequacy of Terms of Reference

The Scoping Report uses high-level legislation and policy review which is appropriate for the scoping stage.

However the Council notes that the following policies set out in Copeland Local Plan should be taken into consideration:

- Policy ER7 – Principal Town Centre, Key Service Centres, Local Centres and other service areas: Roles and Functions; and
- Policy SS4 – Community and Cultural Facilities and Services.

3.13.3 Commentary on Consultation Activity to Date

The Council has acknowledged that both business and public sector stakeholder bodies will be consulted.

3.13.4 Commentary on Proposed Studies

The tourism study needs to be programmed in such a way that data on accommodation providers can be realistically fed into the assessment process. The Council requests further understanding and information on occupancy. In addition, further understanding and information on the sampling strategy that will be used to get a balanced view of tourism impacts is required.

3.13.5 Commentary on Adequacy of Key Issues Raised & Data

It should be noted that neighbourhood and business/SME data could be more expansive and the youth unemployment data could be drawn out.

Modular construction is an area where the UK supply chain could share work with global suppliers and probably has a medium capability to deliver. This could be explored as this may be a key area bearing in mind the nature of the reactor etc. The Council notes that more baseline information is needed on how the areas could be developed into practical initiatives.

3.13.6 Adequacy of Graphics

The Zones of Influence defined for Socio Economics should be mapped out showing the time contours and the selected impact area for the 90 minute area. Local Area locations described should be defined at an appropriate geographical level.

² <https://www.gov.uk/government/collections/household-projections>

3.13.7 Summary

The Council notes that baseline coverage seems appropriate and engagement has been undertaken with the key stakeholders to confirm this position. Confirmation is required as to how current omissions in baseline data will be addressed.

Proposed surveys and / or engagement can provide useful qualitative input, however the Council notes this should to be supported by a robust quantitative assessment. The amenity assessment is important as this and NuGeneration's approach to the socioeconomics / human population sections of the proposed Environmental Statement are primary areas where cumulative environmental effects will be assessed.

It is accepted that the methodology is currently high level, therefore details will need to be agreed in due course on how different effects will be assessed (amenity and land take) and how mitigation will be identified and secured. This should be agreed through continued engagement with stakeholders with the Council.

3.14 Climate (Section 17)

This section presents the Council's response on climate issues informed by Section 17 of the Scoping Report and also the Survey and Monitoring Plan.

3.14.1 Adequacy of Baseline

The assessment of existing climate is appropriate and uses data from the nearest/most representative meteorological station. The assumptions provided for a future baseline are also appropriate.

3.14.2 Adequacy of Terms of Reference

The list of legislation, guidance and policy is comprehensive. Further consideration is required of the relevant local policies from Copeland's Local Plan.

Reference should be made to HM Treasury's Infrastructure Carbon Review (November 2013) outlining the significance of construction carbon which will increase as the grid is decarbonised and operational emissions reduce.

3.14.3 Commentary on Consultation Activity to Date

It is noted that consultation relating to the inclusion of climate change adaptation measures will be undertaken during the pre-submission stage however it is unclear on the extent of previous consultation in relation to climate.

It was noted at the technical review meeting between the Council and NuGeneration held on 16th June 2015 that should any improvements to the strategic highway network be required as a result of the scheme that other interim advice notes from Highways England may need to be used and regard would need to be given to the National Networks National Policy Statement (NN NPS). The NN NPS should also be considered with regard to the improvements to the rail network required during construction and operation of the scheme. It should be clarified whether changes to the rail network meet the criteria to be considered under the NN NPS.

3.14.4 Commentary on Proposed Studies

In respect of climate (as it relates to emissions of greenhouse gases), the Council notes that no studies are proposed by NuGeneration 17.7.2 (P388 *Scoping Report*). Whilst the Council understands the rationale for significant effects during the operational phase to be scoped out, it is recommended that further justification is provided with regard to scoping out carbon footprinting during the construction phase. The Council notes that climate matters are addressed at a topic specific level elsewhere within the Scoping Report but there appears to be no commitment to carbon footprinting as a particular matter. The Council notes the provisions within the HM Treasury Infrastructure Carbon Review. This recommends 1.5

(P14) that a significant opportunity to cut capital carbon is in ‘cutting the volume of materials consumed and using resources more efficiently’. The Council would anticipate that NuGeneration will be encouraged to take a view on this matter and provide evidence to support an assessment of carbon in construction. Furthermore, Copeland’s Local Plan Policy ST1 A states that ‘the Council should encourage development that minimises carbon emissions, maximises energy efficiency and helps to adapt to the effects of climate change’ and would encourage NuGeneration in support of this policy.

3.14.5 Commentary on Adequacy of Key Issues Raised & Data

The assessment of existing climate is appropriate and uses data from the nearest/most representative meteorological station. The assumptions provided for a future baseline are also appropriate. The scope of assessment of the construction stage requires further consideration.

3.14.6 Adequacy of Graphics

It would have been useful to include a graphic showing the identified human and ecological receptors in Table 6.2, 6.3 and 6.4.

3.14.7 Summary

The Council notes that no studies are proposed by NuGeneration 17.7.2 (P388 Scoping Report). Whilst the Council understands the rationale for significant effects during the operational phase to be scoped out, it is recommended that further justification is provided with regard to scoping out carbon footprinting during the construction phase. The Council notes that climate matters are addressed at a topic specific level elsewhere within the Scoping Report but there appears to be no commitment to carbon footprinting as a particular matter. The Council notes the provisions within the HM Treasury Infrastructure Carbon Review. This recommends 1.5 (P14) that a significant opportunity to cut capital carbon is in ‘cutting the volume of materials consumed and using resources more efficiently’. The Council would anticipate that NuGeneration will be encouraged to take a view on this matter and provide evidence to support an assessment of carbon in construction. Furthermore, Copeland’s Local Plan Policy ST1 A states that ‘the Council should encourage development that minimises carbon emissions, maximises energy efficiency and helps to adapt to the effects of climate change’ and would encourage NuGeneration in support of this policy.



Title	Response to NuGen Stage 1 Strategic Issues Consultation
Author	John Groves
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Version	2

The Council acknowledge the stage 1 strategic issues consultation issued by NuGen and would offer the following comments and observations in response.

It is recognised that this consultation precedes later detailed consultation but seeks to anticipate the submission of an application for a Development Consent Order and the related preparation of a statement of common ground and local impact report.

A separate document provides for the Council's comments in respect of the consultation from the Planning Inspectorate relating to Nugen's submission of a request for an environmental Impact Assessment Scoping opinion.

Previous response has been provided in respect of a Statement of Community Consultation. Comments made by the Council in response to this Stage 1 consultation should be used to inform the structure and content of later consultation and the content of the SOCC as it is amended to reflect these later stages. The Council intends to comment on the adequacy of the consultation process through stage 1 and to further respond when NuGen produces a promised analysis of responses to the consultation exercise.

The Council's response takes the form of this general statement and summary which is supported by the appended technical appraisal which has been commissioned by the Council from ARUP. The statement seeks to provide an overall appraisal of the Council's position, to identify emerging strengths of the project as it currently stands, to highlight weakness and also to comment on

aspects of the proposal which are insufficiently well formed at this stage of the project to enable adequate analysis and response.

Whilst this consultation early in the formulation of the project is welcomed, particularly based on an assumption that this enables the consultation to realistically inform the detailed design and form of the development – it is a matter of concern that the nature of the wider project as currently presented is based on a considerable number of assumptions many of which are not thoroughly evidenced.

It is accepted that the process of designing the project is inevitably iterative. It is considered however that the Council must highlight those areas where appraisal and understanding of the impact of the on the residential and business communities in Copeland, is currently constrained as a consequence of the limited information available.

This particularly relates to the understanding of the requirements for a construction workforce, the manner in which that workforce will be established and the consequences for accommodation, transportation and skills development strategies. As it stands the Council's ability to respond effectively to consultation is constrained by the absence of clarity over the absence of a clear and evidenced strategy which supports underlying principles of the project. It is accepted that this information will evolve as the project as a whole develops, but it needs to be noted that the timetable established by NuGen for the submission of the DCO is incredibly challenging. The ability to understand and respond appropriately to this evolving position must represent a risk in the projects progression and particularly the ability of the Council to be assured that the interests of the community which it represents can be adequately appraised and reported.

It is also considered that there are weaknesses in submissions to date which fail to show clarity of understanding of the complex relationship of the Moorside development with the neighbouring Sellafield site and issues which arise as a consequence of two extremely large operations occurring simultaneously on adjoining sites. Whilst it is anticipated that these concerns can managed and mitigated, the Council is yet to be convinced that this complexity is fully understood and addressed.

The Council welcomes consistent reference to the ambition to deliver lasting legacy from the project. It is intended that the Council will utilise increasing understanding of the detail of the project to inform expectations of legacy benefit in the form of improved transportation infrastructure, long term socioeconomic benefit including opportunities for local supply chain development and maximisation of the employment of local people, the legacy of a broader and higher quality housing stock, improved health and leisure infrastructure and higher levels of health and wellbeing.

Core Assumptions and submission accepted by the Council.

Site suitability

The Council accepts the logic of locating a major nuclear facility on the Moorside site. It is accepted that the principle of the development is already established in the National Policy Statement for Energy and the National Policy Statement for Nuclear Energy Generation. The acceptance of this position is reinforced given that this development presents an unrivalled opportunity to place additional nuclear related development in a location which contains an a unique concentration of nuclear skills and expertise, largely but not exclusively based around the presence of the waste management and decommissioning capabilities based at Sellafield.

It is acknowledged that there is limited scope to comment on the technical suitability of the site to accommodate the three reactor proposed. It is recognised however that the precise position of reactors on the site as a consequence of ground and geological conditions will inevitably result in fundamental change to the current access arrangements for Sellafield. Additionally, it has been indicated that there will be a need for extensive engineering and excavation to meet technical requirements to place reactors on the site. The precise implications of these two factors are as yet not clarified in detail. The alteration to Sellafield access must produce a legacy of improved access to the SL site, supporting wider transport, access and logistical improvements which are long overdue in the management of the SL complex.

The management of site preparation and the extent of excavation needs early resolution in order to understand the full implications for the management of

excavated material on the site or the logistics of moving large volumes of material. It is a particular matter of interest to the Council the need to deal with this issue early in the development process will dictate resolution in anticipation of the DCO – through a separate application made through the Town & Country Planning Act. The volume of spoil produced and the management of the excavated material requires absolute clarity early in the process leading to stage 2 consultation. The level to which the stage 1 consultation assumes scope to manage spoil on site through alteration to land form appears not to be based on any substantive evidence or discussion with principal regulatory bodies at this point in the process. The scope to handle and utilise spoil in conjunction with other large scale development proposals should be assessed and appraised as detail of the project emerges

Skills and Employment

The Council welcomes the commentary within section 4.2 of the Strategic Issues Consultation Document relating to Employment Benefits; Skills and Training Benefits. Assumptions based around the principle of maximising opportunities for local people are supported. Notwithstanding the initiatives around skills development and training established through the Centre of Nuclear Excellence (CoNE) and through the Cumbria LEP, NuGen will need to quickly develop a Skills and Employment Strategy in order to ensure that current assumptions can be delivered.

Commentary within the Executive Summary of the technical appraisal appended to this document highlight a number of areas where it is considered that skills development and employment issues are considered to have been inadequately appraised at this stage of the project.

The provision of employment opportunities and the creation of a local workforce with skills which build upon the existing areas of nuclear expertise is stated as a key area of legacy delivered by the Moorside Project. A Skills and Employment Strategy must reflect the scope to engage those residents of Copeland who otherwise be unable to take advantage of the opportunities presented by the Moorside project. This must reflect the range and nature of skills and employment opportunities beyond pure construction of nuclear plant

and should take account of opportunities of construction of accommodation sites and the service needs of those sites. The later stages of consultation will need to demonstrate that provisions have already been initiated having regard to the ambitious timeframe for bringing this project to fruition.

It is noted elsewhere in this response that clarity in understanding the workforce profile is fundamental to a range of issues in understanding and developing this project. The need for construction worker accommodation; the nature of transport strategies are predicated on the way labour resource is provided to enable the development to proceed.

Transportation Strategy

The council welcomes the principle of a rail based strategy to meet the major transport needs of the development. It is recognised that irrespective of interventions, the existing highway network is not capable of upgrade to a point where it would satisfactorily able to meet the requirements of the proposed development, and provide for an ongoing legacy of a transport infrastructure which is supportive of a growth agenda for West Cumbria. There are significant issues relating to the suitability of existing transport infrastructure to adequately accommodate current demand. Whilst it is accepted that NuGen should not be required to deliver solutions to existing problems, it is imperative that the potential impact of current issues on the effective completion of the Moorside development and the unique opportunity for holistic and comprehensive approaches to transport and logistics in the locality of the development are addressed.

Subsequent comments note reservations as to the as yet unevidenced manner in which the assumption that the rail network provides a robust and dependable transport solution to passenger and freight requirements of the development. The development of the rail infrastructure on the West Cumbrian coast is seen as the most effective manner of supporting ambitions for growth and exploitation of the unique scope for West Cumbria to operate at the core of a Centre of Nuclear Excellence to the benefit of the wider UK economy. Improvements in rail infrastructure provide a realistic prospect of supporting resolution to existing transportation issues, particularly those associated with

the use of the A595 for access to Sellafield. There is a clear requirement for a joined up approach to the creation of infrastructure which serves the requirements of the proposed development, supports the Sellafield program and provides a legacy upon which future growth can be established.

Whilst the general approach to transportation particular of construction workers to the site is welcomed, the ability to deliver the rail based strategy is at this stage not evidenced. Consideration will need to be given to incentivise of use of the preferred modes and deterrents necessary to prevent use of the private car. It must be recognised that development will be taking place in a context where travel to the Sellafield site is viewed as an unacceptable impact which is unlikely to be resolved without substantial investment in road infrastructure.

The transportation strategy needs to consider the transportation of temporarily accommodated workers to accommodation sites. It also needs to consider and explicitly manage the movement of permanently resident workers to the site during construction and in the power stations operational phase.

Associated Development sites and worker accommodation

The intended location of associated development sites raises issue in terms of compliance with the provisions of the development plan. With the exception of the Whitehaven town centre the locations are outside defined settlement boundaries. Development in these locations must be justified in this context. The Council is nevertheless adopts a supportive approach to the concept of locating accommodation sites close on the edge of existing settlements. This is considered to provide the greatest scope for securing economic benefit to the existing settlements within the borough.

These sites have been identified following some initial collaboration with the Council. It is recognised that some sites raise more complex issues in terms of their development potential. These sites were deliberately identified as they provide an opportunity for the project to deliver economic and physical regeneration which may be more challenging to achieve. It would be unacceptable to discount such sites in favour of areas of search where development might be subject to fewer constraints.

It is considered that with careful master planning and consideration of the range of uses within the associated development sites worker accommodation can be provided in a manner which is both sustainable and brings potential for supporting wider improvements to transport infrastructure in Copeland. This relates particularly to the support to improvements to the West Cumbrian railway line. Improvements to transport infrastructure would assist in realisation of wider growth plans for the Borough and would potentially support the ability to manage existing transportation issues particularly around the use of the A595.

The development of AD sites should not be focused on worker accommodation requirements in isolation but should also reflect the scope to provide a wider range of training, social and health care and leisure facilities. It is critical that worker accommodation and the use of AD sites is viewed in terms of long term legacy, not shorter term requirements to support construction. The development of these sites should be seen to support the aspirations growth within Copeland and should demonstrate opportunities for positive socio-economic impact within the principal host community for the development.

As with other issues the ability to properly assess the impact of the proposed associated development sites is hindered by the lack of clarity over the precise makeup of the construction workforce, highlighting again the need for the process leading to later stages in consultation to focus on work force strategy and configuration.

There is a considerable and wide ranging opportunity to consider the reuse of existing buildings for accommodation to meet the requirements of NuGen and after the construction process. Under-utilised buildings within existing settlement centres should be utilised in support of the development and to ensure maximum environmental and legacy benefit can be secured

Technical appraisal

In general terms the Council finds the submissions within the Stage 1 consultation to be technically proficient. Whilst some issues of detail within the technical response appended to this paper and within the response to the PINS consultation on the EIA Scoping Report identify areas requiring further work, it

is considered that the project has generally followed a robust approach to the assessment of technical issues.

Key areas to be addressed

The Council identifies a number of weaknesses in the current proposal which require consideration as the project evolves.

- **Work force strategy**

Key concerns:

- Proportion of workforce sourced locally.
- Understanding of impact on existing local labour market – diversion of employment to NuGen.
- Implications for the identification of skills and training.
- Character of a work force brought into West Cumbria.
- Implications of work force original location.
- Ambiguity and absence of clarity over numerical scale of workforce. Conflicting comments in consultation documents suggested 4 or 6 thousand construction workers

The absence of clarity over workforce strategy is a clear weakness in the proposals currently tabled. At the present time the submissions provide little or no scope to understand the workforce requirements to support the development. This hampers meaningful commentary on a range of other issues which arise from the fundamental need to understand how the construction workforce might be configured.

It is clearly the expectation that the greatest possible use is made of the local labour force. At this time there would appear to be limited understanding of the potential capacity of the existing pool of labour. Indeed the appraisal of the potential pool is itself confused, based as it is on potential travel to work pattern based on a car focused model split. This contradicts aspirations stated elsewhere for the transportation requirements of the development to be rail focussed. At this stage there is limited assessment of the potential training requirements and skills development opportunities which might be put in place

to ensure that any potential capacity within the existing local labour pool is fully utilised before consideration is given to alternative sources.

There must be consideration of how a workforce strategy might affect the existing labour market and the scope for workers to be drawn to new opportunities to the detriment of existing businesses.

The nature and scale of workforce requirements are fundamental to transportation and proportion of the potential workforce which will be normally resident in the area. It is not possible as a consequence to understand the scale of construction worker accommodation, when during the construction process that accommodation will be required and how workers might move from accommodation to the site. This would be complex even if proposed development was taking place on transportation infrastructure which was currently operating satisfactorily

In turn the nature of accommodation and transport requirements are fundamentally linked to understanding the manner in which management of the effects of the development can be designed so as to maximise legacy benefits in the longer term. The absence of such detail makes assessment of potential economic benefits and to maximise potential benefit to the local supply chain.

- **Accommodation**

Key concerns

- Consultation documents imply that there are options over the number and scale of accommodation sites. This is not the Council's position. Whilst the benefit of a larger site is understood – accommodation should not be focused on one large site in a single location. The benefits which are potentially derived from accommodation sites must be spread across the search areas identified and beyond
- It should be made clear that contractor facilities on site should only include facilities specifically required for the daily operation of the construction site. Such facilities should not include any form of residential accommodation. General office, training and similar facilities should be located within AD sites.

- Specific character of use of accommodation sites informs transportation strategy – the project lacks clarity in this regard.
- All accommodation provision is currently focused on settlements in the north of Borough. The scope for development sites in the south of the Borough must be explored.
- Character of accommodation left as legacy and potential influence on local housing market. There is no current understanding of the form of residential legacy left as a consequence of the development; the viability of building conversion once construction workforce requirements have finished and the type of permanent residential accommodation to be provided
- Whitehaven town centre site and key regeneration opportunity. It is accepted that benefit can be derived from the development of key sites on the edge of existing settlements. Development will not be considered acceptable unless it can be demonstrated that the pattern and distribution of use is consistent with the Council's adopted policies which seek to ensure that a legacy of the new build project is vital, viable and regenerated town centres.
- Issues of accommodation design and integration into local communities.
- Social and community cohesion.
- Access to and use of local facilities.
- How will facilities for construction workers on AD sites be accessed by the community during and after the construction process.
- Concentrations of construction workers bring potential impacts on general practitioners and school provision.

The ability of the current consultation process to inform the detail of the development of the AD sites is welcomed, but the absence of any specific understanding of the form and nature of development on the AD sites equally presents a quandary in limiting the scope for accurate appraisal.

Links to concern over the implications for transportation strategies are noted above. There are implications from the precise make up of any construction work force and the design of worker accommodation in terms of impact on social cohesion, community impact, impact on the local housing market. The Mirehouse site for example is located adjacent to one of areas in Copeland with high levels of deprivation. It is essential that worker accommodation is not

occupied as an exclusive, isolated enclave and demonstrably links to existing communities.

The consultation recognises the scope for associated development to secure regeneration opportunities which have not been possible previously. The ability to secure delivery of development of land to the southern edge of Whitehaven town centre offers a key legacy opportunity in this regard, providing scope for regeneration and the opportunity to provide opportunities to accommodate growth

The nature of development on the AD sites has the potential to influence the availability and provision of health care facilities and provision. It is expected that later stages of consultation will demonstrate how this might be achieved both during the course of the construction process

- **Logistics**

Key concerns

- Approach to logistics not yet well formed. More information is required about the source of materials and ability to direct via most sustainable transport mode.
- Procurement strategy should be clarified to demonstrate prioritisation of sourcing via local supply chain reducing the need for transportation; and where local sourcing is not possible strategy linked specifically a logistics strategy underpinned transportation to site by rail.
- Logistics strategy needs to set principles for the proportion of material moved to the site by alternative modes.
- Potential for NuGen instigated infrastructure development to facilitate wider benefits across the transport network of West Cumbria – supporting potential for growth and prompting others to refocus an approach to transport and logistics
- Alternative sea access routes to the south of the site should be identified to increase resilience and dependence on Port of Workington.
- Clarity in use of port vs use of MOLF

It is of concern that the approach to logistics – particularly the movement of construction materials to the site is as yet not fully formed. Whilst the use of the Port of Workington and focus on rail borne movement of materials, there is no clear understanding of the practical implications of such an approach. Can the port accommodate the level of traffic expected? Is access to the port adequate to enable the transfer from sea to rail? If the port is to be used for freight consolidation is road access acceptable. If it is not is any investment on road infrastructure here the best means of securing long term benefit and legacy.

At this stage there appears to be limited understanding of the work needed in order to bring the railway to a position where capacity is adequate to meet the needs of the development. The timing of improvements to rail infrastructure is critical given expected long lead in times needed to bring improvements to fruition. There is a need to ensure that rail infrastructure is sufficiently robust to provide a long term and resilient means of service the site. It is essential to ensure that any potential points of failure of the rail network are identified and clear and effective strategies in place enable any issue to be quickly resolved. Reversion to a road based solution would be unacceptable.

- **Cumulative Impact**

Key concerns

- Assessing the impact of concurrent large scale projects
- Logistical impacts – transport of materials and excavated material
- Competition for employment – scope for joint strategies
- Scope for joint approaches to logistics and procurement
- Assessment of cumulative impact should have regard to the scale and nature of development activity relating to waste management and decommissioning within the Sellafield complex

The consultation identifies and lists other major development projects expected to be taking place in West Cumbria as the Moorside project comes to fruition. There is no appraisal at this time as to the potential for conflicting demands on resources, labour, and infrastructure.

Whilst it is known that NuGen has engaged with Sellafield in order for mutual understanding of issues which will impact upon the operation of the Sellafield site and Moorside, the scale of impact is not reflected in consultation documents at this stage.

- **Resilience**

Key concerns

- Relationship of transportation strategy with emergency planning processes for NuGen and Sellafield sites. This relates to issues highlighted in commentary relating to the cumulative impact of major developments by NuGen and the Sellafield site happening at the same time.
- Resilience of rail infrastructure.
- Need to ensure that transport infrastructure is resilient and that there is clarity over management of any failure. It would not be an acceptable alternative to divert traffic to the roads in the event of a breach of the rail network. Contingency planning must be factored into transportation strategies.

- **Impact of infrastructure works**

Key concerns

- Appraisal of impact of works required to infrastructure
- Economic and practical impact of alterations to rail infrastructure on existing service provision.
- Economic and practical impact as any highway infrastructure improvements are implemented.
- Loss of amenity through noise and disturbance as infrastructure improvements are implemented.

- **Site specific issues – Whitehaven town centre/Corkickle**

Key concerns

- Key regeneration site identified in development plan. Proposals should demonstrate scope for providing not only for NuGen worker accommodation but also for training, HR, welfare and other facilities.
- Scope for site to contribute to growth aspirations focused on town centre. Should demonstrate alignment with development plan expectations in provision of town centre related facilities including office accommodation, town centre parking.
- Parts of the site known to have habitat/ecological issues which should be are not readily resolved through piecemeal development.
- Clarity in the management of the use of Corkickle railway station including use by the wider community, not just those residing within worker accommodation. How will road traffic be diverted to alternative rail hubs?

- **Site Specific issues – Mirehouse**

Key concerns

- The Mirehouse search area is located outside any currently identified settlement boundary. The site has potential for development for associated development on the basis of potential to exploit proximity to the Cumbria Coast railway line; the potential for a beneficial relationship with adjoining residential areas and critically the potential to exploit a location adjacent to the West Cumberland Hospital and the West Lakes Science and Technology Park.
- It is important to fully considered the impact of alternative uses of the site. Whilst a potentially useful focus of construction worker accommodation such concentration would be unacceptable if detracting from scope for development to have positive regenerative benefits elsewhere.
- The ability to ensure that a rail halt can be provided and deliver lasting legacy benefit is as yet unproven and may depend on as yet unspecified improvements in signalling. It would be unacceptable for a new station to be created as the cost of closure of an existing facility. Improvements

in rail facilities solely for the use the construction workforce would be unacceptable.

- Legacy uses must explore the scope to provide accommodation which would support the expansion of the existing presence of academic institutions of the Science Park, through suitable educational facilities or the legacy use of worker facilities for student accommodation. This supports the core principles for the area to exploit its status as the UK Centre of Nuclear Excellence.
- There is a clear community expectation that the presence of large numbers of personnel associated with the Moorside development will not diminish health infrastructure provision and will bring improvements to health facilities. The next stages of development should seek to demonstrate the potential for construction related development to provide such facilities during and after the course of construction. Given the proximity of this site to the WC Hospital it is logical that these opportunities should be explored in conjunction with this site.

- **Site Specific issues Cleator Moor and Egremont**

Key concerns

- The scope for the creation of appropriately scaled development in Cleator Moor and Egremont creates clear opportunities for regeneration of the centres of these settlements.
- These settlements provide scope for permanent residents employed in the project to access transportation to the site, minimising use of a highly congested local highway network.
- In the case of Cleator Moor the potential relationship of associated development with proposals for a new indoor recreational facility – West Lakes Extreme should be exploited.
- The Leconfield Industrial Estate presents a core opportunity to make provision for the Moorside development in a location where considerable socioeconomic and regeneration benefits can be realised.
- In Egremont AD search areas are relatively remote from the core business area of the town. AD development should demonstrate how AD will be of benefit to the regeneration and economic viability of the centre.

- Egremont is the closest main settlement to the Moorside and Sellafield. There is historic pressure for business activity to locate close to the site. The scope for AD to support this activity should be explored in the detail of development in this location.

- **Scope to consider additional AD sites**

Key concerns

- The Council considers that it is essential to ensure that associated development are located so as to ensure that benefits are spread across the Borough. The scope for development of a transport hub to serve a potentially increasing resident population should be explored in Millom. The ability to use land identified in the emerging Site Allocations development Plan Document should be considered, alongside the potential to encourage supply chain presence within available commercial sites in Millom
- Consideration should be given to the scope for use of Millom port and legacy of improved port facilities.
- The scope to encourage use of existing supply chain activity through use and development of existing areas of commercial activity – Leconfield and Moresby parks should be explored and facilitate through the Moorside development. The regeneration and revitalisation of Leconfield Industrial estate is an essential requisite of the development.

- **Clarity of a legacy strategy**

Key concerns

- The stage 1 consultation is unclear as to any strategy around legacy. Whilst reference is made to skills development and employment activity there is no comprehensive appraisal of the scale and form of benefit.
- The design and form of accommodation on the AD sites must be aligned to future potential uses.
- The legacy of improved transport infrastructure must be defined. The scope for an additional railway station and long term improvements to

the rail service such as to encourage use must be evidenced and presented within the detail of the proposals.

- Legacy in the form of economic benefit to the area is insufficiently explicit. There is a need for greater clarity to ensure that investment in the project will result in greater spend in West Cumbria.
- It should be demonstrated that worker accommodation sites will not become self-contained enclaves and how a construction workforce will utilise spending in local communities in a manner which supports underlying objectives for a legacy of viable and vital settlements across the Borough.

- **Phasing**

Key concerns

- There is a need for a clear understanding of expected timescales for development beyond the Development Consent Order process. Such information becomes essential in order to understand phasing not only of development on the site but also the way in which associated development sites will be brought on stream and to inform supply chain and skills providers of the time periods available to secure arrangements necessary to facilitate development.
- There will be a requirement to elaborate upon the use of applications made under the Town & Country Planning Acts and the DCO process as part of the function of assessing an approach to the phasing of the delivery of the project.
- It is clear that a range of interventions and development activity will need to take place in advance of the commencement of construction in order for work force development to be in place and for infrastructure and facilities to be delivered prior to construction starting. This current stage of consultation does not consider the sequencing of actions and interventions necessary to ensure that impacts of the development are satisfactorily mitigated and legacy secured.
- It is a matter of concern to the Council as to how planning process and practicalities of construction can be satisfactorily managed in order to deliver infrastructure and worker accommodation in line with demands created by the construction process. It will be necessary to demonstrate

how infrastructure and facilities required to enable construction to commence can be appropriately provided prior to decisions on the DCO and the final investment decision.

- It would be unacceptable to the Council for impacts resulting from the start of the construction process in terms of requirements for accommodation and demands of the transport infrastructure to arise in anticipation of specific solutions.
- If the intended progress into deliberation over the Stage 2 consultation is to be productive it is essential that understanding of phasing and sequencing is secured immediately.
- Phasing must consider the arrangements which need to be instigated to ensure that changes to existing access arrangements to the Sellafield site can be both accommodated without detriment to the safe use of the public highway and provide the basis for a legacy of improved access.

- **Environmental Impacts**

Key concerns

- Absence of detail in the stage 1 consultation limits the scope for consideration of environmental impacts and potential for mitigation.
- Issues relating to visual and landscape impact; noise and vibration from development activity on the site and off the site (relating to infrastructure improvements); air quality will require further detailed consideration as more specific information on the detail of the project emerges.
- The Council recognises the sensitivities of the location in which the main development site is located. It is essential that all aspects of the development are designed so as to minimise impact on landscape within the Lake District National Park, the coast and seascape. This position is reinforced as a consequence of the cumulative impact of the NWCC Grid connection.

- **Other matters**

- The consultation documentation makes reference to a visitor centre. The purpose and function of such a centre should be clarified. The successful precedent of placing interpretative displays and information in Whitehaven town centre by Sellafield should be explored.

- The C2C route runs through 3 of the AD sites - The Ginns, Mirehouse and Cleator Moor - this is a major tourism asset. No consideration has been given to the impact on this route during construction on the worker accommodation sites, during the operation of those or as a legacy of development.
- Development and infrastructure improvements present a range of opportunities for coincidental benefit. The need for an improved rail infrastructure with commensurate service improvements presents opportunities for access to sites on the coast and within the National Park in a manner which is less dependent upon use of the private car and with a potential legacy of an expansion of the tourist offer of the Cumbrian coast.



PARSONS
BRINCKERHOFF

July 2015

NUGEN - PROPOSED NUCLEAR
POWER STATION, MOORSIDE

EIA SCOPING REPORT

CUMBRIA COUNTY COUNCIL
RESPONSE

Cumbria County Council

NuGen - Proposed Nuclear Power Station, Moorside

EIA Scoping Report

Cumbria County Council Response

Prepared for
Cumbria County Council

Prepared by
WSP|Parsons Brinckerhoff Limited

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1 INTRODUCTION

- 1.1.1 This response to the Moorside EIA Scoping Report has been prepared on behalf of Cumbria County Council. It has been undertaken in conjunction with a similar response prepared by Copeland Borough Council and has sought to avoid repeating comments made in Copeland Borough Council's response.
- 1.1.2 The response has focused on those aspects where the County Council considers further work will be needed or where it considers an adjustment in the proposed EIA approach should be made. It has not sought to expressly confirm those areas where the Council has no current comments.
- 1.1.3 The County Council notes that many aspects of the proposed project remain to be refined and detailed and hence aspects of the EIA similarly remain to be refined and agreed. Therefore this response is based on the information presented in the EIA Scoping Report and the Council reserves the right to vary its opinion and raise new issues as further information and detail about the Project becomes available.

2 SCHEME DESCRIPTION

- 2.1.1 Para 1.1.8. The Marine Off-Loading Facility (MOLF) is identified as proposed for use during construction phase (delivery of large components and potentially other materials during the construction of the power station) but also it is noted that the "MOLF may be retained after construction as a permanent structure which could be used for large component delivery during the operational phase". Whilst an on-site MOLF may be desirable during construction, to avoid the impact of more frequent AILs on local transport infrastructure, to continue its use during the operational phase is likely to impact on the trade, and potentially viability, of existing local ports. This impact should be considered further, as should options for existing port use during construction.
- 2.1.2 Para 2.3.7. The above is supported by the acknowledgement that it is anticipated that "a significant proportion of the AILs would be delivered to the construction site via the proposed MOLF"
- 2.1.3 Para 2.2.10. The quantity and type of anticipated cargo to be offloaded at the MOLF have yet to be fully identified (anticipated to include delivery of large components which are required for the modular construction of the power station, and potentially also used for bulk construction materials and large items of plant). This detail will determine the size, geometry, location and construction materials and methods, all of which will be needed to determine wider impacts.
- 2.1.4 Recognising that the specific location of the MOLF has yet to be determined, it is suggested that due to its anticipated use (vessel types) it "may therefore extend across the intertidal zone into the near shore marine environment". Due to the nature of the anticipated vessels (roll-on, roll-off vessels and conventional barges), their anticipated length and draught, and the time it is likely to take to offload cargo, it is probable that it will extend into the near shore marine environment.

3 TRANSPORT

3.1 General Comments

- 3.1.1 Scoping for the EIA is defined as having focused on the Initial Scoping Land and the adjoining 'indicative marine infrastructure area', enveloping the locations of a MOLF and of cooling water infrastructure. However, the potential impacts of more remote ports, such as the Port of Workington, either as alternatives to the MOLF, or for operational phase use of the MOLF, is such that the scoping area should include these locations and related infrastructure. The remote ports are mentioned elsewhere in the report, therefore the definition of the scoping area may need clarification.
- 3.1.2 Para 2.4.3. It is noted that "Other locations are being considered for ... port infrastructure. Requirements for new development at these locations have not been determined and they are therefore not considered further in this report. Once the requirement for such facilities has been determined NuGen will discuss the scope of the EIA with relevant stakeholders and incorporate the assessment of the facilities within the ES for the Moorside Project." However, the inclusion elsewhere (4.4.2, 4.5.3, 4.5.21, 4.5.22, 16.2.13) of commentary on other ports / marine facilities, such as Workington, Barrow, Peel Ports and Cammell Laird, suggests that other locations are already being considered in this Scoping Report.
- 3.1.3 Para 3.3.7. Eleven large-scale developments across the wider region have been identified, with recognition that the area within which developments need to be considered (and the scale of those developments) needs to be discussed and agreed. Options for beneficial re-use of materials, or co-location / shared use of facilities, from Moorside, or any of the other developments, should be considered if appropriate. It is noted that offshore windfarms are likely to be linked to Heysham, although, from public domain information, offshore wind construction and/or operations and maintenance is also a factor to be considered at Workington, Barrow, Liverpool and Belfast.
- 3.1.4 Para 4.4.2. Whilst stating that "no decision has been made with regards to the use of any ports", it is noted that engagement has taken place with the Port of Workington, Peel Ports (Heysham, Liverpool and Manchester) and Cammell Laird (Birkenhead). It is noted that, whilst the Port of Barrow is mentioned, there is no specific reference to engagement with Associated British Ports, the operator. Similarly, the Port of Belfast is mentioned, but Belfast Harbour Commissioners have not been engaged with.
- 3.1.5 Whilst the DCO is not responding to the Transport Impacts of Decommissioning it is important that anticipated transport impacts of decommission are set out. This matter needs to be discussed and clarified between stakeholders.
- 3.1.6 The EIA Scoping Report recognises the benefit of early engagement which is welcomed to achieve enhancements and not simply to avoid negative effects. Stakeholders have been identified in the Scoping Report (Para 4.4.3) which will support an agreed baseline going forward. It is assumed the applicant will engage in significant further stakeholder engagement as the EIA and transport strategy are progressed.
- 3.1.7 Para 4.4.3. It is identified that "port representatives" will be amongst the stakeholders that further engagement will be required to inform the baseline. It is suggested that, in addition to port representatives, key port users and related stakeholders should also be consulted, as recognised by Para 3.3.7.

- 3.1.8 It is anticipated that the following documents will be prepared and submitted by the applicant in the EIA for the Moorside Site and Associated Development Sites:
- Transport Assessment
 - Construction Worker Travel Plan
 - Operational Worker Travel Plan
 - Construction Traffic Management Plan
 - Operational Traffic Management Plan
- 3.1.9 The Baseline Information (Section 4.5) constitutes preliminary environmental information for the Moorside Project and is of a very high level. The overarching approach is acknowledged, but a significant amount of evidence will need to be developed in order to assess the impacts of construction and operation.
- 3.1.10 The baseline needs to use transport information from the Sellafield Site to inform the Transport Strategy for the Moorside Development. In addition the redlined boundary for the Moorside Site includes a part of the Sellafield car park and any impact in this location needs to report Moorside and Sellafield Issues. It is assumed the applicant will work with Sellafield to inform the Transport Strategy.
- 3.1.11 Section 4.5 provides an overview of Baseline Conditions, Zones of Influence, Trunk Road Network, Local Highway Network, Highway Structures, Abnormal Visible Loads, Rail, Bus Marine, Walking and Cycling, Traffic Modelling and Data, Gravity Model, Factors Influencing Baseline Conditions and Additional Baseline Information.
- 3.1.12 A number of future scenarios are detailed with reference to opportunities for improved rail and port operations in the area. Further detail is required to fully understand the baseline transport conditions, and likely transport conditions in the do-nothing scenario – i.e. without the Project.
- 3.1.13 Regarding the proposals for rail use on the Cumbrian Coast line, the following issues will require further understanding in order for NuGen to establish the feasibility of the proposed rail mitigation strategy:
- Yearly / Quarterly demand at Stations
 - Platform capacity / constraints at Stations
 - Availability of train paths
 - Limitations of long single track sections and headways
 - Limitations of long sections between signal boxes
 - Length of trains / carriages proposed
 - Potential coach / loco arrangements
 - Number of coaches required for the workforce.
 - Potential for passing loops
 - Civil engineering constraints along the line
 - Deliverability of infrastructure by 2020 given existing CP5 Network Rail commitments

- Competing existing passenger and freight use
 - Commercial / political competition of the line
 - Availability of diesel trains and carriages (risks associated with use of unsafe carriages)
- 3.1.14 The baseline needs to be clearly defined and must set out its relationship to Local Economic Plans, Infrastructure Plans and Committed Development within the County and hence NuGen will need to establish cumulative impacts.
- 3.1.15 The spatial scope of the Transport Assessment is set out at 4.5.4 (Figure 4.1) however this will need to be refined and more detail provided for specific areas of the highway network.
- 3.1.16 The County Council suggests that refinement of the scope needs to be developed and agreed between key stakeholders as the Project progresses. This will clearly be required and initial areas of influence should be evidenced against:
- Origins, destinations and routes of construction workforce to the Project Site
 - Origins, destinations and routes of temporary construction workforce to temporary accommodation sites at weekends
 - Proposed routes of HGV / Abnormal Indivisible Load traffic
 - Proposed rail routes
 - Severance of Public Rights of Way and Cycle Routes
 - Thresholds of trips on the highway network during peak times
- 3.1.17 It should be ensured that routes to and from ports cater for abnormal indivisible loads to and from Moorside. An understanding must be gained of the category of abnormal loads that are likely to be used during construction and operation. For example will category STGO 3 (>150T), the largest vehicle category available, be used from port to site?
- 3.1.18 The condition survey methodology should be discussed and agreed with the County Council and relevant stakeholders before and during construction to allow for damage associated with Moorside to be identified and repaired.
- 3.1.19 Para 4.5.3. The zone of influence is identified as encompassing “the commercial Ports of Workington and Barrow-in-Furness. Consideration will also be provided for Ports further afield such as Liverpool and Belfast.” This wider zone of influence should be defined.
- 3.1.20 Para 4.5.21. This identifies the potential to use the ports of Workington and Barrow, but excludes Millom and Silloth. Constraints of Workington and Barrow are identified. Other sections of the report refer to ports outside Cumbria, and further clarity is requested regarding the ports under consideration.
- 3.1.21 Para 4.5.23. The strategy is still undetermined as to whether the development will use a local port, a MOLF, or a combination, and for what stages (construction and/or operations). This will shape many aspects of the EIA, including transport, environmental impacts, socio-economics, etc and the importance of early confirmation of the proposed approach should not be underestimated.

- 3.1.22 Para 4.5.24. This section identifies that the use of marine transport depends on a number of factors relating to the cargo / AILs, the impact of weather and metocean conditions, and the constraints on ports (lock access, berth / channel depths, port cargo handling and storage facilities and capabilities). Vessel characteristics other than just draught should be considered – beam, length, manoeuvrability, etc.
- 3.1.23 Para 4.7.3. It is identified that potential effects arising from a MOLF, but also use of the wider Cumbrian coast, should be determined through a Navigational Risk Assessment and, if appropriate, a Navigational Impact Assessment. However, MOLF (or port infrastructure) design implications will also need to be supported through the design process. If ports outside Cumbria are being considered, as suggested elsewhere in the report, then these, and the connecting shipping or multimodal transport routes, need to be included in the assessments.
- 3.1.24 Para 4.7.14. This section recognises that further assessment of available ports is needed, and that the varying uses and cargos are such that different access modes may be required. This relates to the use of multi-modal transport, but clarification would be welcome as to whether multiple port / marine facilities would be considered (other than the possibility of a larger, remote distribution hub as referenced in 4.5.22).
- 3.1.25 Para 16.2.13. The Allerdale Local Plan is noted as having identified Port of Workington as being part of the Energy Coast Innovation Zone. The impact of a MOLF on Port of Workington cargo handling opportunities, during construction and operational phases, should therefore be considered.

4 NOISE AND VIBRATION

4.1 General Comments

- 4.1.1 There is no mention of the Noise Policy Statement for England and the health impact related terms of Lowest Observable Adverse Effect Level (LOAEL), Significant Observed Adverse Effect Level (SOAEL) and No Observed Adverse Effect Level (NOAEL). These need to be considered.
- 4.1.2 Scoping Areas are not fixed and these should be reviewed as the project develops, and baseline monitoring locations reassessed accordingly.
- 4.1.3 The Rail Vibration assessment should consider types of freight traffic separately and a more detailed breakdown of the rail fleet mix should be obtained to confirm the new rolling stock is equivalent to the existing, or otherwise.
- 4.1.4 The Road Assessment should look beyond the standard day / night averaging if hourly peak flows as a result of the scheme are expected. Hourly flows should be considered if the proposed activity could lead to traffic peaks at certain times of the day.

4.2 Detailed Comments

- 4.2.1 Para 5.5.4. It should be noted that DMRB states a calculation area of 600m for roads, rather than a study area. DMRB makes no such mention for railways, and CRN is only strictly valid up to 300m. Care should be taken of the uncertainty this may produce in assessing impacts beyond 300m.

- 4.2.2 Para 5.7.1 first bullet. The construction noise calculations do not mention a worst-case assessment in relation to the noise sources being used – it is important that worst case activities as well as typical activities are reported.
- 4.2.3 4.2.2 Para 5.7.1 last bullet. It is commendable to see noise data being provided to enable ecological receptors to be assessed, but no mention is made of which parameters would be used. Many ecological studies relate to L_{Amax} levels, which are not standard outputs from the methodologies detailed in the Scoping Report. If L_{Amax} data is to be used then a method of how it is calculated should be presented.
- 4.2.4 Table 20.1. Further justification is required to scope out “operational vibration”.

5 AIR QUALITY

- 5.1.1 Page 96 notes that revised guidance on planning from the Institute for Air Quality Management will be available in 2015 and will be used in the assessment. This guidance is now available and has implications particularly in relation to the assessment of the Zone of Influence (ZOI) in relation to traffic impacts (Page 96) and on the assessment of the significance of impacts. The updated guidance should be used for the assessment.
- 5.1.2 Para 6.5.5. The ZOI specification for ecological receptors set out in this paragraph (10km for international sites; 2km for national and local sites) relates to the impact of point sources not traffic and yet it appears to sit within the road traffic emissions ZOI section. This should be moved.
- 5.1.3 Para 6.5.6/6.5.7. The DMRB criteria for ‘affected road links’ are less stringent than the criteria identified in the IAQM 2015 planning guidance. The latter should be adopted for the study.
- 5.1.4 Para 6.5.9 and bullets. Agree with assessment of likely ZOI for combustion sources (5km) – but it should be emphasised that this is an interim assessment that may change with dispersion modelling. ZOI for road transport will be dependent on traffic flows and no comment can be made at present. However, as soon as initial traffic data becomes available, the likely ZOI should be consulted on and agreed with relevant stakeholders including Copeland Borough Council and the County Council, setting out implications for both human and ecological receptors.
- 5.1.5 Para 6.5.12 first bullet. A monitored roadside concentration of 36µg/m³ cannot be classed as ‘well within’ the annual mean AQ standard of 40µg/m³. The assessment should make clear those roads that are at risk of exceedence of the standard.
- 5.1.6 Para 6.6.2. Guidance from Defra does not make it clear that exceedences of EU limit values should be assessed at outdoor locations where members of the general public are regularly present over the averaging time of an air quality objective. This applies to AQS. The assessment should make the difference between standards clearer.
- 5.1.7 Table 6.3 includes many more sites than would qualify for assessment under the likely ZOI set out 6.5.4. It should be clearer which are currently considered likely to be in scope and which out of scope.
- 5.1.8 Overall, the proposed methodology appears comprehensive and detailed. The use of fully quantified analysis is welcomed. However, we would question why CO is in scope for the AQ assessment since would expect concentrations will remain well

below the AQS and the monitoring plan seems to suggest that CO is scoped out of the assessment.

5.2 Monitoring Plan

- 5.2.1 Section 3 does not include any reference to QA/QC procedures that will be used for the continuous analysers for NOX and PM. These should be set out clearly.
- 5.2.2 Para 3.2.1 and 3.2.2. It does not seem logical that the monitoring would finish after nine months. Confirmation is needed as to the current programme for monitoring (given that the stated start date has passed), and that monitoring has begun.
- 5.2.3 Monitoring for PM is currently focussed on road sources, with the potential to use alternative sites including residential properties. It is recommended that monitoring locations include at least one residential location, representative of areas likely to be most affected.
- 5.2.4 Query whether diffusion tube monitoring at ecological receptors should be extended to both NOX and NO2. It is NOX that is the legislated pollutant at such receptors. It was suggested in the scoping report that NOX/NO2 ratios will be taken from the continuous analyser. However, this could be significantly different at roadside (where the analyser will be situated) and background ecological sites.

6 SOILS, GEOLOGY, AGRICULTURAL LAND AND LAND QUALITY

6.1 General Comments

- 6.1.1 Spatial scope – reference made to Chapter 8 covering the Initial scoping Land (ISL) and later chapters Additional Scoping Land (ASL) and Associated Development (AD) no consideration appears to have been given to assessment of necessary upgrades to infrastructure as part of the scoping.
- 6.1.2 8.12 states that the whole chapter is based on the potential impact of land contamination on soil and geology – the chapter should include review of all aspects of potential impacts on/from soils and geology e.g. including loss of resource – which it actually does, the Introduction is misleading in that regard.
- 6.1.3 Hydrogeological resource assessment. The proposed levels of dewatering groundwater resource may be significantly impacted during construction. This aspect needs to be included in Section 7.
- 6.1.4 Chapter 19 identifies that the Florence Mine SSSI, based on geological significance is located adjacent to a number of AD sites. Within the ISL land, geology has been scoped as a receptor because there are no SSSIs etc – Chapter 19 does not make it clear whether or the presence of the Florence Mine SSSI reverses that decision either for the whole ES or specifically the AD aspect. Given a conservative approach has generally been adopted then inclusion would seem a more appropriate choice. Chapter 20 confirms geology is scoped out.
- 6.1.5 A December 2014 to April 2015 programme is identified for the ground investigation works. Their current status should be made clear.

6.2 Detailed Comments

6.2.1 Para 3.5.1. Adequacy of baseline. The infilled Sellafield Tarn ('debris from the Royal Ordnance Factory' has the potential for both significant chemical contamination (possibly biological/radiological?) as well as UXO and it would have been pertinent to identify this in Section 8.5.32 of Vol 1 as an identified on-site source of contamination. It has however been identified in 8.5.34 as an off-site source yet figure 8.2 illustrates this position as within the ISL boundary. There appear to be some inconsistencies associated with the location of tarn within the documentation. Given the risk associated with the materials potentially buried in it this needs to be fully understood and consistent throughout all the documentation.

6.2.2 There is no comment on the lack of aquifer classification of the various bedrock groups. Going forward a Principal Aquifer is more sensitive than a Secondary etc. This is addressed in Chapter 9, but cross-referencing is required between chapters. As the assessment section is developed there appears to be limited reference to sensitivity of groundwaters etc.

6.3 Survey and Monitoring Plan

6.3.1 Although groundwater monitoring is proposed for a year it would appear that this actually refers to four quarterly tests. No reference is made to ensuring that the visits coincide with the highest/lowest groundwater levels –i.e. when peaks in contamination levels are likely to be seen. This should be addressed.

7 FRESHWATER ENVIRONMENT**7.1 General Comments**

7.1.1 Good communication between associated disciplines is essential to ensure a robust assessment of potential impacts and the appropriate design/incorporation of mitigation measures. Specifically, a holistic approach to the identification of potential receptors, the assessment of potential impacts and the recommendation of appropriate mitigation is expected across Section 8 Soils, Geology, Agricultural Land and Land Quality, Section 10 Marine and Coastal Physical Environment, Section 14 Biodiversity, and Section 17 Climate.

7.2 Detailed Comments

7.2.1 Para 9.5.15 and 9.5.16 Use of appropriate study area and identification of appropriate baseline conditions and potential receptors. It is stated that the potential impacts of climate change on the extent of flood risk is considered to be low. Whilst the County Council concurs with this statement, it is stressed that the potential implications of climate change (including any effects associated with sea level rise and increased wave height) on the extent, depth, hazard and probability of flooding must be considered within the assessment of potential impacts.

7.2.2 Para 9.7.1 Identification of potential effects during construction and operational phases. The County Council stresses the need to also consider potential impacts to groundwater and surface water quality associated with the proposed railway line.

7.2.3 Para 9.7.1. The County Council recommends that consideration is given to the potential mobilisation of contaminants already present within the ground and/or within adjacent landfill sites associated with the disturbance of this land and/or changes in

groundwater flow associated with dewatering/abstraction activities that may have an adverse effect on surface water and groundwater features. Consideration should be given to the risk of increased saltwater intrusion.

- 7.2.4 Para 9.7.1. The wording of the assessment of flood risks during the construction phase suggests that the only receptors of increased flood risk will be those located in the River Ehen floodplain. However, increased flood risk during construction could also affect other adjacent receptors not located within the River Ehen floodplain as well as pose risk to the development, construction workers and construction plant – this should be acknowledged and assessed.
- 7.2.5 Para 9.7.1. The wording of the assessment of flood risks during the operational phase is confusing. The text initially discusses the management of surface water runoff which will apply to all aspects of the development regardless of location. However, the summary suggests that impacts will be limited to those works located in the River Ehen floodplain. Two key potential impacts are touched on here and both must be addressed in full in the assessment: 1) the potential increase in flood risk associated with site-generated surface water runoff, and 2) the potential increase in flood risk associated with development located in the River Ehen floodplain.
- 7.2.6 Para 9.7.1. The County Council requests that the EIA and supporting FRA also consider flood risk from other sources of flooding, including coastal/tidal, surface water, groundwater (including risks to below ground structures), overland flow, sewers and artificial sources. We note that little consideration is currently given to flooding from coastal and tidal sources (including that associated with breach, surge or overtopping of defences) and recommend that this is adequately addressed.
- 7.2.7 Para 9.7.5. Proposed method of assessing impacts to the freshwater environment. The County Council requests the FRA to also consider the potential impact of loss of floodplain storage and demonstrate the provision of mitigation to ensure no increased flood risk to people and property elsewhere.
- 7.2.8 Para (9.7.6. The County Council requests potential impacts to the hydromorphological quality and chemical quality of watercourses within the Water Framework Directive Assessment to be assessed, in addition to ecological quality as currently discussed.
- 7.2.9 Para 9.8.5. Table 9.8 summarises the derivation of significant potential effects. The County Council would expect a range of significance to be provided (i.e. major, moderate, minor). It is also suggested that a large number of potential impacts could be deemed not significant, in particular impacts of low magnitude to receptors of high sensitivity, impacts of medium magnitude to receptors of medium sensitivity, and impacts of high magnitude to receptors of low sensitivity.

8 MARINE AND COASTAL PHYSICAL ENVIRONMENT

8.1 General Comments

- 8.1.1 Good communication between associated disciplines is essential to ensure a robust assessment of potential impacts and the appropriate design/incorporation of mitigation measures. Specifically, a holistic approach to the identification of potential receptors, the assessment of potential impacts and the recommendation of appropriate mitigation is expected across Section 8 Soils, Geology, Agricultural Land

and Land Quality, Section 9 Freshwater Environment, Section 14 Biodiversity, and Section 17 Climate.

- 8.1.2 It is noted that Section 10 Marine and Coastal Physical Environment does not include an assessment of flood risk to the proposed development associated with tidal and coastal sources and following a breach in any formal or informal flood defences. It is assumed that this assessment will form part of the Flood Risk Assessment as discussed within Section 9 Freshwater Environment.

8.2 Detailed Comments

- 8.2.1 Para 10.7.1. Identification of potential effects during construction and operational phases. It is important that that an assessment of potential impacts during the construction and operational phases is made in regard to marine ecology including benthic habitats and intertidal habitats. This should also include impacts associated with the abstraction and discharge of cooling water, and noise and vibration impacts particularly associated with construction works within the marine environment. It is recognised that these impacts may be discussed within Section 14 Biodiversity and Section 5 Noise and Vibration, but reference to these assessments should be made to ensure a coordinated and robust assessment.
- 8.2.2 Para 10.7.1. No consideration appears to have been given to longer term maintenance activities, such as dredging of the sea bed during operation or the ongoing maintenance of marine infrastructure. The County Council recommends that this is included.
- 8.2.3 Para 10.7.1. Limited consideration appears to have been given to potential impacts to human receptors that may use this coastline for recreational purposes, or to the potential impacts of contaminants building up within marine ecosystems that may be passed along the food chain.
- 8.2.4 Para 10.8.8 Proposed method of assessing impacts to the freshwater environment. Table 10.3 summarises the derivation of significant potential effects. The County Council would expect a range of significance to be provided (i.e. major, moderate, minor). It is also suggested that a large number of potential impacts could be deemed not significant, in particular impacts of low magnitude to receptors of high sensitivity, impacts of medium magnitude to receptors of medium sensitivity, and impacts of high magnitude to receptors of low sensitivity.

9 LANDSCAPE AND VISUAL

9.1 General Comments

- 9.1.1 Sections 11/12. Whilst it is acknowledged there are clear differences between landscape effects and visual effects and it is recognised good practice to report them separately to understand the significance of each effect, the interrelationship of these effects could be lost under the proposed EIA structure.
- 9.1.2 The Cumulative Impact of Vertical Infrastructure (CIVI) is recognised as an increasingly relevant issue in parts of Cumbria. The approach to both landscape and visual impact assessment should have regard to work undertaken in Cumbria on CIVI which was reported in 2014 (Cumulative Impacts of Vertical Infrastructure: Part 1 Key Findings & Guidance WYG/A072895-1/October 2014). Although focused on wind

turbine development, aspects of the Moorside development should be assessed with this work in mind. The CIVI work seeks to:

- Assess how existing and proposed developments involving the introduction of vertical elements into the landscape are resulting in cumulative effects on landscape character and visual amenity;
- Identify the degree to which cumulative effects of vertical infrastructure developments upon landscape character may be considered a constraint on further such developments;
- Provide evidence base to support local policy.

- 9.1.3 An illustrated summary that identifies where combined significant landscape and visual effects will occur would provide a more complete understanding of the wider issues resulting from the development. This in turn would assist and inform the development of the project design and mitigation.
- 9.1.4 Sections 2.3/11/12. At this time the project programme and design development are not sufficiently resolved to fully scope the assessment of effects during the construction and operational stages. Different landscape and visual effects will arise during the long construction period with its associated extensive construction activities, compared to the development during operation. More detailed methodologies may need to be provided to assess landscape and visual effects throughout the project life cycle.
- 9.1.5 Sections 11/12. Neither Section addresses onsite and/or offsite landscape mitigation or enhancement works during construction or operation. As the construction period will last for several years, it would be beneficial to identify opportunities for advance planting offsite as well as onsite mitigation in locations that would not be affected by the construction works. A commitment to producing a comprehensive long-term landscape mitigation strategy is required. It should demonstrated how mitigation will be designed to achieve multiple objectives (landscape, visual, ecological etc.)
- 9.1.6 Sections 11/12. Further detailed information and assessment is required in relation to potential cumulative effects arising from the proposed transmission infrastructure by National Grid within the boundary of the Moorside search area. Above-ground transmission infrastructure should be illustrated on VVIs/photomontages of the Moorside Project.
- 9.1.7 Section 18. Clarification of the landscape and visual assessment methodology for the Additional Scoping Land is required.
- 9.1.8 Section 22. It is recommended that the interrelationship of significant landscape and visual effects and mitigation are discussed within Environmental Statement Chapters 14. Landscape and 15. Visual to provide a full appreciation of the combined effects.
- 9.1.9 Detailed Comments**
- 9.1.10 Para 12.4.2. The methodology does not describe in sufficient detail how the visual material requested by consultees will be provided. Visually Verifiable Images (VVI) would be appropriate for a project of this scale and nature, and in this location. Although VVIs could not be produced until the design is suitably evolved, it may be appropriate to produce interim photomontages based on the parameters set out in paragraph 11.5.1 for use in the early stage of the visual assessment.

- 9.1.11 A more detailed methodology for the selection of viewpoints and all illustrative material (ZTV, VVIs, photomontages, wire lines, cross sections, night views and night time photomontages) are required for reassurance that the visualisations will be accurate and comprehensive.
- 9.1.12 Where potential cumulative visual effects will arise with the main development they should be included on all relevant illustrative material.
- 9.1.13 Para 18.9.1. It is not clear how the conclusions on the assessment of effects have been reached.
- 9.1.14 Para 19.9.16-17. The requirement for additional landscape, townscape and visual baseline information and assessment methodology is noted. Further clarification is required as to how the assessment of the various Associated Development sites will be undertaken.
- 9.1.15 Table 20.2. It is recommended potential landscape effects on the Lake District National Park and its setting from the Associated Development sites are not scoped out until evidence is provided by Zone of Theoretical Visibility (ZTV) mapping.
- 9.1.16 Table 21.1. It is recommended potential landscape and visual mitigation during construction should include advance or early planting, both on- and offsite.
- 9.1.17 Scoping Report Volume 2 – Figures. The Scoping Report would have benefitted from the inclusion of site photographic work to illustrate the primary issues raised at this stage.

9.2 Survey and Monitoring Plan

- 9.2.1 Table 3.1. The table would benefit from the inclusion of illustrative material to be provided, i.e. baseline view, photomontage, night time photomontage, VVI. Also whether illustrations will be provided for the construction and operation stages and cumulative viewpoints (where known).
- 9.2.2 Section 4. Further clarification is required as to whether site survey will be undertaken to describe local landscape character areas in detail.

10 HISTORIC ENVIRONMENT

- 10.1.1 Para 13.1.1. A definition of historic environment should be included.
- 10.1.2 Para 3.2.13. No reference is made to Chartered Institute for Archaeologists (CIfA) guidance. It is suggested that at least the Consultancy Guidance should be referred to.
- 10.1.3 Para 13.4.4. It is not clear whether the regional environmental advisor for Heritage England (HE) was consulted – this should be confirmed.
- 10.1.4 Para 13.5.4 3rd bullet point. The possible Roman mile fortlet. Although this is not part of the Hadrian's Wall world Heritage Site (HWWHS) it would be appropriate to confer with the HWWHS archaeologist. It is not clear whether this has been done.

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- 10.1.5 Para 13.5.12. The County Council suggests that viewpoints be taken from the designated assets and most especially the Grade I, II*listed buildings and Scheduled Monuments.
- 10.1.6 Para 13.5.15. With a view to the nomination of the Lake District for WHS status, the County Council requests a viewpoint from Hardknott Roman Fort is taken.
- 10.1.7 Para 13.5.39. Why has no walkover survey been undertaken for non-inter tidal land? How will the potential for previously undetected earthworks and structures be investigated? This needs to addressed.
- 10.1.8 Section 13.6. A definition of direct and indirect would be helpful at the start of this section rather than later in the text.
- 10.1.9 Para 13.6.1 and bullets. There is no mention of archaeological earthworks such as banks and ditches, field boundaries etc. In respect of the last two bullet points, the use of the term archaeological 'sites' was replaced with archaeological 'assets' in 2009 and it is suggest the same is term is adopted here.
- 10.1.10 Para 13.7.1. Clarification is required of the definition of the terms 'direct' and 'indirect'. For other recent DCO projects direct has been defined as a primary effect and indirect as secondary. This is important as effect on setting of an asset is a primary effect and therefore would be direct.
- 10.1.11 Para 13.7.3. Last sentence: it would be useful to name the other factor here otherwise the emphasis focuses on the view.
- 10.1.12 Para 13.7.5. first bullet point. Reference should be to heritage value or significance not interest (3rd line). Generally the County Council has some concern over the emphasis on views here – Heritage England (HE) lists at least 20 other factors to be considered in assessing the significance of setting to the importance of the asset.
- 10.1.13 Table 13.1: Caption could also include setting against effects. Table 13.2: caption could also include reference to direct being physical;
- 10.1.14 Para 13.7.6. first bullet point, last sentence. How has people's experience of the asset been assessed? What factors contributing to experience were considered? The text at present appears rather a dismissive statement.
- 10.1.15 Table 13.3 caption would be clearer if it contained reference to setting. There is an emphasis on views in the table entries. What about the factors in 13.7.3 (which are themselves not exhaustive). Table entries – define too small; define minimal. Table entry for Ravenglass. Does this require assessment? It is not concluded in the text.
- 10.1.16 Page 302. How will the sensitivity of the setting or its contribution to the asset be determined? Where is this in the methodology? Will a narrative be presented? Will the settings be visited? The text setting out methodology needs to address these points clearly. There is also no mention of harm to significance in this section.
- 10.1.17 Para 13.8.2. Need to provide the definitions for the values listed.
- 10.1.18 Table 13.4. It is normal practice to set high/medium etc against national/regional and so on. Definition is required of 'outstanding' level and 'high' level. The table will need a reference.

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- 10.1.19 Para 13.8.4. Conservation Areas are not normally taken to be statutory designations.
- 10.1.20 Para 13.8.7 penultimate sentence. Utility is not usually applied to heritage assets. Indication of potential would be preferable.
- 10.1.21 Para 13.8.9. Surely this definition can be applied to setting too?
- 10.1.22 Para 13.8.10. The County Council does not agree that setting is most often thought of as an indirect effect; this has not been the case in other recent DCO Examinations.
- 10.1.23 Para 13.8.11. The County Council does not agree that the nature of the effect on setting is a subjective matter. Through the application of a recognised process and consideration of recognised factors an objective view can be and should be presented.
- 10.1.24 Table 13.5 and 13.6. Reference for tables will be needed.
- 10.1.25 Section 18.11. Again, no archaeological earthworks are mentioned.
- 10.1.26 Para 19.11.1. First bullet point. Which GIS datasets?
- 10.1.27 Table 19.5. Why is there no similar table for non-designated assets? Are none potentially affected?
- 10.1.28 Table 20.1. There is an emphasis on views again in the historic environment entry.
- 10.1.29 Table 20.2. HE entry – typo in first line first column. Last bullet point second column there needs to be a statement explaining what is proposed where re-siting is not an option?
- 10.2 Survey and Monitoring Plan**
- 10.2.1 Table 2.1. First source – is this a website? This reference needs to be clearer. Similar for entry 6.
- 10.2.2 Page 7, first para. As noted earlier the County Council queries the walkover being confined to inter-tidal area. What about other areas of land-take? Third para. On what basis has the 5km study area been selected – there appears to be no previous mention of these – please can it be justified.
- 10.2.3 General question on the surveys: is it assumed that the lidar survey data will replace any requirement for a topographic survey? If so this should be confirmed.
- 10.2.4 Page 9. References here and throughout to IfA should be ClfA and all guidance was revised in 2014 following granting of charter status. Bullet points: Please add reference to collection of palaeoenvironmental samples as a bullet point. Fifth para last sentence should more properly read quantified for assessment not analysis.
- 10.2.5 Page 15. Is it proposed that mitigation needed as a result of significant archaeological findings arising deferred to post-determination? This needs to be made clear.
- 10.2.6 Biodiversity

11 BIODIVERSITY

11.1 General Comments

- 11.1.1 The County Council notes that descriptions of proposed methodologies for survey for habitats and species of Principal Importance are not provided in the Survey and Monitoring Programme (SMP). However, it is also noted that the Scoping acknowledges that additional surveys may be required and that this will be reviewed following an updated Extended Phase 1 Habitat survey. It is further acknowledged by the applicant (paragraph 14.5.33) that 'In particular more information is required in respect of ... species of Principal Importance...' The County Council will wish to see this intent fulfilled.
- 11.1.2 The County Council requests that further information is provided by the applicant on proposed methodologies and the scoping in/out of surveys for species of Principal Importance once the applicant has updated the baseline (see comments on the Survey and Monitoring Programme, below).
- 11.1.3 It is noted that the Air Quality Chapter 6 (table 6.4) identifies four areas of Ancient Woodland for inclusion in the assessment of aerial deposition. These sites are not all referenced in Chapter 14. The County Council advises the applicant that Ancient Woodland should be considered within the EclA where appropriate alongside other habitats of Principal Importance.

11.2 Detailed Comments

- 11.2.1 Section 14.2 Legislative and Policy Background. This is considered by County Council as an adequate description for the Scoping Report.
- 11.2.2 Section 14.3 Sources of Data used to inform the Scoping Report. This is considered by County Council as an adequate description for the Scoping Report.
- 11.2.3 It is reported by the applicant that the 2010 Extended Phase 1 habitat and species survey area 'largely corresponded with Initial Scoping Land area' and that 2012 surveys were undertaken in an area 'of variable width, but 500 m across, around the perimeter of the area surveyed in 2010, but excluding the Sellafield Complex'. This description is not clear and no reference is given to a corresponding figure to allow for an assessment to be made regarding the adequacy of the baseline. However, the County Council notes that the baseline survey areas are incidentally referenced on Figure 14.3 and as such, further description is not considered necessary. It is noted that the baseline survey areas do not comprehensively cover the ISL.
- 11.2.4 With reference to the above, the County Council agrees that the data obtained to date only provides an overview of biodiversity interest within the ISL and that the existing data will need to be supplemented / extended / repeated. The habitat/species-specific surveys considered likely to be required will need to be reviewed on the basis of the updated baseline; the applicant in section 14.6.6 acknowledges this and as such no further information is requested.
- 11.2.5 Section 14.4 Consultation. This is considered by the County Council as adequate for the Scoping Stage.
- 11.2.6 The applicant has provided details on the statutory and non-statutory consultations undertaken to date and a summary of responses is provided. The County Council

- suggests that further details, such as a table providing full consultation responses and any actions to be taken by the applicant to address the issues raised would be useful. However, the County Council considers that this is not essential for the Scoping Report.
- 11.2.7 Para 14.5.1. The Zone of Influence (Zol) proposed for the assessment of impacts upon designated sites and for protected/notable habitats and species is considered appropriate.
- 11.2.8 The County Council notes that the Zol prescribed for internationally designated sites for point sources aligns with the HRA Evidence Plan agreed with NE and in addition exceeds the criteria set out in the Environment Agency 'Horizontal Guidance Note H1 – Annex (f): Air Emissions. In addition, the applicant commits to assessing air quality impacts as a result of road and rail infrastructure, in line with appropriate guidance (described in Chapter 6 – refer to comments on Air Quality Chapter), once further details are available (refer to 14.5.2).
- 11.2.9 Tables 14.1, 14.2 and 14.3 and 14.6.1, 14.6.2. Further information is required within the Scoping Report in order for the County Council to technically evaluate the proposals.
- 11.2.10 Table 14.2. The County Council requests that the applicant provides additional information clearly documenting the reasons for limiting the assessment of those sites in Table 14.2 and specifically why they are scoped out of the assessment of impacts from traffic / noise / hydrology and are considered only in relation to aerial deposition..
- 11.2.11 Para 14.6.4. The County Council advises that further consideration should be given to the potential for hydrological impacts to result in significant effects on statutory and non-statutory designated sites. Paragraph 14.5.1 sets a 3 km Zol for all freshwater aquatic environments. The Freshwater Environment Impact Assessment (Section 9.3) also sets a 3 km Zol for the consideration of potential effects on water-dependent ecosystems. However, it is not clear which of the sites located within 3 km (listed in Tables 14.1, 14.2, and 14.3) are considered to be water dependent and therefore are to be included in the hydrological impact assessment (or if they are being excluded, why this is the case). For example, being a wetland habitat and located 1 km distant, Silver Tarn, Hallas and Harnsey Mosses SSSI meets the criteria for hydrological assessment. However, this site is included in the category 'sites considered only in relation to potential aerial deposition' without any justification provided for this exclusive assessment.
- 11.2.12 The County Council requests that the applicant provides additional information clearly identifying all statutory and non-statutory designated water-dependent ecosystems within the 3 km Zol (described in paragraph 14.5.1). Justification should be provided if these sites are not taken forward for further hydrological assessment.
- 11.2.13 In addition to the above, it is noted that Chapter 9 scopes out impacts on Silver Tarn, Hallas and Harnsey Mosses SSSI in part as a result of a '2 km' distance from the ISL. Silver Tarn, Hallas and Harnsey Mosses SSSI is however reported in Chapter 14 as being located 1 km distant from the ISL. Clarification is required and if appropriate, impacts upon this site should be re-considered in Chapter 9.
- 11.2.14 It is noted that the applicant commits to refining the Zol for aerial deposition on statutorily designated sites once further details are available on the routes of

associated infrastructure (road/rail). In addition, that the Zol for marine biodiversity interest will be informed by further tidal modelling.

- 11.2.15 Para 14.7.5. Further information is required within the EclA when undertaken. Four SSSIs are scoped out from further consideration with respect to birds due to the distance between the sites (> 10 km) and a lack of connectivity to the ISL (as well as a lack of habitat replication). It is requested that the reasons for scoping these sites out are revisited in the EclA once a comprehensive and up-to-date baseline has been obtained. Mapping should be provided showing the locations of these sites in relation to the ISL to support the reasoning.
- 11.2.16 Section 14.8. Further information is required within the Scoping Report in order for the County Council to technically evaluate the proposals. The Scoping Report does not currently contain a description of the proposed EclA assessment methodology (although a description of the proposals for assigning significance is provided). The County Council requests that the applicant submit additional information in this regard.
- 11.2.17 Para 18.1.2. Further information is required within the Scoping Report in order for the County Council to technically evaluate the proposals. The applicant notes that likely construction activities are described in paragraph 18.1.2 and an indicative location plan is provided in Figure 1.2; however, full details concerning the spatial extent and scope of works are yet to be confirmed. Therefore the County Council advises that the scoping out of effects on the marine environment should be reconsidered by the applicant until further details are available.
- 11.3 Survey and Monitoring Plan – Terrestrial and Freshwater Ecology.**
- 11.3.1 This is considered by the County Council as generally adequate. It is recognised by the applicant that the baseline will be updated and as such the suite of surveys outlined may not be comprehensive (both in terms of species, survey type and required survey location).
- 11.3.2 However, the County Council supports the majority of queries raised by Copeland Borough Council in relation to the methodologies for species surveys, as listed below. In light of this, the County Council requests that further details and review the scope of the proposed surveys are provided once the applicant has undertaken an updated desk study and Extended Phase 1 Habitat survey.
- 11.3.3 With regard to the collection of ornithological data the County Council notes that the applicant proposes to review the requirement for additional survey following the collection of the first year's data and also that Natural England (NE) has informed the applicant that two years of data will be required. The County Council therefore suggests that if the applicant wishes to proceed with this approach, despite advice to the contrary from the lead statutory nature conservation body for the project, then full and timely consultation with NE will be required on the evidence acquired at the end of Year 1. This will be necessary to ensure that Year 2 surveys can commence at the appropriate time (if they are, on balance, considered to be required).
- 11.3.4 The County Council applies the same advice to the applicant with regard to plankton surveys. The Environment Agency (EA) in its consultation response informs the applicant that two years of monthly plankton data will be required. However, the applicant proposes to review this requirement, in consultation, after the first year of data collection.

- 11.3.5 It is understood by the County Council on review of RSPB consultation comments that the survey extent for intertidal bird surveys has been informed by Scottish Natural Heritage guidance; however, the applicant should provide justification for the proposed approach.
- 11.3.6 The County Council requests that the applicant clarify whether there are any proposals for breeding bird surveys within woodland; why September/October surveys for migrant species are omitted from the assessment; why Barn Owl surveys are omitted from the Moorside Search Area; and whether targeted surveys for kingfisher will be employed.
- 11.3.7 The County Council suggests the applicant consider employing additional techniques such as camera trapping if the results of their initial survey and subsequent bait marking survey suggest this is required.
- 11.3.8 The County Council acknowledges that the applicant is reflecting the existing baseline in respect of bats and advises that the classification of site value, and associated survey effort, should be re-evaluated using updated guidance following the updated Extended Phase 1 Habitat survey of the site. The County Council notes that the applicant will be required to collect audio data through the use of hand-held devices during activity and emergence surveys as well as during static detector surveys.
- 11.3.9 The County Council requests that the applicant clarify how the proposals for invertebrate survey will target protected and notable species and justify the proposed extent of the invertebrate survey.
- 11.3.10 The County Council requests that following a positive eDNA result for GCN, if associated waterbodies are present (those forming a pond cluster), these should be included within the subsequent population size-class surveys.
- 11.3.11 The County Council requests that the applicant should confirm the proposed assessment type for reptiles 'presence/absence' or 'population' survey; this could be provided following the updated Extended Phase 1 Habitat survey, reptile habitat assessment and ground-truthing exercise. As the applicant states that the survey will be designed 'to follow current best practice', it is considered the timing of the survey will be appropriate.
- 11.3.12 The County Council requests that the surveys for water vole should follow the most current guidance rather than the 2006 document referenced. However, it is not considered necessary to provide details of the extent to which otter surveys will be extended off-line at the Scoping Stage. A desk study is proposed by the applicant, after which, the proposed locations for survey can be submitted to the County Council and other stakeholders for review.
- 11.3.13 As a general comment – the SMP for the ADS provides data collection locations for the species surveys listed. It is not clear why areas have been scoped out for certain species. This has been raised as a concern by Copeland Borough Council for species including breeding birds, white-clawed crayfish, bats, invertebrates and aquatic macro-invertebrates. The County Council seeks clarification on the scoping out of any areas for survey, particularly within the ADS.

11.4 HRA Evidence Plan

- 11.4.1 It is acknowledged by the County Council that this has undergone lengthy consultation and the current version of the EP has been agreed with NE.
- 11.4.2 The County Council notes that the applicant has deferred the assessment of air quality effects resulting from significant traffic increases on road and rail transport corridors because these 'cannot be identified yet as the transport planning is at an early stage'. The County Council advises that the assessment follows the recommendations in the comments on the Air Quality Chapter.

12 SOCIO-ECONOMICS AND HUMAN POPULATION

12.1 General Comments

- 12.1.1 Any scoping of the socio-economic and population impacts of the construction of the power station needs to consider the impacts during construction and operation (accepting that decommissioning will be considered separately).
- 12.1.2 There is a lack of sufficient information on the construction and operation of the proposed power station to reasonably identify the scope of the socio-economic and population impacts e.g. insufficient information on the scale and nature of the construction project, transport movements, construction workforce requirements, site requirements (main and associated developments), operational workforce requirements etc.
- 12.1.3 In particular, there is limited information on the scale, nature and programming of the construction workforce and its impact. This is likely to have a significant effect on the local economy and population.
- 12.1.4 The assessment of the baseline conditions needs to be dynamic, not static i.e. showing how baseline indicators have changed in the recent past and may change during the lifetime of the project.
- 12.1.5 Baseline information is generally presented for a point in time. It does not show ongoing trends, which may affect the baseline in the future (with a limited attempt to address this at section 16.5.40). The build is anticipated to be completed by 2026, but few new nuclear projects are completed within the originally anticipated programme period. Baseline indicators should therefore be considered for a period beyond 2026 (perhaps to 2031).
- 12.1.6 The purpose of a scoping study is to identify potential areas of impact, consider potential mitigation measures for negative impacts, and ways in which positive impacts can be enhanced.
- 12.1.7 There is a very limited attempt to identify the potential areas of both positive and negative impact (i.e. Section 16.7). There is no attempt at this early scoping stage to identify impacts, consider how negative impacts can be mitigated, and how positive impacts can be enhanced.
- 12.1.8 In general the effects of the construction of the power station and the operation of the power station have not been considered separately and distinctively. It is important to do this. There has been no consideration of the impact of the regular maintenance of

the three proposed nuclear reactors – which can have a relatively large effect on a rural local economy.

12.2 Detailed Comments

- 12.2.1 Section 16.2 Relevant legislation, policies and guidance. No attempt has been made to show how the construction and operation of the power station will either support or detract from the achievement of the various economic development policies and strategies listed. There is no consideration of local authority economic development strategies – or confirmation that they do not exist, if that is the case.
- 12.2.2 Table 16.1. The robustness of the data sources used needs to be made clear, i.e. how up-to-date the various data sources are and the margins of error at the local level (for those based on sampled surveys). Also the frequency of updating of these data sources would be helpful, to identify how useful they will be for the purposes of monitoring the impact of the development and operation of the power station.
- 12.2.3 Table 16.1 House price/affordability data. There is a need to define the data sources being used and to make a comment on how robust are they.
- 12.2.4 Para 16.4.1 Engagement with consultees. Most of the noted organisations have been consulted with. It is not clear which ones have not been consulted with. The consultation was undertaken by NuGen in 2011/2012. This should be updated as there have been significant changes in the state of the global, national and local economies since this time.
- 12.2.5 Para 16.4.4. Engagement with consultees. Consultation has not been undertaken with IoD, FSB or NFU. The latter two are particularly important as representatives of businesses and employers in rural areas. It would be helpful to specify which colleges and training providers have been consulted.
- 12.2.6 Para 16.5.1. Zone of influence (labour market). On what basis has a 90 minute travel time zone been defined? What is the size of the resident working population within this travel time zone? How far will it go towards meeting the needs for construction and operation workforce for the power station? What are the consequential implications for in-commuting and in-migration of temporary workers?
- 12.2.7 Para 16.5.1. Zone of influence (economy). Transport congestion and disruption is mentioned in passing, but this is likely to have a significant impact on the local economy.
- 12.2.8 Para 16.5.1. Zone of influence (population). It is stated that temporary workers are likely to be accommodated in existing settlements. What work has been done to substantiate this?
- 12.2.9 16.5.1. There appears to be no mention made of NuGen's worker accommodation strategy. This is needed as a key input to the socio economic impact assessment.
- 12.2.10 16.5.1. Zone of influence (housing, social and community infrastructure). What is the likely impact in terms of the displacement of local residents out of the private rented housing sector?
- 12.2.11 What is the likely impact on schools of in-migrants and temporary workers bringing their children to live in the local area?

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- 12.2.12 Para 16.5.2. Economic performance. What is the total construction spend? How much of the total construction spend is expected to be spent locally? What will it be spent on?
- 12.2.13 Table 16.3 Total employment. What is the skills profile of the local workforce? How does this match with the employment opportunities offered in the construction and operation of the power station? What are local wage levels?
- 12.2.14 How many unemployed people are there in the local area? There is a need for more recent data than 2011 Census. What skills do they have? How does this match with the employment opportunities offered in the construction and operation of the power station?
- 12.2.15 Table 16.3. No mention has been made of NuGen's construction workforce development strategy. When will one be prepared?
- 12.2.16 Para 16.5.9. Population. It is shown that all three West Cumbria districts have recently experienced a decline in working age population. What is predicted to happen over the build period to 2026? What will happen if the build period continues beyond 2026?
- 12.2.17 Table 16.6. Economic inactivity and unemployment. Can more recent data on economic inactivity and unemployment be provided? What is the skills profile of the unemployed? Are they suitable to engage in nuclear new build and operation? Are they suitable to back-fill other employment opportunities that may become available in the local economy? What training is required to enable them to access these opportunities?
- 12.2.18 Para 16.5.19. People with no qualifications. What training opportunities are available for people with no qualifications?
- 12.2.19 Para 16.5.20. Earnings. What salaries are expected in the construction and operation of the power station? How do these compare to local salary levels? What are the implications for the displacement of workers out of local businesses?
- 12.2.20 Para 16.5.24. Housing. There is no discussion of the private rented housing sector. What are local rental levels? Temporary workers may well live in the private rented sector, and so displace local residents. What is the availability of, and likely impact on, tourism accommodation? What is the implication for the prosperity of the tourism sector? What is the potential to encourage the use of latent accommodation i.e. currently unused spare rooms and other unused accommodation capacity? How will the impact on the housing market, private rented sector and tourism accommodation sector be measured and monitored?
- 12.2.21 Para 16.5.25. Social and community infrastructure (health). Are current health facilities located in the places where temporary workers are expected to be accommodated? Is there sufficient capacity in these facilities to deal with temporary workers? What is the age profile of the current population? What is their demand for health services? Does this leave sufficient capacity to deal with migrant workers?
- 12.2.22 Para 16.5.27. Primary and secondary education. How many children of school age are temporary workers expected to bring with them? How many school places are available to accommodate them? Are the available school places in the places where

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- temporary workers' families are expected to reside? How many additional school places are required? Does this require new-build? Where are they required?
- 12.2.23 Para 16.5.25-28. There is no mention of the possibility of Business Rate Retention and how this could be used to improve local public services.
- 12.2.24 16.5.28. Primary and secondary education. The report states that the local primary school age population is forecast to increase significantly over the next 10 years. What does this mean for the future availability of school places for temporary workers' children? What happens post 2026? – as the build programme is very likely to slip beyond this period
- 12.2.25 There is no mention of the potential to educate school children about Science, Technology, Engineering and Mathematics (STEM) subjects, and inform them about longer-term career opportunities in the power station and associated developments.
- 12.2.26 Para 16.5.31 Visitor economy. What is the likely impact of traffic congestion (and the perception of likely traffic congestion) on the visitor economy? What is the impact of temporary workers' use of visitor accommodation in terms of the displacement of tourist visitors? If displaced, are they likely to return after the build has been completed?
- 12.2.27 What is the potential for nuclear new-build related tourism? Could this draw additional visitors into the local area?
- 12.2.28 Para 16.5.32-36 Commercial fishing sector. What is the potential impact on the commercial fishing sector? How will it be measured?
- 12.2.29 Para 16.5.37.Economy (employment sites and premises). What is the potential level of demand from the power station construction for local sites and premises? What quality/use class of sites and premises will be required, as well as the scale of demand?
- 12.2.30 Para 16.5.37 Economy (tourism). What is the nature, scale and significance of the impact on the tourism sector?
- 12.2.31 Para 16.5.37 Economy (employment and skills). Need to know the subject area of all qualifications, especially STEM (science, technology, engineering and mathematics) subjects.
- 12.2.32 Para 16.5.37 Economy (housing etc). There is a need for data on the private rented housing sector – rental costs, availability etc. Also, data on tourism accommodation and the capacity to accommodate temporary workers, and the subsequent impacts on/displacement of tourist visitors.
- 12.2.33 Para 16.5.39 Effects on businesses. It will be necessary to compare local wage rates to wage rates offered in the construction and operation of the power station, and the consequential risk of displacement of workers out of local businesses. Also, need to understand the likely impact of transport and road congestion on the operation of local businesses.
- 12.2.34 Para 16.5.40 Factors influencing baseline conditions. Should also consider:
- Changes in pensionable age and therefore size of the working age population

- Change in minimum/living wage
 - Change in nature and rates of housing delivery
 - Possible changes in social housing policy
 - Change in availability of social housing following extension of right-to-buy
 - Changes in education and training policies and delivery in the local area
- 12.2.35 Also, consider competition with other UK nuclear new build sites for labour, supplies, services etc
- 12.2.36 Para 16.7.1 Potential effects. Impacts may be negative as well as positive. The applicant needs to consider the likelihood of 'boom-and-bust' in the local economy, with a boom during the construction period followed by a bust on completion of construction, which leaves a structurally weak local economy
- 12.2.37 Para 16.7.2 Economy and sector (change in wealth). What is the likely level of local spend compared to the level of imported goods and services? What are the potential negative effects on local businesses (e.g. due to transport congestion, displacement of labour etc)? How sustainable is any positive impact from the construction period? What is the risk of boom-and-bust in the local economy?
- 12.2.38 Para 16.7. Economy and sectors (business base). What is the potential for local people to benefit from any new jobs created in the local supply chain?
- 12.2.39 Para 16.7. Economy and sectors (business base). No consideration has been given to the possible impact on agriculture and land-based businesses.
- 12.2.40 Para 16.7.2 Economy and sectors (business base). No consideration is given to the potential for local supply chain development and consequential positive sustainable impacts on the local economy.
- 12.2.41 Para 16.7.2 Economy and sectors (business base). No consideration given to the potential to attract inward investment to the local area, and the potential positive economic and employment effects associated with this.
- 12.2.42 Para 16.7.2 Population and labour markets. Do local residents have the rights skills and experience to access employment opportunities in the construction and operation of the power station? What are the skills and experience of the local unemployed? What further opportunities for local residents are created if some local workers move into new jobs in the power station construction and operation?
- 12.2.43 Para 16.7.2 Unemployment. What are the skills and experience of the local unemployed? What skills and training infrastructure and provision is in place to help them to up-skill to access opportunities in the construction and operation of the power station?
- 12.2.44 Para 16.7.2 Homeowners and occupants of rented accommodation. What is the likely impact on rental levels and the availability of private rented housing in the local area? What is the ability of the public/social housing sector to accommodate local residents if they cannot afford or access private rented housing?
- 12.2.45 Para 16.7.2. There is no consideration of the likely impacts of large temporary worker population on community cohesion.

- 12.2.46 Para 16.7.4 Local economy (tourism and perception). The County Council does not agree that it is out of scope. What are the impacts of road congestion and perceptions of congestion and construction on the tourism industry?
- 12.2.47 Table 16.10. Sensitivity could take account of:
- Magnitude of the likely impact
 - Significance of the likely impact
 - Geographic extent of the likely impact
 - Duration of the likely impact
 - Reversibility of the likely impact
 - Capacity of the local area to absorb the likely impact
 - Recent baseline rates of change in the area of likely impact
- 12.2.48 Table 16.11 p.384 Change in wealth. The term wealth needs to be defined in this context, similarly, percentage change in what?
- 12.2.49 Table 16.11 Change in employment base. What does 'employment base' mean?
- 12.2.50 Table 16.11 Change in economic prosperity of the visitor economy. Percentage change in what?
- 12.2.51 Table 16.11 Change in unemployment levels and long-term unemployment. Why is this being assessed qualitatively, not quantitatively?
- 12.2.52 Table 16.11 Change in the size of the working age population. Is this resident population, or does it include temporary population during the construction period?
- 12.2.53 Table 16.11 Change in the age structure. Reference assessing the age profile of the construction staff. Need to ensure that permanent and temporary staff are considered separately and treated accordingly.
- 12.2.54 Table 16.11 Adequacy of the supply of housing. Need to consider private rented housing as well as owner-occupied housing
- 12.2.55 Table 16.11 Change in the vitality of local communities. What does 'vitality' mean? Percentage change in what?
- 12.2.56 Table 16.11. In general, the assessment of socio-economic impacts should consider the sustainability of effects as well as their absolute scale at a particular point in time. See also the comment on Table 16.10, above.
- 12.2.57 Table 21.1 Socio-Economics and Human Population. Both the assessment of potential effects and the potential mitigation measures are incomplete, and should include those additional factors listed in this review.

13 CLIMATE

13.1 Section 17.2 – Relevant Legislation, Policy and Guidance

- 13.1.1 The list of legislation, policy and guidance is thorough, although more detail is required regarding the policies within Copeland BC's Local Plan. For example, within the Local Plan, the Vision for the Borough to 2028 includes... "a place that adapts to climate change and minimises its carbon footprint..."(p20).
<http://www.copeland.gov.uk/attachments/core-strategy-and-development-management-policies-0> . This is not included in the Scoping Report.
- 13.1.2 Although the legislation referred to in the Scoping Report recognises the UK Government's carbon reduction targets, it is unclear how the proposals will contribute to targets and minimise the carbon footprint during the design, construction and decommissioning of Moorside Power Station.
- 13.1.3 Para 17.2.6 – Climate Change Adaptation Guidance. A list of guidance documents regarding adapting to climate change is provided. However, we would expect to see more detail regarding the methodology to be used to undertake an assessment of potential climate change risks and impacts, and the development of a climate change adaptation strategy to ensure that Moorside Power station is resilient to the potential impacts of climate change.
- 13.1.4 Reference should be made to the UK Climate Impacts Programme (UKCIP) <http://www.ukcip.org.uk/> , which provides guidance, tools and a process for assessing vulnerability to current climate and future climate change, identifying options to address key climate risks, and developing and implementing a climate change adaptation strategy.
- 13.1.5 17.2.7 – Climate Change Mitigation Guidance. The County Council would expect to see reference to the Carbon Infrastructure Review (CIR) (2013), as this provides an outline of why construction emissions are significant. The CIR also sets out a series of actions for government, clients and suppliers to reduce carbon from the construction and operation of the UK's infrastructure assets, in line with the UK's climate change commitments. It also specifically states that, 'the relative significance of capital (embodied) carbon will increase as the grid is decarbonised and operational emissions reduce'. <https://www.gov.uk/government/publications/infrastructure-carbon-review> .
- 13.1.6 A number of tools and databases for calculating a carbon footprint are cited within the Scoping Report. These do not, however, provide a methodology for undertaking an assessment. We would expect to see consideration of best practice methods for carbon assessment such as the following, to be included:
- Greenhouse Gas (GHG) Protocol,
 - PAS 2050 Specification for the assessment of the life cycle greenhouse gas emissions of goods and services,
 - BS EN 15978:2011 Sustainability of construction works - assessment of environmental performance of buildings - calculation method.

13.2 Section 17.4 Engagement with Consultees

- 13.2.1 For defining the Moorside project baseline conditions, the assessment of existing climate is appropriate and uses data from the nearest/most representative meteorological station. The assumptions provided for a future baseline make reference to the use of UKCP09 projections. We would also expect to see reference to UKCIP methodologies for assessing the impacts of climatic changes on Moorside Power Station.
- 13.2.2 Para 17.5.2 Current baseline relevant to the initial scoping land. For defining the Moorside project baseline conditions, the assessment of existing climate is appropriate and uses data from the nearest/most representative meteorological station. The assumptions provided for a future baseline make reference to the use of UKCP09 projections. We would also expect to see reference to UKCIP methodologies for assessing the impacts of climatic changes on Moorside Power Station.
- 13.2.3 Section 17.7.2 Potential effects not requiring further assessment. The Scoping Report makes reference to the potential emissions of Moorside Power Station in a global context. The County Council would also expect to see Moorside's emissions considered in the context of its contribution to UK Government's national carbon targets.
- 13.2.4 The Infrastructure sector has a significant role in reducing the UK's emissions (see reference to Infrastructure Carbon Review (2013) above).
- 13.2.5 In response to the CIR, the County Council would expect to see a carbon footprint undertaken for each stage of the project lifecycle (design, construction, operation and decommissioning) of Moorside Power Station.
- 13.2.6 As referred to by the applicant (17.2.1), the Climate Change Act 2008 sets out the UK's legally binding targets for reductions in greenhouse gas (GHG) emissions... 'to ensure that the net UK carbon account for the year 2050 is at least 80% lower than the 1990 baseline'. In addition, within Copeland BC's Local Plan, the Vision for the Borough to 2028 includes... "a place that adapts to climate change and minimises its carbon footprint..."(p20).
- 13.2.7 As such, the County Council would expect to see a full methodology for the carbon assessment (in line with the standards outlined above), with the sources of emissions identified. For example, during the construction of Moorside, there will be significant emissions from multiple sources including (but not limited to) materials, energy during construction, and transportation of materials and workers. The carbon assessment should be undertaken early in the project lifecycle, to enable the design of Moorside to minimise emissions, wherever possible.
- 13.2.8 Section 21 Summary of Potential Environmental Effects, Table 21.1. Reference to undertaking a carbon footprint is made in Section 21 Summary of Potential Environmental Effects, Table 21.1 Potential effects and high-level environmental measures that may form the basis of future mitigation during construction, Climate Change, where it is stated that 'Potential environmental effects that NuGen proposes to assess as part of the EIA'... are 'greenhouse gas emissions (through construction)' and

'The environmental measures to be implemented during construction could include:

- *designing the Moorside Project to reduce its carbon footprint; and*
- *incorporating adaptation measures into the project.'*

13.2.9 Furthermore, a carbon assessment would help to inform the potential environmental measures for transport effects during construction, as proposed in Table 21.1.

13.2.10 As such, the County Council would expect a carbon footprint to be undertaken, which will also inform the identification of environmental/mitigation measures that reduce emissions from design and construction.

Your Ref: EN010047

Our Ref: 15/C/4/0059

21 July 2015

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Dear Sir / Madam

**Environmental Impact Assessment (Scotland) Regulations 2011
CONSULTATION ON SCOPING REQUEST IN RESPECT OF PROPOSED
NUCLEAR POWER STATION
AT MOORSIDE DEVELOPMENT PROJECT, LAND ADJACENT TO EXISTING
SELLAFIELD COMPLEX, CUMBRIA**

I refer to your letter dated 26 June 2015 consulting this Council on the above scoping request.

I can advise that Dumfries & Galloway Council as planning authority has no comment to make on the scoping request.

Yours faithfully

Robert Duncan

Robert Duncan
Planning Manager (Major Projects)

Mr Will Spencer
The Planning Inspectorate
3/18 Eagle Wing
Temple Quay House 2 The Square
Bristol
BS1 6PN

Our ref: NO/2015/107957/01-L01
Your ref: EN010047
Date: 3 July 2015

Dear Mr Spencer

**PLANNING ACT 2008 (AS AMENDED) AND THE INFRASTRUCTURE PLANNING
(ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2009 (AS AMENDED)
– REGULATION 8**

**APPLICATION BY NUGENERATION LIMITED FOR AN ORDER GRANTING
DEVELOPMENT CONSENT FOR THE MOORSIDE DEVELOPMENT PROJECT**

SCOPING CONSULTATION WITH PRESCRIBED BODIES

This letter and its appendices is our response to the Environmental Impact Assessment (EIA) scoping consultation you are carrying out for the proposed Moorside nuclear power station. Thank you for consulting us.

The Environment Agency is a non-departmental government agency with wide ranging responsibilities. In England, our responsibilities include matters relating to:

- managing the risk of flooding from main rivers, reservoirs, estuaries and the sea
- regulating major industry and waste disposal, including discharges and disposals of radioactive wastes from nuclear sites
- treatment of contaminated land
- water quality and resources
- fisheries
- conservation and ecology

The proposed Moorside development will have a number of environmental impacts that we will be responsible for regulating through the Environmental Permitting regime. We are also an advisor on relevant matters in the planning system, including the promotion of sustainable development.

This is a high level, strategic consultation. Based on the information presented at this time, it appears that most of the environmental issues relevant to the Environment

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Agency have been identified and that there is a commitment for these to be considered in more detail as the project progresses. However, as the project moves forward and more detailed proposals are developed, including potentially identifying additional associated development sites, new environmental issues may be identified or the significance of existing issues may change. As such, we will review and may revise our comments as appropriate when more information becomes available as the project moves into the detailed design stage.

A summary of the key issues we have identified is given below. We provide more detailed comments in Appendix B:-

1. **Water resources:** Supplies of fresh water in West Cumbria are constrained by a number of factors. We note that it is not yet known how much fresh water will be needed, or where it will come from, to supply the main and associated development sites during both the construction and operational phases of the project.
2. **Flood Risk:** Parts of the main site and several associated development sites are considered to be at risk of flooding. Where development in the floodplain is unavoidable, it will be necessary to demonstrate that flood risk does not increase elsewhere as a result by conducting a detailed Flood Risk Assessment (FRA).
3. **Additional Scoping Land:** Chapter 18 of the EIA scoping document has scoped out environmental impacts relating to water resources, impacts on designated sites and impacts on the marine and coastal physical environment. It is not possible to determine that there will be no impacts on these features at this time so there is currently a risk that some environmental impacts have been scoped out of the EIA.
4. **Survey and Monitoring:** The air quality and marine ecology evidence base as proposed in the survey and monitoring plans needs expanding. The evidence base needs to be sufficient to inform the process of determining the significance of potential environmental effects of the development.
5. **Water Framework Directive (WFD):** The approach to the proposed WFD assessment has yet to be agreed with the Environment Agency. An agreed approach is necessary to ensure that the WFD impacts of the development are correctly identified and understood through both the EIA and the WFD assessment and we are committed to working with you to establish this.
6. **Land Quality and Management:** It is important to have a strong understanding of land quality and any potential contamination issues on and around the main site that are relevant to this development. This requirement would also apply to potential associated development sites where relevant. The risks to the environment posed by any such contamination must be fully assessed. We will continue to provide relevant advice and regulatory guidance.

The submission of the EIA Scoping Request to PINS is parallel to the Nugen Stage 1 Strategic Issues consultation, which includes documentation that has not been submitted to PINS as part of the EIA scoping request. Our comments on documentation that has not been submitted with the EIA request have been included for information at Appendix C.

Cont/d..

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If you have any queries or comments relating to the issues raised in the response, please do not hesitate to contact Philip Carter at Moorside_NNB@environment-agency.gov.uk the senior planning advisor who is co-ordinating our planning input in to Moorside project.

Yours sincerely



Keith Ashcroft
Area Manager Cumbria & Lancashire

Appendix A:

We have reviewed the following documentation that has been submitted as part of the EIA Scoping request:-

- Moorside Environmental Impact Scoping Report Volume 1
- Moorside Environmental Impact Scoping Report Volume 2: Figures
- Moorside Environmental Impact Scoping Report Volume 3: Survey & Monitoring Plans

We have also reviewed the following documentation that have been submitted as part of the Nugen Strategic Issues consultation but which is not included with the EIA scoping request:-

- Moorside Stage 1 Strategic Issues Consultation
- Habitats Regulation Assessment Evidence Plan

Appendix B:

Moorside Environmental Impact Scoping Report Volume 1

Chapter 1	
1.6.1	<p>Issue: The limitations regarding the level of detail available to inform Chapter 18 (Additional Scoping Land) and Chapter 19 (Associated Development (AD) sites) are already recognised in the documents.</p> <p>Comment: As proposals develop, additional impacts may be identified for assessments that have not been included in the existing scoping exercise. In consequence potential gaps in the Habitats Regulation Assessment (HRA) and EIA process may exist resulting in environmental and project risks which are not appropriately managed.</p> <p>Suggested solution: As more details regarding the Additional Scoping Land and Associated Development sites becomes available, the impacts (alone or in-combination) of development of these sites may be subject to change. Processes should be put in place to enable early identification of gaps and changes in environmental impacts so that these can be taken account of in EIA and HRA processes and assessments.</p>
Chapter 2	
2.4.3	<p>Issue: Additional AD sites may be identified at a later date. These proposals may have environmental issues which need to be managed but have not gone through the EIA scoping process.</p> <p>Comment: Not fully incorporating these developments in the EIA process may result in the impacts of these developments not being appropriately understood and managed with consequent environmental and project risks.</p> <p>Suggested solution: If additional sites are identified then the environmental implications should be included in the EIA / HRA process and sufficient time provided for the required surveys. Relevant stakeholders should be made aware of any further AD sites at the earliest opportunity in order to enable appropriate advice and guidance.</p>
Chapter 9	

9.2.14	<p>Issue: There is no reference to the fact that Highly Modified Water Bodies (HMWB) have Mitigation Measures (MM) assigned to them and these may impact upon development proposals. There is also no reference to the WFD objective of “no deterioration” in status of waterbodies.</p> <p>Comment: Development proposals and activities should not be permitted on a HMWB if they would result in the failure of the MM to be delivered. Delivery of the MM will be necessary to improve the status of a HMWB so development that prevents this occurring would conflict with the requirements of the WFD. Development that results in the deterioration in the status of a waterbody will also conflict with the objectives of the WFD. When assessing the environmental impacts of the development, deterioration of the current WFD status will affect the significance of any environmental effects identified through EIA.</p> <p>Suggested solution: It will be necessary to identify the MM for any HMWB affected by the development and ensure that any works proposed will not prevent the delivery of the MM and to comply with the WFD objective of no deterioration when identifying and assessing the development proposals.</p>
9.3.1	<p>Issue: The United Utilities (UU) revised draft water management plan 2013 is identified as a source of information relating to abstractions, discharges and water resources. An updated plan is now available which includes significant changes to abstraction in West Cumbria.</p> <p>Comment: The updated water resources plan for West Cumbria may affect how fresh water resources to supply the entire project during construction and operation are identified. Reference to current, most up to date information will be needed to help identify acceptable fresh water supplies for the project (see also comments at 5.1, 9.7.1, 18.7.1 and 19.7.17).</p> <p>Suggested solution: The EIA should have regard to the final water resources management plan published by UU and this is available online at http://corporate.unitedutilities.com/waterresourcesplan.aspx. Further conversations with UU are also recommended to ensure the information that you have is kept up to date.</p>
9.5.15	<p>Issue: It is stated at paragraph 9.5.15 that that <i>‘flood extents will be largely unchanged even if maximum flood depths increase’</i>. So far as we are aware there is currently no Flood Risk Assessment (FRA) / modelling data available to support this statement.</p> <p>Comment: Increased flood depths may increase the extent of flooding.</p> <p>Suggested solution: In the absence of supporting data, comments on the potential flood extents should be reserved or caveated at this stage to the effect that these matters will be determined as part of the FRA. More generally, it should always be made clear where a yet to be substantiated assertion is being made and what work is proposed to be done to demonstrate its validity. This will help ensure document quality.</p>
9.5.59	<p>Issue: The South Egremont scheme is identified as being due for completion by March 2015, but this date has been revised and it is now due for completion by November 2015.</p> <p>Comment: The delays to the completion date for the South Egremont scheme may impact upon the water supply challenges facing the entire Moorside project that are as yet to be resolved.</p> <p>Suggested solution: The proposals should have regard to the latest information when seeking to identify water supply solutions. This information should inform the detailed design stages of the proposed development.</p>

9.7.1	<p>Issue: Statements made in this section appears to limit the scope of the flood risk assessment to only consider the increased risk of flooding downstream.</p> <p>Comment: Limiting the assessment in this way will result in a lack of understanding of flood risk issues at this site. Considering only whether impacts of flooding do not increase downstream risks a failure to comply with the requirements of the National Planning Policy Framework (NPPF) and the submission of a FRA that does not fully assess the impact of flooding associated with the proposed development. The expectations of relevant National Planning Statements (including EN1 and EN6) should also be met.</p> <p>Solution: The EIA / FRA should include a comprehensive assessment of all the flood risks associated with the Moorside project. We recommend early engagement with the Environment Agency and other relevant stakeholders to discuss the scope of the FRA and ensure that all the potential risks have been identified.</p>
9.7.1	<p>Issue: The source of the fresh water resources to supply the construction and operational phases of the Moorside project have yet to be identified and multiple users (i.e. United Utilities, Sellafeld Ltd and Nugen) could all be relying on the same resource at the same time, particularly during the construction phase of the project</p> <p>Comment: Depending on the proposed source of fresh water supply for the project, there is potential for effects on a range of receptors and the overall water resource availability for West Cumbria (see also comments at 5.1, 9.3.1, 18.7.1 and 19.7.17).</p> <p>Suggested solution: Early identification of water resource requirements and consultation with the appropriate stakeholders, including United Utilities, is essential to ensure that there is an appropriate solution for water supply.</p>
9.7.5	<p>Issue: Reference is made to the 2013 EA / ONR principles for flood and coastal risk management for nuclear new build. Please note that these principles are currently being updated.</p> <p>Comment: The most recent version of the guidance document should be used in the preparation of the FRA to ensure the impacts of flood risk are correctly interpreted and avoid using out of date information to inform the assessment.</p> <p>Suggested solution: It is anticipated that the updated guidance will be available in August. Until then we recommend that early engagement occurs on the scoping of the FRA to ensure that Nugen are kept up to date on our progress with the new emerging guidance and any relevant updates can be applied to the emerging proposals.</p>
9.7.6	<p>Issue: WFD methodology will need to be based on relevant guidance appropriate to the location of the proposed development.</p> <p>Comment: The use of WFD guidance from outside England may interpret the regulations differently resulting in a different approach to WFD which is not appropriate to this location.</p> <p>Suggested solution: It is necessary to establish and agree the methodology for the WFD assessment having regard to the methodology for the EIA. We recommend early engagement on this matter.</p>
Chapter 10	

10.5.2	<p>Issue: Flow of contaminated discharges from Sellafield into any Moorside cooling water intakes.</p> <p>Comment: If inadequately sited there is a potential for radioactive material from the Sellafield discharge pipeline to enter the Moorside cooling water intake.</p> <p>Suggested solution: The location of any proposed cooling water intakes for Moorside should take due account of dispersion of discharges from Sellafield so as to demonstrate in the EIA that the proposed Moorside cooling water system would avoid any significant cross contamination impacts.</p>
10.5.8	<p>Issue: Additional information on recent surge tide events is available but is not currently included in your submission.</p> <p>Comment: Not including key elements of historical data may undermine elements of the flood risk assessment and hydrodynamic modelling of the marine environment</p> <p>Suggested solution: The Surgewatch website holds information / return periods in relation to past surge events at Workington The information available online will supplement the details discussed in section 10.5.8 and give an overview of tidal surge trends since 1992. We request that you include the 'Surgewatch' website into your data sources http://www.surgewatch.org/ and refer to the Surgewatch website as necessary.</p>
Chapter 14	
14.7.1	<p>Issue: There is potential for introduction and / or spread of terrestrial, freshwater and riparian Invasive Non-Native Species (INNS) through movement of earth, landscaping and movement of contaminated vehicles and equipment. This is not included as a potential effect of the development on terrestrial and freshwater biodiversity.</p> <p>Comment: Terrestrial and freshwater biodiversity would be detrimentally effected as a result of the introduction and spread of INNS.</p> <p>Suggested solution: The significance of the potential for introduction and / or spread of terrestrial, freshwater and riparian INNS will need to be considered in the EIA. As the EIA progresses, bio security measures and controls must be developed to ensure that no invasive species listed on Schedule 9 of the Wildlife & Countryside Act are introduced to the sites, spread within them or spread from them, in addition to the proposals to develop marine biosecurity measures.</p>
14.7.2	<p>Issue: The potential impacts listed for marine and diadromous fish does not include noise levels.</p> <p>Comment: High noise levels, in particular from impact piling, can physically damage or kill fish. Construction of the MOLF could potentially kill diadromous fish migrating into or out of the River Ehen if impact piling was used without appropriate mitigation or timing restrictions.</p> <p>Solution: The impacts of noise on marine biodiversity as potential issue should be assessed and considered in the EIA. For example, in relation to the design of the MOLF, such impacts will need to be avoided or mitigated as far as possible.</p>
Chapter 18	

18.7.1	<p>Issue: The following issues will need to be identified as having potential environmental effects on the additional scoping land:-</p> <ul style="list-style-type: none"> • The construction and operational phases of the development will require water resources. The source of the water supply for the development has yet to be determined, but there is potential for effects on a range of receptors and the overall water resource availability for West Cumbria WRZ, depending on the nature of the source (see also comments at 5.1, 9.3.1, 9.7.1 and 19.7.17). • Activities at the Initial Scoping Land during the construction and operation phases may affect the River Ehen downstream of the SSSI and SAC, and have significant effects on the migration of Atlantic Salmon from the sea to the SSSI and SAC. <p>Comment: The assessment of the environmental impacts from the proposed development on the Additional Scoping Land is not as advanced as the assessment for the Initial Scoping Land but will not consider water resources or impacts on the River Ehen SSSI and SAC, (unlike the assessment of impacts on the initial scoping land) resulting in lack of understanding of the environmental impacts of the project.</p> <p>Suggested solution: These potential impacts should be assessed and included in the EIA of the additional scoping land to avoid omitting any potentially significant environmental effects on water resources and European and nationally recognised ecological sites from the assessment.</p>
18.8, 18.12	<p>Issue: The precise nature of the construction and operational activities on the additional scoping land is currently unclear thus it is not possible to determine that there will be no environmental impacts on the marine and coastal physical environment and / or marine and coastal biodiversity.</p> <p>Comment: As development proposals and activities are unknown it is not possible to rule out a number of environmental issues at this time.</p> <p>Suggested solution: Further information is required on the nature of development proposals and activities on the additional scoping land as the assessment of environmental impacts on this part of the site is not as advanced. Once received additional advice will be provided. Until then, environmental issues similar to those potential effects identified in Chapter 10 at 10.7 and Chapter 14 at 14.7.2 must be maintained in scope and addressed in the EIA.</p>
Chapter 19	
19.7.3, 19.7.4	<p>Issue: Historic flooding has not been identified in this chapter. Our mapping indicates that parts of site AD A and AD G have been subject to flooding in the past.</p> <p>Comment: Failing to identify and consider any historic flooding that may have occurred will mean that flood risk has not been suitably assessed and the proposed development may increase flood risk elsewhere.</p> <p>Suggested solution: Review all sites in relation to historic flood risks to ensure a complete and adequate FRA is produced.</p>

19.7.17	<p>Issue: It is proposed to scope out the effects of Associated Development sites upon groundwater flows, yields and quality on the assumption that the nature and extent of the development proposals on these sites would not have significant effects on these features.</p> <p>Comment: The potential water supply for the Associated Development sites is unknown, as are the potential discharges from the sites. The environmental impacts of the Associated Development sites on groundwater flows, yields and quality will depend on how fresh water is supplied to the sites and any subsequent discharges from them (5.1, 9.3.1, 9.7.1 and 18.7.1).</p> <p>Suggested solution: Potential impact from the Associated Development sites on groundwater quantity and quality (bullet points 1 to 4 in 19.7.17) should be scoped in to the EIA as potentially significant until sufficient adequate information is available to justify removing them.</p>
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Moorside Environmental Impact Scoping Report Volume 3: Survey & Monitoring Plans

Marine Ecology (April 2015)	
3.1.4	<p>Issue: The proposed monitoring period for phytoplankton (and chlorophyll) is not sufficient. There may be other sources of appropriate recent data that could justify a reduced monitoring period but this has not been demonstrated.</p> <p>Comment: The monitoring as proposed will not accurately represent the abundance of phytoplankton (and chlorophyll) in the marine environment. It will not be possible to determine the significance of the environmental effects of the development on phytoplankton (and chlorophyll) using the data from the survey as proposed.</p> <p>Suggested solution: Undertake phytoplankton (and chlorophyll) surveys over a period of 24 months unless sufficient additional recent data exists that can be used to supplement the 12 month survey period as proposed.</p>
Air Quality (April 2015)	
3.1	<p>Issue: Site specific data is required to define the baseline SO₂ and CO levels on site.</p> <p>Comment: Until this occurs, the environmental impacts of the development on air quality on site are not fully understood.</p> <p>Suggested solution: Site specific monitoring for SO₂ and CO levels on the main site should be completed to define baseline levels and ensure that potential air quality impacts are assessed taking account of existing conditions on site.</p>
3.2.2	<p>Issue: There is no reference to the need for monitoring for particulate matter (PM₁₀, PM_{2.5}) to be carried out in accordance with the requirements of technical guidance Part IV of the Environment Act 1995, Local Air Quality Management Technical Guidance LAQM TG (09), February 2009.</p> <p>Comment: As for all the surveys and studies that are necessary to inform the EIA, HRA and other applications for regulatory consents, the methodology for conducting the baseline survey for particulate matter should be based on established guidance to ensure that the baseline data used to determine the significance of environmental effects is fit for purpose.</p> <p>Suggested solution: Monitoring for particulate matter (PM₁₀, PM_{2.5}) should be carried out in accordance with the relevant guidance, reference to which should be made in the survey methodology for the air quality assessments.</p>

Appendix C:

Moorside Stage 1 Strategic Issues Consultation

1.1	<p>Issue: It has not yet been decided whether the proposed Marine Off-Loading Facility (MOLF) and associated heavy haul road will be permanent or temporary structures.</p> <p>Comment: The environmental impacts of the MOLF and heavy haul road will vary depending on whether they are permanent or temporary structures. The significance of effects and the level of mitigation required for permanent or temporary structures may differ and could influence their detailed design and the conclusions of the flood risk and Water Framework Directive (WFD) assessments.</p> <p>Suggested solution: The status of these structures as permanent or temporary should be decided before detailed design work commences so that the environmental impacts of the structures can be correctly identified and assessed.</p>
5.1	<p>Issue: No information is provided about fresh water requirements of the power station during its operational phase. Only information about the use of seawater in the cooling water system is provided.</p> <p>Comment: We are aware that supplies of fresh water are required during the power station's operational phase. Fresh water requirements during operation may put further pressure on these supplies in West Cumbria if these are from ground and surface waters abstractions (see also comments at 9.3.1, 9.7.1, 18.7.1 and 19.7.17).</p> <p>Suggested solution: The expected fresh water demands for the entire project, during both construction and operation, need to be defined and potential sources / supplies to satisfy this requirement should to be identified. This can be used to inform the detailed design process and enable assessment of consequent impacts in advance of the Stage 2 Development Consent Order (DCO) consultation. Information about requirements during decommissioning should also be provided.</p>
5.1	<p>Issue: The use of a direct or closed cooling system is currently being considered</p> <p>Comment: These cooling systems will have different environmental impacts. The cooling system that is chosen for Moorside will need to be properly designed and assessed so as to demonstrate that any environmental impacts are prevented or mitigated, minimised and acceptable.</p> <p>Suggested solution: The choice of proposed cooling system should take account of potential environmental impacts and demonstrate that these are prevented or minimised and acceptable.</p>
5.1	<p>Issue: The effects of emissions from the reactor stack during operation will be assessed and mitigated through the Environmental Impact Assessment (EIA). It is not stated what these emissions are. Emissions from the reactor stack will likely be controlled through the Environmental Permitting Regulations (EPR) regime.</p> <p>Comment: Clarity is required on the regulatory regime that will apply.</p> <p>Suggested solution: Where mitigation measures identified in the EIA will not be subject to control through the DCO, the relevant regulatory regime which will apply should be identified in subsequent documentation.</p>

6.1	<p>Issue: There is potential for introduction and / or spread of terrestrial, freshwater and riparian Invasive Non-Native Species (INNS) through movement of earth, landscaping and movement of contaminated vehicles and equipment. This is not included as a potential effect of the development on terrestrial and freshwater biodiversity.</p> <p>Comment: Terrestrial and freshwater biodiversity would be detrimentally effected as a result of the introduction and spread of INNS.</p> <p>Suggested solution: The significance of the potential for introduction and / or spread of terrestrial, freshwater and riparian INNS will need to be considered in the EIA. As the EIA progresses, biosecurity measures must be developed to ensure that no invasive species listed on Schedule 9 of the Wildlife & Countryside Act are introduced to the site, spread within it or spread from it, in addition to the proposals to develop marine biosecurity measures.</p>
7.3	<p>Issue: The document states that “An Environmental Permit (EP) will be required for the keeping and use of radioactive material and the accumulation of radioactive waste”, however this statement is incorrect on a nuclear licensed site.</p> <p>Comment: Sites licensed under the Nuclear Installations Act 1965 for the accumulation of radioactive waste and the use of radioactive materials are regulated by the Office for Nuclear Regulation (ONR)</p> <p>Suggested solution: The roles and responsibilities of the Environment Agency and ONR should be reflected accurately in subsequent documents. Relevant advice should be sought directly from us and ONR as required.</p>

Habitats Regulation Assessment Evidence Plan

5.8	<p>Issue: The radiological effects of the potential impacts associated with the remobilisation of radioactive particles from Sellafield have not been included in the in-combination assessment proposed in the Habitats Regulation Assessment.</p> <p>Comment: If the radiological effects of potential impacts associated with Sellafield are not considered in-combination with the Moorside development proposals, the HRA is unlikely to be considered robust in relation to the Radiological Impact Assessment as the environmental impacts have not been fully assessed / defined.</p> <p>Suggested solution: Ensure that the HRA includes relevant potential radiological impacts of Sellafield within the in-combination part of the assessment for the HRA</p>
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From: Margaret.Ketteridge@gtc-uk.co.uk
To: [Environmental Services](#)
Subject: EN010047
Date: 03 July 2015 11:31:27

Dear Sirs

With reference to the above I can confirm that the following have no comments to make at this moment in time.

The Electricity Network Company Limited
Independent Power Networks Limited
Quadrant Pipelines Limited
Independent Pipelines Limited
GTC Pipelines Limited

Kind Regards

Maggie

Maggie Ketteridge
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From: Dave.MHPD.Adams@hse.gsi.gov.uk on behalf of NSIP.Applications@hse.gsi.gov.uk
To: [Environmental Services](#)
Cc: ONR.Land.Use.Planning@onr.gsi.gov.uk; Steve.Newman@onr.gsi.gov.uk; Diane.Savage@hse.gsi.gov.uk; David.HID.Watson@hse.gsi.gov.uk; Gary.Lang@hse.gsi.gov.uk
Subject: Clarification: Nugen Moorside Development – EIA Scoping Consultation
Date: 02 July 2015 15:44:42

Dear Will,

My colleague (David Watson) has brought this to my attention and I have conferred with ONR who have confirmed that, for both this new nuclear power station and the associated development, ONR will be Statutory Consultee as this is within their remit and not HSE's.

Please could HSE be removed from your consultation list for this NSIP.

Kind regards,

Dave Adams
Dave.MHPD.Adams

**Land Use Planning Policy, Major Hazards Policy Division, Hazardous Installations
Directorate, Health and Safety Executive.**

Desk 76, 2.2, Redgrave Court, Merton Road, Bootle, Merseyside L20 7HS

0151 951 3408 dave.mhpd.adams@hse.gsi.gov.uk

www.hse.gov.uk | <http://hse.gov.uk/landuseplanning>

From: NSIP Applications
Sent: 29 June 2015 10:26
To: Environmental Services
Subject: RE: EN010047 – Nugen Moorside Development – EIA Scoping Consultation

Dear Mr Spencer,

HSE acknowledges receipt of this Scoping Application.

Regards,

David Watson

David Watson
HID Policy
Tel 0151 951 4814
VPN 523 4814

From: Environmental Services [<mailto:environmentalservices@pins.gsi.gov.uk>]
Sent: 26 June 2015 14:54
To: NSIP Applications
Subject: EN010047 – Nugen Moorside Development – EIA Scoping Consultation

Dear Sir/Madam

Please see the following hyperlink to correspondence on the proposed Moorside Development.

http://infrastructure.planningportal.gov.uk/wp-content/uploads/2015/06/150626_Letter-to-stat-cons_Scoping_English.pdf

Please note the deadline for consultation responses is 26 July 2015, and is a statutory requirement that cannot be extended.

Kind regards,

Will Spencer
EIA & Land Rights Advisor

Major Applications and Plans, The Planning Inspectorate, Temple Quay
House, Temple Quay, Bristol, BS1 6PN

Direct Line: 0303 444 5048

Twitter: [@PINSgov](https://twitter.com/PINSgov)

Helpline: 0303 444 5000

Email: EnvironmentalServices@infrastructure.gsi.gov.uk

Web: www.planningportal.gov.uk/planninginspectorate (Planning
Inspectorate casework and appeals)

Web: www.planningportal.gov.uk/infrastructure (Planning Inspectorate's
National Infrastructure Planning portal)

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Lake District National Park Authority
Kendal, LA9 7RL

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Email: hq@lakedistrict.gov.uk

Website: www.lakedistrict.gov.uk

Mairi Lock Direct dial 01539 792713

Our ref: ML/Nuclear/Moorside

Your ref: EN010047

22 July 2015

Planning Act 2008 (as amended) and The Infrastructure Planning (Environment Impact Assessment) Regulations 2009 (as amended) Regulation 8.

Application by Nugeneration Limited for an Order Granting Development Consent for the Moorside Development Project

The Lake District National Park Authority response to the scoping consultation

Proposal: - a proposed 3.6GW Moorside Power Station delivering up to 3.4GW of electricity, and other temporary and permanent works required referred to as Associated Development (which includes construction workers accommodation and transport infrastructure works). The project will also involve creating a marine off-loading facility and highway works.

Thank you for the opportunity for the Lake District National Park Authority (LDNPA) to comment on the scoping consultation.

Our primary concerns relate to the effect of the proposal on the setting of the National Park and we are mainly concerned with the following issues:

- Transport;
- Landscape and visual impact;
- Countryside recreation;
- Historic environment; and
- Socio economics and human population.

Other environmental issues will be addressed by the other regulatory authorities that have specific responsibilities for those issues such as Natural England, Office for Nuclear Regulation, Local Council and County Council Environmental Protection but we will however assist where appropriate.

We support the principle of a new build nuclear power station adjacent to Sellafield. The proposal would continue the long tradition of the nuclear industry in Cumbria and benefit the national and Cumbrian economy. And, our support, is consistent with that offered in 2011

when this Authority commented on the National Policy Statement for Nuclear Power Generation (NPS EN-6).

We welcome the extensive consultation undertaken, as you will see from comments in annexe 1 and 2 attached, many of those comments have been incorporated into the report. Whilst we support the principle we offer the following comments.

Preliminary environmental information.

We have had discussions with NuGen's representatives on the initial content of the EIA and this is attached for information as annexe 1. Further work and consultation has taken place, see annexe 2.

The preliminary environmental information which we will comment on covers the following topics:

- Transport;
- Landscape and visual impact;
- Countryside recreation;
- Historic environment; and
- Socio economics and human population.

Transport;

We recognise that the existing Sellafield site produces significant traffic through the National Park from urban populations to the south of the National Park. NuGen needs to understand this and the issues it creates. And we encourage NuGen to approach Sellafield and other major employers in the area to see if a co-ordinated travel plan for this wider area can be developed, in addition to NuGen's own Plan.

We fully support the intended travel hierarchy being promoted by NuGen. We support the need to minimise the use of the private car, both during construction and operation phases of the development. The strategy rightly recognises a number of concerns including delays to road users, deterioration of road infrastructure, community and amenity effects including severance and we expect these to be addressed. We are reassured that NuGen is going to engage with us on the matter of transport issues and recognises that a transport assessment is required to cover impacts of the location of worker accommodation, travel to work behaviour, method of transportation for construction materials and the need for a site specific travel plan.

We support the promotion and improvements of rail connections to the site. We note the potential for increasing the capacity of the existing track to accommodate movements associated with the Moorside Project such as utilisation of sidings, passing loops or increased rolling stock. Also new rail links to temporary construction workers accommodation which would hopefully be retained for the operation of the power station. We would welcome more information on means of reducing car usage during operation of the site and the need for a site specific travel plan and how the transport hubs will work in terms of additional car parking.

We are however concerned about the resilience of the rail network during adverse weather and high tides. We would seek assurances that this is considered and the route upgraded to weather proof the line if necessary, including the single line between St Bees and Sellafield, and that element of the southern track around Foxfield.

Whilst we note the consultation is emphasising the importance of the rail link from Barrow to Carlisle we urge NuGen to recognise the importance of the southern link from Carnforth to

Moorside. Whilst we commend NuGen's proposals for addressing daily commute we remain concerned that the weekly commute patterns may not be fully addressed. Access to Lancashire, the Midlands and beyond will be incredibly important with, we believe, significant influx/exodus patterns. The importance of the southern rail access should not be underestimated and we ask NuGen to future proof this line to ensure it too is adequate to serve the needs of this development. Otherwise we fear serious congestion and environmental damage, including to the fell routes. This rail link also serves as an important southern entry to the Western Lake District, particularly from Manchester and London. Improvements to this line would also have the significant benefit of contributing to a tourism industry legacy. The scope of the improvements to the rail network should be extended to include the southern West Coast Cumbrian line as far as Carnforth. This should also address the adequacy of interchange hubs to accommodate commuter traffic. In addition to extending the travel plan scope to consider necessary upgrading of the southern West Coast Cumbrian line we are also interested in knowing whether NuGen have explored, or are interested in exploring, a new line connecting Workington to Penrith, via Keswick?

Emergency plans need to be in place should the rail link be compromised to avoid overloading the capacity of the local road network at such times. We would expect NuGen to investigate the resilience of the A595 particularly south of Sellafield to Holmrook.

Landscape;

We are pleased that the proposal will be considered with regard to The Cumbria Landscape Character types and the LDNPA Areas of Distinctive Character and special qualities of the LDNP. We have agreed the location points for the viewpoints and photomontage proposals and have held discussions with NuGen's representatives on identifying those sites and important night time views for a lighting assessment. The methodology to be adopted to assess that impact is appropriate.

We note that more work is to be undertaken on understanding tranquillity and the western part of the LDNP. The tranquillity of the fells, valleys and lakes gives a sense of space and freedom. There is an opportunity for spiritual refreshment a release from the pressures of modern day life and a contrast to the noise and business experienced elsewhere. We will engage with NuGen on this matter to ensure least possible impact on the setting of the National Park.

Visual;

We note the proposed scope of the assessment relating to visual effects that could be caused by the Moorside Project and the specific guidance on visual impacts of nuclear generation in National Policy EN-6. This indicates there is the potential for long term effects on visual amenity because of the proximity to the Lake District National Park, and recognition that cooling towers may increase a nuclear power station's visual impact on the landscape. The information currently available indicates that two solutions to cooling water are being considered, direct cooling which uses sea water or closed cooling which would include cooling towers within the site and information on this would be made available at the Stage 2 consultation. From a landscape perspective we would encourage direct cooling rather than closed cooling as cooling towers would be visually more intrusive on the setting of the National Park.

We welcome the engagement by NuGen on the matters of visual assessment. We are pleased that the study area for visual impact has been extended to the 22km radius to take account of users of PRoWs and open access land within the LDNP. We agree the methodology for the evaluation of visual effects.

Historic environment;

We have commented on the effect on the historic environment in the past in relation to this site (see annexe 2) but consider this is now covered by the County Council Archaeologist. We are pleased to note that now there is mention of pending World Heritage designation and that potential effects on the proposed World Heritage site of the Lake District will be considered with reference to the existing technical evaluation of the nomination. We will need to comment on this in the future.

Countryside recreation;

On countryside recreation no potential environmental effects have been identified and assessed as part of the EIA. We have previously commented that an assessment of impact on users of the rights of way on the high fells made popular from the Wainwright guide books should be considered (see annexe 2). We note that views from the fells are considered in the landscape and visual assessment but the implications for countryside recreation should also be considered.

Socio economics and human population;

The potential socio economic impacts of major energy infrastructure include creation of jobs, additional local services and improvements to local infrastructure, effects on tourism, and impact on influx of workers on demand for services and facilities. The impact on housing seems to have focused on Copeland and Allerdale Local Planning Authorities and not included the LDNP as a planning authority responsible for identifying land for housing. Whilst most of the housing provision could be met within the settlements outside the National Park there will undoubtedly be some pressure on housing within the National Park as occurred with the development of the existing Sellafield site. The infrastructure deficits of West Cumbria, be it housing, transport, health, and education are well documented. We strongly urge NuGen to work with relevant authorities to consider how the best legacy from this significant investment can be achieved.

There is a concern that unless the project includes consideration of future skills and training for local people to take advantage of the potential employment opportunities, then there would not be the expected employment legacy for local communities. Therefore there needs to be a firm commitment to working with local colleges, schools and University of Cumbria to ensure that there is appropriate training available to meet the needs of the nuclear industry.

The potential effects on tourism image and perceptions are concluded as not being significant and do not require further assessment. However the section on countryside recreation acknowledges that long distance walkers and cyclists would be affected by severance of long distance route during construction and the potential deterrent effect on users of the National Trail. Given this has been identified as a potential issue then the impact on tourism image and perceptions should be reviewed for temporary impact and long term impact.

Our Involvement

Given the present unfortunate lack of any arrangement with NuGen on resource assistance despite our requests, we have concentrated on those more significant issues potentially affecting the setting, and future management, of the National Park both in landscape terms and also the impact of infrastructure, both on the setting but also potentially direct impact. We have asked that NuGen recognises the level of resources that our involvement in these matters may require and enters into some form of agreement to recognise this as they have with other Local Planning Authorities in Cumbria, to exclude the Lake District National Park Authority is unacceptable.

Yours faithfully

Mairi Lock
Area Planner
Lake District National Park Authority

Annexe 1

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Westlakes Science and Technology Park
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Cumbria
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Our ref: ML/Nuclear/Moorside
Your ref: NuGen Moorside Project
Date: 05 January 2012

Dear Sirs

**NuGen's Moorside Project
Consultation letter pursuant to Section 42 of the Planning Act 2008.**

Please find below the Lake District National Park's comments with regard to section 42 consultation questions and the content of any Environmental Statement as part of an Environmental Impact Assessment for the above project.

CONTENT OF ENVIRONMENTAL STATEMENT

Schedule 4 of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 specifies the information which should be included in an Environmental Statement produced under the regulations. Any submitted Environmental Statement would be expected to contain the information required by Schedule 4.

An Environmental Statement will provide justification for the proposal, and will include information on the nature of likely impacts (be they positive or negative) of the development upon the environment (including natural habitats, the built environment and human beings) both on and beyond the site, directly or indirectly and will discuss matters such as duration, permanency, magnitude, extent and significance. This includes the impact on the Lake District National Park which, as well as being a nationally protected landscape, is on the tentative list of proposed United Kingdom World Heritage Sites. It will be expected that an ES would discuss both the likely impacts of development and also the worst case impacts which could result. An ES should consider the above issues not simply in isolation but also the interactions between effects and their potential cumulative impacts with regard to the existing Sellafield nuclear power station adjacent to the proposed site.

An Environmental Statement will also be expected to discuss alternatives which have been considered and subsequently discounted, including reasons for those choices- these may include for example alternative layouts, approaches, methodologies, available design solutions or even sites.

Should it be necessary to propose any mitigation measures, this may be included in a schedule of commitments within the ES, clearly stating the nature and extent of mitigation to be employed. It will be expected that, where possible, mitigation will seek to eliminate adverse effects of development. Where this is not possible such effects will be minimised. Where neither the elimination nor minimisation of likely effects is possible, compensation measures will be expected to be proposed.

An ES needs to discuss not just the nature of impacts to be expected, but also their likely significance. Full details of the methodological approach employed in the evaluation of the significance of impacts will be expected to be included within the ES. Details of the methodology will discuss any assumptions and judgements which have been made, and will distinguish between matters of informed opinion and matters of fact.

The scope of the Environmental Statement (ES) from the Lake District National Park Authority's viewpoint has been separated into the following key areas:

- Water & Hydrology, Flood Risk;
- Biodiversity;
- Landscape and Visual Impact;
- Archaeology;
- Socio-economic -Traffic & Transport;
- Socio-economic – Impact on housing, demand for employment premises and services;
- and
- Human well being - Noise, Light, Air & Other Pollution.

Water & Hydrology, Flood Risk

The following information should be contained within the scope of an EIA:

- | |
|---|
| <ul style="list-style-type: none">• Full discussion of the likely effects of any proposed water abstraction upon the hydrology of the surrounding area. This may well be linked to biodiversity issues. |
| <ul style="list-style-type: none">• Full details of the impact of the development upon foul sewage in the area will be expected. The proposed method (and alternative methods considered) for the disposal of foul sewage will be expected to be discussed. This will include details of storage, treatment and disposal as appropriate. The capacity of proposed and existing systems should be discussed. Detailed consideration of the likely impacts and effects of development upon existing water and sewerage infrastructure will also be expected. Where the installation of such infrastructure is likely to be harmful to other environmental features, this interaction must be discussed. Further guidance on non-mains drainage assessment can be found in Circular 03/99 and in BS6297. |

<ul style="list-style-type: none"> • Full details of the means and likely impacts both within and beyond the site of surface water disposal. Details of storage, any treatment or disposal will be expected.
<ul style="list-style-type: none"> • Evaluation of the likely impact and significance of water pollution issues which may occur as a result of the proposed industrial uses on site.
<ul style="list-style-type: none"> • Discussion of the likely impact of development upon the hydrology of the area including the potential impacts upon sensitive riverine environments such as the Drigg Coast SAC, River Ehen SAC, West Water SAC and River Derwent and Bassenthwaite Lake SAC.
<ul style="list-style-type: none"> • A flood risk assessment undertaken in accordance with the guidance of PPS25. Risk from Climate Change both from sea level changes and increased rainfall will be expected.

Biodiversity

An Ecological Impact Assessment should be carried out in accordance with good practice guidelines published by the Institute of Ecology and Environmental Management. (*Guidelines for Ecological Impact Assessment in the United Kingdom. IEEM 2006*). The ecological impact assessment should include all relevant elements affected by the lifespan of the entire project. The search radius around the site should be agreed between the Planning Authority, the Applicant and Natural England. Specific elements for inclusion are as follows:

<ul style="list-style-type: none"> • Consideration of the development proposal in relation to its ecological zone of influence (which may be wider than the development proposal boundary). This should relate both to the construction phase and established phase of the development and consider the potential impacts of the proposed use. Consideration should also be given to works to the access (including within the highway) and any proposed access from the sea which may have ecological implications.
<ul style="list-style-type: none"> • Assessment of the ecological resources within the ecological zone of influence: <ul style="list-style-type: none"> ○ A desktop and walkover survey report to identify potential interest, and provide justification for selection of which ecological resources and issues require further, more detailed assessment; ○ Details of the survey methodologies to be used; ○ Baseline data report on the assessments made of the

<p>relevant habitats and species either directly or indirectly affected.</p>
<ul style="list-style-type: none"> Assessment of the impact of the proposal on ecological assets, Drigg Coast Special Area of Conservation (SAC), River Ehen SAC, West Water SAC and River Derwent and Bassenthwaite Lake SAC, together with information on suitable avoidance options, mitigation, and compensation proposals. Any biodiversity enhancement proposals should also be included. The assessment should include any impact on ecological designations relating to freshwater abstraction from lake or river, together with information on suitable avoidance options, mitigation, and compensation proposals.
<ul style="list-style-type: none"> An assessment of the ecological value of the relevant biodiversity identified within the zone of influence. This should include reference to features of both statutory and non statutory status.
<ul style="list-style-type: none"> Details of future biological monitoring and reporting for the site.

Landscape and Visual Impact

As the proposals are likely to result in significant changes to the character of the landscape an assessment of significant landscape and visual effects should be included in an ES. The site is 1.5km at the closest point to the Lake District National Park boundary. Cumulative impacts of this and existing development needs to be considered. The assessment should be undertaken in accordance with the Guidelines for Landscape and Visual Impact Assessment (GLVIA) published by *The Landscape Institute and Institute of Environmental Management and Assessment*.. Such an assessment should include:

<ul style="list-style-type: none"> Consideration of all aspects of the proposed development including buildings, transport infrastructure , parking, ground modelling, balancing ponds, boundary features, lighting, land cover (vegetation, paved and roofed surfaces) and other significant built forms, structures or features.
<ul style="list-style-type: none"> Baseline information should include any relevant published information, particularly the <i>Lake District Landscape Character Assessment</i> and the <i>Cumbria Historic Land Characterisation Project</i>.
<ul style="list-style-type: none"> The following key issues should be studied and included: <ul style="list-style-type: none"> Zone of Visual Influence (ZVI) including those within the Lake District National Park. Selection of viewpoints (representative of the range of views

and viewer types) including views from within the Lake District National Park.

- Site and setting (landscape character, landscape elements and features)
- Land use (existing and historic).
- Photographs (and photography standards)
- Photomontages (and photomontage standards)
- Wireframes (superimposed on photomontages if applicable/necessary)
- Cross sections
- Skylines
- Range of receptors (vehicle travellers, walkers, cyclists, equestrians etc)
- Tranquillity (particularly as perceived from the National Park)
- Lighting Impact Assessment both close and from long range views within the National Park.
- Habitats (visual in addition to biodiversity)
- Cultural features and associations
- Methodology of mitigation measures
- Alternative sites, transport and power transmission routes and overground or underground
- Alternative layouts including building heights.

Consideration of landscape and visual impact of such development should also consider the impact of infrastructure improvements both transport networks and transmission network. At the application stage it needs to be very clear of all infrastructure improvements which may take place within the National Park, including any widening of roads, bridges and power transmissions.

Archaeology

The following information should be contained within the scope of an EIA:

- A desk based assessment and walkover survey of the site. This will provide baseline data of any Archaeology on the site. Should archaeology be discovered it may be necessary to undertake further survey work to assess its significance, and mitigation may be required to minimise the likelihood of detrimental impact.

Socio-economic - Traffic and Transport

Although not mentioned specifically as one of the seven potential nuclear impacts the IPC should consider, the issue of traffic and transport should be considered as part of the EIA. This is because the local road and transport network is likely to require

upgrading to take the increase in construction traffic at a time when the existing Sellafield site is operational or undergoing decommissioning. The impact of the development on the local transport network will extend far beyond the immediate environs of the site and into the Lake District National Park. Such changes to local road network and transport infrastructure could have consequences for the landscape and visual impact on the National Park. The following information should be contained within the scope of an EIA:

- A comprehensive Transport Assessment should be compiled in accordance with the guidance of PPG13. This should accurately reflect the scale and use types of development proposed, and (if as suggested) a flexible permission is sought such an assessment should consider the impacts of possible changes to the distribution of uses within the site including worst case scenarios. The transport assessment should discuss likely impacts and significance which the development would have upon the local as well as primary route networks in the area and beyond, with specific references to existing local road network bottlenecks within the National Park.
- A site specific travel plan should be produced detailing the measures which will be employed to mitigate the likely transport impacts of the proposed development.
- The ES should consider the likely transport impacts both during the operation and construction stages of the development. This will involve a study of existing transport routes well beyond the immediate locality given the local transport infrastructure, in particular existing local road network bottlenecks and width of local roads. Also consideration of expected construction and final end user traffic generation. Comparisons with existing Sellafield workers and supply routes should form a basis of such an assessment.

Socio-economic – Impact on housing, demand for employment premises and services.

The proposal for a new nuclear power station will have an impact on the demand for temporary housing for construction workers and housing for permanent workers in the local area which includes the National Park and services for those workers. There will also be a demand for additional employment premises. These will have an impact on the area in terms of requiring land for housing and employment purposes which within the National Park may require building on greenfield sites, redevelopment or extension of previously developed sites, some of which were used in the initial Sellafield construction such as Greengarth, and Wellbank Camp.

- A comprehensive study of existing housing availability in the local area including within the National Park and assessment of potential number of temporary construction workers and final number to be employed at the site taking into account the

<p>existing operations at Sellafield and timescales for the development of Moorside. The assessment should consider where housing can be provided, type (temporary/permanent), impact on price/affordability for the local community and capacity of the area to absorb such development both in terms of landscape and community development. Reference should be made to these issues that arose from the initial development of Sellafield as a baseline for considering potential impact/scale of provision.</p> <p>Highlights should include both the negative (potential new build demand within high value landscape , pressure on existing housing stock already competing with second home and holiday market within the National Park) and positive (employment for local businesses)</p>
<ul style="list-style-type: none"> • Assessment on the impact on existing local services and adequacy of those services (schools, health care) and potential expansion in capacity and new build or retention of services currently under threat, i.e. local primary schools.
<ul style="list-style-type: none"> • Assessment of the impact on demand for business premises in the area and availability of suitable sites to support both the new build and subsequent operation of Moorside. • Land use (existing and historic) including value of tourism to the economy of the adjacent National Park.

The above issues are relevant to understanding the potential impact of the development of Moorside on the capacity of the area (including the National Park) and to its capacity to absorb such development without causing harm to the landscape, demand for resources to support the development, and ability of the local communities to absorb the increase in population without impact on the environment and the cohesion and identity of the communities themselves.

Human well being - Noise, Light, Air & Other Pollution

The following information should be contained within the scope of an EIA:

<ul style="list-style-type: none"> • An ES should consider the issue of noise which may be generated at the site, both during the course of construction and during its operation, particularly with regard to impacts upon nearby residential properties and the amenity of nearby public rights of way including those within the Lake District National Park. Consideration should be given to the advice contained in PPG24 (Planning and Noise). The information provided should be sufficient for the Planning Authority to define the operating parameters of the development were planning permission to be granted.
<ul style="list-style-type: none"> • Consideration should be given to the likely impacts of development upon air quality on the site and in the surrounding area. This should discuss likely changes in environmental effects arising from start-up, shutdown, abnormal operating conditions or

a change in operating arrangements. The information provided should be sufficient for the IPC to define the operating parameters of the development were planning permission to be granted.

Summary

The proposed development is likely to have significant environment impacts upon the surrounding area. From the National Park Authority's viewpoint the scope of an Environmental Statement is expected to consider: Water & Hydrology, Flood Risk, Biodiversity, Landscape and Visual Impact, Archaeology, Socio-economic -Traffic & Transport, Socio-economic – Impact on housing, demand for employment premises and services, Human Well Being – Noise, Light, Air and Other pollution. The likely impacts of development will be discussed in terms of duration, permanence, extent and significance, not just in isolation but also as cumulative effects taking into account the existing Sellafield operations and transport and transmission requirements.

The Lake District National Park Authority would request that the above issues should be addressed in an Environmental Statement. If it is considered that some of these issues should be addressed in another manner outside of the EIA process, the Lake District National Park Authority would be happy to provide comments in the form of a Local Impact Report. However we consider the issues of transport, power transmission, housing and employment could affect the landscape, and impact on socio economics of the area which are questions to be addressed as part of this consultation.

Yours faithfully

Mairi Lock
Planner
Lake District National Park Authority

Annexe 2

Lake District National Park
Authority Murley Moss,
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Our ref: MI/moorside
Date: 21 January 2015

Sarah Read
Senior Marine Consultant
E & I Europe
AMEC Environment and Infrastructure UK Limited
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Newcastle upon Tynes
NE3 3AF

Dear Mrs Read

Reference: Moorside
Proposal: Response to the Moorside Nuclear Development survey and monitoring plan and draft scoping report for the Environmental Impact Assessment.

Location: Moorside

Thank you for the opportunity for the Lake District National Park Authority to comment on the scoping report and associated documents.

Overall I consider the scoping report covers most issues in a comprehensive way backed up by further investigations. There are only a few comments to make on the scoping report. I have referred to the paragraph numbers in the scoping report to identify the relevant issues as set out below.

- Paragraph 2.6.4 comments on the potential layout and design indicating that cooling towers are still under consideration. These structures can have a significant impact on the landscape and given the coastal plain and views of the site from the high fells could have a more significant impact on the landscape from within the National Park than other methods of cooling water. Given that there is still potential for cooling towers we therefore request that a full assessment of the likely impact of cooling towers is considered in the scoping report in terms of landscape impact and further emphasise the need

for photographs from viewpoint locations and agreement of those viewpoint locations. It is not clear whether this has been considered.

- Paragraph 3.2.1 -Do the zones of influence (ZOI) take account of potential cooling towers?
- Paragraph 4.4.2 -Indicates the policy framework to be considered. However it does not mention the Lake District National Park Core Strategy Local Plan Part 1 and as the Development Plan for an adjacent Local Planning Authority this should be a consideration.
- In paragraph 4.4.2 likewise the report does not identify the Lake District National Park Authority (LDNPA) as being a local planning authority and needs to discuss any possible impacts from the development with their representatives. Issues of potential housing, traffic infrastructure and power distribution infrastructure will require the input and planning permission from the Lake District National Park Authority if any of the works are within the National Park which is very likely given the close proximity of the National Park. This should be correctly identified and the LDNPA should be included as a local planning authority rather than other stakeholder.

We have not commented on noise, air, radiological issues, geology, freshwater environment, marine environment and biodiversity as these are not directly relevant to the Lake District National Park and will be covered by other organisations.

- In paragraph 11.5.14 the night time photography should also include dusk photography as walkers are more likely on the higher fells at dusk than in the middle of the night and would also reflect the situation on dull days and in the winter period when lights might be on but when not full darkness.
- In paragraph 11.7.2 we have concerns about discounting the potential impact of the development from some Areas of Distinctive Character such as Lake District Area of Distinctive Character 28 – Kinniside Common, as the site is visible from the Cold Fell Road and fells within area 28. There are also views from Lake District Area of Distinctive Character 52 Ravenglass and Bootle. The landscape effects will depend upon final design and whether cooling towers are proposed. The potential impact on these areas need to be considered in the report.
- Paragraph 12.5.17 -As previously mentioned the photography should include dusk as well as night time.
- In Paragraph 12.7.2 we are concerned that the impact on visual receptors using public rights of way at separation distances in excess of 3km is to be excluded from the assessment. The western fells of the National Park are popular with walkers particularly those following the nationally known and popular Wainwright guide books as many of the fells and routes are mentioned in Wainwright. The fells are open access land as well as including public rights of way. The impact on users of the public rights of way should be assessed since fell walkers are a significant part of the tourism industry of the National Park and so important to the economy of the National Park.

In section 13 the report mentions existing World Heritage Site of Hadrians Wall but makes little mention of the proposed World Heritage Site designation of the Lake District. The Lake District has been accepted by The Department of Culture, Media and Sport as the UK's nomination for 2016 World Heritage inscription with a decision expected in July 2017. This nomination is on the basis of the cultural landscape of the Lake District. This application for World Heritage Status needs to be addressed in the scoping report in terms of potential impact of the development on a World Heritage Site. I refer you to the Technical evaluation of the future World Heritage Nomination for the English Lake District (October 2013) available to view on the Lake District National Park Authority web site www.lakedistrict.gov.uk.

- Paragraph 15.4 which relates to countryside recreation makes no mention of the Lake District National Park Authority in terms of engagement with consultees.
- Paragraph 15.6.1 should include reference to walkers using the western fells of the Lake District National Park. The consideration of countryside recreation should extend beyond the paths immediately adjacent to the site to include recreational use of the western fells within the zone of theoretical visibility.
- Paragraph 16.7.3 considers potential effects not requiring further assessment and includes size, diversity and prosperity of the local economies of Copeland, Allerdale and Cumbria (tourism image and perceptions). It is not clear whether this includes or excludes the Lake District National Park. It also doesn't indicate why they consider there is no impact.
- Within appendix B paragraph B.7.5 the Lake District National Park Authority Development Plan should be included as relevant to the planning process in particular worker accommodation and transport infrastructure.
- Within appendix C we agree that the identification of important viewpoints is important. I would also suggest that dusk photographs should be taken from viewpoints 11, 16, 17, 18 and 23 as identified on figure 12.1. I am assuming the proposed photomontages be produced after the design has been finalised and when it is known whether or not there will be a need for cooling towers.

I trust the above comments are helpful and look forward to meeting you in the near future.

Yours faithfully

Mairi Lock
Area Planner



Will Spencer,
Major Applications and Plans,
The Planning Inspectorate,
Temple Quay House,
Temple Quay, Bristol.
BS1 6PN

Your Ref: EN010047
MMO Ref:
DCO/2013/00024

24th July 2015

SCOPING PROPOSAL BY NuGEN/AMEC (the applicant) FOR THE PROPOSED CONSTRUCTION OF 3.6 GW MOORSIDE NUCLEAR NEW BUILD AT COPELAND, CUMBRIA (the project).

Dear Mr Spencer,

The Marine Management Organisation (MMO) is an interested party for the examination of Development Consent Orders (DCO) applications for Nationally Significant Infrastructure Projects (NSIPs) in the marine area. This letter is in response to The Planning Inspectorate (PINS) (on behalf of the Secretary of State (SoS) for Energy and Climate Change) deadline (26th July 2015) for the proposed Moorside Nuclear Power Station (EN010047)

The documents reviewed for this assessment include:

- Environmental Impact Assessment Scoping Report: Volume 1 – Moorside Nuclear New Build, NuGeneration Ltd, May 2015, prepared by AMEC Environment & Infrastructure UK LTD.
- Environmental Impact Assessment Scoping Report: Volume 2. Figures – Moorside Nuclear New Build, NuGeneration Ltd, May 2015, prepared by AMEC Environment & Infrastructure UK LTD.
- Environmental Impact Assessment Scoping Report: Volume 3. Survey and monitoring plans – Moorside Nuclear New Build, NuGeneration Ltd, May 2015, prepared by AMEC Environment & Infrastructure UK LTD.
- Habitats Regulation Assessment: Evidence Plan. - Survey and monitoring plans – Moorside Nuclear New Build, NuGeneration Ltd, May 2015, prepared by AMEC Environment & Infrastructure UK LTD.

The documents reviewed by MMO are high level and contain little site-specific information. Our comments are therefore based on the information provided with the expectation that significant further work will be undertaken for the Environmental Impact Assessment (EIA) and presented in future Preliminary Environmental Information (PEI) or the Environmental Statement (ES).

Please note that MMO will continue to engage with the Applicant throughout the process, and reserves the right to make further comments and to modify our present advice or opinion in view of any additional information that may come to our attention.

1. Environmental Impact Assessment Scoping Report: Volume 1

1.1. Chapter 4. Transport

- 1.1.1. MMO considers there is a lack of detail with regard to the establishment of a baseline. There is discussion regarding the availability of resources at local ports and harbours, but this is focused on the suitability of marine transport as a delivery mechanism for the project rather than assessing the impacts on marine users. A Navigation Risk Assessment is proposed, but without the establishment of a suitable baseline, it will be difficult to carry out the subsequent assessment for the EIA.

1.2. Chapter 10. Marine Coastal and Physical Environment

Hydrodynamics and sediment regime

- 1.2.1 The scoping document provides an adequate review of the existing data and coastal marine physical process at the proposed development site. The overview of the coastal change describes a lack of morphological changes, yet this observation is not adequately supported by evidence and there appears to be a lack of data regarding the local beach profile. Furthermore, the report does not acknowledge any possibility of the Marine Offshore Landing Facility (MOLF) construction resulting in impacts to coastal erosion that may damage the railway line or to flood the low lying hinterland. Both of these issues must be addressed in any subsequent Application.
- 1.2.2 The scoping document lacks any detail regarding navigational dredging of material for berthing pockets or approach channels associated with the MOLF facility. Any proposed disposal of material to sea will also require appropriate sampling and analysis, in-line with OSPAR guidance for the management of dredge material. If designation of a disposal site is considered as an option, appropriate evidence in support of characterisation of a proposed location will be required; please consult *Case Studies to Demonstrate the Selection of Dredged Material Disposal Sites at Sea* (A.C. Birchenough & C.M.G. Vivian. Cefas).
- 1.2.3 The scoping document also identifies the MOLF as the main anticipated impact on hydrodynamics and sediment regime, yet it fails to provide adequate detail on the modelling and assessment to be carried out. Additional information should be provided to ensure a) confidence in the modelling, b) how near shore sediment transport will be addressed, c) how the effects of climate change on

wave height and direction will be covered in the proposed studies and d) any potential impacts from scour.

Water and sediment quality

- 1.2.4 The report places an emphasis on the characterisation of water and sediment quality for Water Framework Directive (WFD) purposes, yet should also consider requirements under Marine Framework Strategy Directive (MFSD). The OSPAR documents on MSFD good environmental status provides guidance on the various descriptors (http://ospar.org/content/content.asp?menu=01560340000000_000000_000000).
- 1.2.5 Any subsequent modelling that is included in support of sediment and water quality should include the calibration standards which will be used for the model and quality assurance procedures required for ISO compliance. MMO requests the information is included in future reports
- 1.2.6 The report is lacking a clear description of the differences between particulate matter, suspended sediment concentrations and turbidity. The use of satellite information is proposed to characterise turbidity, although this would only use surface data and concentrations throughout the water column can vary considerably. The use of turbidity monitoring along with other in-situ water quality monitoring would be more appropriate. This should be calibrated with direct suspended sediment concentrations during the monitoring campaigns.
- 1.2.7 The report also fails to describe existing radioactive sediment contamination and potential direct impact issues resulting from construction and operation. The data required to inform a current baseline has been placed in the public domain by Sellafield Ltd.

1.3: Chapter 14. Biodiversity

- 1.3.1 MMO considers the information provided on biodiversity in the report is comprehensive. Relevant Marine Conservation Zones (MCZ's), protected areas and species have been identified. However, due to the considerable number of subjects covered within such a large topic this can be confusing. Separate sections on each topic within any subsequent application will make it clearer.
- 1.3.2 Further detail is required on the structure of biological communities and ecological coherence in the area. Consideration should be given all species and communities and not just not protected or exploited species and habitats.
- 1.3.3 There are gaps in the report with regard to data relating to fish impingement and entrainment; only 8 species of fish are identified using ICES data, and spawning and nursery areas are only given for 13 species of fish. There are potentially more than 80 species of fish known to be impinged and entrained at power station intakes in the area; no data are presented relating to impingement and entrainment at other large direct cooled power stations in the UK or proposed mitigation. These data are readily available and should be provided in any subsequent Application.

1.3.4 Overall, the relevant legislation is reviewed in relation to the proposed development and some general guidance is provided on marine ecology and fish populations; although no analysis of issues is provided to identify potential impacts that can be scoped in or out of the resulting Application. This information should be included in any subsequent Application.

1.4: Chapter 16. Socio-economics and Human Population

1.4.1 MMO considers the information provided on commercial fisheries in the report is limited. The annual catch value data is presented for two major species (*nephrops and scallops*), whilst three other groups are mentioned (*thornback rays, lobsters and whitefish*), but no data are included. The data are presented as an average and not annual totals which does not facilitate additional interpretation.

1.4.2 The site of the proposed development is located not far from the brown shrimp fisheries (*Crangon Crangon*). No consideration of this is included in the report i.e. the potential location of planktonic larvae grounds. No consideration has been included of the importance of recreational fishing, either through charter vessels or angling clubs. MMO considers these issues should be scoped into further reports.

1.4.3 The report makes reference to vessels from Northern Ireland in section 16.5.36, although is considered out of scope. However Local MMO officers consider vessels do visit the grounds in proximity to the development and this should be included in future assessments.

2. Environmental Impact Assessment Scoping Report: Volume 3. Survey and monitoring plans

2.1 Marine and Coastal Physical Processes

Thermal Plume Modelling

2.1.1 MMO notes the approach only covers mixing and dispersion in the mid and far fields. MMO requests additional information is provided how the model will consider the entire field, including near field mixing.

2.1.2 Additional information is also required regarding the calibration standards which will be used for the model and quality assurance procedures required for ISO compliance. MMO requests the information is included in future reports.

Metocean and physical surveys

2.1.3 MMO considers the methodology and intended standards for conducting the hydrographic survey has not been fully described in the report. References have been included throughout to key documents produced by Gardline although they have not been provided. Reference is made to International Hydrographic Organisation (IHO) standards, but the order of survey is not specified.

- 2.1.4 There is no description in the main body of the report regarding the methodology for monitoring the presence of fluid mud; a description is included in Appendix B, although MMO requests additional detail is included on this method. Additionally, further information is requested with regard to the method of employing acoustic backscatter measurement to assess suspended sediment concentrations.
- 2.1.5 MMO requests additional information is included with regard to the Particle Size Analysis (PSA) methodology and standards for the description of sediment samples are included. Reference is made to BS1377 for PSA, but the Eurocode should be referred to. For grain size classification the appropriate standard should be referenced and not the Wentworth and Folk classification. The report states that 15 days of metocean data will be collected; MMO recommends 30 days of data would allow adequately harmonic analysis of water levels.

2.2 Marine Water and Sediment Quality

Non-radioactive Marine Water and Sediment Quality Surveys

- 2.2.1 MMO considers the intended sampling and analyses methods to be appropriate and in accordance with best practice. The appropriate quality standards have been referenced and quality control measures are explicitly stated within the report.

2.3 Marine Ecology

Intertidal Benthic Surveys

- 2.3.1 The report indicates the intertidal vegetation survey was designed using guidelines for saltmarsh, rocky shore and phytoplankton surveys, which are not wholly appropriate for the intended purpose and the data description is for sub-tidal samples. Furthermore the collection dates for each of the datasets is only specified for five of the twenty one datasets.
- 2.3.2 There is a lack of information on how the rocky foreshore will be surveyed. The design appears to focus on soft sediments and does not consider hard substrates or other habitats identified in the scoping report. Additional clarification is also required on the number of samples that will be taken along each transect and at each sample location. No detail is provided on the specific design of how the saltmarsh or the sand dune system of the Drigg Coast Special Area of Conservation (SAC) will be surveyed. Natural England (NE) are the statutory advisors on the Conservation of Habitats and Species Regulations 2010 and so may have further comment on this issue.
- 2.3.3 The surveys are primarily designed for characterisation, MMO considers that they are not appropriate for designing a baseline intertidal survey as it will not allow robust statistical analysis required for subsequent EIA assessment. MMO recommends the approach advised by the *Marine Monitoring Handbook* (JNCC 2001) guidelines are followed for the baseline and subsequent monitoring surveys of the intertidal area.

2.3.4 The surveys are proposed to take place over the late spring or early summer and it is not clear if more than one year's worth of sampling will be undertaken. If not, the results will only provide a limited seasonal snapshot and not provide any evidence of seasonal variability. Furthermore, if following the ornithological surveys the intertidal area is deemed important to birds, seasonal surveys are more appropriate than a single survey per year.

Sub-tidal Benthic Survey

2.3.5 The surveys are primarily designed for characterisation; MMO suggests the surveys are not appropriate for designing a baseline sub-tidal survey; this will not establish a baseline to allow robust statistical analysis required for subsequent EIA assessment. The proposed single sample approach may be appropriate for WFD assessment, although MMO recommends the approach advised by *Guidelines for the Conduct of Benthic Studies at Marine Aggregate Extraction Sites* (Ware, S.J. & Kenny, A.J. 2011) is more appropriate for an EIA baseline survey.

2.3.6 The surveys are proposed to take place over the late spring or early summer and it is not clear if more than one year's worth of sampling will be undertaken. If this is the case it will only provide a limited seasonal snapshot and not provide any evidence of seasonal variability.

2.4 Socio-economics

Fisheries

2.4.1 The proposed surveys are not considered appropriate for establishing a baseline to assess the potential effects of the development on fisheries and allow robust statistical analysis required for subsequent EIA assessment. There is no evidence the sampling programme has been tailored to the species known in the area that are vulnerable to cooling water intakes and the design of power station cooling water systems.

2.4.2 Plankton should be sampled using a standard plankton sampler for a year at monthly intervals; ichthyoplankton are not well sampled by random sampling designs and more samples are required at the time of year eggs and larvae are in the water.

2.4.3 Fisheries and plankton surveys are proposed to take place over a single year at quarterly intervals; this will not sufficiently represent the variations in species abundance and will not accurately record the possibility of yearly variation. Monthly surveys would more accurately record changes in fish abundance due to tidal variations and meteorological conditions are not addressed.

2.4.4 Surveys will only record size data for commercial fish and macro invertebrates; data on the numbers of non-commercial species will only be recorded, data on weight will not be collected for either commercial or non-commercial species. This will omit data biomass on potentially ecologically important species.

Other comments

- 2.4.5 Any future reports should consider the potential impacts to the recreational and other legitimate uses of the sea as identified in the Marine Policy Statement or subsequent marine plan.

2.5 Noise and Vibration

- 2.5.1 The survey and monitoring report does not include any methodology for the assessment of marine noise as the construction details for the marine facilities are not yet available. MMO recommends that noise data is collected in accordance with guidance produced by the National Physical Laboratory (*Good Practice Guide for Underwater Noise Measurement*, 2014). This will enable subsequent marine noise monitoring surveys during the construction of the marine facilities. It is also suggested that when developing the methodology for assessment, the most recent guidance on the potential impacts of underwater anthropogenic noise are used.

Conclusion

MMO considers the majority of the scoping appears to be appropriate for the areas outlined in this letter. However, the report does not refer to the requirements of the Marine Framework Strategy Directive (MFSD). MMO recommends that this is included in any subsequent application. OSPAR documents on MSFD good environmental status provides guidance on the various descriptors (http://ospar.org/content/content.asp?menu=01560340000000_000000_000000).

MMO notes that overall the scoping report appears to be appropriate, it is generic in its approach and contains little site-specific information. Our comments are therefore based on the information provided with the expectation that significant further work will be undertaken. MMO welcomes continued engagement with the Applicant throughout the development of the Environmental Impact Assessment.

Please don't hesitate to contact me if you like to discuss any aspect of this letter.

Yours sincerely,



Mark Herbert
Marine Licensing Case Officer

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Your ref: **EN010047**
Our ref:

16 July 2015

By email to:
environmentalservices@infrastructure.gsi.gov.uk

Dear Sir/Madam

Application by Nugeneration Limited for an Order Granting Development Consent for the Moorside Development Project

Thank you for your letter dated 26th June 2015 inviting MCA to comment on the application for the proposed Moorside Development Project.

From the information provided, it appears that the only aspect for MCA to consider with regards to the safety of navigation is the area for the cooling water intake infrastructure offshore and associated pipelines. The developers will need to apply to the Marine Management Organisation (MMO) for a license of consent under the Marine and Coastal Access Act 2009, at which time the MCA will be invited to comment on the application from a navigation safety perspective.

Key issues that will need to be addressed prior to consent are:

1. A Navigation Risk Assessment (NRA) should be undertaken for the offshore infrastructure to supply detail on the possible impact on navigational issues for both Commercial and Recreational craft. The NRA should address issues such as:

- Collision Risk
- Navigational Safety
- Visual intrusion and noise
- Risk Management and Emergency response
- Marking and lighting of site and information to mariners
- Effect on small craft navigational and communication equipment

2. Please note that a charge will be levied on the applicant, by The Maritime and Coastguard Agency for the transmission of maritime safety information, via Navtex or Coastguard VHF radio network, in respect of the proposal. Agreement by the applicant to pay any such charges should be a condition of the consent.

3. Unless an agreement has been made with the Fisherman's Federations, details of the deployment should be passed, by email, to kingfisher@seafish.co.uk, for inclusion in the Kingfisher Information Services fortnightly bulletin, at least two weeks before the start date.

4. The developer must ensure that 'the works' do not encroach on any recognised anchorage, either charted or noted in nautical publications, within the proposed consent area.

5. Depending on the methods used, particular attention should be paid to pipeline routes and burial depth for which a Burial Protection Index study should be completed and, subject to the traffic volumes, an anchor penetration study may be necessary.

In addition, the MCA would like to point the developers in the direction of the Port Marine Safety Code (PMSC). They will need to liaise and consult with the local Harbour Authority to develop a robust Safety Management System (SMS) for the project under this code.

The sections that we feel cover Navigational safety under the PMSC and its Guide to Good Practice are as follows:

From the Guide to Good Practice, section 6 Conservancy, a Harbour Authority has a duty to conserve the harbour so that it is fit for use as a port, and a duty of reasonable care to see that the harbour is in a fit condition for a vessel to use it. Section 6.7 Regulating harbour works covers this in more detail and have copied the extract below from the Guide to Good Practice.

6.7 Regulating harbour works

6.7.1 Some harbour authorities have the powers to license works where they extend below the high watermark, and are thus liable to have an effect on navigation. Such powers do not, however, usually extend to developments on the foreshore.

6.7.2 Some harbour authorities are statutory consultees for planning applications, as a function of owning the seabed, and thus being the adjacent landowner. Where this is not the case, harbour authorities should be alert to developments on shore that could adversely affect the safety of navigation. Where necessary, consideration should be given to requiring the planning applicants to conduct a risk assessment in order to establish that the safety of navigation is not about to be put at risk. Examples of where navigation could be so affected include:

- high constructions, which inhibit line of sight of microwave transmissions, or the performance of port radar, or interfere with the line of sight of aids to navigation;
- high constructions, which potentially affect wind patterns; and
- lighting of a shore development in such a manner that the night vision of mariners is impeded, or that navigation lights, either ashore and onboard vessels are masked, or made less conspicuous.

There is a British Standards Institution publication on Road Lighting, BS5489. Part 8 relates to a code of practice for lighting which may affect the safe use of aerodromes, railways, harbours and navigable Inland waterways.

Yours faithfully,

Helen Croxson
Navigation Safety Branch

From: [ROSSI, Sacha](#)
To: [Environmental Services](#)
Cc: [NATS Safeguarding](#)
Subject: RE: EN010047 – Nugen Moorside Development – EIA Scoping Consultation
Date: 30 June 2015 12:13:25

Dear Sir/Madam,

NATS anticipates no impact on its infrastructure from the development and has no comments to make on the proposal.

Should there be any other impact or subsequent consultation on aviation matters (such as airspace restrictions), NATS expects to be consulted by the relevant body (CAA) and would make any relevant representations at that time.

Regards
S. Rossi
NATS Safeguarding Office

Mr Sacha Rossi
ATC Systems Safeguarding Engineer

☎: 01489 444 205
✉: sacha.rossi@nats.co.uk

NATS Safeguarding
4000 Parkway,
Whiteley, PO15 7FL

<http://www.nats.co.uk/windfarms>

From: Environmental Services [<mailto:environmentalservices@pins.gsi.gov.uk>]
Sent: 26 June 2015 14:56
To: NATS Safeguarding
Subject: EN010047 – Nugen Moorside Development – EIA Scoping Consultation

Dear Sir/Madam

Please see the following hyperlink to correspondence on the proposed Moorside Development.

http://infrastructure.planningportal.gov.uk/wp-content/uploads/2015/06/150626_Letter-to-stat-cons_Scoping_English.pdf

Please note the deadline for consultation responses is 26 July 2015, and is a statutory requirement that cannot be extended.

Kind regards,

Will Spencer
EIA & Land Rights Advisor

Major Applications and Plans, The Planning Inspectorate, Temple Quay House, Temple Quay, Bristol, BS1 6PN

Direct Line: 0303 444 5048

Twitter: [@PINSgov](https://twitter.com/PINSgov)

Helpline: 0303 444 5000

Email: EnvironmentalServices@infrastructure.gsi.gov.uk

Web: www.planningportal.gov.uk/planninginspectorate (Planning Inspectorate casework and appeals)

Web: www.planningportal.gov.uk/infrastructure (Planning Inspectorate's National Infrastructure Planning portal)

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Date: 20 July 2015
Our ref: 157899
Your ref: EN010047



Mr Will Spencer
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Dear Mr Spencer

Environmental Impact Assessment scoping for proposed construction of 3.6GW Moorside Nuclear Scheme, Copeland, Cumbria.

**The Planning Act 2008 (as amended)
The Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended)**

Thank you for your consultation on the above which was received by Natural England on 26 June 2015.

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

We have been working closely with the applicant and their consultant, Amec Foster Wheeler (Amecfw), prior to the submission of the Environmental Impact Assessment (EIA) scoping document to the Planning Inspectorate; this has enabled us to provide pre-consultation advice on the draft scoping document to the applicant.

- We consider the overall scope of the documents to be broadly appropriate for our areas of interest but wish to highlight that additional receptors and potential impacts may be identified as further project details emerge.
- We are concerned about the limited information that is available on the Associated Development (AD) sites and Additional Scoping Land (ASL) at this stage of the process. Continued engagement with Natural England will be essential to ensure any additional potential impacts are assessed and, where necessary, appropriate mitigation / enhancement planned, particularly in relation to the ASL.
- The Habitats Regulation Assessment (HRA) Evidence Plan, whilst not part of this consultation, is a live document and will need to be reviewed following the inclusion of the ASL in the EIA scoping documents. Extension of the main site beyond the defined Initial Scoping Land (ISL) is a trigger for reviewing the extent of evidence required to support the HRA process (9.1.3, Moorside HRA Evidence Plan).

Detailed advice

We have reviewed the EIA scoping documents, with reference to our earlier advice to the applicant, and provide the following detailed comments.

Our advice is provided without prejudice to any future advice we may provide in response to the emerging project details and consequent potential effects on environmental receptors.

We wish to highlight the following key comments from our detailed advice:-

- We require clarity on the source of freshwater resources for the construction and operational phases of the project, due to the potential for significant environmental effects on River Ehen SAC interest features and Low Church Moss SSSI notified features.
- We consider it premature to scope out effects on the marine and coastal physical environment from construction and operational activity in the ASL (Chapter 18).
- We require clarity on whether the applicant is going to undertake marine ornithological aerial survey work to supplement the boat-based surveys.
- We wish to emphasise that the provision of public access to, and around, the site is essential in order to provide sustainable travel options and meet the needs of the emerging England Coast Path. Public access routes should be maintained and improved upon and fully factored into the overall scheme design.

Environmental Impact Scoping Report Volume 1			
Chapter	Reference	Issue	NE comment
2 – The Moorside Project	2.2.9	Comment	<p>We wish to highlight that a closed cooling system may increase the landscape implications of this scheme further due to the presence of auxiliary cooling towers within the site.</p> <p>We note that, should a closed cooling system option be pursued, there will be no, or a very limited, visible steam plume anticipated from the associated towers - which is welcome. A visible steam plume would be a distracting feature in the landscape and it would need to be demonstrated in the Landscape & Visual Impact Assessment that it was limited throughout the whole year under different climatic conditions.</p>
	2.4.1 & 2.4.3	Comment	<p>We note that further associated development (AD) sites may be identified for park and ride, rail facilities, freight consolidation and port infrastructure.</p> <p>We welcome the commitment to continue to engage with Natural England on the scope of the EIA. However, given the above uncertainties and current timetable for DCO submission, we are concerned that there will be insufficient time for adequate survey work within study areas for the identified/unidentified AD sites.</p> <p>Identification of all the required AD sites for</p>

			this project should be prioritised so that Natural England can provide timely protected landscape and designated site advice.
3 – Approach to EIA scoping	3.1.6	Comment	<p>We welcome the commitment to integrate information relating to the Additional Scoping Land (ASL) and AD sites with all the topic chapters for the Initial Scoping Land in future documentation.</p> <p>Whilst appreciating the complexity of this project, we are concerned about the limited information that is available on the AD sites and ASL at this stage of the process.</p> <p>How will any impacts not currently scoped in to the EIA be identified and communicated with stakeholders prior to the production of an Environmental Statement?</p>
6 – Air Quality	Table 6.3	Typographical error	Silver Tarn, Hollas and Harnsey Mosses SSSI
	6.5.9 & Table 6.3	Comment	<p>It is correct to consider air quality effects on ecological receptors from road traffic movements up to 200 metres from roads.</p> <p>As previously advised, it would be useful to update Table 6.3 to include distances of designated sites from the road network as many of the SSSIs will only require assessment if they lie within the 200 metre assessment buffer.</p>
	Table 6.3	Comment	It is confusing to include this table in the air quality chapter because only a proportion of the listed sites will potentially be subject to air quality assessment. Table 14.2 (Biodiversity chapter) would be more suitable to include in the air quality chapter instead – <i>Statutory biodiversity sites within 15km of the Initial Scoping Land considered only in relation to potential aerial deposition</i> – as previously advised in March 2015.
	6.5.18	Typographical error/omission	...‘Low Church Moss SSSI should be subjected to’...
	6.5.18	Comment	<p>We welcome Low Church Moss SSSI being subject to baseline monitoring for dust given its proximity to and/or within the Initial Scoping Land and Additional Scoping Land.</p> <p>We also consider, as previously advised, that NOx diffusion tubes should be used to gather baseline data at Low Church Moss SSSI and Silver Tarn, Hollas & Harnsey Mosses SSSI. We therefore welcome the commitment to undertake this monitoring.</p>
9 – Freshwater Environment	9.7.1	Comment	<p>The source of freshwater resources for the construction and operational phases has not yet been determined.</p> <p>Given that United Utilities’ Thirlmere pipeline</p>

			<p>project is not scheduled for completion until the end of the construction phase it is essential that the source of freshwater during this period, in particular, is identified as a priority.</p> <p>We advise that there is the potential for significant environmental effects on River Ehen SAC interest features and Low Church Moss SSSI notified features as a result of the demand for freshwater from this project; these potential effects have been correctly identified as requiring further assessment.</p>
10 – Marine & Coastal Physical Environment	10.5.1	Comment	<p>The precise area over which marine physical process related effects may be propagated has not been defined accurately because further information is required.</p> <p>Natural England will need to review the current marine study area (Fig. 10.1) as further information becomes available; so that we are satisfied the zone of influence being assessed is suitable.</p>
	10.5.4	Comment	<p>We welcome the inclusion, in future documentation, of a conceptual diagram of coastal processes in the study area. This will provide useful clarity and support the EIA and HRA assessments.</p>
	10.5.75	Comment	<p>We welcome the recognition that the potential effects of climate change on the marine environment will need to be incorporated into the hydrodynamic modelling being undertaken to support the assessment of effects on the marine physical environment.</p> <p>The long-term implications of the proposal, in combination with climate change, on the integrity of statutory designated sites will need to be considered in the EIA, HRA and MCZ assessments.</p>
	10.6.2	Comment	<p>We welcome reference to Drigg Coast SAC and Cumbria Coast MCZ as receptors that could be subject to likely significant effects.</p> <p>These designated sites contain key marine features that could be affected by changes to waves, current, tides and associated patterns of sediment transport as a result of the proposal both during construction and operational phases.</p>
	10.7.2	Comment	<p>We agree that it would not be appropriate to scope out any potential effects to the marine physical environment at this stage given the lack of specific project design detail.</p>
11 - Landscape	11.1.1	Comment	<p>We note that the Additional Scoping Land (ASL) is addressed in a separate chapter given the late</p>

			<p>inclusion of it in the scoping document.</p> <p>However, to avoid confusion, we suggest that this additional land is integrated into a combined landscape assessment within Chapter 11.</p> <p>We note that the ASL may be used for 'landscaping and landforming' (Chapter 18) and accept the uncertainty about the use of land at this stage. However, we advise that the Additional Scoping Land in relation to the Initial Scoping Land offers considerable potential for mitigating the landscape effects of the development both locally and potentially across the wider landscape, notwithstanding other constraints to the use of this land.</p>
	11.3.1 & 11.6.1 & 11.5.1	Comment	<p>We welcome the inclusion of Open Access Land as a main data source in the preparation of the scoping document; reference to the setting of the Lake District National Park (LDNP) as a receptor; and the use of the 5m Digital Terrain Model (DTM) for creating more detailed Zone of Theoretical Visibility (ZTV) mapping.</p>
	11.7.1	Comment	<p>We welcome the recognition that the proposed development has the potential to have significant effects on the key characteristics and special qualities of the LDNP.</p> <p>We also welcome the inclusion of St Bees Heritage Coast as a receptor that requires further landscape and visual assessment.</p>
	11.7.1	Missing text	<p>We are concerned that reference to cumulative effects has been deleted from this section, compared with the previous draft version we reviewed. The missing text is as follows:</p> <p><i>Cumulative landscape effects for the Moorside development as a whole will be assessed with regard to any other large scale developments that are likely to be brought forward during the construction and operational phases of the proposed Moorside development.</i></p>
	11.8.14	Comment	<p>We welcome the commitment to provide clear and accessible explanations as to the nature of the significant landscape effects likely to arise from the proposal for each individual landscape receptor. However we would wish to see this extended to include a similar narrative for the key qualities of the LDNP that may also be affected.</p> <p>We maintain our advice that a sequence of moderate landscape effects has the potential to deliver a significant landscape effect over the wider geographic area. When the scale of the proposal and geographical spread of the ZTV is</p>

			considered, Natural England is concerned that this aspect may be underrepresented in the assessment. GLIVA 3 makes it clear 'that effects not considered to be significant will not be completely disregarded' (Section 3.34). We therefore wish to understand how this issue will be addressed in the Landscape & Visual Impact Assessment (LVIA) within the EIA.
12 - Visual	12.1.1	Comment	<p>We note that the ASL is addressed in a separate chapter given the late inclusion of it in the scoping document.</p> <p>However, to avoid confusion, we suggest that this additional land is integrated into a combined visual assessment within Chapter 11.</p> <p>We note that this land may be used for 'landscaping and landforming' (Chapter 18) and accept the uncertainty about the use of land at this stage. However, we advise that the ASL in relation to the Initial Scoping Land offers considerable potential for mitigating the visual effects of the development both locally and potentially across the wider landscape, notwithstanding other constraints to the use of this land.</p>
	12.3.1 & 12.5.1	Comment	We welcome the inclusion of Open Access Land as a main data source in the preparation of the scoping document; and the use of the 5m Digital Terrain Model (DTM) for creating more detailed Zone of Theoretical Visibility (ZTV) mapping.
	12.5.3	Comment	<p>Following site visits undertaken by Natural England in June 2015 we request that an extension is made to the detailed study area boundary, which we understand currently extends 12km from the centre of the proposed Moorside site. This will allow for the inclusion of three viewpoints which lay slightly outside of the radius of the detailed study area. They are:</p> <ul style="list-style-type: none"> • Viewpoint 20 - The summit of Seatallan which is approximately 250m beyond the boundary of the detailed study area. • Viewpoint 28 - The summit of Haycock which is approximately 1250m beyond the boundary of the detailed study area. • Viewpoint 31 - The summit of Whin Rigg which is approximately 1250m beyond the boundary of the detailed study area. <p>Natural England makes this request on the basis of the evaluated nature of these summits, the</p>

		<p>angle of the view in relation to the Moorside site and the relatively uninterrupted view of the site from these summits. Whilst we note at 12.7.3 that hill walkers and other recreational users, who will be classified as highly sensitive, are not in the exclusion group we wish to be sure that these locations are the subject of a detailed assessment.</p> <p>With reference to the outer extent of the (wider) study area we also request that Coniston Old Man is included as a viewpoint for assessment. We request this on the basis that it is a very popular destination point for hill walkers and that the Sellafeld complex is already visible from this location (see A. Wainwright 'A Pictorial Guide to the Lakeland Fells Book Four, The Southern Fells', Coniston Old Man 18). Again we note those groups excluded at 12.7.3.</p>
12.7.3	Comment	<p>St Bees Head Heritage Coast should be included alongside the LDNP in the final clause of this section so that the text reads '...recreational visual receptors using local PRoWs outside of the LDNP and St Bees Head Heritage Coast at separation distances in excess of 3km...'</p>
12.8.5	Comment	<p>For <i>Frequency</i>, Natural England wishes to see reference to walking routes described in well-known guide books such as the A. Wainwright series of 'Pictorial Guides to the Lakeland Fells'.</p> <p>Both the applicant and Natural England have made reference to these particular guide books and it would seem appropriate that they are used to inform on the popularity of both walking routes and destination points. Whilst we note that such guidebooks will be used to inform the value attached to a particular viewpoint we also advise that they will be of use when determining frequency of use.</p>
12.8.11	Comment	<p>Natural England welcomes the commitment to provide clear and accessible explanations as to the nature of the visual significant effects likely to arise from the proposal for each visual receptor group.</p> <p>We would also like to see this extended to include detailed explanation for a selected group of viewpoints (to be determined at a later date) in order that the Examining Authority and other interested parties can easily understand that at viewpoint x these visual receptor groups will experience a significant impact.</p> <p>We maintain our advice that a sequence of moderate visual effects has the potential to deliver a significant visual effect over the wider</p>

			geographic area. When the scale of the proposal and geographical spread of the ZTV is considered, Natural England is concerned that this aspect may be underrepresented in the assessment. GLIVA 3 makes it clear 'that effects not considered to be significant will not be completely disregarded' (Section 3.34). We therefore wish to understand how this issue will be addressed in the Landscape & Visual Impact Assessment (LVIA) within the EIA.
14 – Biodiversity	Table 14.2	Typographical error	Silver Tarn, Hollas and Harnsey Mosses SSSI
	14.5.9	Comment	We welcome reference to the two recommended MCZs – 'West of Walney' & 'Allonby Bay' – in tranche 2 as requiring consideration within the EIA. We advise that Mud Hole rMCZ could be in tranche 3 of DEFRA's designation programme, and be designated by the end of 2016. It would therefore be prudent to take this into consideration within the EIA.
	14.7.5	Missing information	The four SSSIs identified as not requiring further assessment have not been listed in this section.
	14.8.4	Comment	Whilst recognising this paragraph is referring to the assessment of significance in relation to the EIA, we previously advised that the principles for MCZ assessment are slightly different from European site and SSSI assessments. We suggest it may be useful to highlight that a separate assessment is required for European and SSSI / MCZ sites in order to meet the requirements of other legislation. For MCZs, the key question (once assessment has been screened in or out) is: "Is the Authority satisfied there is no significant risk of the activity hindering the conservation objectives stated for the MCZ"? "Hinder" will be considered as any act that could, either alone or in combination: - in the case of a conservation objective of "maintain", increase the likelihood that the current status of a feature would go downwards (e.g. from favourable to degraded) either immediately or in the future (i.e. the feature would be placed on a downward trend); or - in the case of a conservation objective of "recover", decrease the likelihood that the current status of a feature could move upwards (e.g. from degraded to favourable) either immediately or in the future (i.e. they would be placed on a flat or downward trend).

15 – Countryside Recreation	15.2.4	Comment	<p>We suggest that the last bullet point in this section includes the following additional text ‘...a National Trail (the England Coast Path) is due to be created that will also have an associated area of 'coastal margin' - effectively new access land - between the path itself and the seaward extent of the foreshore...’.</p> <p>We anticipate approval by the Secretary of State for the England Coast Path proposals relating to this stretch of coast to be granted in late summer or autumn of 2015.</p>
	15.4.4	Comment	<p>We have previously advised that there is a need to accommodate the England Coast Path but also that it should preferably be on the seaward side of any new development, so as to retain a 'coastal experience' and to avoid lengthy inland detours. This is particular relevant for the operational phase of the scheme.</p> <p>We note that this advice has not been captured in the section on engagement with consultees; we request that this key point is included in the document.</p>
	15.4.4	Comment	<p>In relation to the need to keep the England Coast Path open during construction and operation of the Moorside project, we have previously advised that this might be achieved by implementation of one or more temporary routes.</p> <p>This would be in accordance with our Coastal Access Scheme, as approved by the Secretary of State, which would either make use of existing accessible routes or existing access land; or other land by the agreement of the owner or occupier.</p>
17 - Climate	17.1.2	Comment	<p>We note that there could be a requirement for some aspects of the proposal to be designed for climate change adaptation purposes, such as enhanced flood control measures, and that any effects arising will be addressed in the relevant EIA topic chapter.</p> <p>The EIA scoping document identifies that the current railway embankment acts as a coastal flood defence and has been reinforced with rock armour/concrete revetments at various locations.</p> <p>However this nuclear power scheme will be operational for decades and also require decommissioning therefore we question whether Network Rail will maintain and defend the current railway line into the long-term future. It is interesting to note at 4.5.13 that the railway line is already reduced to a single line in places as a result of coastal erosion and landslips.</p>

			What defences will be required if the railway line becomes non-operational during the operation and decommissioning phases of the scheme, given that the railway embankment only has to be maintained for as long as the line continues to operate (9.5.17)?
18 – Additional scoping land	18.8.1 & 18.12.1	Comment	<p>We do not agree that it is possible to scope out effects on the marine and coastal physical environment from construction and operational activity in the ASL.</p> <p>Given the lack of detail on the use of this land for the project it is not appropriate to reach this conclusion. This will need to be reviewed as further project details emerge.</p>
Appendix C – Viewpoint & photomontage proposals	Contextual Images	Comment	<p>We understand this paragraph refers to 'single frame' images of either 50mm or 75mm focal length which seek to reduce the effect of vertical compression apparent in panoramic images.</p> <p>We advise that they would be most useful for the 'specific' viewpoints.</p>

Environmental Impact Scoping Report Volume 3: Survey & Monitoring Plans (SMP)		
SMP	Reference	
Landscape and Visual Assessment (April 2015)	Comment	<p>Natural England has no substantive comments to make in respect of this document other than to welcome the inclusion of the additional viewpoints suggested by ourselves, following the review of the draft EIA scoping document in February 2015.</p> <p>We also welcome the adoption of the Scottish Natural Heritage (SNH) 'Visual Representation of Wind Farms' (Version 2.1 December 2014) specification for the presentation of photographs and photomontages.</p>
Marine Ecology (April 2015)	At-sea survey work	<p>We note that reference is made to supplementing boat-based ornithology surveys with aerial surveys as being 'under consideration' (p.16).</p> <p>Our last contact with the applicant on this matter was in March 2015 when we understood they were proposing to undertake aerial surveys in March and April across the whole survey area.</p> <p>Our advice was that the relevant EIA Scoping chapter and SMP should be updated, prior to submission to PINS, with details of the</p>

		<p>planned aerial survey work.</p> <p>We are still awaiting an update on progress with the aerial survey work given that specific details have not been provided in the submitted documents.</p>
	<p>3.1.1 – Intertidal Benthic Survey</p> <p>Data Collection Methods (p.8)</p>	<p>We note that there is information in subsequent paragraphs on the detailed sampling procedure for soft sediments, but there isn't the same level of detail for rocky areas.</p> <p>We understand from the applicant's consultant, Amecfw, that rocky area invertebrates will be covered during biotope mapping and that more detailed study of rocky areas will rely mainly on macroalgal communities in line with the WFD approach.</p> <p>We consider that a more detailed methodology is required for rocky areas.</p>
	<p>3.1.2 – Subtidal Benthic Survey</p> <p>Subtidal Characterisation (p.11)</p>	<p>We previously advised that there are areas where rock is known to extend into the subtidal zone (e.g. off St Bees Head; Kokorrah rocks).</p> <p>We welcome reference to these areas and the commitment to undertake relevant survey work to map the extent of the features. However, our early advice has been to plan these surveys in from the outset.</p>

For any queries relating to the specific advice in this letter only please contact **Hannah Booth**, the Lead Adviser responsible for provision of Natural England's advice, on **0300 060 4170**.

We really value your feedback to help us improve the service we offer. We have attached a feedback form to this letter and welcome any comments you might have about our service.

Yours sincerely

Phil Reynolds
Team Leader
Cumbria Area Team

Your ref: EN010047

Tel: 01609 536965

Our ref: NSIP

Contact: Mark Rushworth

Email: mark.rushworth@northyorks.gov.uk

Date: 22 July 2015

Web: www.northyorks.gov.uk

Will Spencer
EIA and Land Rights Advisor
The Planning Inspectorate
3/18 Eagle Wing Customer Services
Temple Quay House
2 The Square
Bristol
BS1 6PN

Dear Sir,

Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended) -Regulation 8

Application by Nugeneration Limited for an Order Granting Development Consent for the Moorside Development Project

Scoping consultation with prescribed bodies

Thank you for advising North Yorkshire County Council of the application by Nugeneration Limited seeking an Order Granting Development Consent for the Moorside Development Project.

Having reviewed the material that has so far been made available, the officer response from the strategic planning perspective is that the proposed development does not appear to give rise to any issues of significance to North Yorkshire County Council. As such, we have no comments to make in relation to the Scoping Opinion.

While the County Council is a neighbouring authority, it is considered that there are no direct implications for it, and as such it is not an interested party. On this basis, there is no need for North Yorkshire County Council to be a party to these proceedings.

Yours sincerely,

Mark Rushworth
Senior Policy Officer

From: [Wilson, Andrew \(PLANNING\)](#)
To: [Environmental Services](#)
Subject: Application by Nugeneration Limited for an Order granting Development Consent for the Moorside Development Project - EN010047
Date: 22 July 2015 11:27:15

FAO Mr Will Spencer

Dear Mr Spencer,

Planning Act 2008 (as amended) and the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended) - Regulation 8

Application by Nugeneration Limited for an Order granting Development Consent for the Moorside Development Project

Scoping consultation with prescribed bodies.

Thank you for your correspondence dated 26 June 2015 to Mr Simon Kirk. I have been asked to respond.

Strategic Planning Division circulated your correspondence to the relevant sections of the Northern Ireland Environment Agency requesting that they provide relevant environmental information held by ourselves to the proposed applicant to allow the undertaking of the environmental impact assessment.

No issues have been raised at this point, however in the event something is raised we will forward it to you for information.

The Historic Environment Division has provided sources of information if it is required. This part of the Department holds records on archaeology, historic monuments and listed buildings within Northern Ireland. The general enquiries email address for the MBR is hmenquiries@doeni.gov.uk and the general information link on the website is <http://www.doeni.gov.uk/niea/built-home/recording.htm>.

If you or the proposed applicant have any further queries, please do not hesitate to contact me. Please could you kindly keep us informed of the progress of this proposal.

Yours sincerely,

Andrew Wilson,
Strategic Project Division,
DOE (NI),
5th Floor,
Causeway Exchange,
1-7 Bedford Street,
Belfast,
BT2 7EG.

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From: Craig.Reiersen@onr.gsi.gov.uk
To: [Environmental Services](#)
Subject: NuGen EIA Scoping Report - ONR response
Date: 06 July 2015 07:47:09
Attachments: [image002.png](#)

**FOR THE ATTENTION OF WILL SPENCER, EIA and Land Rights
Advisor, PINS**

Your letter EN010047 of 26 June 2015 sought views of prescribed bodies on NuGen's EIA Scoping Report for its proposed development at Moorside.

ONR has already been consulted by NuGen on the various documents it published in relation to the Moorside project in May 2015. We have looked in particular at those parts of the various documents, including the EIA Scoping Report, that make reference to matters relating to nuclear safety and security, as well as to the role of the Office for Nuclear Regulation (ONR) in our oversight and enforcement of those matters. Overall, we have found the references in those documents to matters within our regulatory ambit to be substantially accurate, although we provided NuGen with some observations on a few minor inaccuracies. With regard to the EIA Scoping Report, ONR's only observation is the following:

- Para 7.5.13. This refers to "interim Design Acceptance Confirmations". This should be singular – there was only one iDAC issued for the AP1000. A similar comment applies to the reference to the EA "Statements of Design Acceptability" in this paragraph and in paragraph 7.5.15.

Craig Reiersen



Craig Reiersen
Superintending Inspector - Nuclear Safety
Head of New Reactor Licensing &
ONR Professional Lead for licensing
Civil Nuclear Reactor Programme

T: 0151 951 3650
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Office for Nuclear Regulation
4S1 042 - Redgrave Court
Merton Road, Bootle
L20 7HS

The Office for Nuclear Regulation's mission is to provide efficient and effective regulation of the nuclear industry, holding it to account on behalf of the public.

Website: www.onr.org.uk

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www.hse.gov.uk

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From: [Nsipconsultations](#)
To: [Environmental Services](#)
Cc: [Nsipconsultations](#)
Subject: Public Health England Scoping Response: Moorside Nuclear Power Station : EN010047
Date: 24 July 2015 14:14:04
Attachments: [20150724_Scoping_response_Moorside_Nuclear_Power_Station_V01.00.pdf](#)

Dear Sir,

Thank you for including Public Health England in the above scoping consultation, please find our reply attached to this email.

We note that the applicant is running a public consultation exercise in parallel with scoping consultation and have therefore directly provided them with a copy of this response.

Should you have any questions regarding our response please do not hesitate to contact us.

Allister Gittins
Environmental Public Health Scientist,
NSIP Consultations
Environmental Hazards and Emergencies Dept
Centre for Radiation, Chemical and Environmental Hazards
Public Health England
nsipconsultations@phe.gov.uk
Tel: 01235 825278
www.gov.uk/phe Follow us on Twitter @PHE_uk
Protecting and improving the nation's health

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Public Health
England

CRCE/NSIP Consultations T +44 (0) 1235 825278
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Didcot
Oxfordshire OX11 0RQ www.gov.uk/phe

The Planning Inspectorate
3/18 Eagle Wing
Temple Quay House
2 The Square
Bristol
BS1 6PN
F.A.O Will Spencer

Your Ref: 111222_EN010047_1007313

Our Ref:

24th June 2015

Dear Will,

Re: Pre application consultation for the proposed Moorside Nuclear New Nuclear Power Generating Station.

Thank you for including Public Health England (PHE) in the preconsultation phase of the above application. Our response focuses on health protection issues relating to chemicals and radiation. Advice offered by PHE is impartial and independent.

In order to ensure that health is fully and comprehensively considered the Environmental Statement (ES) should provide sufficient information to allow the potential impact of the development on public health to be fully assessed.

We understand that the promoter will wish to avoid unnecessary duplication and that many issues including air quality, emissions to water, waste, contaminated land etc. will be covered elsewhere in the ES. PHE however believes the summation of relevant issues into a specific section of the report provides a focus which ensures that public health is given adequate consideration. The section should summarise key information, risk assessments, proposed mitigation measures, conclusions and residual impacts, relating to human health. Compliance with the requirements of National Policy Statements and relevant guidance and standards should also be highlighted.

In terms of the level of detail to be included in an ES, we recognise that the differing nature of projects is such that their impacts will vary. Any assessments undertaken to inform the ES should be proportionate to the potential impacts of the proposal, therefore we accept that, in some circumstances particular assessments may not be relevant to an application, or that an assessment may be adequately completed using a qualitative rather than quantitative methodology. In cases where this decision is made the promoters should fully explain and justify their rationale in the submitted documentation.

It is noted that the current proposals do not appear to consider possible health impacts of Electric and Magnetic Fields (EMF). The proposer should confirm either that the proposed development does include or impact upon any potential sources of EMF; or ensure that an adequate assessment of the possible impacts is undertaken and included in the ES.

The attached appendix outlines generic areas that should be addressed by all promoters when preparing ES for inclusion with an NSIP submission. We are happy to assist and discuss proposals further in the light of this advice.

Yours sincerely,

Dr Rajinder Pnaiser
Environmental Public Health Scientist

nsipconsultations@phe.gov.uk

Please mark any correspondence for the attention of National Infrastructure Planning Administration.

Appendix: PHE recommendations regarding the scoping document

General approach

The EIA should give consideration to best practice guidance such as the Government's Good Practice Guide for EIA¹. It is important that the EIA identifies and assesses the potential public health impacts of the activities at, and emissions from, the installation. Assessment should consider the development, operational, and decommissioning phases.

It is not PHE's role to undertake these assessments on behalf of promoters as this would conflict with PHE's role as an impartial and independent body.

Consideration of alternatives (including alternative sites, choice of process, and the phasing of construction) is widely regarded as good practice. Ideally, EIA should start at the stage of site and process selection, so that the environmental merits of practicable alternatives can be properly considered. Where this is undertaken, the main alternatives considered should be outlined in the ES².

The following text covers a range of issues that PHE would expect to be addressed by the promoter. However this list is not exhaustive and the onus is on the promoter to ensure that the relevant public health issues are identified and addressed. PHE's advice and recommendations carry no statutory weight and constitute non-binding guidance.

Receptors

The ES should clearly identify the development's location and the location and distance from the development of off-site human receptors that may be affected by emissions from, or activities at, the development. Off-site human receptors may include people living in residential premises; people working in commercial, and industrial premises and people using transport infrastructure (such as roads and railways), recreational areas, and publicly-accessible land. Consideration should also be given to environmental receptors such as the surrounding land, watercourses, surface and groundwater, and drinking water supplies such as wells, boreholes and water abstraction points.

¹ Environmental Impact Assessment: A guide to good practice and procedures - A consultation paper; 2006; Department for Communities and Local Government. Available from:

<http://www.communities.gov.uk/archived/publications/planningandbuilding/environmentalimpactassessment>

² DCLG guidance, 1999 <http://www.communities.gov.uk/documents/planningandbuilding/pdf/155958.pdf>

Impacts arising from construction and decommissioning

Any assessment of impacts arising from emissions due to construction and decommissioning should consider potential impacts on all receptors and describe monitoring and mitigation during these phases. Construction and decommissioning will be associated with vehicle movements and cumulative impacts should be accounted for.

We would expect the promoter to follow best practice guidance during all phases from construction to decommissioning to ensure appropriate measures are in place to mitigate any potential impact on health from emissions (point source, fugitive and traffic-related). An effective Construction Environmental Management Plan (CEMP) (and Decommissioning Environmental Management Plan (DEMP)) will help provide reassurance that activities are well managed. The promoter should ensure that there are robust mechanisms in place to respond to any complaints of traffic-related pollution, during construction, operation, and decommissioning of the facility.

Emissions to air and water

Significant impacts are unlikely to arise from installations which employ Best Available Techniques (BAT) and which meet regulatory requirements concerning emission limits and design parameters. However, PHE has a number of comments regarding emissions in order that the EIA provides a comprehensive assessment of potential impacts.

When considering a baseline (of existing environmental quality) and in the assessment and future monitoring of impacts these:

- should include appropriate screening assessments and detailed dispersion modelling where this is screened as necessary
- should encompass all pollutants which may be emitted by the installation in combination with all pollutants arising from associated development and transport, ideally these should be considered in a single holistic assessment
- should consider the construction, operational, and decommissioning phases
- should consider the typical operational emissions and emissions from start-up, shut-down, abnormal operation and accidents when assessing potential impacts and include an assessment of worst-case impacts
- should fully account for fugitive emissions

- should include appropriate estimates of background levels
- should identify cumulative and incremental impacts (i.e. assess cumulative impacts from multiple sources), including those arising from associated development, other existing and proposed development in the local area, and new vehicle movements associated with the proposed development; associated transport emissions should include consideration of non-road impacts (i.e. rail, sea, and air)
- should include consideration of local authority, Environment Agency, Defra national network, and any other local site-specific sources of monitoring data
- should compare predicted environmental concentrations to the applicable standard or guideline value for the affected medium (such as UK Air Quality Standards and Objectives and Environmental Assessment Levels)
 - If no standard or guideline value exists, the predicted exposure to humans should be estimated and compared to an appropriate health-based value (a Tolerable Daily Intake or equivalent). Further guidance is provided in Annex 1
 - This should consider all applicable routes of exposure e.g. include consideration of aspects such as the deposition of chemicals emitted to air and their uptake via ingestion
- should identify and consider impacts on residential areas and sensitive receptors (such as schools, nursing homes and healthcare facilities) in the area(s) which may be affected by emissions, this should include consideration of any new receptors arising from future development

Whilst screening of impacts using qualitative methodologies is common practice (e.g. for impacts arising from fugitive emissions such as dust), where it is possible to undertake a quantitative assessment of impacts then this should be undertaken.

PHE's view is that the EIA should appraise and describe the measures that will be used to control both point source and fugitive emissions and demonstrate that standards, guideline values or health-based values will not be exceeded due to emissions from the installation, as described above. This should include consideration of any emitted pollutants for which there are no set emission limits. When assessing the potential impact of a proposed installation on environmental quality, predicted environmental concentrations should be compared to the permitted concentrations in the affected media; this should include both standards for short and long-term exposure.

Additional points specific to emissions to air

When considering a baseline (of existing air quality) and in the assessment and future monitoring of impacts these:

- should include consideration of impacts on existing areas of poor air quality e.g. existing or proposed local authority Air Quality Management Areas (AQMAs)
- should include modelling using appropriate meteorological data (i.e. come from the nearest suitable meteorological station and include a range of years and worst case conditions)
- should include modelling taking into account local topography

Additional points specific to emissions to water

When considering a baseline (of existing water quality) and in the assessment and future monitoring of impacts these:

- should include assessment of potential impacts on human health and not focus solely on ecological impacts
- should identify and consider all routes by which emissions may lead to population exposure (e.g. surface watercourses; recreational waters; sewers; geological routes etc.)
- should assess the potential off-site effects of emissions to groundwater (e.g. on aquifers used for drinking water) and surface water (used for drinking water abstraction) in terms of the potential for population exposure
- should include consideration of potential impacts on recreational users (e.g. from fishing, canoeing etc) alongside assessment of potential exposure via drinking water

Land quality

We would expect the promoter to provide details of any hazardous contamination present on site (including ground gas) as part of the site condition report.

Emissions to and from the ground should be considered in terms of the previous history of the site and the potential of the site, once operational, to give rise to issues. Public health impacts associated with ground contamination and/or the

migration of material off-site should be assessed³ and the potential impact on nearby receptors and control and mitigation measures should be outlined.

Relevant areas outlined in the Government's Good Practice Guide for EIA include:

- effects associated with ground contamination that may already exist
- effects associated with the potential for polluting substances that are used (during construction / operation) to cause new ground contamination issues on a site, for example introducing / changing the source of contamination
- impacts associated with re-use of soils and waste soils, for example, re-use of site-sourced materials on-site or offsite, disposal of site-sourced materials offsite, importation of materials to the site, etc.

Waste

The EIA should demonstrate compliance with the waste hierarchy (e.g. with respect to re-use, recycling or recovery and disposal).

For wastes arising from the installation the EIA should consider:

- the implications and wider environmental and public health impacts of different waste disposal options
- disposal route(s) and transport method(s) and how potential impacts on public health will be mitigated

Other aspects

Within the EIA PHE would expect to see information about how the promoter would respond to accidents with potential off-site emissions e.g. flooding or fires, spills, leaks or releases off-site. Assessment of accidents should: identify all potential hazards in relation to construction, operation and decommissioning; include an assessment of the risks posed; and identify risk management measures and contingency actions that will be employed in the event of an accident in order to mitigate off-site effects.

The EIA should include consideration of the COMAH Regulations (Control of Major Accident Hazards) and the Major Accident Off-Site Emergency Plan (Management of Waste from Extractive Industries) (England and Wales) Regulations 2009: both in terms of their applicability to the installation itself, and the installation's potential to impact on, or be impacted by, any nearby installations themselves subject to the these Regulations.

³ Following the approach outlined in the section above dealing with emissions to air and water i.e. comparing predicted environmental concentrations to the applicable standard or guideline value for the affected medium (such as Soil Guideline Values)

There is evidence that, in some cases, perception of risk may have a greater impact on health than the hazard itself. A 2009 report⁴, jointly published by Liverpool John Moores University and the HPA, examined health risk perception and environmental problems using a number of case studies. As a point to consider, the report suggested: "Estimation of community anxiety and stress should be included as part of every risk or impact assessment of proposed plans that involve a potential environmental hazard. This is true even when the physical health risks may be negligible." PHE supports the inclusion of this information within EIAs as good practice.

Electromagnetic fields (EMF) [include for installations with associated substations and/or power lines]

There is a potential health impact associated with the electric and magnetic fields around substations and the connecting cables or lines. The following information provides a framework for considering the potential health impact.

In March 2004, the National Radiological Protection Board, NRPB (now part of PHE), published advice on limiting public exposure to electromagnetic fields. The advice was based on an extensive review of the science and a public consultation on its website, and recommended the adoption in the UK of the EMF exposure guidelines published by the International Commission on Non-ionizing Radiation Protection (ICNIRP):-

<http://webarchive.nationalarchives.gov.uk/20140629102627/http://www.hpa.org.uk/Publications/Radiation/NPRBArchive/DocumentsOfTheNRPB/Abisd1502/>

The ICNIRP guidelines are based on the avoidance of known adverse effects of exposure to electromagnetic fields (EMF) at frequencies up to 300 GHz (gigahertz), which includes static magnetic fields and 50 Hz electric and magnetic fields associated with electricity transmission.

PHE notes the current Government policy is that the ICNIRP guidelines are implemented in line with the terms of the EU Council Recommendation on limiting exposure of the general public (1999/519/EC):

http://webarchive.nationalarchives.gov.uk/+www.dh.gov.uk/en/PublicHealth/HealthProtection/DH_4089500

For static magnetic fields, the latest ICNIRP guidelines (2009) recommend that acute exposure of the general public should not exceed 400 mT (millitesla), for any part of the body, although the previously recommended value of 40 mT is the value used in the Council Recommendation. However, because of potential indirect adverse effects, ICNIRP recognises that practical policies need to be implemented to prevent inadvertent harmful exposure of people with implanted electronic medical devices and implants containing ferromagnetic materials, and injuries due to flying ferromagnetic objects, and these considerations can lead to much lower restrictions, such as 0.5 mT as advised by the International Electrotechnical Commission.

⁴ Available from: <http://www.cph.org.uk/showPublication.aspx?pubid=538>

At 50 Hz, the known direct effects include those of induced currents in the body on the central nervous system (CNS) and indirect effects include the risk of painful spark discharge on contact with metal objects exposed to the field. The ICNIRP guidelines give reference levels for public exposure to 50 Hz electric and magnetic fields, and these are respectively 5 kV m^{-1} (kilovolts per metre) and $100 \text{ } \mu\text{T}$ (microtesla). If people are not exposed to field strengths above these levels, direct effects on the CNS should be avoided and indirect effects such as the risk of painful spark discharge will be small. The reference levels are not in themselves limits but provide guidance for assessing compliance with the basic restrictions and reducing the risk of indirect effects. Further clarification on advice on exposure guidelines for 50 Hz electric and magnetic fields is provided in the following note on the HPA website:

http://webarchive.nationalarchives.gov.uk/20140714084352/http://www.hpa.org.uk/Topics/Radiation/UnderstandingRadiation/InformationSheets/info_IcnirpExpGuidelines/

The Department of Energy and Climate Change has also published voluntary code of practices which set out key principles for complying with the ICNIRP guidelines for the industry.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/37447/1256-code-practice-emf-public-exp-guidelines.pdf

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/48309/1255-code-practice-optimum-phasing-power-lines.pdf

There is concern about the possible effects of long-term exposure to electromagnetic fields, including possible carcinogenic effects at levels much lower than those given in the ICNIRP guidelines. In the NRPB advice issued in 2004, it was concluded that the studies that suggest health effects, including those concerning childhood leukaemia, could not be used to derive quantitative guidance on restricting exposure. However, the results of these studies represented uncertainty in the underlying evidence base, and taken together with people's concerns, provided a basis for providing an additional recommendation for Government to consider the need for further precautionary measures, particularly with respect to the exposure of children to power frequency magnetic fields.

The Stakeholder Advisory Group on ELF EMFs (SAGE) was then set up to take this recommendation forward, explore the implications for a precautionary approach to extremely low frequency electric and magnetic fields (ELF EMFs), and to make practical recommendations to Government. In the First Interim Assessment of the Group, consideration was given to mitigation options such as the 'corridor option' near power lines, and optimal phasing to reduce electric and magnetic fields. A Second Interim Assessment addresses electricity distribution systems up to 66 kV. The SAGE reports can be found at the following link:

<http://sagedialogue.org.uk/> (go to “Document Index” and Scroll to SAGE/Formal reports with recommendations)

The Agency has given advice to Health Ministers on the First Interim Assessment of SAGE regarding precautionary approaches to ELF EMFs and specifically regarding power lines and property, wiring and electrical equipment in homes:

http://webarchive.nationalarchives.gov.uk/20140629102627/http://www.hpa.org.uk/Publications/Radiation/HPAResponseStatementsOnRadiationTopics/rpdadvice_sage/

The evidence to date suggests that in general there are no adverse effects on the health of the population of the UK caused by exposure to ELF EMFs below the guideline levels. The scientific evidence, as reviewed by PHE, supports the view that precautionary measures should address solely the possible association with childhood leukaemia and not other more speculative health effects. The measures should be proportionate in that overall benefits outweigh the fiscal and social costs, have a convincing evidence base to show that they will be successful in reducing exposure, and be effective in providing reassurance to the public.

The Government response to the First SAGE Interim Assessment is given in the written Ministerial Statement by Gillian Merron, then Minister of State, Department of Health, published on 16th October 2009:

<http://www.publications.parliament.uk/pa/cm200809/cmhansrd/cm091016/wmstext/91016m0001.htm>

http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_107124

HPA and Government responses to the Second Interim Assessment of SAGE are available at the following links:

http://webarchive.nationalarchives.gov.uk/20140629102627/http://www.hpa.org.uk/Publications/Radiation/HPAResponseStatementsOnRadiationTopics/rpdadvice_sage2/

http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_130703

The above information provides a framework for considering the health impact associated with the proposed development, including the direct and indirect effects of the electric and magnetic fields as indicated above.

Ionising radiation

Particular considerations apply when an application involves the possibility of exposure to ionising radiation. In such cases it is important that the basic principles of radiation protection recommended by the International Commission on

Radiological Protection⁵ (ICRP) are followed. PHE provides advice on the application of these recommendations in the UK. The ICRP recommendations are implemented in the Euratom Basic Safety Standards⁶ (BSS) and these form the basis for UK legislation, including the Ionising Radiation Regulations 1999, the Radioactive Substances Act 1993, and the Environmental Permitting Regulations 2010.

PHE expects promoters to carry out the necessary radiological impact assessments to demonstrate compliance with UK legislation and the principles of radiation protection. This should be set out clearly in a separate section or report and should not require any further analysis by the PHE. In particular, the important principles of justification, optimisation and radiation dose limitation should be addressed. In addition compliance with the Euratom BSS and UK legislation should be clear.

When considering the radiological impact of routine discharges of radionuclides to the environment PHE would expect to see a full radiation dose assessment considering both individual and collective (population) doses for the public and, where necessary, workers. For individual doses, consideration should be given to those members of the public who are likely to receive the highest exposures (referred to as the representative person and is equivalent to the previous used 'average member of the critical group'). Different age groups should be considered as appropriate and should normally include adults, 1 year old and 10 year old children. In particular situations doses to the fetus should also be calculated⁷. The estimated doses to the representative person should be compared to the appropriate radiation dose criteria (dose constraints and dose limits), taking account of other releases of radionuclides from nearby locations as appropriate. Collective doses should also be considered for the UK, European and world populations where appropriate. The methods for assessing individual and collective radiation doses should follow the guidance given in 'Authorisation of discharges of radioactive waste to the environment Principles for the assessment of prospective public doses'⁸. In addition, the promoter might find it helpful to consider guidance published by the National Dose Assessment Working Group on its website (www.ndawg.org). It is important that the methods used in any radiological dose assessment are clear and that key parameter values and assumptions are given (for example, the location of the representative persons, habit data and models used in the assessment).

Any radiological impact assessment should also consider the possibility of short-term planned releases and the potential for accidental releases of radionuclides to the environment. This can be done by referring to compliance with relevant legislation and guidance.

The radiological impact of any solid waste storage and disposal should also be addressed in the assessment to ensure that this complies with UK practice and

⁵ These recommendations are given in publications of the ICRP notably publication 103 see the website at <http://www.icrp.org/>

⁶ Council Directive 96/29/EURATOM laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation. This has been updated to 2013/59/Euratom which will require implementation into national legislation by 6th February 2018.

⁷ HPA (2008) Guidance on the application of dose coefficients for the embryo, fetus and breastfed infant in dose assessments for members of the public. Doc HPA, RCE-5, 1-78, available at www.hpa.org.uk

⁸ The Environment Agency (EA), Scottish Environment Protection Agency (SEPA), Northern Ireland Environment Agency, Health Protection Agency and the Food Standards Agency (FSA). Authorisation of discharges of radioactive waste to the environment Principles for the assessment of prospective public doses. August 2012. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/296390/geho1202bklh-e-e.pdf

legislation; information should be provided on the category of waste involved (e.g. low level waste, LLW). It is also important that the radiological impact associated with the decommissioning of the site is addressed. Of relevance here is the advice on radiological criteria and assessments for land-based solid waste disposal facilities⁹. PHE advises that assessments of radiological impact during the operational phase should be performed in the same way as for any site authorised to discharge radioactive waste. PHE also advises that assessments of radiological impact during the post operational phase of the facility should consider long timescales (possibly in excess of 10,000 years) that are appropriate to the long-lived nature of the radionuclides in the waste, some of which may have half-lives of millions of years. The radiological assessment should consider exposure of members of hypothetical representative groups for a number of scenarios including the expected migration of radionuclides from the facility, and inadvertent intrusion into the facility once institutional control has ceased. For scenarios where the probability of occurrence can be estimated, both doses and health risks should be presented, where the health risk is the product of the probability that the scenario occurs, the dose if the scenario occurs and the health risk corresponding to unit dose. For inadvertent intrusion, the dose if the intrusion occurs should be presented. It is recommended that the post-closure phase be considered as a series of timescales, with the approach changing from more quantitative to more qualitative as times further in the future are considered. The level of detail and sophistication in the modelling should also reflect the level of hazard presented by the waste. The uncertainty due to the long timescales means that the concept of collective dose has very limited use, although estimates of collective dose from the 'expected' migration scenario can be used to compare the relatively early impacts from some disposal options if required.

Liaison with other stakeholders, comments should be sought from:

- the local authority for matters relating to noise, odour, vermin and dust nuisance
- the local authority regarding any site investigation and subsequent construction (and remediation) proposals to ensure that the site could not be determined as 'contaminated land' under Part 2A of the Environmental Protection Act
- the local authority regarding any impacts on existing or proposed Air Quality Management Areas
- the Food Standards Agency for matters relating to the impact on human health of pollutants deposited on land used for growing food/ crops
- the Environment Agency for matters relating to flood risk and releases with the potential to impact on surface and groundwaters
- the Environment Agency for matters relating to waste characterisation and acceptance

⁹ HPA RCE-8, Radiological Protection Objectives for the Land-based Disposal of Solid Radioactive Wastes, February 2009

- the Clinical Commissioning Groups, NHS commissioning Boards and Local Planning Authority for matters relating to wider public health

Environmental Permitting

Amongst other permits and consents, the development will require an environmental permit from the Environment Agency to operate (under the Environmental Permitting (England and Wales) Regulations 2010). Therefore the installation will need to comply with the requirements of best available techniques (BAT). PHE is a consultee for bespoke environmental permit applications and will respond separately to any such consultation.

Annex 1

Human health risk assessment (chemical pollutants)

The points below are cross-cutting and should be considered when undertaking a human health risk assessment:

- The promoter should consider including Chemical Abstract Service (CAS) numbers alongside chemical names, where referenced in the ES
- Where available, the most recent United Kingdom standards for the appropriate media (e.g. air, water, and/or soil) and health-based guideline values should be used when quantifying the risk to human health from chemical pollutants. Where UK standards or guideline values are not available, those recommended by the European Union or World Health Organisation can be used
- When assessing the human health risk of a chemical emitted from a facility or operation, the background exposure to the chemical from other sources should be taken into account
- When quantitatively assessing the health risk of genotoxic and carcinogenic chemical pollutants PHE does not favour the use of mathematical models to extrapolate from high dose levels used in animal carcinogenicity studies to well below the observed region of a dose-response relationship. When only animal data are available, we recommend that the 'Margin of Exposure' (MOE) approach¹⁰ is used

¹⁰ Benford D et al. 2010. Application of the margin of exposure approach to substances in food that are genotoxic and carcinogenic. Food Chem Toxicol 48 Suppl 1: S2-24



Lifeboats

Received 16/7/15.

Royal National Lifeboat Institution
West Quay Road, Poole, Dorset, BH15 1HZ
Tel 0845 122 6999 Fax 0845 126 1999
info@rnli.org.uk RNLI.org

Patron: Her Majesty The Queen
President: HRH The Duke of Kent KG Chairman: Admiral the Lord Boyce KG GCB OBE DL
Deputy Chairmen: Sir Andrew Cubie CBE FRSE, Vicky Wright BSc MSc CCCIPD
Chief Executive: Paul Boissier

RNLI (Trading) Ltd 01073377, RNLI (Sales) Ltd 2202240 and RNLI (Enterprises) Ltd 1784500
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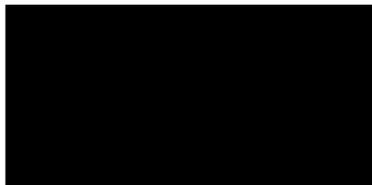
Will Spencer
EIA & Land Rights Adviser
3/18 Eagle Wing
Temple Quay House
2 The Square
Bristol
BS1 6PN

13 July 2015

Dear Mr Spencer,

Your Ref: EN010047

After careful consideration, I can confirm the RNLI have no grounds to object to this development. We do however request that any structures which are built out to sea are appropriately marked to minimise the risks associated to navigation. Additionally, a protocol would be required for emergency access into any restricted zone for lifesaving purposes



Andy Clift
Regional Operational Policy Manager

The RNLI is the charity that saves lives at sea

Registered in England and Wales (209603) and Scotland (SC037736). Charity number CHY 2678 in the Republic of Ireland

From: daniel.parry-jones@bnpparibas.com
To: [Environmental Services](#)
Cc: [Holly Trotman \(holly.trotman@royalmail.com\)](mailto:Holly.Trotman@royalmail.com); [Paul Bridson](#); [Dennis McCafferty](#)
Subject: Moorside Development Project - Scoping consultation with prescribed bodies
Date: 10 July 2015 11:29:34

FAO Will Spencer

Dear Mr Spencer,

Reference your letter to Royal Mail dated 26 June 2015, we have reviewed the applicant's Scoping Report and respond on behalf of Royal Mail.

In exercising its statutory duties, Royal Mail uses on a daily basis all of the roads that are expected to be affected by the proposed construction of the proposed Moorside Development Project.

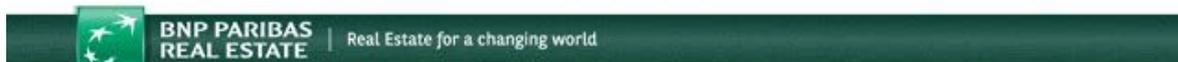
The transportation section of the applicant's EIA Scoping Report outlines the basis and methodology for assessing impacts on traffic and transportation within the proposed Transport Assessment area. This basis and methodology appears to be generally sound and commensurate with a proposal of this magnitude. However, there is limited information on the construction traffic management and, significantly, Royal Mail is not included in the list of transport operators for consultation on usage of the network.

Royal Mail therefore requests that it is added to the transport operators consultation list within the transportation section of the EIA. Royal Mail looks forward to contact from the applicant in this regard because the construction of the Moorside Project has potential to cause operational disruption to Royal Mail through traffic delays with additional traffic being generated by construction staff, civil and mechanical works traffic and movement of abnormal indivisible loads, plus any associated road works. Appropriate advance consultation with Royal Mail and provision of Construction Traffic Management Plan information may serve to mitigate the risk of operational disruption Royal Mail and thus obviate the need for representations by Royal Mail in the DCO process.

The applicant or its highways consultant should contact myself on behalf of Royal Mail in the first instance.

Many thanks.

Dan Parry-Jones



Daniel Parry-Jones
Associate Director
Consulting

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From: [Miller, Craig](#)
To: [Helen Lancaster](#)
Cc: [Aikman, Ian](#); [Hayward, Julie](#); [Amyes, Dorothy](#); [Hoad, Lucy](#)
Subject: Planning Inspectorate consultation on NuGeneration Scoping Report for Moorside power station
Date: 21 July 2015 11:07:20

Helen

I refer to the text of your email as below and would thank you for the consultation. I can confirm that Scottish Borders Council have no comments to offer,

Regards

Craig Miller MRTPI
Lead Planning Officer
Development Management
Regulatory Services
Scottish Borders Council

tel - 01835 825029 mobile - 07765 386404
email - cmiller@scotborders.gov.uk

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"FAO Head of Planning

Dear Sir/Madam

Please see the following hyperlink to correspondence on the proposed Moorside Development.

http://infrastructure.planningportal.gov.uk/wp-content/uploads/2015/06/150626_Letter-to-stat-cons_Scoping_English.pdf

Please note the deadline for consultation responses is 26 July 2015, and is a statutory requirement that cannot be extended.

Kind regards,

*Will Spencer
EIA and Land Rights Advisor"*

Please get in touch if you have any further queries.

*Helen Lancaster
Senior EIA and Land Rights Advisor*

Major Applications and Plans

The Planning Inspectorate, 3/18 Eagle Wing, Temple Quay House, Temple Quay, Bristol BS1 6PN

Direct line: 0303 444 5063

Helpline: 0303 444 5000

Email: Helen.Lancaster@pins.gsi.gov.uk

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Sellafield Site

Sellafield, Seascale
Cumbria CA20 1PG
Tel: +44 (0)19467 28333
Fax: +44 (0)19467 28987
www.sellafieldsites.com

22 July 2015

The Planning Inspectorate,
FAO Will Spencer,
3/18 Eagle Wing,
Temple Quay House,
2, The Square,
Bristol
WA16 8QZ

Direct tel: 019467 80019
Direct fax: 019467 76822

Your ref: EN010047
Our ref: None

Dear Mr Spencer

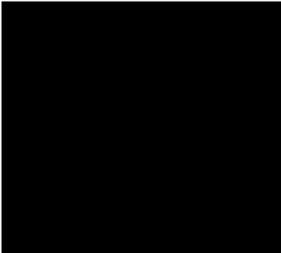
Sellafield Ltd Response to Moorside EIA Scoping Report Consultation

Sellafield Ltd welcomes the opportunity to comment on the information to be provided in an environmental statement relating to NuGen's Moorside Project, as set out in the Moorside Environmental Impact Assessment (EIA) Scoping Report. As operators of the Sellafield Site, immediately adjacent to the Moorside Site, we have a strong interest in the scope of the EIA, both in identification of the Moorside site baseline and in the assessment of the impact of the Moorside Project on that baseline.

Listed below are our comments on specific chapters from the Scoping Report. The criteria for selecting these are based on whether the topics covered relate to the safe and environmentally sound operation of the Sellafield Site. So for example we have not provided comments on chapters dealing with the historic environment, biodiversity or countryside recreation.

Our comments are made in the context of ongoing work that Sellafield Ltd staff, with NDA support, are performing with NuGen and their contractors. This work covers a wide range of EIA issues of common interest for the successful operation of what are likely to be the two largest nuclear sites in the UK. Given the complexity of the two sites and the long duration of the operational phases we expect that identification and assessment of Moorside environmental impacts will be evolutionary, so recommend that the process recognises this and allows for additional items to be added as the assessment proceeds.

Yours sincerely



Director, Sellafield Ltd
ne@sellafieldsites.com

Sellafield Ltd Comments on the Moorside Environmental Impact Assessment Scoping Report, May 2105

General Comments

The Moorside Project is a Nationally Significant Infrastructure Project, and as such its environmental impact assessment will be complex and wide ranging. This is reflected in the scoping report which runs to almost one thousand pages. The usefulness of the document would be much improved if more use were made of summaries to identify the proposed baselining assessment and outcomes targeted, both at the individual chapter level and for the document as a whole. Chapter 21 provides a summary, but all measures identified are 'potential' and the commitment to their use is then qualified by extensive use of 'could'.

The scoping report makes extensive use of reports and information originated from either BNFL or Sellafield Ltd, recognising that in both cases the reports and information are owned by NDA. NuGen, NDA and Sellafield Ltd have entered into an agreement that facilitates the sharing of historic BNFL reports and information and current Sellafield Ltd information. The terms of this agreement make clear that the reports and information provided by NDA and Sellafield Ltd to NuGen or its contractors are not warranted as being correct or suitable for NuGen's use. Where such reports or information are used or referenced in the Scoping Report, The Planning Inspectorate should satisfy itself that the reports and information are valid for use in the EIA.

Linked to the above are the dates of some of the BNFL references used, for example the 1994 BNFL Noise and Vibration Study, Traffic Noise Assessment. The Planning Inspectorate should satisfy itself that references of this age are sufficient.

Given the anticipated significant spoil arisings and import of large quantities of construction materials we would expect more reference to be made to the Cumbria County Council Minerals and Waste Policy.

Specific Comments

Chapter 4 - Transport

Section 4.1.2 – Suggest that the term 'additional commuting trips' be defined so that the potential impact of this can be fully understood.

Section 4.4 – Sellafield Ltd is actively engaging with NuGen on transport issues, particularly for road, rail and logistics issues. The full extent of this may not be apparent from the text in this section.

Chapter 5 – Noise and Vibration

Complaints have been made to EA regarding noise from the Sellafield Site, principally regarding Fellside CHP. This has led to follow up site visits and discussions. NuGen should note this given the Scoping Report comments on existing noise levels.

Chapter 6 – Air Quality

The associated plan for this topic (Volume 3) states a nine month data collection period, with an option to extend to a full year. We recommend that the air quality baselining be undertaken over a minimum period of one year. For the dust collection element it does not appear that radionuclide monitoring is planned. For the baselining and site excavation periods we recommend that radionuclide monitoring of dust is undertaken.

Chapter 7 – Radiological Issues

General comment – As the detail of NuGen's plans is developed we recommend that the detection limits for each radionuclide (and elsewhere for non radiological analysis) are identified.

Section 7.5.9 – NuGen site investigation to determine the radiological status of soils, surface water and groundwater is likely to continue. Baselining and EIA may need to be reviewed in the light of the site investigation results. This is recognised in section 7.5.22. Also see MOLF comment below.

Section 7.7.8 – This section only refers to historic discharges, and does not explicitly address ongoing discharges. This is relevant in that future discharges from the Sellafield Site may increase as a result of high hazard reduction and decommissioning work, with out necessarily requiring an increase in currently authorised levels. His point also applies in the operational phase, see section 7.7.9.

Chapter 8 – Soils, Geology, Agricultural Land and Land Quality

Section 8.3 – The geological information and conceptual model for the Sellafield Complex have been derived for the Sellafield Site, not the Moorside Site. The Planning Inspectorate should satisfy itself that the BNFL and Sellafield Ltd references used are sufficient.

Section 8.4.2 – The statement that 'The Environment Agency also identifiedthe need for remediation at Sellafield Tarn...' should be confirmed, and referenced if correct. Alternatively the statement may no longer be relevant as the Sellafield Tarn area is not included in the land area available to NuGen, noting that this situation could change.

Section 8.5.34 – The possibility that contaminants such as TNT and Ammonium Nitrate may be present in the Sellafield Tarn area, arising from demolition debris, is recognised. However we are not aware of any references to support the possibility that unexploded ordnance may be present.

Survey and Monitoring Plan – Soils and Geology. The intention to perform three monthly rounds of gas monitoring and then make a decision on consultation with consultees as to whether further ground gas monitoring is required is noted. The Sellafield Ltd view is that monitoring over a longer period than three months is warranted.

Chapter 9 – Freshwater Environment

Section 9.5 – The factors influencing baseline conditions do not appear to recognise the impact of the excavations for the Moorside Project itself. The Scoping Report should address these impacts.

Survey and Monitoring Plan – Freshwater Quality and Flows. It appears that no water sampling at the county drain inlet to Sellafield Tarn or water flow from the tarn is proposed. This is a gap that is likely to make subsequent data interpretation more difficult.

Chapter 10 – Marine and Coastal Physical Environment

It is not clear whether the potential impact of the MOLF on existing infrastructure, existing marine behaviours and distribution of past and future discharges has been addressed.

Chapter 16 – Socio Economics and Human Population

General - Without adequate mitigation and co-development the Moorside project will have significant implications for the cost effective and efficient operation of Sellafield and future mission delivery. This is a function of the magnitude of the Moorside project; the unique socio-economic composition of the West Cumbrian economy and the significant quantum of public investment made at Sellafield. Nugen's approach to the socio-economic assessment should be more robust, and be based on a detailed econometric modelling approach, informed by survey and partners data, to assess the potential implications on Sellafield Ltd and others. A co-designed mitigation plan to realise the considerable potential socio-economic opportunities for West Cumbria and the nuclear sector nationally should then be developed.

Section 16.5 – The scope here is limited to the assessment of increased expenditure effects associated with the increased demand for goods and services. Sellafield Ltd recommends that the scope is extended to evaluate supply chain risks, capacity and ability to meet the anticipated cumulative demand of Moorside and Sellafield Ltd, section 16.5.42, and that the scope is extended to assess potential competitive effects within the West Cumbrian nuclear and construction sectors e.g. displacement and increased mission costs.

Section 16.6 - Due to the magnitude of the Moorside development, the unique contribution that Sellafield Ltd makes to the economy of West Cumbria and the quantum of public investment made at Sellafield, we recommend that Sellafield Ltd is therefore included as a receptor for subsequent collaborative socio-economic impact assessment.

Section 16.7 – The assessment should also include:

- 1) Cumulative impacts on the local and national supply chain – assess supply chain sectoral capacity, potential, ability and maturity of business growth/support services to meet the increased demand for Moorside in combination with projections for the planned demand required to deliver the Sellafield Ltd mission;
- 2) Competitive and displacement impacts on Sellafield Ltd associated with the increased demand from Moorside for employment (including nuclear sector specific, construction, skilled and support workforce);

- 3) Econometric Impact Modelling – development of a nuclear sector econometric model to quantify the impact of the Moorside project on the relevant sectors of the West Cumbrian economy and employment profile, capturing Sellafield Ltd (and other partners) current and future demand estimates.

Chapter 21 – Summary of Potential Environmental Effects

Construction Phase, Transport: No mention is made of road stopping up or diversion measures. We understand that these are options being considered by NuGen. Unless these options have subsequently been discounted the Scoping Report should include assessment of these options, since they have the potential to impact significantly on both the main Sellafield site gate (currently the designated Sellafield Site emergency egress point) and the local transport network.

Construction Phase, Radiological: While both Sellafield Ltd and NuGen monitoring have not identified ground contamination that could give rise to dust control measures being required for radiation protection reasons, this outcome cannot be discounted at this stage. To protect against this outcome the potential measures section should address preventative measures as well as the stated reactive measures.

Construction Phase (and if retained, Operational Phase), Marine Physical Environment: The MOLF is noted as a structure of uncertain timescale – it is required for the construction phase, and may be retained for the operational phase. It has the potential to impact on the behaviour of current Sellafield Ltd discharges as well as impact on tide and littoral drifts, with consequent impacts on mobilisation of historic discharges. These aspects should be addressed by the EIA.

Operations Phase, Freshwater Environment: The potential impacts of abstraction of water from rivers or aquifers is noted for the operational phase, but surprisingly not for the construction phase. Whether this is a gap should be confirmed by NuGen. For both the construction and operational phases the existing Sellafield Site water abstraction licences are 'protected' under a formal three way Co-Operation Agreement between NuGen, NDA and Sellafield Ltd. Thus the additional water needs for Moorside may present a licensing challenge in terms of total licensed abstraction sought compared to river and aquifer capacity. Since actual abstraction is unlikely to be at the full licensed level the capacity may not in practice be challenged. The EIA assessment should be based on the licensed abstraction levels for Sellafield Ltd in place at the time.

From: [Navigation Directorate](#)
To: [Environmental Services](#)
Cc: haveyoursay@nugeneration.com; [Nick Dodson](#); [Thomas Arculus](#)
Subject: RE: EN010047 – Nugen Moorside Development – EIA Scoping Consultation
Date: 23 July 2015 13:14:42

Dear Will Spencer,

We note that significant works below the high water mark are proposed within the development site boundary, including a Marine Off Loading Facility as well as pipelines and inlet/outlet structures. Therefore, the applicant should include a marine navigation risk assessment (MNRA) detailing all works below the high water mark and their associated environmental impacts in their environmental statement. This MNRA should also consider appropriate risk mitigation measures that may be required as a result of these marine construction works.

Of course we would be happy to discuss such matters directly with the applicant in due course.

Kind regards,

Steve Vanstone
Navigation Services Officer

From: Environmental Services [<mailto:environmentalservices@pins.gsi.gov.uk>]
Sent: 26 June 2015 15:11
To: Navigation Directorate
Cc: Nick Dodson
Subject: EN010047 – Nugen Moorside Development – EIA Scoping Consultation

Dear Sir/Madam

Please see the following hyperlink to correspondence on the proposed Moorside Development.

http://infrastructure.planningportal.gov.uk/wp-content/uploads/2015/06/150626_Letter-to-stat-cons_Scoping_English.pdf

Please note the deadline for consultation responses is 26 July 2015, and is a statutory requirement that cannot be extended.

Kind regards,

Will Spencer
EIA & Land Rights Advisor

Major Applications and Plans, The Planning Inspectorate, Temple Quay House,
Temple Quay, Bristol, BS1 6PN

Direct Line: 0303 444 5048

Twitter: [@PINSgov](#)
Helpline: 0303 444 5000
Email: EnvironmentalServices@infrastructure.gsi.gov.uk

Web: www.planningportal.gov.uk/planninginspectorate (Planning Inspectorate casework and appeals)

Web: www.planningportal.gov.uk/infrastructure (Planning Inspectorate's National Infrastructure Planning portal)

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23 July 2015

FAO Will Spencer
EIA and Land Rights Advisor
On behalf of the Secretary of State
The Planning Inspectorate
3/18 Eagle Wing
Temple House Quay
2 The Square
Bristol BS1 6PN

Dear Sirs

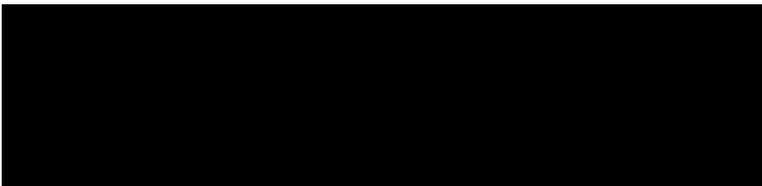
**Planning Act 2008 (as amended) and The Infrastructure Planning
(Environmental Impact Assessment) Regulations 2009 (as amended) –
Regulation 8**

**Application by Nugeneration Limited for an Order Granting Development
Consent for the Moorside Development Project**

I am writing on behalf of Welsh Government in respect of the above.

As a general comment, Welsh Government expects the proposed discharges from the site into the Irish Sea to be included in the environmental statement.

Yours faithfully



Gwenllian Roberts
Deputy Director Energy Wales Unit

APPENDIX 3

PRESENTATION OF THE ENVIRONMENTAL STATEMENT

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The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (SI 2264) (as amended) sets out the information which must be provided for an application for a development consent order (DCO) for nationally significant infrastructure under the Planning Act 2008. Where required, this includes an environmental statement. Applicants may also provide any other documents considered necessary to support the application. Information which is not environmental information need not be replicated or included in the ES.

An environmental statement (ES) is described under the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (SI 2263) (as amended) (the EIA Regulations) as a statement:

- (a) 'that includes such of the information referred to in Part 1 of Schedule 4 as is reasonably required to assess the environmental effects of the development and of any associated development and which the applicant can, having regard in particular to current knowledge and methods of assessment, reasonably be required to compile; but
- (a) that includes at least the information required in Part 2 of Schedule 4'.

(EIA Regulations Regulation 2)

The purpose of an ES is to ensure that the environmental effects of a proposed development are fully considered, together with the economic or social benefits of the development, before the development consent application under the Planning Act 2008 is determined. The ES should be an aid to decision making.

The Secretary of State advises that the ES should be laid out clearly with a minimum amount of technical terms and should provide a clear objective and realistic description of the likely significant impacts of the proposed development. The information should be presented so as to be comprehensible to the specialist and non-specialist alike. The Secretary of State recommends that the ES be concise with technical information placed in appendices.

ES Indicative Contents

The Secretary of State emphasises that the ES should be a 'stand alone' document in line with best practice and case law. The EIA Regulations Schedule 4, Parts 1 and 2, set out the information for inclusion in environmental statements.

Schedule 4 Part 1 of the EIA Regulations states this information includes:

- ‘17. *Description of the development, including in particular—*
- (a) a description of the physical characteristics of the whole development and the land-use requirements during the construction and operational phases;*
 - (b) a description of the main characteristics of the production processes, for instance, nature and quantity of the materials used;*
 - (c) an estimate, by type and quantity, of expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation, etc) resulting from the operation of the proposed development.*
18. *An outline of the main alternatives studied by the applicant and an indication of the main reasons for the applicant's choice, taking into account the environmental effects.*
19. *A description of the aspects of the environment likely to be significantly affected by the development, including, in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the interrelationship between the above factors.*
20. *A description of the likely significant effects of the development on the environment, which should cover the direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the development, resulting from:*
- (a) the existence of the development;*
 - (b) the use of natural resources;*
 - (c) the emission of pollutants, the creation of nuisances and the elimination of waste,*
- and the description by the applicant of the forecasting methods used to assess the effects on the environment.*
21. *A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment.*
22. *A non-technical summary of the information provided under paragraphs 1 to 5 of this Part.*
23. *An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the applicant in compiling the required information’.*

EIA Regulations Schedule 4 Part 1

The content of the ES must include as a minimum those matters set out in Schedule 4 Part 2 of the EIA Regulations. This includes the consideration of 'the main alternatives studied by the applicant' which the Secretary of State recommends could be addressed as a separate chapter in the ES. Part 2 is included below for reference:

Schedule 4 Part 2

- A description of the development comprising information on the site, design and size of the development
- A description of the measures envisaged in order to avoid, reduce and, if possible, remedy significant adverse effects
- The data required to identify and assess the main effects which the development is likely to have on the environment
- An outline of the main alternatives studied by the applicant and an indication of the main reasons for the applicant's choice, taking into account the environmental effects, and
- A non-technical summary of the information provided [under the four paragraphs above].

Traffic and transport is not specified as a topic for assessment under Schedule 4; although in line with good practice the Secretary of State considers it is an important consideration per se, as well as being the source of further impacts in terms of air quality and noise and vibration.

Balance

The Secretary of State recommends that the ES should be balanced, with matters which give rise to a greater number or more significant impacts being given greater prominence. Where few or no impacts are identified, the technical section may be much shorter, with greater use of information in appendices as appropriate.

The Secretary of State considers that the ES should not be a series of disparate reports and stresses the importance of considering inter-relationships between factors and cumulative impacts.

Development Proposals

The proposed development parameters will need to be clearly defined in the draft DCO and therefore in the accompanying ES which should support the application as described. The Secretary of State is not able to entertain material changes to a proposed development once an application is submitted. The Secretary of State draws the attention of the applicant to the DCLG and the Planning Inspectorate's published advice on the preparation of a draft DCO and accompanying application documents.

Flexibility

The Secretary of State acknowledges that the EIA process is iterative, and therefore the proposals may change and evolve. For example, there may be changes to the proposed development design in response to consultation. Such changes should be addressed in the ES. However, at the time of the application for a DCO, any proposed development parameters should not be so wide ranging as to represent effectively different proposed developments.

It is a matter for the applicant, in preparing an ES, to consider whether it is possible to assess robustly a range of impacts resulting from a large number of undecided parameters. The description of the proposed development in the ES must not be so wide that it is insufficiently certain to comply with requirements of paragraph 17 of Schedule 4 Part 1 of the EIA Regulations.

The Rochdale Envelope principle (see *R v Rochdale MBC ex parte Tew* (1999) and *R v Rochdale MBC ex parte Milne* (2000)) is an accepted way of dealing with uncertainty in preparing development applications. The applicant's attention is drawn to the Planning Inspectorate's Advice Note 9 'Rochdale Envelope' which is available on the Advice Note's page of the National Infrastructure Planning website.

The applicant should make every attempt to narrow the range of options and explain clearly in the ES which elements of the proposed development have yet to be finalised and provide the reasons. Where some flexibility is sought and the precise details are not known, the applicant should assess the maximum potential adverse impacts the proposed development could have to ensure that the proposed development as it may be constructed has been properly assessed.

The ES should be able to confirm that any changes to the development within any proposed parameters would not result in significant impacts not previously identified and assessed. The maximum and other dimensions of the proposed development should be clearly described in the ES, with appropriate justification. It will also be important to consider choice of materials, colour and the form of the structures and of any buildings. Lighting proposals should also be described.

Scope

The Secretary of State recommends that the physical scope of the study areas should be identified under all the environmental topics and should be sufficiently robust in order to undertake the assessment. The extent of the study areas should be on the basis of recognised professional guidance, whenever such guidance is available. The study areas should also be agreed with the relevant

consultees and local authorities and, where this is not possible, this should be stated clearly in the ES and a reasoned justification given. The scope should also cover the breadth of the topic area and the temporal scope, and these aspects should be described and justified.

Physical Scope

In general the Secretary of State recommends that the physical scope for the EIA should be determined in the light of:

- the nature of the proposal being considered
- the relevance in terms of the specialist topic
- the breadth of the topic
- the physical extent of any surveys or the study area, and
- the potential significant impacts.

The Secretary of State recommends that the physical scope of the study areas should be identified for each of the environmental topics and should be sufficiently robust in order to undertake the assessment. This should include at least the whole of the application site, and include all offsite works. For certain topics, such as landscape and transport, the study area will need to be wider. The extent of the study areas should be on the basis of recognised professional guidance and best practice, whenever this is available, and determined by establishing the physical extent of the likely impacts. The study areas should also be agreed with the relevant consultees and, where this is not possible, this should be stated clearly in the ES and a reasoned justification given.

Breadth of the Topic Area

The ES should explain the range of matters to be considered under each topic and this may respond partly to the type of proposed development being considered. If the range considered is drawn narrowly then a justification for the approach should be provided.

Temporal Scope

The assessment should consider:

- environmental impacts during construction works
- environmental impacts on completion/operation of the proposed development
- where appropriate, environmental impacts a suitable number of years after completion of the proposed development (for example, in order to allow for traffic growth or maturing of any landscape proposals), and
- environmental impacts during decommissioning.

In terms of decommissioning, the Secretary of State acknowledges that the further into the future any assessment is made, the less reliance may be placed on the outcome. However, the purpose of

such a long term assessment, as well as to enable the decommissioning of the works to be taken into account, is to encourage early consideration as to how structures can be taken down. The purpose of this is to seek to minimise disruption, to re-use materials and to restore the site or put it to a suitable new use. The Secretary of State encourages consideration of such matters in the ES.

The Secretary of State recommends that these matters should be set out clearly in the ES and that the suitable time period for the assessment should be agreed with the relevant statutory consultees.

The Secretary of State recommends that throughout the ES a standard terminology for time periods should be defined, such that for example, 'short term' always refers to the same period of time.

Baseline

The Secretary of State recommends that the baseline should describe the position from which the impacts of the proposed development are measured. The baseline should be chosen carefully and, whenever possible, be consistent between topics. The identification of a single baseline is to be welcomed in terms of the approach to the assessment, although it is recognised that this may not always be possible.

The Secretary of State recommends that the baseline environment should be clearly explained in the ES, including any dates of surveys, and care should be taken to ensure that all the baseline data remains relevant and up to date.

For each of the environmental topics, the data source(s) for the baseline should be set out together with any survey work undertaken with the dates. The timing and scope of all surveys should be agreed with the relevant statutory bodies and appropriate consultees, wherever possible.

The baseline situation and the proposed development should be described within the context of the site and any other proposals in the vicinity.

Identification of Impacts and Method Statement

Legislation and Guidelines

In terms of the EIA methodology, the Secretary of State recommends that reference should be made to best practice and any standards, guidelines and legislation that have been used to inform the assessment. This should include guidelines prepared by relevant professional bodies.

In terms of other regulatory regimes, the Secretary of State recommends that relevant legislation and all permit and licences required should be listed in the ES where relevant to each topic. This information should also be submitted with the application in accordance with the APFP Regulations.

In terms of assessing the impacts, the ES should approach all relevant planning and environmental policy – local, regional and national (and where appropriate international) – in a consistent manner.

Assessment of Effects and Impact Significance

The EIA Regulations require the identification of the ‘likely significant effects of the development on the environment’ (Schedule 4 Part 1 paragraph 20).

As a matter of principle, the Secretary of State applies the precautionary approach to follow the Court’s⁴ reasoning in judging ‘significant effects’. In other words ‘likely to affect’ will be taken as meaning that there is a probability or risk that the proposed development will have an effect, and not that a development will definitely have an effect.

The Secretary of State considers it is imperative for the ES to define the meaning of ‘significant’ in the context of each of the specialist topics and for significant impacts to be clearly identified. The Secretary of State recommends that the criteria should be set out fully and that the ES should set out clearly the interpretation of ‘significant’ in terms of each of the EIA topics. Quantitative criteria should be used where available. The Secretary of State considers that this should also apply to the consideration of cumulative impacts and impact inter-relationships.

The Secretary of State recognises that the way in which each element of the environment may be affected by the proposed development can be approached in a number of ways. However it considers that it would be helpful, in terms of ease of understanding and in terms of clarity of presentation, to consider the impact assessment in a similar manner for each of the specialist topic areas. The Secretary of State recommends that a common format should be applied where possible.

⁴ See Landelijke Vereniging tot Behoud van de Waddenzee and Nederlandse Vereniging tot Bescherming van Vogels v Staatssecretaris van Landbouw (Waddenzee Case No C 127/02/2004)

Inter-relationships between environmental factors

The inter-relationship between aspects of the environments likely to be significantly affected is a requirement of the EIA Regulations (see Schedule 4 Part 1 of the EIA Regulations). These occur where a number of separate impacts, e.g. noise and air quality, affect a single receptor such as fauna.

The Secretary of State considers that the inter-relationships between factors must be assessed in order to address the environmental impacts of the proposal as a whole. This will help to ensure that the ES is not a series of separate reports collated into one document, but rather a comprehensive assessment drawing together the environmental impacts of the proposed development. This is particularly important when considering impacts in terms of any permutations or parameters to the proposed development.

Cumulative Impacts

The potential cumulative impacts with other major developments will need to be identified, as required by the Directive. The significance of such impacts should be shown to have been assessed against the baseline position (which would include built and operational development). In assessing cumulative impacts, other major development should be identified through consultation with the local planning authorities and other relevant authorities on the basis of those that are:

- projects that are under construction
- permitted application(s) not yet implemented
- submitted application(s) not yet determined
- all refusals subject to appeal procedures not yet determined
- projects on the National Infrastructure's programme of projects, and
- projects identified in the relevant development plan (and emerging development plans - with appropriate weight being given as they move closer to adoption) recognising that much information on any relevant proposals will be limited.

Details should be provided in the ES, including the types of development, location and key aspects that may affect the EIA and how these have been taken into account as part of the assessment will be crucial in this regard.

The Secretary of State recommends that offshore wind farms should also take account of any offshore licensed and consented activities in the area, for the purposes of assessing cumulative effects, through consultation with the relevant licensing/consenting bodies.

For the purposes of identifying any cumulative effects with other developments in the area, applicants should also consult

consenting bodies in other EU states to assist in identifying those developments (see commentary on Transboundary Effects below).

Related Development

The ES should give equal prominence to any development which is related with the proposed development to ensure that all the impacts of the proposal are assessed.

The Secretary of State recommends that the applicant should distinguish between the proposed development for which development consent will be sought and any other development. This distinction should be clear in the ES.

Alternatives

The ES must set out an outline of the main alternatives studied by the applicant and provide an indication of the main reasons for the applicant's choice, taking account of the environmental effect (Schedule 4 Part 1 paragraph 18).

Matters should be included, such as inter alia alternative design options and alternative mitigation measures. The justification for the final choice and evolution of the proposed development should be made clear. Where other sites have been considered, the reasons for the final choice should be addressed.

The Secretary of State advises that the ES should give sufficient attention to the alternative forms and locations for the off-site proposals, where appropriate, and justify the needs and choices made in terms of the form of the development proposed and the sites chosen.

Mitigation Measures

Mitigation measures may fall into certain categories namely: avoid; reduce; compensate or enhance (see Schedule 4 Part 1 paragraph 21); and should be identified as such in the specialist topics. Mitigation measures should not be developed in isolation as they may relate to more than one topic area. For each topic, the ES should set out any mitigation measures required to prevent, reduce and where possible offset any significant adverse effects, and to identify any residual effects with mitigation in place. Any proposed mitigation should be discussed and agreed with the relevant consultees.

The effectiveness of mitigation should be apparent. Only mitigation measures which are a firm commitment and can be shown to be deliverable should be taken into account as part of the assessment.

It would be helpful if the mitigation measures proposed could be cross referred to specific provisions and/or requirements proposed

within the draft development consent order. This could be achieved by means of describing the mitigation measures proposed either in each of the specialist reports or collating these within a summary section on mitigation.

The Secretary of State advises that it is considered best practice to outline in the ES, the structure of the environmental management and monitoring plan and safety procedures which will be adopted during construction and operation and may be adopted during decommissioning.

Cross References and Interactions

The Secretary of State recommends that all the specialist topics in the ES should cross reference their text to other relevant disciplines. Interactions between the specialist topics is essential to the production of a robust assessment, as the ES should not be a collection of separate specialist topics, but a comprehensive assessment of the environmental impacts of the proposal and how these impacts can be mitigated.

As set out in EIA Regulations Schedule 4 Part 1 paragraph 23, the ES should include an indication of any technical difficulties (technical deficiencies or lack of know-how) encountered by the applicant in compiling the required information.

Consultation

The Secretary of State recommends that any changes to the proposed development design in response to consultation should be addressed in the ES.

It is recommended that the applicant provides preliminary environmental information (PEI) (this term is defined in the EIA Regulations under regulation 2 'Interpretation') to the local authorities.

Consultation with the local community should be carried out in accordance with the SoCC which will state how the applicant intends to consult on the preliminary environmental information (PEI). This PEI could include results of detailed surveys and recommended mitigation actions. Where effective consultation is carried out in accordance with Section 47 of the Planning Act, this could usefully assist the applicant in the EIA process – for example the local community may be able to identify possible mitigation measures to address the impacts identified in the PEI. Attention is drawn to the duty upon applicants under Section 50 of the Planning Act to have regard to the guidance on pre-application consultation.

Transboundary Effects

The Secretary of State recommends that consideration should be given in the ES to any likely significant effects on the environment of another Member State of the European Economic Area. In particular, the Secretary of State recommends consideration should be given to discharges to the air and water and to potential impacts on migratory species and to impacts on shipping and fishing areas.

The Applicant's attention is also drawn to the Planning Inspectorate's Advice Note 12 'Development with significant transboundary impacts consultation' which is available on the Advice Notes Page of the National Infrastructure Planning website

Summary Tables

The Secretary of State recommends that in order to assist the decision making process, the applicant may wish to consider the use of tables:

Table X to identify and collate the residual impacts after mitigation on the basis of specialist topics, inter-relationships and cumulative impacts.

Table XX to demonstrate how the assessment has taken account of this Opinion and other responses to consultation.

Table XXX to set out the mitigation measures proposed, as well as assisting the reader, the Secretary of State considers that this would also enable the applicant to cross refer mitigation to specific provisions proposed to be included within the draft Development Consent Order.

Table XXXX to cross reference where details in the HRA (where one is provided) such as descriptions of sites and their locations, together with any mitigation or compensation measures, are to be found in the ES.

Terminology and Glossary of Technical Terms

The Secretary of State recommends that a common terminology should be adopted. This will help to ensure consistency and ease of understanding for the decision making process. For example, 'the site' should be defined and used only in terms of this definition so as to avoid confusion with, for example, the wider site area or the surrounding site.

A glossary of technical terms should be included in the ES.

Presentation

The ES should have all of its paragraphs numbered, as this makes referencing easier as well as accurate.

Appendices must be clearly referenced, again with all paragraphs numbered.

All figures and drawings, photographs and photomontages should be clearly referenced. Figures should clearly show the proposed site application boundary.

Confidential Information

In some circumstances it will be appropriate for information to be kept confidential. In particular, this may relate to information about the presence and locations of rare or sensitive species such as badgers, rare birds and plants where disturbance, damage, persecution or commercial exploitation may result from publication of the information. Where documents are intended to remain confidential the applicant should provide these as separate paper and electronic documents with their confidential nature clearly indicated in the title, and watermarked as such on each page. The information should not be incorporated within other documents that are intended for publication or which the Planning Inspectorate would be required to disclose under the Environmental Information Regulations 2014.

Bibliography

A bibliography should be included in the ES. The author, date and publication title should be included for all references. All publications referred to within the technical reports should be included.

Non Technical Summary

The EIA Regulations require a Non Technical Summary (EIA Regulations Schedule 4 Part 1 paragraph 22). This should be a summary of the assessment in simple language. It should be supported by appropriate figures, photographs and photomontages.

